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Tobias Körner Oliver Müller Stephan Paul Christoph M. Schmidt

> **Supervisory Board Qualification of German Banks**

**Legal Standards and Survey Evidence** 









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# Supervisory Board Qualification of German Banks – Legal Standards and Survey Evidence

#### **Abstract**

Improving the regulation of banks has been at the centre of economic policy actions since the outbreak of the global financial crisis. One of the many and conceptually very different measures proposed is to improve the corporate governance of banks by setting qualification standards for banks' non-executive directors. To explore the rationale of such a regulation implemented in Germany, we conducted a detailed survey among supervisory board members of German banks covering their educational background, professional status and experience, as well as non-occupation related activities. We document that general education among supervisory board members is high, but very few board members can rely on a professional background in banking and finance. Surprisingly, we find that this is especially true for chairpersons and that a higher share of professionals among board members primarily reflects the presence of employee representatives. However, as regards competencies and skills required to enforce changes against the management, chairpersons more often report leadership experience than ordinary members. Furthermore, some of these findings strongly depend on the bank's legal form, its size and business model, suggesting that both market forces and institutional characteristics of banking markets are important determinants of the qualification level of non-executive directors.

JEL Classification: G21, G28, G34

Keywords: Non-executive directors; qualification; survey data; banking regulation; German banking system

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#### 1 Introduction

The economic turmoil which followed in the wake of the banking and liquidity crisis of 2007/2008 led to the proposition of a wide spectrum of new regulatory arrangements for the banking industry. While the proposed measures are all expected to mitigate future crises and to foster the banking system's overall stability, they are addressing quite different aspects of the system. Most importantly, increasing capital requirements might make the system more resilient, by providing a buffer against negative shocks and, a fortiori, against the consequences of bad decisions. Even more drastic are suggestions to prohibit banks to engage in specific activities altogether, thereby trying to prevent any bad decisions at all. Yet another group of suggestions aims at the improvement of decision processes in the banking industry. In this context, regulators and policy makers are engulfed in a fierce debate on the role of members of supervisory boards of banks and, in particular, on their original duty to monitor and - in case of need - sanction the bank management's strategic decisions.

In light of the experience gained from the recent financial crisis, many observers have even raised the question whether the vast majority of members of banks' supervisory boards are sufficiently qualified to fulfill this task and hence to contribute to the soundness of the banking system (see, e.g., de la Rosiere Group 2009). The stability of the banking industry might thus be enhanced substantially, according to the proponents of this argument, by enforcing high qualification standards in supervisory boards. This is hardly a new debate. The Bank for International Settlements (BIS) already has stipulated in its 2006 report 'Enhancing Corporate Governance in Banking Organisations' that non-executive directors should have sufficient knowledge of the main financial activities of the bank they monitor (Bank for International Settlements 2006). While some critics argue that this may still not be the case due to structural and legal problems, others argue that the increasing complexity and ongoing globalization of the banking industry hamper even highly-qualified board members to efficiently monitor the bank's management.

The German legislator quickly reacted to this renewed discussion, after witnessing the preeminent role of the banking industry within the economy in late 2008, when the financial system meltdown seriously affected the rest of the economy in turn. In July 2009, the Bundestag passed an amendment to the Federal Banking Act (KWG) that requires newly appointed supervisory board members of German banks to provide proof of their professional qualification to the Federal Financial Supervisory Agency (BaFin). However, the amendment has faced considerable criticism. Most seriously, spokespersons of small and locally-operating banks argue that the new amendment impedes the recruitment of qualified persons for the supervisory boards. Moreover, critics emphasize the rising costs of regulation for the banking industry, which is already dealing with additional regulatory and supervisory changes such as new capital requirements and modifications of the supervisory review process within the Basel III framework.

Yet, the whole discussion rests on three untested presumptions, that (i) the typical competence structure in German banks' supervisory board is lacking, (ii) changing the KWG will lead to substantial improvements, and (iii) more qualified boards indeed imply better decisions. Focussing on challenging the first presumption, our work intends to bring this discussion to a more objective level, thereby contributing to the literature analyzing the specific characteristics of corporate boards. Adams et al. (2010) discussed in their broad survey of the current literature that most of the literature on the role of banks' boards of directors focuses on the independence of directors (e.g. Ferreira et al. 2010; Pathan 2009), the board's size (e.g. de Andres Alonso and Vallelado 2008) or the structure of the board (e.g. Francis et al. 2009). Just a few studies exclusively deal with the expertise of banks' board members.

Minton et al. (2009) go one step further and study the relationship between financial expertise among non-executive directors and the risk-taking and performance of 206 U.S. commercial banks for the period from 2003 to 2008. Information on the financial expertise of independent directors is retrieved from both annual bank proxy statements and the Boardex database. While they document low levels of financial expertise among independent board members on average, they provide empirical evidence for a positive relationship between financial expertise and risk-taking both before and during the 2008 financial crisis. Since they additionally find that financial expertise is linked to lower Tier 1 capital ratios, especially at larger banking institutions, they challenge the regulator's view that more financial expertise among board members improves the bank's risk profile.

With regard to Germany, Hau and Thum (2009) analyze publicly available data on the biographical background of 593 supervisory board members of the 29 largest German banks and find a significant difference in the finance and banking expertise among state-owned and privately owned banks. Using OLS regressions, they provide empirical evidence on a negative relationship between the overall competence of the board members and the magnitude of losses in the 2008 financial crisis. Based on these findings, they conclude that a sound financial expertise of board members may contribute to the overall stability of the financial system.

This paper complements and extends these studies for two aspects. First, since information on education and professional expertise of members of German banks' supervisory boards is not publicly available, we conducted a survey among all non-executive directors and provide a new and detailed data set on their level of educational and professional qualification. In contrast to Hau and Thum (2009), we do not limit our focus to large banks, but include small and locally-operating banks and thus account for the whole structure of the German banking industry. Furthermore, in contrast to the BaFin, which only verifies the expertise of board members appointed after the 2009 amendment, our survey includes members appointed to the board before. Finally, we do not exclusively rely on the board members present and past professional background, but also collect information on non-job-related activities in organizations and institutions.

Second, this is the first study providing empirical evidence that, although general education is high among board members, just a minority of all non-executive directors has a professional background in banking and finance. Surprisingly, we find that this is especially true for chairpersons and that a higher share of professionals among board members primarily reflects the presence of employee representatives. However, as regards competencies and skills required to enforce changes against the management, chairpersons more often report leadership experience than ordinary members. Furthermore, some of these findings strongly depend on the bank's legal form, its size and business model.

The remainder of the paper is organized as follows. Section 2 introduces the new legally mandated qualification standards for supervisory board members in Germany. While Section 3 describes the design of the questionnaire and the way the survey was conducted, Section 4 compares the board members' professional and academic qualification with the legally mandated requirements. Finally, Section 5 concludes.

#### 2 Legally mandated qualification standards

#### 2.1 The legal requirements of the Federal Banking Act

In July 2009, the German Bundestag passed an amendment to the KWG requiring supervisory board members of German banks to provide proof of their professional competence. Specifically, members of the supervisory board shall have the 'level of expertise that is required to

fulfill their monitoring function and to oversee and judge the business conducted by the supervised bank'. The law is silent about what 'expertise' exactly means and which competencies and skills supervisory board members of banks are expected to have. Rather, the legal conception of expertise calls for interpretation and clarification by practitioners, legal scholars and the courts. The German federal government elaborates that supervisory board members of banks 'shall be able to understand the business conducted by the supervised bank, to judge the accompanied risks, and, if necessary, to enforce changes in the management of the bank'.¹

Generally, one cannot specify the legally required expertise without taking the concrete business activities of the supervised bank into account. However, from the general legal duties and obligations of supervisory boards and from what banks generally do, regardless of size and business concept, one can infer the knowledge, the skills and the competencies that any supervisory board member at any bank should have. For example, since the main task of the supervisory board is to monitor the management, at a minimum, each member should be well familiar with the legal duties, obligations and liability of both the supervisory and management board. Moreover, all members of the supervisory board should be able to understand and judge financial reports, which ultimately form the basis for the monitoring process. Understanding the business conducted by *any* bank requires profound legal and economic knowledge, such as knowledge on financial contracting, the competitive environment in the financial sector and monetary policy. Moreover, since the banking industry is heavily regulated, supervisory board members are supposed to be familiar with the relevant laws and practices of banking regulation (Hingst et al. 2009).

In contrast, the ability to *judge* the bank's business activities requires more specific knowledge. In particular, judging the business conducted by a bank requires a fairly deep understanding of its risk situation. The desired skills and competencies in this regard are reflected in the expectations of the BaFin on banks' supervisory boards (see Reischauer 2012, pp 30). For example, the BaFin explicitly expects supervisory board members to form their own opinion on the business and risk strategies of the supervised bank. Moreover, the BaFin expects them to be able to understand - and judge - the risk reports prepared by the bank management.<sup>2</sup> Hence, not only should members of the supervisory board of banks be familiar with the many types of risks typically associated with credit intermediation, but also with the details of the risk management systems implemented at the supervised bank.

These *minimum* requirements correspond to the general notion of 'expertise' that the Federal Court of Justice (BGH) gave in its often cited 'Hertie-decision'. According to the BGH, 'every supervisory board member is responsible for acquiring the skills that entail him or her, without help from outside, to understand the common business operations of the supervised company'. This does not contradict the common practice of delegating certain tasks and competencies to specialized board members or committees, such as audit, credit or risk committees. Rather, one would expect that members of committees and, in particular, chairpersons of the supervisory boards clearly exceed the minimum standards outlined above (Goette 2008, § 116 Rn 27). This is also reflected in the MaRisk, which assigns chairpersons a prominent role in the banks' risk management process (Lehrl 2010).<sup>3</sup>

Summing up, the qualification standards specified in the KWG are substantial (Hilgers and Kurta 2010), since they require the following abilities from members of supervisory boards of

<sup>&</sup>lt;sup>1</sup>See Bundestags-Drucksache 16/12783.

<sup>&</sup>lt;sup>2</sup>According to the Minimum Requirements for Risk Management published by the BaFin (MaRisk) the managing board is obligated to provide the supervisory board with a written report about the risk situation of the bank on a quarterly basis.

<sup>&</sup>lt;sup>3</sup>For example, severe deficiencies detected by the internal audit unit have to be reported immediately to the chairperson of the supervisory board.

#### German banks:

- Each supervisory board member should be able to understand the regular business conducted by the supervised bank.
- Each supervisory board member is expected to form its own opinion and judgment on the business strategies of the management and the risk situation; in particular, it is not sufficient to exclusively refer to specialized trained experts among the board members, committees or the chairperson of the board.
- 3. Supervisory board members are expected to take appropriate measures against the bank's management and, in extreme cases, to dismiss the current management.

#### 2.2 The implementation by the Federal Financial Supervisory Authority

Some legal scholars argue that the legal qualification standards have already been implied by organization laws for public banks and corporation laws before the 2009 amendment (see, for example Hingst et al. 2009). Nevertheless, the incorporation of the standards in the KWG led to a tougher legal environment, since board members not meeting the legal standards now face the threat of being sanctioned by the BaFin. In particular, the BaFin has been authorized to suspend unqualified board members from their duties and to demand their withdrawal from the supervisory board. Given the crucial role of the BaFin as a gatekeeper, it is important to know how the BaFin handles the amendment of the KWG in practice.

Most importantly, although the new qualification standards apply to both existing and newly appointed supervisory board members, the BaFin exclusively verifies the expertise of persons appointed after the 2009 amendment to the KWG. Moreover, the regulator only takes action against existing board members when doubts about the fulfillment of legal requirements emerge. In practical terms, the BaFin derives its assessment of the qualification level from scrutinizing the CVs of newly appointed supervisory board members in a standardized mass procedure, thus emphasizing their current and past professional background.

With regard to the legal concept of expertise, the BaFin has summarized its understanding and intentions for practical implementation in a technical note (BaFin 2010d), which distinguishes three case groups. The first group comprises professional activities in the banking industry. Here, the BaFin 'regularly assumes' that (former) managers or supervisory board members of banks similar to the one to be supervised have the required expertise. Similarly, employee representatives on the board are assumed to have the required expertise if they are involved in the day-to-day legal and economic affairs of their employer.

However, members of supervisory boards are generally not required to have professional experience in the fields of banking and finance. Correspondingly, the second group comprises professional activities in other branches including the public sector as well as professional activities associated with political mandates. According to the BaFin, these activities 'can' imply the required expertise if the central focus is on legal and economic matters. In this group, so called 'born' supervisory board members of public banks, most often politicians, enjoy the

<sup>&</sup>lt;sup>4</sup>In 2010, the BaFin demanded withdrawal from the supervisory board in 15 cases (BaFin 2010c). According to media reports, this was due to a lack of expertise in at least one case, see *Financial Times Deutschland*, 31 August 2010, 'BaFin sortiert Aufsichtsräte von Banken aus'.

<sup>&</sup>lt;sup>5</sup>In the first year of the new legislation the BaFin expected 3,000 board members to be assessed (BaFin 2010a).

privilege to be 'regularly assumed' to have the required expertise. The third group comprises entrepreneurs, which, according to the BaFin, 'can' have the expertise required for supervisory board members of banks since entrepreneurs are 'regularly assumed' to have general economic expertise.

Hence, when assessing the expertise of board members, the BaFin largely relies on professional activities and puts great emphasize on the candidates' legal and economic background. This appears reasonable: It is difficult to imagine that board members who cannot rely on a profound professional background are able to meet the demanding qualification standards outlined above. However, the implementation practice of the BaFin does not appear to be very rigid. In fact, the regulator itself expresses that 'the hurdles are not very high' (BaFin 2010b). Moreover, any board member is allowed to even out qualification deficits by taking appropriate training measures (see BaFin 2010d). Finally, the qualification of board members already in charge before the July 2009 amendment is not assessed systematically and hence, these persons benefit from factual grandfathering. Bearing these limitations in mind, the BaFin's current implementation practice may be understood as the starting point of enhancing professionalism at supervisory boards of German banks.

#### 3 A survey of supervisory board members of banks

#### 3.1 Questionnaire design

Information on education and professional experience of members of supervisory boards is not publicly available in Germany. Hence, to gather detailed evidence on the level of qualification of members of supervisory boards of German banks, we surveyed board members utilizing a detailed, standardized questionnaire, which is presented in the Appendix and comprises questions on education, training, employment, professional and semi-professional experience as well as basic socio-demographics. In addition, a second set of questions inquired the specifics of the mandate, including the duration of the term of office on the supervisory board, the function (chairperson, employee representative, intra-group directorship), the participation in board meetings as well as received training measures. Finally, participants were asked to state their opinion on the legal 2009 amendment and to assess their specific fields of expertise.

To account for the specific features of the German banking system as well as possible, we intensively discussed the design of the questionnaire with industry experts such as bank executives and representatives of major banking associations. And in order to assess the level of qualification of board members in a direct comparison with the definition proposed by the BaFin, the questionnaire was designed in accordance with the three most important aspects of legally mandated supervisory board qualification outlined in Section 2.1:

1. Understanding the regular business of the supervised bank. Arguably, supervisory board members with professional experience in banking or related industries will quickly acquire the knowledge being necessary to understand the business operations of the supervised bank. When professional experience is lacking, a sound education, in particular, degrees in finance, economics and law and appropriate training measures tends to enable board members to reach the required level of knowledge without much delay. Therefore, the questionnaire comprises questions about secondary education, technical or vocational degrees, higher (tertiary) education degrees and post-graduate studies and further training and studies (see

<sup>&</sup>lt;sup>6</sup>Organization laws for public banks often require politicians to be members of the supervisory board of public banks per se. These persons are referred to as 'born' supervisory board members; for instance, savings banks laws often define the mayors or chief district officers to be the chairpersons of public savings banks' supervisory boards.

Questions 13–16 in the Appendix). To get an idea of common practices with regard to mandate-related training measures, participants were also asked whether they participated in such measures and how much time they spend on these (Questions 9 &10).

- 2. Judging the business strategies of the management and the risk situation. Generally, the ability to judge banks' business strategies and risk taking behavior requires professional experience in the field of banking and finance. Therefore, participants were asked to describe in detail their current and previous occupations based on specified criteria (type of occupation and duration, job title, leadership position, main activities and tasks, industry Questions 17 & 18). Moreover, executive directors were asked to name the size of the managed company in terms of the number of employees (Question 19). Specifically, being an experienced managing director in the non-financial industry may go along with the kind of expertise required to monitor companies in the financial industry. Finally, participants were asked to provide some details about their directorships held in supervisory boards of other companies and, most importantly, whether these companies are part of the financial industry (Questions 11 & 12).
- 3. Enforcing changes against the bank management. This component of the legally required skills and competencies is most difficult to assess. From a purely technical view, supervisory board members should be at least aware of the legal basis for the enforcement of changes in the bank's management. However, to criticise the decisions of the management requires competencies that clearly go beyond legal knowledge. We try to approach and proxy these competencies by collecting information on leadership positions both in the professional and semi-professional or private sphere. Thus, in addition to the questions about occupations and directorships outlined above we also asked for positions as chairpersons in political committees (Question 21) and leading positions in non-occupation related organizations and institutions (Question 24).

In addition to the questionnaire for supervisory board members we prepared a questionnaire addressed to the bank management asking for some basic information about the supervisory board (number of board members and frequency of board meetings), the bank's business model (trading and capital market activity, geographic focus) and some assessments of the new provisions in the KWG. Furthermore, we supplemented the bank-level data from the questionnaires by financial reporting data from Bureau van Dijk's Bankscope database.

#### 3.2 Conducting the survey

Our target population includes all domestic banks and legally independent affiliates of foreign banks chartered in Germany. Banks organized as a partnership were excluded because they are not legally required to have supervisory boards. Moreover, specialized banks such as public development banks (Banken mit Sonderaufgaben), banks specializing in the guarantee business (Bürgschaftsbanken) and banks specializing in securities trading (Wertpapierhandelsbanken) were excluded from the sample. This leaves us with a total number of 1,753 banks.

The three major banking associations in Germany granted organizational support in informing their member banks about the upcoming survey and in recommending participation. Corresponding to the three sectors of the German banking system, the Federal Association of German Volksbanken and Raiffeisenbanken (BVR) represents the banks belonging to the cooperative banking network, the German Savings Banks Association (DSGV) represents the public banks chartered by the federal states and the municipalities, and the Association of German

<sup>&</sup>lt;sup>7</sup>Sometimes these banks have advisory committees established on a voluntary basis. However, their responsibilities can be expected to differ substantially from the ones of legally mandated supervisory boards.

Banks (BdB) represents banks organized as private-law corporations.<sup>8</sup> These three associations represent 1,721 out of the 1,753 banks surveyed. The remaining 32 banks are organized as private-law corporations without being member of the BdB.

Starting in February 2011, we sent out cover letters to the management of the banks represented by the BVR asking to fill in the company questionnaire and to distribute the personal questionnaire among all persons holding a directorship at the supervisory board as of December 31, 2010. We proceeded in the same way with the banks represented by DSGV, starting in March 2011, and the banks represented by the BdB and remaining banks, starting in July 2011. The survey was closed in October 2011.

Table 1 provides an overview of the responding banks and their supervisory board members. Out of 1,753 banks, 413 participated in the survey, i.e. from 413 banks we received the company questionnaire and/or at least one questionnaire from a supervisory board member. This corresponds to a response rate of 23.5 percent. With regard to the three sectors of the German banking system, the response rate of institutions represented by the DSGV is the highest (26.3 percent), followed by banks represented by the BVR (23.8 percent). In contrast, the participation of the private-law corporations is much lower (13.5 percent). One explanation might be that public and cooperative banks, as compared to private sector banks, are embedded in network structures (Verbünde). Since these banking associations play an important coordination role, member banks may feel more strongly encouraged by their recommendations as other banks.

TABLE 1 RESPONSE RATES

A. Banks	Targeted banks	Responding banks	Response rate
Total	1753	413	0.235
Banks represented by:			
BVR	1152	274	0.238
DSGV	453	119	0.263
BdB and other	148	20	0.135
B. Supervisory board members	Responding banks' board members	Responding board members	Response rate
Total	4181	1134	0.271
Banks represented by:			
BVR	2414	595	0.246
DSGV	1630	509	0.312
BdB and other	137	30	0.219

Notes: The upper panel of the table shows the total number of banks the questionnaires were sent to and the number of banks for which at least one bank or supervisory board member questionnaire was received (responding banks). The lower panel shows the total number of supervisory board members of responding banks and the number of supervisory board member questionnaires received. Separate numbers are reported for banks represented by the Federal Association of German Volksbanken and Raiffeisenbanken (BVR), the German Savings Banks Association (DSGV), the Association of German Banks (BdB) and banks not represented by any of these associations (other).

Conditional on responding banks, response rates for supervisory board members were calculated by dividing the total number of supervisory board member questionnaires received by the total number of supervisory board members of responding banks (panel B of Table 1).<sup>9</sup> In

<sup>&</sup>lt;sup>8</sup>For an overview of the German banking system see Hackethal (2004).

<sup>&</sup>lt;sup>9</sup>When not provided in the company questionnaire, the number of supervisory board members was taken from the banks' annual reports. For seven banks the number of board members could not be determined. For these banks, the number was estimated using the mean of responding banks from the respective sector.

total, we received 1,134 supervisory board member questionnaires corresponding to a participation rate of 27.1 percent. Again, the rate is highest among banks represented by the DSGV (31.2 percent), followed by BVR (24.6 percent) and BdB/other private-law institutions (21.9 percent).

#### 3.3 Sample characteristics

As can be seen from panel A of Table 2 the sample of banks reflects several distinctive features of the German banking system remarkably well. In terms of number of banks, credit cooperatives and public savings banks form the lion's share of banks in Germany. Correspondingly, these two types of banks account for the largest shares in the sample (205 and 100 of 326 respectively), whereas the sampled number of banks organized as stock corporations is relatively low (21). Since credit cooperatives and savings banks are regional banks, it is not surprising that 92.8 percent of the sampled banks report to operate exclusively in one or several municipalities, cities, districts or single metropolitan areas. In contrast, only 25.0 percent of the sampled stock corporations report to do so, reflecting the fact that stock corporations often operate nation-wide or even internationally.

Furthermore, the share of banks reporting significant trading activities is largest within the group of stock corporations (37.5 percent). Still, 11.0 percent of the public banks report significant trading activity, while the share within the group of cooperative banks is almost negligible (3.6 percent). The three groups also differ with regard to size. In terms of total assets cooperative banks tend to be small (sample mean of EUR 628 million) as compared to public banks (EUR 2,534 million) and stock corporations (EUR 9,516 million). Despite these differences in size, supervisory boards of cooperative banks are hardly smaller than boards of stock corporations: on average, the supervisory board at cooperative banks consists of 9 members, while the board of stock corporations is formed of 10. Compared to these two groups supervisory boards at public banks stand out (13.7 members).

Basic characteristics of the responding board members are summarized in panel B of Table 2. The share of chairpersons is fairly high, in particular within the group of cooperative banks (19.2 percent vs. 8.0 percent at public banks and 11.6 percent at stock corporations). In part, this can be explained by smaller board sizes at cooperative banks. When randomly drawn from the participating banks, chairpersons would be expected to account for 11.1 percent (1 in 9) in the group of cooperative banks, whereas expected shares within the other two groups would be lower (7.3 percent within the group of public banks and 10 percent within the group of stock corporations). Hence, chairpersons are oversampled within any of the three groups. This may indicate that chairpersons felt particularly responsible to participate in the survey.

With regard to employee representatives, the share within the groups of public banks (28.3 percent) and stock corporations (30.0 percent) is substantially higher than within the group of cooperative banks (4.1 percent). This can be explained by different legal requirements on employee representation for public banks in contrast to firms chartered under private law. Organization laws for public savings banks (Sparkassengesetze) provide that one third of the supervisory board members have to be bank employees. <sup>12</sup> In contrast, cooperative banks and stock corporations are subject to co-determination laws only when the number of employees

<sup>&</sup>lt;sup>10</sup>As of December 2010, 1,141 credit cooperatives, 429 public savings banks and 300 private-law credit institutions were chartered under the KWG.

<sup>&</sup>lt;sup>11</sup>To classify banks with regard to their trading activities, they were asked whether the volume of their trading book exceeds the minimum thresholds of the KWG (share of trading book in total assets and off-balance sheet activities larger than 5 percent).

<sup>&</sup>lt;sup>12</sup>The only exception is the Savings Banks Act of Bavaria (SpkG Bayern) that explicitly excludes bank employees from joining the supervisory board.

TABLE 2

SAMPLE CHARACTERISTICS OF BANKS AND SUPERVISORY BOARD MEMBERS

Sample characteristics	All banks (1)		Cooperative banks (2)	ınks	Public banks (3)	S	Stock corporations (4)	ions
	Mean (Median)	Obs.	Mean (Median)	Obs.	Mean (Median)	Obs.	Mean (Median)	Obs.
A. Banks								
Supervisory board size	10.5 (9)	319	9.0 (8)	199	13.7 (13)	66	10.0 (9)	21
Locally operating	0.928	236	0.971	138	0.988	82	0.250	16
Significant trading activity	0.085	252	0.036	138	0.110	86	0.375	16
Employees	312 (154)	298	138 (105)	184	538 (328)	86	928 (280)	16
Total assets in EUR million	1747 (616)	302	628 (394)	187	2534 (1241)	86	9516 (1856)	17
B. Supervisory board members								
Chairperson	0.138	1120	0.192	558	0.080	476	0.116	98
Vice chairperson	0.140	1120	0.151	258	0.126	476	0.151	98
Ordinary member	0.721	1120	0.658	258	0.794	476	0.733	98
Employee representative	0.165	1129	0.041	529	0.283	480	0.300	90
Intra-group directorship	0.040	1123	0.005	258	0.067	477	0.114	88
Network-related directorship	0.038	1119	0.018	256	0.034	474	0.180	68
Duration of board	11 (9)	1123	13.3 (12)	557	9.1 (7)	475	6.6(5)	91
membership in years								
Age	54.5 (55)	1094	55.3 (56)	543	53.8 (54)	464	53.3 (53)	82
Male	0.893	1132	0.911	292	0.873	479	0.890	91
Number of	1134		562		481		91	
questionnaires received Number of banks	326		205		100		21	

Notes: The upper panel of the table shows the sample characteristics of banks whose supervisory board members participated in the survey (at least one questionnaire received). Significant trading activity means a share of trading book in totals assets and off-balance sheet activities larger than 5 percent. The lower panel shows the sample characteristics of responding supervisory board members. Intra-group directorships relate to corporate groups and are held by members of the managing board of the parent company. Network-related directorships are typical for public and cooperative banking networks and are held by members of the managing board of a different company belonging to the same network.

exceeds certain size limits.<sup>13</sup> Since the majority of German cooperative banks are small, codetermination laws rarely apply leading to a very low share of employee representatives.

Within the groups of cooperative and savings banks the share of intra-group directorships and network-related directorships is relatively low. This reflects the fact that credit cooperatives and public savings banks are legally and organizationally autonomous entities. The share of intra-group directorships and network-related directorships is considerably larger within the group of stock corporations. Hence, these banks tend to be monitored more often by dominating entities. The duration of membership in the supervisory board reveals further significant differences between the three groups. On average, board membership lasts longest at cooperative banks (13.3 years), followed by public banks (9.1 years) and stock corporations (6.6 years). In contrast, the picture is quite homogenous with regard to age and gender: While the average board member is male and 55 years old, the share of women is very small, ranging between 8.9 percent (cooperative banks) and 12.7 percent (public banks).

#### 4 Contrasting the status quo with legally mandated requirements

In this section, we contrast the status quo of the qualification of supervisory board members with the legally mandated requirements. The presentation and discussion of the results is organized around the three central aspects of legally mandated supervisory board qualification outlined in Section 2.1. Hence, Section 4.1 describes the educational background of the respondents, while Section 4.2 provides data on their professional background. Section 4.3 summarizes the responses on various kinds of leadership positions in the professional and non-professional sphere.

#### 4.1 Understanding the regular banking business

This section presents the results on the respondents' background with regard to professional training and higher education. As outlined in Section 2.2, the BaFin attaches great importance to the candidates' legal and economic background. A sound education, in particular vocational degrees in banking or tertiary degrees in law and economics may enable candidates to acquire quickly the level of knowledge required to understand the regular business activities of the supervised bank. As shown in Table 3, the majority of all respondents hold either a technical/vocational degree (64.0 percent) or a university degree (52.2 percent; see panel A, column 1).

Quite often, respondents report that they have completed additional training measures, studies and postgraduate studies (46.3 percent) which is particularly true for participants holding a technical or vocational degree. Hence, the share of respondents exclusively holding a technical or vocational degree is relatively low (15.8 percent). At this general level, we do not observe pronounced differences among the three legal forms. The only noticeable result is that within the group of public banks the share of university degree holders is roughly eight percentage points lower than within the other two groups.

According to the specific field of training named by the respondents, we classified all technical or vocational degrees into three groups and differentiate between banking, commercial

 $<sup>^{13}</sup>$ In corporations with 500 (2,000) employees or more, one third (half) of the board seats have to be assigned to employee representatives.

<sup>&</sup>lt;sup>14</sup>Intra-group directorships relate to corporate groups and are held by members of the managing board of the parent company. Network-related directorships are typical for public and cooperative banking networks and are held by members of the managing board of a different company belonging to the same network.

 $\label{eq:table3} Table 3$  Higher education and professional training

			1	1				
Educational background	(1)		banks (2)	) KS	(3	(3)	corporations (4)	ation )
6	Mean	Obs.	Mean	Obs.	Mean	Obs.	Mean	Obs.
A. Degrees Technical or vocational degree	0.640	1110	0.639	545	0.631	474	0.692	91
University degree	0.522	1120	0.555	553	0.477	478	0.562	88
Postgraduate studies/further training	0.463	1090	0.453	537	0.479	466	0.448	87
Technical or vocational degree, no additional degrees/studies	0.158	1063	0.146	519	0.168	459	0.176	82
No degree	0.014	1110	0.007	545	0.021	474	0.011	91
B. Holders of technical or								
Vocational degrees Accquired through in-house training Fields of training	0.197	704	0.038	343	0.403	298	0.095	63
Banking	0.373	640	0.117	299	0.561	280	0.770	61
Commercial	0.239	640	0.301	299	0.182	280	0.197	61
Non-commercial	0.388	640	0.582	299	0.257	280	0.033	61
Additional degrees/studies								
Higher (tertiary) education degree	0.254	969	0.289	339	0.189	596	0.377	61
Postgraduate studies/further training	0.598	989	0.600	335	0.612	291	0.517	09
C. University degree holders Fields of study								
Economics	0.316	573	0.323	303	0.241	224	0.630	46
Law	0.211	573	0.172	303	0.263	224	0.217	46
Public administration	0.133	573	0.142	303	0.134	224	0.065	46
Engineering	0.133	573	0.168	303	0.107	224	0.022	46
Teaching	0.073	573	0.036	303	0.134	224	0.022	46
Agricultural science	0.052	573	0.083	303	0.022	224	0	46
Mathematics and natural sciences	0.035	573	0.040	303	0.027	224	0.044	46
Other fields of study Additional decrees/studies	0.047	573	0.036	303	0.071	224	0	46
Technical of vocational degree	0.315	562	0.337	291	0.253	221	0.460	50
					I		0	•

*Notes*: The table summarizes the supervisory board members' responses to questions 14–16 of the questionnaire in the Appendix. The number of observations equals the number of non-missing answers. Panel B refers to the subsample of respondents holding a technical or vocational degree. Panel C refers to the subsample of respondents holding a university degree.

excluding banking and non-commercial degrees. Vocational degrees in banking are of particular interest, since these often are the starting point of careers in the financial industry. In contrast, given the high qualifications standards for supervisory board members of banks, one might expect a low share of respondents whose professional education is based on a non-commercial background. The results presented in panel B of Table 3 partially correspond to these expectations, although there is a considerable degree of heterogeneity among the groups.

Vocational degrees in banking or other commercial fields of studies clearly dominate within the group of stock corporations (77.0 and 19.7 percent, respectively) and continue to play a significant role within the group of public banks (56.1 and 18.2 percent). Turning to cooperative banks, while the number of holders of a degree in banking is small (11.7 percent), the share of commercial and non-commercial degrees is remarkably high (30.1 percent and 58.2 percent). This lack of banking-related skills is attenuated by the fact that almost 90 percent of the respondents also received higher education degrees (28.9 percent) or completed further training or studies (60 percent). Since the level of expertise demanded by law depends on the entrepreneurial specifics of the supervised company, it is interesting to see if respondents became supervisory board members at the same bank they were trained as bank employees before. In this regard, the group of public banks stands out since 40.3 percent of the vocational/technical degree holders were trained in house. In contrast, the share is much lower within the group of cooperative banks (3.8 percent) and stock corporations (9.5 percent).

The sample distribution of university degree holders is concentrated at very few fields of study (panel C of Table 3). Among all respondents having graduated from university, degrees in economics, law, public administration and engineering account for 79.3 percent (column 1). Not surprisingly, taken together, economics and law account for more than one half (52.7 percent), even more drastically within the group of stock corporations (84.7 percent). Cooperative banks place more emphasis on economics (32.2 percent) while public banks attract more supervisory board members with a degree in law (26.3 percent). Public administration features quite prominently in both groups (14.2 and 13.4 percent), but less so at stock corporations (6.5 percent). Furthermore, cooperative banks elect more engineers (16.8 percent) to their supervisory boards than public banks (10.7 percent), whereas public banks seem to have a quite pronounced preference for teachers (13.4 percent at savings banks, 3.6 percent at cooperative banks).

The overall picture implied by these statistics is that the educational level of supervisory board members is high. Not only do many of the respondents hold a university degree, but also vocational and technical training is often related to banking and accompanied with additional degrees or studies. However, considerable differences among the groups are revealed when looking at degrees and training that presumably help best to quickly get acquainted with the challenges supervisory board members are routinely confronted with: the share of respondents that completed vocational training in banking or received degrees in economics or law is 34.9 percent within the group of cooperative banks; it is much higher (55 percent) within the group of public banks; within the group of stock corporations, the vast majority of respondents is part of this category (84.9 percent; shares not displayed in Table 3).

#### 4.2 Judging the business strategies and the risk situation

In order to evaluate the respondents' background with regard to their professional experience in banking and finance, we look at the information provided on current and former occupations and directorships in supervisory boards at other companies, especially in the financial industry. Within this group managing directors are of particular interest: having a professional background very similar to the one of the managers they monitor, these board members can

generally be expected to have the legally required expertise. The same argument may apply to respondents who rely on experience in supervisory boards similar to the supervised bank. Since the share of respondents holding additional directorships is very low, we refrain from further decomposing the share along additional characteristics, such as number of directorships and duration. To get an overview of the overall share of participants with a professional background in banking or finance, we classify respondents as 'professional' if one of the conditions 'managing director in the financial industry', 'additional directorship in the financial industry' or 'occupied in the financial industry' (as non-manager) is fulfilled.

As regards all banks in the sample, only 25.4 percent of the respondents have professional experience in the financial industry (panel A, column 1 of Table 4). Some 16.8 percent of the respondents are or were occupied in the financial industry. Managing positions (3.6 percent) and additional directorships in the financial industry (6.5 percent) are very rare. The heterogeneity among the legal forms is high: while the vast majority of respondents who supervise stock corporations are professionals (80 percent), they form the minority at public banks (35.7 percent) and rarely sit on the supervisory boards of cooperative banks (7.3 percent).

This ranking is reiterated when further considering characteristics of the directorship presented in Table 2. The high share of intra-group and network-related directorships at stock corporations corresponds to the high share of managing directors in the financial industry (28.7 percent). In this context, employee representatives play an important role since an increase in their share on the board may coincide with a rise in the number of board members with professional experience in banking. In fact, excluding employee representatives from the sample sharply decreases the share of professionals at public banks (from 35.7 to 12.5 percent), whereas it hardly affects the share at cooperative banks and stock corporations (see panel B in Table 4). This suggests that professional experience at public banks mainly derives from mandatory co-determination due to organization laws in public banking.

Panels C and D of Table 4 compare the results obtained for chairpersons with ordinary members of the supervisory boards. This is done for two reasons. First, the comparison of legal forms may be distorted by different shares of chairpersons among all respondents, since, for example, chairpersons are strongly oversampled within the group of cooperative banks. Second, and more important in our context, legal qualification standards according to the MaRisk are more demanding for chairpersons than for ordinary members. Thus, one would expect stronger legal requirements to coincide with higher shares of professionals among chairpersons. However, the results show quite the opposite: Overall, the share of professionals is substantially lower among chairpersons (12.6 percent) as compared to ordinary members (27.2 percent), regardless of the bank's legal form. These differences are most pronounced at stock corporations where 82.7 percent of the ordinary members have professional finance experience, while this only applies to 50.0 percent of the chairpersons. However, due to the low number of observations these statistics should be interpreted with caution.

As regards public banks, results suggest that the discrepancy between ordinary members and chairpersons is also quite pronounced (37.0 vs. 22.2 percent). The higher share among ordinary board members mainly stems from employee representation (see share of 'other occupation in the financial industry'), while chairpersons clearly outperform ordinary members in terms of additional directorships in the financial industry (19.4 vs. 4.2 percent). Turning to corporative banks, baseline results are reinforced although the share of professionals among ordinary members and chairpersons is quite similar: While 5.7 percent of the chairpersons are professionals, the share among ordinary members is not substantially higher (7.8 percent). Furthermore, as regards chairpersons, these results likewise reconfirm the ranking of the different legal forms with regard to professional experience: the share of professional is highest at stock corporations (50.0 percent), whereas it is much lower at public banks (22.2 percent),

TABLE 4
PROFESSIONAL EXPERIENCE IN THE FINANCIAL INDUSTRY

	All banks	ınks	Cooperative banks	rative Iks	Public	Public banks	Stock corporations	ck ations
Financial industry experience	(1)		(2)		(3	(3)	(4)	
	Mean	Obs.	Mean	Obs.	Mean	Obs.	Mean	Obs.
A. All respondents								
Managing director	0.036	1079	0.008	532	0.022	460	0.287	87
Directorship at supervisory board	0.065	1122	0.032	258	0.053	473	0.330	91
Other occupation	0.168	1079	0.034	532	0.285	460	0.368	87
Professional	0.254	1087	0.073	535	0.357	462	0.800	06
B. Excluding employee								
representatives								
Managing director	0.036	894	0.008	208	0.021	327	0.356	26
Directorship at supervisory board	0.075	933	0.034	532	0.074	338	0.429	63
Other occupation	0.037	894	0.026	208	0.034	327	0.153	26
Professional	0.132	901	0.067	511	0.125	328	0.710	62
C. Chairpersons								
Managing director	0.020	152	0	106	0	36	0.300	10
Directorship at supervisory board	0.079	152	0.019	106	0.194	36	0.300	10
Other occupation	0.046	152	0.038	106	0.028	36	0.200	10
Professional	0.126	151	0.057	105	0.222	36	0.500	10
D. Ordinary members (including vice chairpersons)								
Managing director	0.036	915	0.010	423	0.024	419	0.260	73
Directorship at supervisory board	0.062	957	0.036	448	0.042	433	0.329	9/
Other occupation	0.188	915	0.033	423	0.308	419	0.397	73
Professional	0.272	923	0.078	426	0.370	422	0.827	75
,								

Notes: The table summarizes the supervisory board members' responses to questions 11, 17, 18 and 19 of the questionnaire in the Appendix with regard to professional experience in the financial industry. The number of observations equals the number of non-missing answers. Respondents are classified as 'professional' if one of the conditions' managing director in the financial industry, 'additional directorship in the financial industry' additional directorship in the financial industry' (as non-manager) is fulfilled. The number of observations for the variable 'professional' equals the number of respondents who provided information on borb additional directorships and their occupation. Bank characteristics, significant trading activity means a share of trading book in totals assets and off-balance sheet activities larger than 5 percent, locally-operating banks operate exclusively in one or several municipalities, cities, districts or single metropolitan areas.

TABLE 5
FINANCIAL INDUSTRY EXPERIENCE AND BANK CHARACTERISTICS

		(1)	(	(2)
Financial industry experience	Mean	Obs.	Mean	Obs.
		t significantly in trading	,	gnificantly n trading
Managing director	0.030	769	0.134	82
Directorship at supervisory board	d 0.055 800		0.193	83
Other occupation	0.161 769		0.280	82
Professional	0.240	772	0.524	82
		operating ocally		perating locally
Managing director	0.013	773	0.308	78
Directorship at supervisory board	0.041	801	0.329	82
Other occupation	0.160	773	0.295	78
Professional	0.216	773	0.753	81

Notes: The table summarizes the supervisory board members' responses to questions 11, 17, 18 and 19 of the questionnaire in the Appendix with regard to professional experience in the financial industry, conditional on bank characteristics. The number of observations equals the number of non-missing answers. Respondents are classified as 'professional' if one of the conditions 'managing director in the financial industry', 'additional directorship in the financial industry' or 'occupied in the financial industry' (as non-manager) is fulfilled. The number of observations for the variable 'professional' equals the number of respondents who provided information on both additional directorships and their occupation.

and almost negligible at cooperative banks (5.7 percent).

As documented in Table 2, cooperative banks, public banks and stock corporation differ with regard to size, geographic focus and trading activity. Hence, differences between the legal forms with regard to board qualification may be explained by differences in their business models. As outlined in Section 2.1, the legal requirements on expertise are based on the concrete tasks supervisory board members are supposed to perform and thus depend on the specific nature of the supervised bank. Therefore, one would expect supervisory board qualification to rise with the complexity of the business operations to be monitored. This line of reasoning is illustrated by the results shown in Table 5, which relate the share of professionals to characteristics of the supervised banks' business models.

To begin with, the share of professionals is substantially higher at banks reporting significant trading activity (52.4 vs. 24.0 percent at non-trading banks, see panel A). This finding holds particularly for managing directors (13.4 vs. 3.0 percent) and board members holding additional directorships (19.3 vs. 5.5 percent), and thus for persons that may be expected to best meet the legal qualification requirements. Correspondingly, the share of professionals among banks operating in one or several municipalities, cities, districts or single metropolitan areas is 21.6 percent, whereas it is 75.3 percent among banks rendering services nationwide or even globally.

To further explore the nexus between bank size and supervisory board qualification, we relate the share of professionals to both the supervised banks' total assets and the legal forms. For this reason, we classify each bank according to the sample terciles of banks' total assets and report separate results for each legal form. As can be seen from Table 6, the share of professionals generally increases with bank size. Unconditional on the legal form, professionals account for 9.4 percent of the respondents within small banks (total assets below the 1st tercile of sample banks). The share within the group of medium-sized banks (between 1st and 2nd

tercile) is 17.2 percent and further increases to 36.6 percent within the group of banks with total assets above the 3rd tercile.

The positive association between bank size and the share of professionals holds for all legal forms. However, there is a considerable degree of heterogeneity with regard to the significance of this nexus. Whereas the share of professionals at public banks varies relatively moderately with bank size, the variation is much larger at the remaining legal forms. In particular, the share at cooperative banks rises by 8.9 percentage points when comparing large cooperative banks to medium-sized cooperative banks. Likewise, there is a strong increase (16.7 percentage points) at stock corporations when moving from the 2nd to the 3rd tercile. In contrast, the increase that can be observed at public banks is much smaller (4.1 percentage points).

TABLE 6
FINANCIAL INDUSTRY EXPERIENCE AND BANK SIZE

Financial industry experience	1st tere total a	ssets	2nd ter asse (2	ets	total	rcile of assets 3)
	Mean	Obs.	Mean	Obs.	Mean	Obs.
A. All banks						
Managing director	0.009	233	0.032	309	0.040	475
Directorship at supervisory board	0.016	245	0.034	324	0.094	489
Other occupation	0.073	233	0.110	309	0.248	475
Professional	0.094	234	0.172	314	0.366	476
B. Cooperative banks						
Managing director	0	191	0.005	186	0.025	121
Directorship at supervisory board	0.015	204	0.041	196	0.048	124
Other occupation	0.026	191	0.011	186	0.066	121
Professional	0.042	193	0.053	189	0.142	120
C. Public banks						
Managing director	0.026	39	0.036	112	0.010	295
Directorship at supervisory board	0	38	0.026	117	0.050	303
Other occupation	0.256	39	0.268	112	0.298	295
Professional	0.289	38	0.325	114	0.366	295
D. Stock corporations						
Managing director	n.a.	3	0.455	11	0.220	59
Directorship at supervisory board	n.a.	3	0	11	0.403	62
Other occupation	n.a.	3	0.182	11	0.373	59
Professional	n.a.	3	0.636	11	0.803	61

Notes: The table summarizes the supervisory board members' responses to questions 11, 17, 18 and 19 of the questionnaire in the Appendix with regard to professional experience in the financial industry, conditional on bank characteristics. The number of observations equals the number of non-missing answers. Respondents are classified as 'professional' if one of the conditions 'managing director in the financial industry', 'additional directorship in the financial industry' or 'occupied in the financial industry' (as non-manager) is fulfilled. The number of observations for the variable 'professional' equals the number of respondents who provided information on both additional directorships and their occupation. The banks whose supervisory board members participated in the survey are classified according to terciles of the banks' total assets.

Comparing legal forms across banks of similar size confirms that stock corporations clearly have the largest share of professionals: within the group of large banks, the share of professionals is 80.3 percent at stock corporations, while it is only 36.6 percent at public banks and even smaller at cooperative banks (14.2 percent; see column 3 of Table 6). Comparing pub-

<sup>&</sup>lt;sup>15</sup>However, as regards stock corporations, the results have to be treated with caution since number of observations for medium-sized banks is very low.

lic and cooperative banks of similar size reveals an advantage for public banks in all three groups. However, this advantage stems exclusively from the respondents with non-managing occupations in the financial industry. When exclusively looking at managers and respondents holding additional directorships, there are hardly any differences between public and cooperative banks. This finding suggests that the advantage of public banks is again mainly driven by stronger employee representation on the boards. <sup>16</sup>

The main findings of this section are confirmed when regressing the indicator for professionals on directorship characteristics (chairperson dummy, employee representative dummy), bank size (log of total assets) and legal form (dummies for public banks and stock corporations; base group: cooperative banks). The results of this OLS regression are illustrated in Table 7. First of all, the coefficient on the chairperson dummy is small and not statistically significant (column 1), confirming that chairpersons cannot rely more often on professional experience than ordinary members. Second, the large coefficient of the employee representative dummy confirms that professional experience stems to a large part from employee representation on the supervisory boards.

Third, the positive coefficient of log total assets illustrates the positive relationship between bank complexity and professionalism: the estimate implies a 0.27 percentage points increase in the share of professionals when total assets rise by 10.0 percent. Fourth, the coefficients of the legal form dummies show a clear advantage of stock corporations both over public and cooperative banks. Also, public banks on average have more professionals than cooperative banks. However, this advantage vanishes when excluding employee representatives from the sample (see column 3). Finally, the coefficients of the interactions between legal form dummies and log total assets confirm that the relationship between size and professionalism tends to be less pronounced at public banks. For example, a 10 percent increase of total assets is associated with a 0.39 percentage points higher share of professionals at cooperative banks, but only by a 0.12 percentage points increase at public banks (see column 2).<sup>17</sup>

#### 4.3 Enforcing changes against the management

The role of supervisory boards in corporate governance not only requires board members to understand and judge the regular business and the managements' activities, but also requires board members to stand up to the bank management and, if needed, to enforce changes against the bank management. Since the competencies and skills expected from members of the supervisory board are inherently difficult to measure, we propose an assessment based on the leadership experience of supervisory board members. First of all, we look at persons standing on top of the hierarchy in business companies.

However, in contrast to Section 4.2, we do not exclusively consider management experience gained in the field of banking and finance, since competencies and skills associated with leading a company generally do not depend on the branch. Persons on top of the hierarchy include managing directors, managing associates and partners and managing owners of a company ('managing directors' for brevity) as well as holders of additional directorships at mandatory supervisory boards of corporations. Finally, the required set of skills and competencies may not only be reflected in leadership positions in the professional sphere, but also in the political, semi-professional and private sphere (see Questions 21 & 24 in the Appendix).

<sup>&</sup>lt;sup>16</sup>When excluding employee representatives from the sample, the share of professionals at small cooperative banks is slightly larger, but smaller at medium-sized cooperative banks. Within the group of large banks, the share is almost exactly the same for both legal forms (approximately 11.0 percent; result not displayed in Table 6).

<sup>&</sup>lt;sup>17</sup>The sum of the coefficients of the public bank dummy and the interaction term of the dummy with log total assets is not statistically significantly different from zero.

Table 7
Financial industry experience, legal form and bank size

	All respo	ndents	Excluding represen	
	(1)	(2)	(3)	(4)
Chairperson	0.034 (0.029)	0.036 (0.029)	0.023 (0.029)	0.024 (0.029)
Employee representative	0.661*** (0.039)	0.661*** (0.039)		
Log total assets	0.027** (0.011)	0.039*** (0.015)	0.026** (0.012)	0.033*** (0.012)
Public bank	0.092*** (0.028)	0.275* (0.150)	0.019 (0.026)	0.192 (0.172)
Stock corporation	0.500*** (0.090)	0.636** (0.294)	0.576*** (0.100)	0.480 (0.440)
Public bank× log total assets		-0.027 $(0.023)$		-0.025 $(0.025)$
Stock corporation× log total assets		-0.020 $(0.037)$		0.011 (0.057)
Constant	$-0.130^{**} \ (0.065)$	-0.206** (0.086)	-0.104 $(0.070)$	-0.144** (0.070)
Adjusted R <sup>2</sup> Obs.	0.52 1013	0.52 1013	0.21 842	0.21 842

Notes: The table displays the results of OLS regressions of a dummy for 'professionals' on directorship characteristics (chairperson dummy, employee representative dummy), bank size (log of total assets) and legal form (dummies for public banks and stock corporations; base group: cooperative banks). Respondents are classified as 'professional' if one of the conditions 'managing director in the financial industry', 'additional directorship in the financial industry' or 'occupied in the financial industry' as non-manager) is fulfilled. Standard errors clustered at the bank level are given in parentheses. \*, \*\* and \*\*\* denote significance at the 10, 5 and 1 percent level, respectively.

Table 8 gives an overview of the distribution of managing directors among the respondents. As shown in column (1) the overall share of managing directors is quite high (37.6 percent), although the majority of the companies where managing positions are held are small in terms of the number of employees. For example, 13.1 percent of the respondents manage very small businesses with 10 or fewer employees, whereas only 2.2 percent of the respondents hold a management position at very large companies employing 2,000 employees or more.

Again, we find considerable heterogeneity across legal forms. The highest share of managing directors is observed at stock corporations (57.2 percent), and this group also stands out due to the high share of managing directors of firms employing 250 employees or more (16.5 and 14.3 percent respectively). At cooperative banks, the high share of managing directors (45.2 percent) is mostly due to a large number of respondents managing small businesses with less than 50 employees. This reflects the large number of self-employed persons among supervisory board members of cooperative banks, which account for more than 52.2 percent of the respondents (figure not displayed). While within the group of public banks the overall share of managing directors is the lowest (24.9 percent), the majority of managing directors work for companies employing less than 50 employees.

Turning to Table 9, the results for cooperative and public banks are reversed to a certain ex-

TABLE 8
LEADERSHIP EXPERIENCE AS MANAGING DIRECTOR

Share of managing directors	All banks (1)	Cooperative banks (2)	Public banks (3)	Stock corporations (4)
Total	0.376	0.452	0.249	0.572
10 or less employees	0.131	0.171	0.093	0.088
11-49 employees	0.115	0.171	0.057	0.077
50-249 employees	0.068	0.069	0.061	0.099
250-2,000 employees	0.039	0.034	0.021	0.165
More than 2,000 employees	0.022	0.007	0.017	0.143
Obs.	1118	554	473	91

*Notes*: The table summarizes the supervisory board members' responses to question 19 of the questionnaire in the Appendix. The number of observations equals the number of non-missing answers.

tent when looking at directorships at supervisory boards of other companies. Here, the share is much larger at public banks (28.7 percent vs.14.5 percent), suggesting that a lack of manager experience at public banks is counterbalanced by leadership experience gained in supervisory boards at other companies. At cooperative and public banks, most holders of additional directorships have one or two mandates with other companies. Again, stock corporations substantially differ from both cooperative banks and public banks. Here, the overall share of holders of additional directorships is significantly larger (47.3 percent), and a considerable number of respondents hold even four or more additional directorships (16.5 percent).

TABLE 9
ADDITIONAL DIRECTORSHIPS AT SUPERVISORY BOARDS

	All banks	Cooperative banks	Public banks	Stock corporations
Share of holders of additional directorships	(1)	(2)	(3)	(4)
Total	0.231	0.145	0.287	0.473
1 additional directorship	0.109	0.084	0.128	0.165
2 additional directorships	0.054	0.045	0.059	0.088
3 additional directorships	0.020	0.009	0.027	0.055
4 or more additional directorships	0.048	0.007	0.073	0.165
Obs.	1127	558	478	91

*Notes*: The table summarizes the supervisory board members' responses to question 11 of the questionnaire in the Appendix. The number of observations equals the number of non-missing answers.

Table 10 summarizes information on non-corporate leading positions. To get an overall impression of the importance of such positions, we generated a dummy variable that takes on the value one if supervisory board members report at least one leading position in the non-corporate sphere and zero otherwise (see bottom line of Table 10). Again, the share of respondents with leadership experience is quite high, which may indicate that supervisory board members try to offset a lack of corporate leadership experience with leadership experience gained in other areas. However, the results vary strongly across legal forms, suggesting that the share is lowest at stock corporations (36.3 percent).

In contrast, public banks not only stand out for their particular high share of leading positions (71.9 percent), but also with regard to the sources of leadership experience: reflecting the close links between public banking and the political sphere in Germany, 47.6 percent of par-

ticipants at public banks report to have leading positions at political parties, and 29.2 percent report to be chairpersons at political expert committees. Moreover, supervisory board members of public banks tend to hold more often leading positions at non-profit associations and foundations as well as unions. Except for political party leadership (12.1 percent at cooperative banks, none at stock corporations), cooperative banks and stock corporations are quite similar with regard to the field in which non-corporate leadership experience has been gained.

Overall, these results show that leadership experience is widespread among supervisory boards of German banks: unconditional on the legal form, 57.0 percent of respondents report at least one non-corporate leading position. Moreover, 37.6 percent can rely on leadership experience as managing directors and 23.1 percent hold directorships at supervisory boards of other firms. Further calculations not displayed in the tables reveal that 49.0 percent of the participants have corporate leadership experience (as managing directors and/or supervisory board members) and even 76.0 percent of the respondents have either corporate or non-corporate leadership experience or both.

To complete the picture, we examine the nexus between leadership experience and the complexity of a bank's business operations. We follow the same approach as in Section 4.2 and compare leadership experience across terciles of total assets of the supervised banks. First of all, we find high shares of respondents with leadership experience at any size category (see panel D of Table 11). With regard to managing directors and non-corporate leading positions small banks are quite similar to large banks, whereas the respective share of medium-sized banks is higher. Another general pattern across all legal forms is that the occurrence of additional directorships monotonously increases with bank size. This may indicate that additional directorships rather than managing experience and non-corporate leadership are considered as signal of professional expertise in the market for supervisory board members in banking.

Although legal qualification requirements are more demanding for chairpersons, the results of the previous section on professional banking and finance experience clearly show that chairpersons on average do not possess more experience then ordinary members. However, this finding does not hold for leadership experience: as can be seen from Table 12, chairpersons more often hold managing positions and additional directorships in the corporate sphere as well as leading positions in the non-corporate sphere. Apart from one exception - managing directors at public banks - this holds across all legal forms.

The differences between chairpersons and ordinary members are particularly pronounced with regard to additional directorships, which are held by chairpersons roughly twice as often as by ordinary members (39.9 percent vs. 20.3 percent; see column (1) of Table 12). Comparing chairpersons across legal forms, the share of additional directorship holders is largest at public banks. The largest share at public banks is also observed with regard to non-corporate leading positions, which are held by almost any chairperson within the group of public banks (97.4 percent). In contrast, the share of managing directors among chairpersons of public banks is lowest. Despite these legal form-specific differences, the overall results on leadership experience imply that chairpersons might be particularly well prepared to enforce necessary changes against the management of the supervised bank.

<sup>&</sup>lt;sup>18</sup>As can be seen from panel A, the higher shares at medium-sized banks are mainly driven by the group of cooperative banks.

TABLE 10

NON-CORPORATE LEADERSHIP EXPERIENCE

	All banks	anks	Cooperative banks	rative ks	Public banks	banks	Stock	sk rtions
Non-corporate leading position	(1)	_	(2	_	(3		(4)	_
	Mean	Obs.	Mean Obs.	Obs.	Mean Obs.	Obs.	Mean Obs.	Obs.
Expert committee/advisory council	0.033	949	0.017	485	0.049	387	0.052	1
Chamber of commerce/guild/business association	0.085	1022	0.103	514	0.066	427	0.074	81
Non-profit association/foundation	0.323	926	0.283	488	0.377	409	0.291	26
Labor union	0.025	927	0.013	452	0.040	402	0.014	73
Political expert committee	0.157	1099	0.066	545	0.292	463	0.022	91
Political party	0.270	1024	0.121	494	0.476	454	0	2/9
Other	0.220	1044	0.176	517	0.276	446	0.198	81
At least one non-corporate leading position	0.570	1133	0.476	561	0.719	481	0.363	91
<i>Notes</i> : The table summarizes the supervisory board members' responses to questions 21 and 24 of the questionnaire in the Appendix. The number of observations equals the number of non-missing answers. The bottom line of the table displays the share of respondents reporting at least one feating position. The number of observations in the bottom line equals the number of respondents providing information on at least one category of questions 21 and 24.	responses t he bottom ne equals th	o question line of the e number	s 21 and 24 table displ of responde	of the que ays the sh ents provie	estionnaire i are of respo	n the App indents re ation on a	pendix. The n porting at least one ca	uumber ast one ıtegory

TABLE 11
LEADERSHIP EXPERIENCE AND BANK SIZE

Leadership experience	total assets	ssets	assets	assets	ord tercile of total assets	ssets
1 1	(1)		(2)		(3)	_
	Mean	Obs.	Mean	Obs.	Mean	Obs.
A. All banks						
Managing director 0	0.367	245	0.429	319	0.327	490
Additional directorship 0	0.118	246	0.199	321	0.300	496
At least one non-corporate leading position 0	0.520	246	0.627	324	0.580	498
B. Cooperative banks						
	0.391	202	0.513	193	0.432	125
Additional directorship 0	0.113	203	0.160	194	0.181	127
At least one non-corporate leading position 0	0.478	203	0.556	196	0.378	127
C. Public banks						
Managing director 0	0.250	40	0.261	115	0.238	303
Additional directorship 0	0.125	40	0.241	116	0.309	307
At least one non-corporate leading position 0	0.775	40	0.761	117	0.702	309
D. Stock corporations						
Managing director	n.a.	3	0.727	11	0.548	62
Additional directorship	n.a.	3	0.455	11	0.500	62
At least one non-corporate leading position	n.a.	3	0.455	11	0.387	62

Notes: The table summarizes the supervisory board members' responses to questions 11, 19, 21 and 24 of the questionarie in the Appendix. The number of observations equals the number of non-missing answers. The variable 'at least one non-corporate leading position' takes on the value one it a supervisory board member reports at least one leading position in the non-corporate sphere and zero otherwise. For this variable the number of observations equals the number of respondents providing information on at least one category of questions 21 and 24. The banks whose supervisory board members participated in the survey are classified according to terciles of the banks' total assets.

Table 12
Leadership experience: Chairpersons vs. Ordinary supervisory Board Members

	All b	All banks	Coope	Cooperative	Public banks	banks	Stock	ck
			bar	banks			corporations	ations
Leadership experience	(1	(-	(2)	(;	(3	(6	(4	_
	Mean Obs.	Obs.	Mean Obs.	Obs.	Mean	Obs.	Mean Obs.	Obs.
A. Chairpersons								
Managing director	0.418	153	0.486	107	0.167	36	0.600	10
Additional directorship	0.399	153	0.210	105	0.842	38	0.700	10
At least one non-corporate leading position	0.658	155	0.570	107	0.974	38	0.400	10
B. Ordinary members (including vice chairnersons)								
Managing director	0.369	952	0.446	444	0.257	432	0.553	2/9
Additional directorship	0.203	962	0.127	450	0.239	436	0.447	9/
At least one non-corporate leading position	0.553	964	0.449	450	0.696	438	0.342	92
Notes: The table summarizes the supervisory board members' responses to questions 11, 19, 21 and 24 of the questionnaire in the Appendix. The number of observations counsis the number of non-missing answers. The variable 'at least one non-corporate leading position' takes	embers' respon-	ponses to canswers. I	questions 11 The variable	, 19, 21 an	d 24 of the q	uestionnai	re in the Ap	pendix.

on the value one if a supervisory board member reports at least one leading position, takes the variable the number of observations equals the number of respondents providing information on at least one category of questions 21 and 24.

#### 5 Conclusion

Legal standards in Germany demand from each and every supervisory board member of a bank to understand the regular business conducted by the supervised bank, to form their own opinion about the management's business strategies and the bank's risk situation and to be able to take appropriate action against the management. Most specifically, the 2009 amendment to the German KWG requires members of banks' supervisory boards to provide proof of their competence. This amendment belongs to a set of policy proposals following the global financial crisis which aim at the improvement of decision processes in the banking industry, thus generating better management decisions. However, such policies largely rely on untested assumptions. The KWG amendment presupposes in particular that (i) there is a lack of competence at German banks' supervisory boards, (ii) the amendment is suited to change the competence level, and (iii) the potential change will indeed cause better management decisions.

In order to provide a sound basis for the assessment of assumption (i), we conducted a detailed and comprehensive survey among members of German banks' supervisory boards. As a result, this is the first study providing empirical evidence that general education is high among board members, and that their majority can rely on some kind of leadership experience. Hence, board members appear to be suited quite well to become quickly acquainted with the regular business of the banks under their oversight. Moreover, due to their leadership experience, many board members can be expected to speak with authority in the boardroom, thus being able to address their critical judgments to the management and the other board members. This applies particularly to chairpersons, who report leadership positions more often than ordinary members.

Nevertheless, our results also demonstrate that just a minority of board members can rely on a professional background in banking and finance. The share of 'professionals' among chairpersons is particularly low. Moreover, a higher share of 'professionals' among board members in public banks and stock corporations primarily reflects the presence of employee representatives. Given the substantial qualification standards demanded from supervisory board members, policy makers might indeed have a point in taking measures to enhance professionalism at banks' supervisory boards.

However, in the current status quo professionalism might already be emphasized where it matters most: Many of our findings strongly depend on the bank's legal form, its size and business model. In particular, we document a positive relationship between financial industry experience among board members and the bank's size, its geographic focus and the significance of trading activities. This suggests that banks are well aware of the nexus between professional skills and the capability to implement an adequate monitoring strategy of the management's risk-taking behavior. Hence, 'market forces' already seem to steer the selection process among banks at least to some extent.

These findings challenge assumption (ii), namely that the KWG amendment is suited to improve the competence level of supervisory boards. At least it might be doubted that simply providing professional proof to the BaFin in a standardized procedure will generate substantially better outcomes. Particularly worrisome is the current practice of the BaFin to regularly assume 'born' supervisory board members, most often politicians, to have the required expertise. Hence, at a minimum, the legislator should regularly review the adequacy of the new law in order to avoid excessive regulation. In order to adequately assess assumption (ii), the legislator should mandate that the amendment be scientifically evaluated on the basis of a full sample of existing and newly appointed supervisory board members.

Moreover, the endeavor to enhance professionalism at banks' supervisory boards via regulatory requirements entails important practical implications. Specifically, a serious step in

this direction would also require the legislator to pay attention to the problem how to successfully recruit highly qualified board members. In this regard, small and locally operating banks might face substantial difficulties, and should be granted an adequate transition period. Moreover, organization laws in several German federal states would have to be revised, since they restrain public banks from recruiting board members exclusively based on their educational and professional background.

The nexus between supervisory board qualification and the soundness and profitability of the banking system is subject to an ongoing debate. The KWG amendment and the recent finalization of the CRD IV package by European legislators document the general agreement among policy makers on assumption (iii), postulating positive effects of higher qualification. Yet, conclusive evidence on this assumption simply does not exist. In particular, the 'right' level of expertise and the set of competencies needed to efficiently monitor the bank management remain debatable. Until such evidence is gained, policy makers are well advised to ascertain strict regulatory oversight of banks' risk management strategies and to protect the banking system and the economy against bad management decisions by adequate capital requirements.

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## **Appendix**





Research Project "Legally Mandated Qualification Standards for Supervisory Board Members"

#### **Questionnaire for Supervisory Board Members**

•	Before you start answering the questions, we kindly ask you to fill in the panying letter. Without the Bank-ID, we cannot include your response in	
	Bank-ID:	
1.	In July 2009, qualification standards for supervisory board members o <b>Kreditwesengesetz</b> (KWG). Moreover, legal provisions were introduc Finanzdienstleistungsaufsicht (BaFin) to take legal action against bank bers are considered unreliable and/or not sufficiently qualified (Sec. 36 do you agree with the following statements?	ed that allow the Bundesanstalt für ks whose supervisory board mem- 3 Art. 3 S.1 to 3 KWG). How much
		Do not agree ⇔ Completely agree
	Due to the new legislation, our supervisory board is better able to monitor and supervise the management.	
	The new legislation impedes communication between our managing board and our supervisory board.	
	The new definition of qualification standards does not meet the needs of the bank to which this questionnaire was sent.	
	Essential qualification characteristics of our supervisory board members are not verifiable by the BaFin.	
	For our supervisory board members, the new legislation has brought about the need for further education and training.	
	The new legislation cannot be expected to cause a change in the qualification profile of our supervisory board.	
	Due to the new legislation, it has become more difficult to attract capable persons for our supervisory board.	
۷.	Please indicate up to five characteristics that, according to your view board member of the bank this questionnaire was sent to (e.g., specifi skills, or personality traits). Please rank the characteristics with respect with the most important one.  1. 2. 3. 4. 5.	c knowledge or expertise, personal
3.	When did you join the supervisory board of the bank to which this que	estionnaire was sent?
,	Please indicate your <b>function</b> within the supervisory board as of Dece	mbor 21, 20102
4.	,	ember of the board
_	As of December 31, 2010, did you serve as an employee representa	
Э.	Yes No	tive on the supervisory board?
6.	If the bank to which this questionnaire was sent belongs to a corpora managing board of the parent/dominating company of that group (hen	te group: Are you a member of the ceforth: intra-group directorship)
	☐ Yes ☐ No	
7.	If the bank to which this questionnaire was sent belongs to a networ Are you a member of the managing board of a company belonging to related directorship).	k of cooperative or savings banks that network (henceforth: <b>network</b> -

8.	How many <b>board meetings</b> took place during your board membership in 2010? How many of these meetings did you <b>attend</b> ?							
	meetings took place during my board membership, and I attended of these.							
9.	At the time you joined the supervisory board of the bank to which this questionnaire was sent, did you participate in any <b>training measures in preparation</b> for your supervisory board membership? <i>Please note: This question refers only to preparatory training measures as opposed to concurrent training measures during the course of your board membership (for comparison, see Question 10.</i>							
	☐ Yes ☐ No							
	If yes, how <b>much time</b> did you <b>spent</b> on these measures? In total, preparatory training measures amounted to approximately hours.							
10.	After joining the supervisory board of the bank to which this questionnaire was sent, did you participate in any training measures related to your membership of the supervisory board? Please note: This question refers only to concurrent training measures during the course of your board membership and not to preparatory training measures undertaken at the start of your board membership (see Question 9).							
	☐ Yes ☐ No							
	If yes, <b>how much</b> time did you <b>spent</b> on these measures? Over the whole course of my board membership, the concurrent training measures amounted to approximately hours.							
11.	As of December 31, 2010, did you hold <b>directorships</b> in mandatory (legally required) <b>supervisory boards of other companies</b> , and if so, how many? Please indicate if these companies are subject to regulation and supervision by the BaFin, and if so, please indicate whether your directorship(s) is/are intra-group and/or network-related (see Questions 6 and 7 for a definition of intra-group and network-related directorships).							
	□ Yes							
	Number of additional directorships in BaFin-supervised companies  among these: intra-group directorships network-related directorships  Number of additional directorships in non BaFin-supervised companies  non BaFin-supervised companies  non BaFin-supervised companies							
	□ No							
12.	If you hold <b>directorships</b> in mandatory (legally required) supervisory boards of other companies or held such directorships in the past, <b>how many years</b> in total have you held/did you hold at least one directorship? Please differentiate between companies subject to regulation by the BaFin and other companies. Note that the question does not require an uninterrupted, continuous activity as a supervisory board member.							
	less than 5 years 5 to 10 years more than 10 years							
	BaFin-supervised companies							
13.	Did you graduate from high school or did you complete any other type of <b>secondary education</b> ? <i>Please indicate the name of the degree and the type of school.</i>							
	☐ Yes (degree/type of school):No							
14.	Did you earn a <b>technical or vocational degree</b> ? <i>Please indicate the name of the degree</i> .							
	☐ Yes (degree): ☐ No							
	If yes, did the technical/vocational training take place <b>in the bank</b> to which this questionnaire was sent?							
	☐ Yes ☐ No							

indicate the name of the degree(s) and the major field(s) of study.				versity degree)? Please			
		Yes (degree(s)/field(s) of No	study):				
16.		d you complete <b>postgrac</b> uestion 15? Please name				on to those indicated in	
		Yes $(degree(s)/field(s))$ of No	study):				
17.		ease describe your <b>currer</b> (if applicable):	nt or last occu	pation as exactly a	s possible by mear	ns of the following crite-	
	a.	Type of occupation:					
		☐ Blue-collar worker ☐ White-collar worker i ☐ Civil servant, judge	n a company	☐ Homemaker			
	b.	Job title:					
	c.	Main activities and tasks	3:			· · · · · · · · · · · · · · · · · · ·	
	d.	Leadership position:	☐ Yes ☐ N	o			
	e.	Industry:					
	f.	Duration of occupation: fr	rom	(year) to	(year)		
18.	In case you had <b>another occupation</b> within the last 10 years (next to or before the occupation described in Question 17), please also describe this occupation by means of the following criteria (if applicable):						
	a.	Type of occupation:					
		☐ Blue-collar worker ☐ White-collar worker i☐ Civil servant, judge	n a company	☐ Self-employed v ☐ Self-employed v ☐ Homemaker			
	b.	Job title:					
	C.	Main activities and tasks	s:			<del></del>	
	d.	Leadership position:	☐ Yes ☐ N	0			
	e.	Industry:					
	f.	Duration of occupation: fi	rom	(year) to	(year)		
19.	as	ere you a <b>managing dire</b> e of December 31, 2010, o				owner of a company	
		<del>_</del>					
	age	yes, please indicate the <b>m</b> er. In case you held such rms of number of employe	a position in mo	er of employees or ore than one compa	of the company duri any, please refer to	ing your time as a man- the largest company in	
			to 49 oloyees	50-249 employees		more than 2,000 employees	
20.	you nai	e you elected to a <b>politica</b> u hold such a position dur ire was sent?					
		Yes No					

21.	. Have you been active as a member of <b>political expert committee(s)</b> during your supervisory board membership of the bank to which this questionnaire was sent? <i>Please indicate the name(s) of the committee(s) and whether you chair(ed) them. Note: Internal committees of political parties as well as super visory boards and advisory councils of public or private company are not subject to this question.</i>							he com- as super-			
	☐ Voc (namo):							Chair			
								Chair	님		
								Chair	$\sqcup$		
								Chair	Ш		
								Chair $\square$			
								Chair	П		
								Chair	H		
								Onan	Ш		
	□ No										
22.	Do you have any <b>specific knowledge</b> of the following <b>subje</b> as an example, in an occupational context? If yes, please inc scale from 1 (basic professional knowledge) to 7 (specialized	licate	you	r curi	rent I	evel					
					Yes				No		
	·	1	2	3	4	5	6	7			
			_	-	-	-	-	-			
	Commercial law	П						П	П		
	specifically:	ш	ш			ш	ш				
	Credit contract and finance law	П	$\Box$			$\Box$	П				
		H	H	H	H	$\forall$	H	H	H		
	Banking and capital market law	ш	ш	Ш	Ш	ш	ш	Ш	ш		
	Dublic law										
	Public law	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш		
	specifically:	_	_	_	_	_	_	_	_		
	i ax iaw	Ш	Ш	Ш	Ш	$\sqcup$	Ш	Ш	Ш		
	Municipal law	Ш	Ш	Ш	Ш	Ш	Ш	Ш			
	Administrative commercial law										
	Zoning/building law										
	Corporate/operative strategic planning										
	Controlling	П	П	П	П	$\Box$	П	П	П		
	Project/corporate finance	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ		
	Accounting	Ħ	Ħ	Ħ	Ħ	Ħ	П	Ħ	Ħ		
	Auditing	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ		
	Marketing	H	H	H	H	Ħ	H	H	H		
	Marketing	ш	ш	ш	ш	ш	ш	ш	ш		
	Corporate risk management										
		ш	ш	ш	ш	ш	ш	Ш	ш		
	specifically:		_			_	_				
	Identification, assessment and communication of risks	$\vdash$	$\vdash$	H	님	$\vdash$	$\vdash$	H	H		
	Implementation of risk management strategies	Н	닏	Н	Ц	닏	Н	$\vdash$	$\vdash$		
	Information technology	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш		
		_	_	_	_	_	_	_	_		
	Equity/debt instruments	Ш	Ш	Ш	Ш	Ш	Ш	Ш			
	Derivatives, structured finance products										
	Sales and distribution of banking products										
	Business cycle analysis/forecasting										
	Monetary policy	П	П	П	П	$\Box$	П	П	П		
•	Money/capital/credit markets	Ħ	Ħ	П	Ħ	Ħ	Ħ	П	П		
	Currency markets	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ		
	Real estate markets	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ	Ħ		
	noai octato manoto	П	Ш	Ш	Ш	Ш	Ш	Ш			
	Infractructure/urban dovolonment										
•	Infrastructure/urban development	H	$\forall$	H	$\forall$	$\forall$	$\vdash$	H	H		
	Municipal/public financial planning	$\vdash$	$\vdash$	$\vdash$	님	$\forall$	$\vdash$	$\forall$	H		
	Promotion of economic development/ innovation/entrepreneurship	$\sqcup$	Ш	$\Box$		Ш	$\Box$	$\Box$	Ш		
	(Animal) husbandry/forestry										
	(Allimar) massariur y/mestry	$\Box$	$\Box$	$\Box$	$\Box$	$\Box$	$\Box$	ш	$\Box$		

23.	If the business operations of the bank to which this questi graphic area within Germany (one or several cities/munici areas such as Rhein-Ruhr-Region, München und Umland	palities/a	dmin	istra	tive					
	Do you have $knowledge$ about that $geographic\ area?$ If knowledge on a scale from 1 (marginal knowledge) to 7 (v						ctual	leve	el of	
						Yes				No
			1	2	3	4	5	6	7	
	Age structure and demographic development of the popu	lation								
	Size and composition of private households			Ц	$\sqcup$	Ц	Ц	Ц	Ц	Ц
	Ethnic, cultural and social diversity of the population			Ц	닏	Ц	Ц	Ц	Ц	Ц
	Cultural and social facilities/activities in associations and	clubs	$\vdash$	님	님	$\vdash$		닏	ᆜ	
	Income and income evolution of private households			$\vdash$	$\vdash$	$\vdash$		님		
	Structure and evolution of the labor market Structure and evolution of the local economy		$\vdash$	$\vdash$	$\vdash$	$\vdash$	Н	님	H	
	Condition and evolution of public budgets		$\vdash$	H	H	Н	Н	Н	H	
-	Condition and evolution of public budgets		ш	ш	ш	ш	ш	ш	ш	Ш
24.	Are you actively and regularly engaged in organization gaged in such institutions or organizations during your me to which this questionnaire was sent?  Please also indicate whether you had substantial influence tutions (leading position). Please indicate the names of the where applicable. Please note: Neither memberships in note public and private companies nor political expert committed to 11.	embership e on deci e organiz nandatory	sion to sions ation (leg	he s s wit ns/in ally	upei hin i stitu requ	rviso the d tions uired	ory bo organ s and l) sup	ard izati I thei ervis	of the	e bank or insti- ectives boards
					es,					
		activel			gula					No
		leadin	with.		n I		.with		n	
	Chamber of commerce/guild/business association: Name:									
	Regional technology and business incorporation center									
	Regional development agency									
	Expert committee/advisory council: Name:	_								
	Governmental/municipal institution: Name:	_								
	Non-profit association/foundation; objectives:									
	Labor union									
	Political party, association of independent voters, other political association									
	Additional organizations/institutions similar in type and focus to the aforementioned:	- - - -								
		_	Ц				П			

25.		e (main residence in case of several residences) situated in the business district of the s questionnaire was sent?							
	☐ Yes ☐ No								
	If yes, for how lor	ng has your residence been situated there?							
	year(s)								
26.	26. As of December 31, 2010, what was your age?								
	years								
27.	Please indicate y	our sex.							
	male [	female							
You	u may like to conv	ey additional information or comment with respect to this questionnaire:							
Ple	ase return the que	estionnaire by mail or fax to:							
	Address:	Rheinisch-Westfälisches Institut für Wirtschaftsforschung e.V.							
	Auuress:	Hierinsch-westanisches institut für Winschaftsforschung e.v. Stichwort "Kontrollorgan" Hohenzollernstr. 1-3 45128 Essen							
	Fax:	+49 201 8149236							

Thank you very much for your participation!