## **Bank Executives' Outside Directorships and Career Outcomes**

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First draft: January 6, 2016 This draft: June 28, 2016

#### **Abstract**

We employ a unique sample of 5000+ outside directorships held by German executive bank directors over 1993-2015 to examine whether these directorships proxy reputational capital and/or bankers' private information. We exploit various circumstances of executive directors' appointments and bank performance with bank-fixed-effect and difference-in-differences estimations to show that outside directorships enhance value for the bank and improve executives' career outcomes, mostly because these posts signal good managerial ability and access to valuable private information about clients. Overall, our results suggest that bankers' outside directorships have a dual role in the German corporate governance system.

JEL Codes: G21, G34, M12

Keywords: executive directors, outside directorships, appointments, bank performance

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2

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## 1. Introduction

In Germany, bank dominance of corporate finance has been manifested not only in long-term lending relationships, but also in bankers' representations on corporate supervisory boards (Gorton and Schmid, 2000; Dittmann, Maug, and Schneider, 2010), in which corporate governance power is vested. These board representations may be useful to bankers as well as banks in several regards. Monetary compensation, which increased recently to reflect higher responsibilities and duties of supervisory board members, might be one reason for bankers. Another reason might be improved information gathering on their customers (e.g. Morck and Nakamura, 1999; Kroszner and Strahan, 2001; Güner, Malmendier, and Tate, 2008; Dittmann, et al., 2010), and imparted knowledge bankers may use when granting loans to specific industries (Kroszner and Strahan, 2001). This information gathering might lead to a private information advantage of bank managers, which increases their bargaining power visà-vis their employers, especially in corporate governance systems that emphasize insider control and stakeholder orientation (Schmidt, 2004). Depending on bankers' bargaining power, banks' shareholders may or may not profit from such an information gathering. Bankers' board representations might fulfil another role, namely they may proxy bankers' reputational capital since only the most successful and talented directors receive invitations to serve on other boards—as shown by Ferris, Jagannathan, and Pritchard (2003) for U.S. directors holding multiple directorships and Masulis and Mobbs (2011) for U.S. inside directors with outside directorships. We investigate the impact of bankers' outside directorships on their career outcomes as well as on the performance of their banks.

Although several researchers document that the German and U.S. systems have come closer to each other in some regards (e.g., Dittmann et al., 2010), our setting differs from the one in the United States in three important respects. First, while bankers' representation on corporate boards is also not uncommon in other countries, in the United States limited liability might cause bankers to accept only board appointments when their bank does not have a strong relationship with the firm (Kroszner and Strahan, 2001), while German bank executives with outside directorships may have a private information advantage with respect to important business customers, depending upon the extent of the relationship to the customer. Therefore, private information on business clients may give German bankers stronger bargaining power in determining their employment status and conditions within their bank than bankers have in countries with limited liability. This private information advantage sets our study apart from other studies of corporate firms, in general, as well as with U.S. bankers on boards, in particular. Second, because of the role of bankers' outside directorships in the German corporate governance system, we expect that some directorships are reallocated when executives leave the bank. Thus, bank executives who leave may have to hand over (some of) their outside directorships to other executives who stay with the bank. In contrast, directorships in the U.S. are mainly related to the

individual (outside) director, who will most likely keep his or her directorships when switching his or her full-time employment position. Using outside directorships to signal management quality might therefore be much harder for German bankers than for U.S. bankers. Third, Germany has a two-tiered board system, in which supervisory board's members appoint or dismiss management board members, while many existing theoretical and empirical studies are based on one-tiered systems such as the one in the United States (e.g., Adams and Ferreira, 2007 and Harris and Raviv, 2008).

To investigate bankers' external board representations, we use confidential data for all German universal banks and their executive directors' secondary employments, which must be reported to the regulator after the second amendment of the Banking Act in 1976. The data covers all board representations of German executive bank directors, regardless of whether the banker serves on the management board of a large publicly listed or a small regional bank and regardless of whether s/he serves on a supervisory board of a private or (listed/unlisted) public limited company. Since secondary employments exclude the bank executives' main (full-time) employment, we call them outside directorships. In the 1990s, the number of outside directorships increased steadily, peaking at the end of the 1990s, as shown in Figure 1. At that time some central players of the so-called "Germany Inc.", such as Allianz and Deutsche Bank, announced their intention to sever their close board ties with German firms (Fohlin, 2005). The number of outside directorships actually started to decline, although even in 2014 it remains remarkably high, with more than 5000 board representations, similar to the number at the beginning of the 1980s. To see the popularity of bankers' board representations, we also plot the percentage of executives with at least one outside directorship in Figure 1. This percentage was quite stable in the 1980s, when every fourth bank executive served on another board. Since the early 1990s, the percentage of bankers with outside directorships has increased continuously and reached 39.1% in 2014. German bankers are represented on more outside boards than are directors of large U.S. corporations. In the sample of Ferris et al. (2003), only 15.6% of all U.S. directors considered have at least one outside directorship--meaning they are represented on two boards at a minimum.

#### \*\*\*\*Insert Figure 1 about here \*\*\*\*

German bankers' outside directorships cover two types of bankers' board representations: bankers' representations on supervisory boards of clients and non-clients as well as positions on management boards of, for instance, banks' non-bank subsidiaries. Figure 1 also plots the number of these two types of directorships. Two third of all outside directorships, which means more than 4,000 board seats on average, are representations on supervisory boards. This number is impressive compared to the number of German bankers on boards documented in the recent literature dealing with relatively large banks and often with publicly listed corporate firms. For instance, Dittmann et al. (2010) consider 137 corporate firms included in the DAX 100 between 1994 and 2005, and find that 46% of their firm-year observations have one or more bankers on the supervisory boards. Thus, our data has a much broader coverage since it considers all banks and all board representations. These numbers may give a

first hint that not only bankers of the large German universal banks are represented on boards of publicly listed firms, but that bankers' board representation is a much broader phenomenon.

To gain insights into the various roles that outside directorships may play for German bankers, we determine career outcomes in terms of bank executives' employment chances. Since data on executives' dismissals and resolutions are not available, we look at bank mergers, because in the course of a merger, target executives' jobs are at risk and outside directorships may improve their career outcomes either because they signal their management quality or because they have acquired private information about the bank's clients. We first determine the probability a target executive will be appointed to the acquirer bank board. Our results show that a higher number of outside directorships increases the probability of target executives being appointed to the acquirer board regardless of whether the executive comes from a large or a small target bank. This check ameliorates concerns that simple correlation between bank size and outside directorships drives these findings. These findings are robust to tackling two facets of endogeneity in directorship measures. First, executives who fear being dismissed may intensify their efforts to get outside directorships in order to use these directorships to signal their managerial ability to the labour market. Therefore, we use long-term directorships that have already lasted many years instead of all outside directorships because at the time when the directorship was installed merger activity was very unlikely to be forecasted. Second, target banks are a subset of all banks, since they are smaller, less profitable and often in financial distress. Therefore, we apply selection models to take into account the selection rules of those banks being targeted.

We put forward the following identification strategy to see whether outside directorships give German bankers an information advantage. We start with the insight that executives' outside directorships will proxy reputational capital in basically all appointment situations, regardless of whether the appointment occurs for merger related or unrelated reasons. Therefore, we contrast appointments of target executives to the acquirer board with appointments that occur outside any merger activity. Both types of appointees may signal their reputational capital with the number and prestige of their outside directorships, while the former but not the latter may have additional bargaining power stemming from their private information about customers. Consequently, we test whether outside directorships have a larger effect on being appointed to the acquirer board than being appointed when merger activity is not occurring. We find a positive effect of the number of outside directorships on the probability that the appointee comes from the target bank and not from a merger-unrelated bank. This result also holds when we address the fact that the number of outside directorships is strongly driven by executives' age: younger executives are rarely appointed to the supervisory board of banks' customers. To consider this relationship we use a matching approach which finds for every target

<sup>&</sup>lt;sup>1</sup> Target executives might put emphasis on increasing their probability to be retained by the acquirer or of getting additional payments instead of negotiating higher premiums for their shareholders (Hartzell, Ofek, and David, 2004; Bargeron, Schlingemann, Stulz, and Zutter, 2009; Heitzman, 2011, Fich, Cai, and Tran, 2011). In our setting, target executives of savings and cooperative banks who are laid off in the course of a merger usually do not receive compensation on top of the salary that was already agreed upon.

appointee equivalent non-merger related appointees with the similar age and bank characteristics. This matched sample confirms our previous results and we conclude that executives with outside directorships have higher bargaining power because of their private information advantage.

To see whether German bankers also use outside directorships to signal their management quality, we investigate whether executive directors with outside directorships have higher chances to be appointed as a chief executive officer (CEO), since such a position comes with more prestige. We rule out that outside directorships capture executives' private information advantages on customers by studying whether outside directorships help executives enhance their position when they switch to a bank that is independent from their previous one. We find that outside directorships improve executives chances to land a CEO position in the new bank. Additionally, executives with outside directorships have higher chances to have their next appointment in a larger bank, which likely comes with more prestige and higher pay. From our analysis of these various appointment circumstances, we conclude that both private information advantages and reputational considerations play a role enticing German executive bank directors to serve on supervisory and management boards.

The next question to be addressed is whether bankers' board representations pay off for banks' owners. We rely on accounting-based performance measures, since only a dozen German banks are publicly listed. Here, our evidence is consistent with the idea that bank executive directors do not fully pocket the value generated with their board representations. In fixed-effect regressions, banks with more long-term outside directorships, where the executive serves at least three years on the board of the business client, have significantly lower financial risk, measured by a classical distance-to-default variable. We also find evidence that these banks have higher return on assets when we remove turnover effects from the long-term directorship measure. To tackle the performance effects of outside directorships with an alternative approach, we develop difference-in-differences estimations and distinguish between banks installing their first outside directorships without any executive turnover activity around the time when the directorship is installed and banks that experience executive turnovers where only the incoming but no existing executive holds outside directorships. Thus, we consider two treatment groups and use bank observations without any turnover activity and without having any outside directorship as control group. Installing a first outside directorship comes with higher return on assets in the post-treatment period, which is in line with what we find in bank-fixed effect regressions, while hiring an outsider with outside directorships comes with significantly lower return on assets. Our performance findings are similar to the ones documented for the United States in two respects. First, the underperformance of banks appointing outsiders is in line with findings on forced turnovers of U.S. bank boards (Schaeck, Cihak, Maechler, and Stolz, 2012). Second, the outperformance of banks whose executives hold outside directorships is similar to a finding recently documented for U.S. inside directors. Masulis and Mobbs (2011) find that inside directors with a higher number of external board seats make better acquisition decisions and have higher performance. This similarity indicates that mechanisms of the U.S. director labour market may also be at work in other countries, although the

particular type of mechanism might differ in that signalling management quality is more likely to be at work in the United States, while a mix of signalling management quality and information advantage seems to be at work in the German banker labour market.

Measures of outside directorships are potentially endogenous in performance regressions. However, we argue that this endogeneity is in our setting not as strong as in U.S. data, because of differences in corporate governance systems. We postulate that if outside directorships are not only individual connections of the bank executives, but rather "belong" to the banks, then we should see in the data that (some) outside directorships are reallocated when mergers occur--they are handed over between executives serving on the same or different management board--and this turnover is higher for target and acquirer banks in the merger year. This pattern is strongly observed in our data. In merger years the handing over of outside directorships between executives serving on management boards of different banks is significantly higher, indicating an overall reallocation of such directorships. We also use this analysis to test some relationships documented for the U.S. director labour market. We do not find evidence that higher past performance leads to more appointments, as shown by Ferris et al. (2003), Harford and Schonlau (2013), Brickley et al. (1999), and Coles and Hoi (2003). The performance insignificance might be driven by accounting-based performance measures. In line with evidence from the U.S. director labour market (Gilson, 1990), we do find that executives serving on boards of distressed banks have lower chances to get additional outside directorships.

The remainder of this study is organized as follows. Section 2 presents a discussion of the relevant literature and our hypotheses. Section 3 describes the German corporate governance system, with an emphasis on the role of banks in the economy, and recent changes in Germany's legal and regulatory framework, which may have altered the role of banks within the system. It also introduces our data and presents summary statistics. Section 4 delivers results on executives' appointments and on improving executives' status by switching from a non-CEO to a CEO position. In Section 5, we discuss results on operating bank performance, and findings regarding changes in outside directorships. Section 6 concludes.

## 2. Literature review and hypotheses

Several strands of literature are related to our analysis. The first strand investigates how having a banker on corporate boards affects corporate policies (Kroszner and Strahan, 2001; Güner, et al., 2008; Şişli-Ciamarra, 2012). For instance, in Japan, another country that has traditionally been classified as bank-based (Beck and Levine, 2002), bankers on boards prefer policies that favour creditors over shareholders (Morck and Nakamura, 1999). Commercial bankers in the United States are less likely to serve on boards when firms are smaller and more volatile, since conflicts of interest are then more severe, which might engender lender liability (Kroszner and Strahan, 2001). Nevertheless, there is also evidence that U.S. bankers impact corporate policies. Güner, Malmendier, and Tate (2008) find that commercial and investment bankers on boards of large U.S. non-financial companies significantly

affect corporate decisions, but not necessarily in the interest of shareholders. Hilscher and Sisli-Ciamarra (2013) find that U.S. acquisitions with creditor directors on the board reduce shareholder value and increase the value of creditors. German bankers who serve on the supervisory boards of large non-financial publicly listed firms promote their own business as lenders and advisers for M&A transactions (Dittmann et al., 2010). In a broader context, the literature also questions what return banks get out of their lending relationships. U.S. lenders benefit from lending relationships by increasing the chances of granting additional loans (Bharath, Dahiya, Saunders, and Srinivasan, 2007) and by stimulating investment banking business, such as seasoned equity offers (Drucker and Puri, 2005) or debt underwriting (Yasuda 2005).

The advantages of board representation and lending relationships may be transformed into arguments about why bankers personally prefer these relationships. From the bankers' perspective, serving on the board of corporate clients comes with the advantage of having documented ties to the client. Moreover, by serving on the clients' board, bankers may gain not only private information on the client, which cannot be distilled both in time and nature from firms' annual statements, but also important industry knowledge (Kroszner and Strahan, 2001), which may be used to grant loans and sell bank products and services to other customers in the industry. Therefore, bankers' board representation may not only come with additional monetary compensation but bankers serving on corporate firms' boards may increase their bargaining power vis-à-vis their employer, since they may have private information on clients, and they may accumulate industry-specific knowledge which may increase their labour market chances in general. Therefore, we postulate that German bank executive directors with outside directorships have an informational advantage which increases their bargaining power in determining their job conditions vis-à-vis their current employers. Because of the executives' information advantage, which they may use to grant additional loans or sell investment banking services, banks whose executive directors serve on supervisory boards are expected to yield higher operating performance except when the value increase is fully pocketed by executives.

The second strand of literature investigates the director labour market. Here studies dealing with signalling management quality, as modelled by Fama and Jensen (1983), are relevant for our study. Masulis and Mobbs (2011) argue that outside directorships of U.S. inside directors correlate positively with managerial skills and reputation. In line with managerial skills and reputation, recent literature finds that (un)popular corporate outcomes go hand-in-hand with more (fewer) directorships. CEOs of U.S. firms with higher performance have more directorships (Ferris et al., 2003; Harford and Schonlau, 2013; Brickley, et al., 1999; Coles and Hoi, 2003). The number of outside board seats held by CEOs is higher when the CEOs have experience with acquisitions (Harford and Schonlau, 2013). Also, outside directors leaving the board of financially distressed firms hold fewer directorships (Gilson, 1990), top executives reducing dividend payments have lower chances to receive additional directorships (Kaplan and Reishus, 1990), and directors not accepting a takeover offer after poor performance have fewer directorships (Harford, 2003). Thus, as an alternative to the information advantage hypothesis, we

postulate that executives' outside directorships proxy for reputational capital and they therefore have better chances in the labour market. Banks whose executive directors serve on other boards have higher operating performance, because these managers have higher managerial ability.

The third strand of literature related to our study investigates the role of multiple directorships (Core, Holthausen, and Larcker, 1999; Ferris et al. 2003; Fich and Shivdasani, 2006; Field, Lowry, and Mkrtchyan 2013; Falato, Kadyrzhanova, and Lel, 2014; Elyasiani and Zhang, 2015), often centering on the question whether directors with multiple directorships add or destroy firm value. Value creation is expected when multiple directorships proxy reputational capital and when directors who serve on multiple boards are excellent advisors because of their experience and contacts (Field, et al., 2013). Busy directors are found to be associated with high valuations of newly public firms, which have a higher demand for directors' advise than mature firms (Field, et al. 2013). Bank performance is positively associated, while risk measures are negatively associated with the busyness of directors (Elyasiani and Zhang, 2015). Value destruction is expected if multiple directorships lead to conflicts of interest which increase company risk (Ross, 1973; Jensen and Meckling, 1976) and if monitoring quality of too-busy outside directors is below average when time constraints are binding (Core, et al. 1999; Shivdasani and Yermack, 1999; Fich and Shivdasani, 2006). These potential downsides have often been invoked to call for restricting the number of directorships both in the United States and Germany. Empirical evidence is mixed. Ferris et al. (2003) find no evidence of shirking responsibilities nor of securities fraud. However, CEOs are more excessively compensated when busy outside directors are present (Core, et al., 1999), and abnormal returns are positive when busy outside directors depart (Fich and Shivdasani, 2006). In the context of directors' death, Falato et al. (2014) show that directors' busyness is detrimental to board monitoring quality and shareholder value. This strand of the literature is relevant for us, since a substantial share of German bankers hold multiple directorships, so we must rule out that our findings are driven by multiple instead of merely outside directorships.

## 3. German bankers, their outside directorships and summary statistics

#### 3.1. German universal banks

German universal banks (Allen and Gale, 2000, pp. 71) consist of commercial, state-owned, and cooperative banks. Commercial banks encompass unlisted private banks as well as a few publicly listed institutions, such as Deutsche Bank and Commerzbank, and pursue a variety of business models, ranging from exclusively private banking to a mixture of private banking and investment banking. State-owned banks (savings banks as well as their respective head institutions, the *Landesbanks*) are owned by the federal government, municipalities or other administrative districts. Savings banks, by definition, do not compete with each other. Furthermore, they are supposed to support local businesses, charities and cultural projects and are consequently not strictly profit-maximizing. Finally, cooperative banks are mutual organizations almost exclusively owned by their customers and with a regional demarcation of their business.

In the last decades, a substantial number of mergers and acquisitions occurred. These mergers consolidated two banks, where the bank license of the target bank is terminated and all business units of the target bank are integrated into the acquirer bank. At the time of the merger, the management board of the target bank is terminated and the target's executives are either dismissed or appointed to the management board of the acquirer bank. The motives for such mergers and the implications on ownership structure depend on the sector in which the acquirer bank operates. For commercial banks, the motives are similar to those for banks in other countries, with the difference being that hostile takeover battles have not often been observed in Germany (Franks and Mayer, 1998). Mergers of savings and cooperative banks differ in certain respects from those of commercial banks. While a commercial bank is basically free to choose targets, savings and cooperative banks must focus regionally when choosing merger partners. When a commercial bank acquires another bank, the ownership of the target bank changes, while for savings banks the ownership structure of the new institution often resembles that of the previously single banks, which means that the owners of the target and acquirer banks are also the owners of the merged bank. No monetary transfer has to take place between the acquirer and target owners. Mergers only take place within and not across different sectors, although there have been several attempts to change this. For instance, Stralsund, a Hanseatic city located in Eastern Germany, checked in 2003 whether it could sell its savings bank to resolve the city's budgetary problems. Commerzbank and other commercial banks indicated interest in buying the savings bank (Handelsblatt, January 26, 2004), but were turned down. Even until today, mergers and acquisitions across sectors, such as a commercial bank takes over a savings bank, have not occurred.

Our analysis is built on all German universal banks between 1993 and 2014. Banks' financial statements and all other information come from the Deutsche Bundesbank's prudential database BAKIS, which is the information system jointly operated by the Deutsche Bundesbank and the German Financial Supervisory Authority. Table 1 shows that we have 4,196 universal banks in our sample period. Because of missing identifiers of executives in two successive years, total assets in the previous year and personal information on executives, such as age and gender, our sample shrinks to 3,836 banks with 21,412 executives. Between 1994 and 2014, we count 2,130 bank mergers; for 1,623 bank mergers and 3,980 target executives, we have financial statements of both the target and acquirer bank in the pre-merger year.

#### \*\*\*\* Insert Table 1 about here \*\*\*\*

#### 3.2. German bankers' outside directorships

The German corporate governance system emphasizes the interests of various stakeholders, while the corporate governance system in Anglo-Saxon countries focuses more on the interests of shareholders. In an insider-controlled and stakeholder-oriented system, lenders and employees are integrated into the governance of large corporations (Schmidt, 2004). Close ties between banks and industry, and their long-term relationships (Allen and Gale, 1995, pp. 184), are therefore one common feature in the German universal banking system. One facet of the role of banks in the German economy

is bankers' representation on supervisory boards of public limited companies (Aktiengesellschaften, AG) that operate under a two-tiered board system. In this system, executive directors are members of the management board, which is concerned with the actual duties of management. Corporate governance power is vested in the supervisory board, whose responsibilities are similar to the ones of U.S. boards (Fauver and Fuerst, 2006). The supervisory board monitors and advises the management board, which has to report to the supervisory board on a regular basis (Hackethal, 2004). It has no formal rights to instruct executives, but it has to approve fundamental decisions, and it appoints or dismisses members of the management board and determines executive directors' salaries. Since the effectiveness of such a two-tiered board system rests on separating management and monitoring, members of the management board cannot be members of the supervisory board at the same time.<sup>2</sup> The supervisory board consists of representatives of shareholders and employees as specified by Germany's right of codeterminantion (Mitbestimmungsrecht); this concept is built on the idea that firms are jointly run by suppliers of labour and equity capital (Gorton and Schmid, 2004). Employees represent one third of the supervisory board when the company has more than 500 but no more than 2000 employees, and one half when the number is higher than 2000.<sup>3</sup> The chairman of the supervisory board, elected at a general shareholders' meeting, has the deciding vote in case of a tie. The German Corporate Governance Codex introduced in 2002 enforces the power of the supervisory boards of listed companies and systematizes internal monitoring by the supervisory board. Thus, representation on supervisory boards nowadays involves greater responsibility and more work than was true historically. In line with this, remuneration of supervisory board members of publicly listed companies increased substantially over the past 20 years. In 2012, chairmen of supervisory boards of DAX firms earned on average €346,000, representing a 40 percent increase within five years (Handelsblatt, April 21, 2013).

The board seats of bankers in publicly listed companies are closely linked to bank ownership and proxy voting rights ("Depotstimmrechte"). Once, Germany was described as having a persistent shareholder structure, where both large shareholders<sup>4</sup> and banks played a role (Shleifer and Vishny, 1997). After the corporate taxation reform of 2002, which allowed banks to divest their shareholdings without paying capital gains taxes, bank ownership declined substantially (Vitols, 2005; Dittmann et al., 2010). More recently, ownership of German publicly listed firms has been described as dispersed, with significant participation of foreigners (Ringe, 2015). Some banks have had more influence at

<sup>&</sup>lt;sup>2</sup> Under extreme circumstances, the German Stock Corporation Act (*Aktiengesetz*) allows management board members to serve on the supervisory board for a transition period.

<sup>&</sup>lt;sup>3</sup> In a sample of 250 large publicly listed German firms, firms with one half employees' representation on supervisory boards trade at a discount compared to firms with one third representation (Gorton and Schmid, 2004), while in a sample of all publicly listed firms employee representatives increase firm value (Fauver and Fuerst, 2006). Ginglinger, Megginson, and Waxin (2011) also show that employee directors who are also shareholders increase the value of privatized French listed companies, whereas employee directors appointed by simple right of employment do not.

<sup>&</sup>lt;sup>4</sup> A difficulty with identifying ownership structure of German firms is the predominant conglomerate structure, which emerged as the norm as early as 1927 (Fohlin, 2005).

shareholder meetings than their equity stakes indicate, because they may use the voting rights attached to unregistered bearer shares that shareholders deposit at large banks (Gorton and Schmid, 2000, Edwards and Nibler, 2000). In the sample used by Edwards and Nibler (2000), banks' equity holdings account for 6.7%, while proxy voting accounts for as much as 8.5%. Both banks' equity control rights and proxy voting significantly increase the fraction of supervisory board seats held by banks (Gorton and Schmid, 2000). Franks and Mayer (1998) argue that the influence of German banks stems from chairing supervisory boards and their proxy votes. Several recent changes have tried to balance the pros and cons of proxy voting. Proxy voting helps to increase the percentage of votes present at the annual meetings so that decision outcomes are less likely to be driven by minorities. Thus, it may mitigate free-rider problems arising when share ownership is dispersed (Franks and Mayer, 2001). The drawback of these rights could be that banks do not represent the interests of their customers but rather follow their own interest stemming from their lending or investment banking business. Therefore, banks are required to inform their customers about their stock holdings in and personal linkages with the companies. Nowadays a separation is also required with respect to those bank managers dealing and preparing proxy votes and those of other bank divisions.

German bankers also serve on supervisory boards of private limited companies (Gesellschaften mit beschränkter Haftung, GmbH), the most common form of corporation in Germany. While the law of private limited companies does not require supervisory boards, the partnership agreements may specify that a supervisory board has to be installed. Also, codeterminantion may force private limited companies to have a supervisory board. According to the 1976 Codeterminantion Act, quasi-parity representation of employees follows when companies have more than 2000 employees. Between 1952 and 2004 the Work Constitution Act (Betriebsverfassungsgesetz) and after 2004 the Third Part Act (Drittelbeteiligungs-gesetz) specify one-third codeterminantion for companies with more than 500 employees. While the rights and duties of the supervisory boards of private limited companies follows company law, the actual power and duties of supervisory board members of private limited companies is expected to differ from those of public companies. The reason is that private limited companies have only a limited number of partners, who can easily control managers' actions. From a bankers' perspective, however, serving on the supervisory board of a private limited company might be as good as serving on the board of a public company to acquire information on the customer and/or to signal management quality. For gaining a private information advantage, a seat in a private limited company might even be more effective, since banks often do not have strong and unique lending relationships with public listed companies.<sup>5</sup>

The outside directorships that executive bank directors report to the regulator also contain positions on supervisory boards of banks and different types of management boards. The former

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<sup>&</sup>lt;sup>5</sup> Bankers may also serve on administrative boards (*Verwaltungsrat*) of institutions that are governed by public law. Since they account for less than 3% of all supervisory board positions in our sample period, we subsumed them under supervisory board positions.

positions are found on the supervisory boards of Landesbanks (the head institutions of savings banks). Often chairmen of management boards of important savings banks in the geographical region of the Landesbanks serve on the Landesbanks' supervisory boards. Positions on management boards contain a bundle of alternatives. Banks may have subsidiaries without bank licences where executive directors serve as a manager. Besides these dependent directorships, executive directors also have to report when they are self-employed, which is classified as management board position in our data. Therefore, it cannot be claimed that bankers' board representations on supervisory boards are independent, since the bank may own the company link, or that bankers' representations on management boards are dependent, since these representations also cover positions unrelated to the bank.

Since 1998 several reforms, often driven by EU requirements or recommendations, have introduced key elements of an outsider-oriented regime into the German insider-oriented system (Hackethal, Schmidt, and Tyrell, 2005; Hackethal, Schmidt, and Tyrell, 2003; Bundesbank, 2002; Bessler and Drobetz, 2015). Some of the reforms also influence the close personal ties between banks and corporate firms and thus potentially the number of bank executives' outside directorships in corporate supervisory boards. In 1998, the number of directorships of executives serving on the management boards of public limited companies was restricted with the Corporation Control and Transparency Act ("Gesetz zur Kontrolle und Transparenz im Unternehmensbereich"). Only in 2013, the Capital Requirements Directive IV limited the number of bank executives' outside directorships for executives serving on management boards of banks not organized in the form of a public limited company.

While bank executives often serve on the supervisory board of important business clients to fulfil an information-gathering function within the German corporate governance system, the data do not allow us to distinguish whether the company link is a personal link of the executive or whether it belongs to the bank. Further, the data also do not allow us to discriminate between dependent and independent directorships, since we cannot figure out whether an outside directorship is on a board of a company (either corporate or financial) which is legally dependent from the bank on which management board the executive serves full time. The reason for this is that the information on the precise nature of the outside directorship is limited in our data. However, we can tackle these data limitations to a great extent by using various subcategories and subsamples, for instance of those banks that do not belong to a conglomerate—thus wherein directorships are more likely to be independent.

In order to see what is in the data, we first distinguish between bank-company and executive-company links. Company refers in the following to the (corporate or financial) firm that hosts the outside directorship of the executive bank director who is currently serving on the management board of a specific bank. In Table 2, we present information on the number of executives that we count for each bank-company link, and the number of banks that we count for each executive-company link. The former shows how often a board is served by another executive belonging to the same bank management board. In our sample period (1994-2015), we have 28,809 different bank-company links, 20,897 on

supervisory boards and 8,718 on management boards.<sup>6</sup> 17,073 bank-company links are served by a single executive, which means that these links are (up to 2015) not handed over to another executive serving on the same bank board. For 6,304 (2,173) bank-company links, we identify two (three) different executives, which means that the board seat was once (twice) handed-over between two (three) executives serving on the same bank management board. The information on the number of banks that we count for executive-company links shows how often executives switch their full-time employment position and take their directorships with them to the new bank. Overall, we count 34,699 executivecompany links (24,393 supervisory and 10,555 management links). 19,607 of them have only 1 bank, 10,735 have two banks and so forth. The cases with more than one bank are the outcome of either an executive who serves further on the company's board after turning over to another bank management board, or a target appointee keeps his or her personal or bank-specific supervisory or management board seats after the merger when s/he serves on the management board of the acquirer bank.

The universe of bankers' outside directorships contains directorships of different quality, since every directorship has to be reported, regardless of its purpose and duration. As regards the purpose, bankers may serve on other boards for an interim period until a new member of the management or supervisory board has been nominated. With an outside directorship that lasts only several months, bankers may accumulate less private information on clients and the signal of their managerial ability may be weaker. Unfortunately, we do not have the precise start and end dates of an outside directorship. However, we can track the directorships over a long period. Therefore, also in Table 2, we depict the duration of outside directorships in years measured at the level of either the executive- or bank-company link. The numbers indicate that some directorships last for many years regardless of which link we use. These different dimensions of outside directorships give a hint that some directorships are reallocated over time within the same bank, but also that executives switch with some of their directorships between banks.

#### \*\*\*\* Insert Table 2 about here \*\*\*\*

## 3.3. Summary statistics

In Table 3 we present summary statistics for all and specific groups of executive directors. We distinguish target executives appointed to the acquirer board and those not appointed. We identify target executives appointed by using banks' personnel reporting statements. In particular, we check whether a name of a target board member as stated in the pre-merger year shows up on the acquirer board in the year after the merger was completed. This identification does not require applying a name search routine, since all executives have regulatory identification numbers with which they can be tracked over time. Thus, we compare the executive information of the target bank in the pre-merger year with the executive information of the acquirer bank in the post-merger year. Please note that we do not know

<sup>&</sup>lt;sup>6</sup> Please note that the sum of supervisory and management board positions is larger than the total number. This indicates that some executives serving on a specific bank board serve additionally on the management board of a company, while other (or at another point in time) serve additionally on the supervisory board of this company.

whether the target executive was dismissed, whether his or her contract was not renewed, or whether s/he left the bank for personal reasons. We find as many as 1,720 target executives appointed to the acquirer board, while 2,260 are not. Thus, 43.2% of the target executives are retained; induced unemployment rates of U.S. target executives, and in particular target CEOs have also been reported to be very high (Agrawal and Walking, 1994; Hadlock, Houston, and Ryngaert, 1999; Hartzell, et al. 2004).

## \*\*\*\* Insert Table 3 about here \*\*\*\*

Another group of executive directors depicted in Table 3 are merger-unrelated appointees, which are executives appointed to a management board of a merger-unrelated bank who served before on another merger-unrelated bank board. We identify these merger-unrelated appointees in the following way. We first identify all executives appointed to a bank board in our sample period. From these appointees, we keep those where information on their previous banks is available--we look only at appointees that receive at least their second appointment to a German bank management board. To get merger-unrelated appointees, we delete all those appointees from this group where the appointee's future bank is the acquirer of the appointee's previous bank within a two-year window around the merger. Thus, all merger-unrelated appointees are executives appointed from the outside. We find as many as 1,821 merger-unrelated appointees.

The central variables of our analysis are related to the number of executives' outside directorships. For each executive, we check whether s/he serves on another board. We start with the total number of outside directorships (*SE*), which we log-transform in our empirical analysis because it is highly skewed. Table 3 shows that each executive holds on average one outside directorship, target appointees have 0.806 outside directorships, while target executives not appointed have only 0.559 directorships. The average number of merger-unrelated appointees' outside directorships comes very close to the population average, and is thus much higher than the one for target executives.

We create a measure of long-term outside directorships that have already lasted for several years. Concretely, *SElong* denotes the number of outside directorships where the executives serve on the respective board for at least three consecutive years. Using long-term instead of all outside directorships has some advantages. For instance, when executives expect that their bank will be targeted, they might start to acquire more outside directorships in order to increase their bargaining power. Therefore, in this case, outside directorships would implicitly measure the probability to be targeted. In addition, completing a merger takes time, and outside directorships may be reallocated not in the merger year but in the pre-merger year. Thus, when we determine target executives' retention probabilities, the total number of outside directorships is potentially endogenous, while long-term outside directorships are less likely to be endogenous. The reason is that the labour market prospects of target executives may depend on his or her long-term outside directorships, but not the other way around because at the time when the director was installed merger activity is unlikely to be forecasted. A similar reasoning can be put forward with respect to other situations of executive appointments.

We also capture various dimensions in outside directorships by using dummy variables. 24.5% of all executives serve on a supervisory board ( $D\_SB$ ), and 20.9% serve on another management board ( $D\_EX$ ). Similar percentage numbers are found for target and merger-unrelated appointees, while the ones of target executives not appointed are much lower. We further distinguish between executives with at least three outside directorships ( $D\_Busy$ ) and executives with one or two outside directorships ( $D\_LessBusy$ ). The cut-off level of three is used in studies dealing with U.S. multiple directorships (Fich and Shivdasani, 2006). However, our outside directorship measure is based on executives' secondary employments, so their primary (full-time) employment is not counted in this number. We classify 11.6% of all executives, 8.3% of target executives appointed to the acquirer board, 5.8% of the target executives not appointed, and 11.1% of merger-unrelated appointees as being busy. Moreover, more than a quarter of all executives hold one or two outside directorships.

Three variables capture job-related and another three personal characteristics of the executives.  $D\_CEO$  indicates that almost every second executive is classified as CEO; this high percentage number is due to the small size of the German bank management boards. The percentage of CEOs among target executives is even higher, which may indicate that target banks are very small. Merger-unrelated appointees are less often the CEO before being appointed to another bank board. Experience, EXP gives the number of previous banks the executive has worked with in an executive position that has to be reported to the regulatory authorities. We see that most executives do not have any experience as members of executive boards outside the bank they are currently with. Almost 17% of the all and target executives joined the board of the bank in the previous year as indicated by  $D\_TENURE$ . The percentage number is only higher for merger-unrelated appointees with 26.4%. Academic background, gender and age are the personal characteristics of executives.  $D\_ACAD$  shows that only about 5% of all executives and 3% of the target executives have a doctoral academic degree. More academic doctoral titles are found among merger-unrelated appointees. 3.1% of all and target executives are female, while 4.7% of the target executives not appointed are female. On average, executives are 50.8 years old. Target executives appointed are 49.0 years old, while target executives not appointed are 51.7 years old.

For target executives and merger-unrelated appointees, we follow recent approaches (Ishii and Xuan, 2014; Cai and Sevilir, 2012; Berger, Kick, Koetter, and Schaeck, 2013) and capture whether executives of the two banks involved have already served together on a bank management board in the past. TIES measures the number of professional ties an executive has built with the members of his or her future banks' board in the past. These ties come from previous positions on executive bank boards. For instance, a target executive has a tie to the acquirer board when s/he has worked together with an executive from the acquirer board in another merger-unrelated bank. To create this variable, we track

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<sup>&</sup>lt;sup>7</sup> A large body of literature deals with social ties (Byoung-Hyoun and Kim, 2009) and other types of personal connections of board members. Interesting in this respect are political connections of board members (Goldman, Rocholl, and So, 2009; 2013), which are pronounced within the sector of savings banks. Unfortunately, we lack the data.

professional careers of bank executives between 1970 and 2015. Table 3 shows that target executives appointed to the acquirer board have worked together with 0.26 connections, while the ones not appointed have only 0.11 connections.

Table 3 also depicts summary statistics for bank-specific variables measured in the previous year. For target executives and merger-unrelated appointees, we report summary statistics of the previous and future banks in the year before the merger transaction or executive outsider turnover was completed. We report the size of the banks and see that, on average, target banks are smaller than acquirer banks, and they are smaller than the former banks of merger-unrelated appointees. We will employ total assets in log form to account for non-linear effects in size.

Next, we discuss variables capturing the financial situation of banks. In order to resolve bank distress, bankers associations sometimes channel capital support funds to single institutions, which may smooth the recovery process or the integration process when the target is merged to ensure the financial soundness of the new institution (Koetter, Bos, Heid, Kool, Kolari, and Porath, 2007). Several banks receive capital support through the bankers association's insurance scheme, which we capture with the dummy variable  $D\_INJ$ . We further employ a banking group and time-adjusted ROA measure which follows from subtracting the respective median ROA for each banking group and year. This removes banking group and time effects which are substantial in our sample period. We see that target banks and previous banks of merger-unrelated appointees have lower adjusted ROA than all banks in the sample. Acquirer banks also have lower adjusted ROA than all banks. We also use three measures to describe banks' business models, namely the percentage of fee income in total income FEEINC, the ratio of customer loans LOANratio, and the equity ratio EOratio.

Finally, we depict dummy variables related to the organizational structure of the banks. Conglomerate structures are not uncommon in Germany, and this also holds for the banking sector. Some conglomerates even have two or more banks that operate with their own bank licences. For instance, in 1995, Deutsche Bank AG founded a subsidiary called Bank 24 which was focused on retail banking. Conglomerates also exist in the two other banking sectors, especially with respect to the head institutions of savings and cooperative banks. One example of a conglomerate structure is Frankfurter Sparkasse (FRASPA) and Landesbank Hessen-Thüringen (Helaba). In 2005, Helaba acquired FRASPA to extend its private customer business (Handelsblatt, September 13, 2005). Both institutions operate today with their own bank licences and accordingly report to regulatory authorities on a singleinstitution basis. D CONGL captures whether banks belong to a conglomerate; 7.4% of all executiveyear observations are classified as belonging to a conglomerate. 2.4% and 4.4% of the target executives appointed and not appointed, respectively, serve on a bank that belongs to a conglomerate before the merger. We also employ dummy variables to capture how our sample is distributed across different sectors of banks. Since mergers occur within pillars the measures for acquirer and target banks are very similar to each other and we do not report them for the acquirer banks. 36.3% of all executive-year observations belong to the savings banks sector (D SAVINGS), and a further 52.1% belong to the

cooperative sector (*D\_COOP*). 26.7% and 22.4% of the target executives appointed and not appointed serve on a board of a savings bank, respectively, while 68.1% of all target executives serve on a cooperative bank board.

In our data, we have banks that acquire more than one target bank within a calendar year. Many of these double mergers take place among savings and cooperative banks. Target executives may have lower chances to be appointed to the acquirer board when the acquirer bank is involved in more than one merger transaction within a year. As indicated by *D\_DOUBLE*, 15.8% and 23.1% of all target banks with and without appointee are acquired in a year when the acquirer is also involved in another merger.

## 4. Executive appointments

## 4.1. Target executives' career outcomes

We first investigate target executives' career outcomes. The dependent variable in this model is binary; it equals 1 when a target executive director is appointed to the acquirer board, and 0 otherwise. Therefore, we apply probit models. Since banks have more than one executive director, we cluster standard errors on the level of target banks (Petersen, 2009). A full set of year dummy variables, except one, is used to capture for time effects. To control for potential selection of target banks, we include an inverse Mills ratio; details of its calculation is given below. We present marginal effects in Table 4 for various specifications that differ with respect to independent variables considered or with respect to the sample chosen. In our baseline specification (Column (1)) we use the full sample, as we do in Columns (2)-(4). Columns (5) and (6) examine whether the effect of outside directorships stems from the size of the target banks.

#### \*\*\*\* Insert Table 4 about here \*\*\*\*

Target executives with outside directorships have higher chances of being appointed to the acquirer board than do target executives without directorships (Column (1)). In Column (2) we use long-term outside directorships to reduce the potential endogeneity of the outside directorships due to mergers and see that long-term directorships have a significantly positive effect on target executives' retention probability. This effect is in line with both the reputational capital hypothesis and the private information hypothesis; endogeneity concerns are minimized in this variable which is measured three years before the merger takes place. Column (3) shows that the higher retention probability is somewhat more driven by outside directorships in supervisory boards than management boards. However, an unreported test shows that the two coefficients do not differ significantly from each other. We also shed light on executives who are too busy using two dummy variables. The reference category is having no outside directorship at all. The marginal effects on these dummy variables in Column (4) are significantly positive and additional tests of equality show they do not differ significantly from each other. In unreported regressions, we modify the number of directorships that we use to classify an executive as either busy or less busy. In none of these specifications do we find significant differences

between the two types of executives with outside directorships. Thus, executives with many directorships have as good chances of retaining their positions as do executives with few directorships.

It might be argued that the effects of outside directorships on the retention probability is driven by executives from large target banks, since these executives have more often the obligation to monitor clients and to sit on the supervisory boards of their clients. Phrased differently, only executives from large banks might be able to signal their reputational capital, which might increase their chances of being appointed to the acquirer board. Therefore, we split the sample at the median value of total assets of all banks in the German banking industry. Column (5) includes small target banks (below the median), while Column (6) includes large target banks (above median). Long-term outside directorships are significantly positive for both subsamples. Thus, long-term outside directorships are not only relevant for executives of large banks, but also executives in smaller banks benefit from them by increasing retention probabilities.

Target executives' job-related and personal characteristics matter for being appointed to the acquirer board. In our baseline specification (Column (1)), CEOs have higher chances to be appointed to the acquirer board, and executives with higher experience outside the target bank have higher, while executives with short tenure in target banks have lower chances of being appointed to the acquirer board. This is in line with findings in the literature: Top executives of U.S. banks who served longer on the board have higher chances of remaining with the merged bank (Hadlock, et al., 1999). Older target executives have lower chances of landing an appointment to the acquirer board. A one-standard deviation increase in the target executives' age starting at the mean decreases the probability of being appointed to the acquirer board one year after the merger is completed by 11.6 percentage points. Being female reduces the probability by 11.9 percentage points. Thus, female executives have poorer prospects in the banking sector than their male counterparts. However, it could be that female executives have better employment opportunities so they switch to a larger bank in the merger year. Personal ties between the target executives and the members of the acquirer board increase this target executive's chances of staying on as an executive in this bank.

We follow the literature and use the size of the target bank in the year before the merger is completed in log form, *SIZE*, and a relative size measure, *RelSize*<sup>TAR/ACQ</sup>, used in many merger studies (Cornett, McNutt, and Tehranian, 2006; Hannan and Pilloff, 2009) as controls. We find that the size of the target in the pre-merger year affects the probability of being appointed to the acquirer board significantly positively. A one-standard deviation increase in this variable, starting at the mean size, increases the probability of being appointed to the acquirer board by almost 19 percentage points (Column (1)). The relative size measure, defined as the size of the target relative to that of the acquirer is highly significant in our baseline regression. A one-standard deviation increase in this variable, starting at the mean, increases the probability of having an executive position in the acquirer board from 42.7% to as much as 56.1%.

To capture differences in business models of target and acquirer banks, we use differences in ROA, fee income, customer loans and equity calculated as target value minus acquirer value. We find *ROA* differences to be positively related to the probability of being appointed to the acquirer board. Keeping target executives who performed better might be interpreted as gaining competitive advantages through extracting valuable human capital from the target (Wulf and Singh, 2011) or that executives from high-performing targets have more bargaining power and therefore higher chances to be retained (Ahern, 2012). The effect is highly statistically significant but it is moderate in economic terms. An increase in ROA difference by one standard deviation starting from the mean increases the probability by only 5.1 percentage points. An increase in the fee income difference by one standard deviation starting from the mean increases the probability by 3.1 percentage points. Overall, these findings may indicate that the target's relative performance and its relative risk determine the target executives' bargaining power in bank merger transactions. Target executives from distress banks have, on average, lower chances to be on the board of the acquirer bank in the post-merger year, which may indicate that the labour market punishes bad management practice.

One difficulty with the approach of target executives' career outcomes is that target executives' retention probabilities are conditioned on the fact that the bank was the target in a merger transaction. Among German banks, disciplinary corporate control transactions are very seldom observed, while mergers that aim at creating revenue and cost synergies are very common. Therefore, a merger event follows particular circumstances which may determine the likelihood that a target executive keeps his or her position. More specifically, several target banks are in distress or close to distress and this fact implies that the probability of being appointed rests on a selection of banks that are targeted. Moreover, because of the regional demarcation under which savings and cooperative banks operate, merging with their nearest neighbours belonging to the same pillar is the only chance to expand lending business and to gain from economies of scale. Therefore, target banks are a selection from the population following particular rules and when estimating target executives' retention probabilities we have to control for this selection. Therefore, we include an inverse Mills ratio in all models that determine the likelihood that a target executive is appointed to the acquirer board (see Table 4). In the following, we briefly describe where the inverse Mills ratio comes from.

To determine the inverse Mills ratio, we use the full bank-panel dataset available and employ the target merger dummy variable,  $D\_MERGE^{TAR}$ , as the dependent variable. We run probit models and consider bank-specific variables and add additional variables capturing board characteristics at the bank level. We use the average age and experience, and dummy variables equal to 1 when an executive joined the board in the previous year, when an executive has an academic degree and when a female executive is on the board. In order to model the target bank selection, we use loans granted to local governments (municipalities and municipalities associations) and other local public authorities. Table 5 presents marginal effects. In Columns (1)-(3) we look at the target merger probability, and for comparison

purposes, we present results on the probability that a bank acquires another bank in Columns (4)-(6) by using D  $MERGE^{ACQ}$  as the dependent variable.

## \*\*\*\* Insert Table 5 about here \*\*\*\*

The results on outside directorships show interesting differences between target and acquirer banks. The higher the number of long-term outside directorships, the lower the probability to be targeted (Column (1)) and the higher the probability to acquire other banks (Column (4)). While outside directorships in supervisory boards do not impact on the probability to be targeted, being an outside director on management boards lowers this probability (Column (2)). On the other hand, the probability that a bank acquires another bank increases with outside directorships regardless of whether these are in supervisory or management boards (Column (5)). We do not observe differences between busy and less busy boards with respect to the probability of acquiring other banks (Column (6)). These effects are in line with the private information and the reputational capital hypotheses.

Target and acquirer banks also differ in board and financial characteristics. Average age and experience of the executive directors increase the probability of being acquired and of being an acquirer. The dummy variable for having a female on board is positively related to being acquired, while it is insignificant for being an acquirer. Having an executive on board who joined the board in the previous year correlates with the target and acquirer merger probability significantly positive (Columns (1) and (4)). This indicates that executives appointed to a bank board from either inside or outside have a higher probability to engage in mergers. For target banks, these executives might be appointed in order to prepare the merger. Moreover, size is negatively related to being a target, while it is positively related to being an acquirer. Higher adjusted returns on assets, ROA, increase the chances to be an acquirer and decrease the chances to be targeted. With respect to the variable identifying the selection equation, we find that banks' lending to local governments and other local public authorities is negatively related to being a target, while it is significantly positive for being an acquirer. This finding is in line with political processes in the German banking market where a bank that is "too-important-to-fail" can expect either direct support from local governments (in the case when, for example, the municipality is the owner of the savings bank), or indirect political support (for example, via bankers associations). Therefore, banks with large lending exposures to local governments are more likely to be acquirers than targets.

We use the model presented in Column (1) to calculate the inverse Mills ratio. It is important to note that we estimate the inverse Mills ratio at the bank level and use it as independent variable at the executive level. The reason for this is that the merger probability is mainly affected by the financial situation of banks and less so by single characteristics of individual executives.

#### 4.2. Target versus merger-unrelated appointees

Next, we aim to distinguish directly between the reputational capital hypothesis and the private information hypothesis. Therefore, we look at two different types of executives appointed to a

<sup>&</sup>lt;sup>8</sup> The political process for savings banks is described in detail by Behn, Haselmann, Kick, and Vig, 2015.

management board from outside the bank. The first one is the appointment of target executives to the acquirer board in the course of a merger, while the second one is the appointment of executives to another management board. The idea of this test is that for the first type of appointee—a target executive appointed to the acquirer board—both hypotheses may be at work, while for the second type of outsider appointment, executives appointed to a management board of a bank not involved in a merger, the private information hypothesis is not at work, because the new bank most likely does not have a link to the business client of the executives' old bank. In this case, the reputational capital hypothesis would solely be at work. Thus, target appointees' outside directorships may have an additional task—namely, they may proxy knowledge about the business clients of the target bank which increases these executives' appointment chances. Therefore, we test whether outside directorships are more important for target appointees than for merger-unrelated appointees.

To investigate whether directorships are more relevant for target appointees than for merger-unrelated appointees, we use a dummy variable that equals 1 when the executive is appointed to the acquirer board and served on the target board before the merge, and 0, when the executive is appointed to a new bank and served before on the management board of another bank. In terms of Table 3, we use all merger-unrelated appointees and combine them with the target appointees. The number of target and merger-unrelated appointees considered in the following is lower than the one depicted in Table 3, because we remove appointees from the sample whose former and future banks belong to the same conglomerate because for these cases private information advantage may also play a role for merger-unrelated appointees. We apply probit models to investigate differences between these two types of appointees and present marginal effects in Table 6.

## \*\*\*\* Insert Table 6 about here \*\*\*\*

Having more long-term directorships increases the chances of being a target appointee and not a merger-unrelated appointee (Column (1)). This may indicate that outside directorships of bankers give them an informational advantage, which increases their bargaining power during merger negotiations. Outside directorships in supervisory boards have a stronger effect on being a target executive than on being a merger-unrelated appointee (Column (2)), and busy directors have higher chances to be a target appointee (Column (3)). When we control for the probability that the bank in which the executive serves on the management board is targeted, both the marginal effect of long-term outside directorships and the significance increase substantially (Column (4)). Please note that we do not consider the size of the former bank jointly with the inverse Mills ratio of being a target, since the two are too highly correlated in this sample. Including them jointly does not change the marginal effect of outside directorships. These findings may indicate that bargaining power stemming from private information on business clients of the target bank is useful in getting a board set on the acquirer board. Thus, outside

<sup>&</sup>lt;sup>9</sup> In these estimations, we do not consider the female dummy since no woman is left in the sample with the matching approach introduced below.

directorships in the German banking system are not only related to the reputational capital hypothesis, but also to close relationship and information production of financial intermediaries.

One difficulty with this approach is that target appointees might differ from merger-unrelated appointees in a systematic way. The descriptive statistics show that merger-unrelated appointees, with an average age of 46.59 years, are about 2.5 years younger than target executives appointed to the acquirer board. Including the executives' age and applying long-term directorships might be insufficient to tackle the overall age effect that might be present in the sample. To solve this mismatch, and to minimize differences between the two types of appointees, we use a matching approach to find for each target appointee merger-unrelated appointees with similar observable characteristics. A merger-unrelated appointee is identified as a match partner of a target appointee, when the appointment is in the same calendar year and banking group, when the former banks belong to the same size decile, and finally and most importantly when the absolute age difference between the two executives is not larger than one year. In Columns (5) and (6) we report the results when using this matched sample. Matching reduces the number of observations and the size and age effects are now insignificant. We find that the size of the marginal effect of long-term directorships more than doubles (Columns (1) vs (5)).

## 4.3. CEO appointments

Appointments to serve as a CEO on the management board is another situation where we expect outside directorships to play a role. Appointments to serve as a CEO can be distinguished depending on whether the executive was already a member of the management board before his or her appointment or whether s/he served on another bank management board and is thus appointed from the outside. We do not mix inside and outside appointments, since the latter type is often associated with financial difficulties of the appointing bank. For instance, Schaeck, et al. (2012) investigate U.S. banks and find that losses are consistently associated with forced turnovers. Therefore, we investigate these two types of appointments separately.

Our dependent variable for inside appointments is a dummy variable which equals 1 when an executive who served on the bank board for at least one year without being CEO is appointed to be CEO, and zero when s/he stays on a non-CEO position. Table 7 presents the results. The number of executives considered in this analysis is lower than the one presented in Table 1, which states that the German universal banking system has more than 22,000 executives. In the following analysis, the number of executives is, at 11,527 (Column 1), substantially lower since an executive enters the sample only when s/he is not the CEO (except for his or her appointing year), and when s/he serves on the respective bank board for at least two successive years.

## \*\*\*\* Insert Table 7 about here \*\*\*\*

Having more long-term outside directorships increases the likelihood to be appointed to be CEO (Column (1)). Not all outside directorships help increase the CEO appointment probability: Outside directorships in supervisory boards increase the probability, while the ones in management boards do not (Column (2)). According to a test on equality, the marginal effects differ significantly from each

other. The results in Column (3) indicate that executives who are classified as being busy have higher chances than the ones classified as being less busy. The differences in marginal effects between busy and less busy executives is also highly significant. Thus, outside directorships increase the chances to become a CEO and busy executives have higher chances then less busy executives, who still have higher chances than executives without outside directorships. This latter finding may indicate that busyness is also interpreted as an indicator for managerial ability in the German banker labour market.

The sample we use for inside appointments may contain effects from previous turnover and merger activity; both might determine how strongly outside directorships increase CEO appointment chances. We therefore consider the possibility that future CEOs from outside are appointed earlier than required in order to have an overlap period between the old and the new CEO. According to practitioners, such an overlap period is not uncommon to ensure an orderly CEO turnover process, which usually takes a couple of months. In line with this argument, we find in Columns (1)–(3) a highly significant and positive marginal effect on the tenure variable, indicating that executives who recently joined the board have higher chances to be appointed as the CEO. Merger activity is important to control for, since it might inflate the number of outside directorships when acquirer executives take over board representations of target executives. Therefore, we also exclude the merger, pre-merger and post-merger years of all executives serving on either the acquirer or target board from the sample. The result in Column (4) shows no change in the marginal effect of long-term directorships.

While the results depicted in Columns (1)–(4) come from probit estimations with standard errors clustered at the executive level, in Columns (5) and (6), we present results from an alternative econometric model, namely fixed effect regressions. In Column (5), we employ a fixed effect on the level of the executive-bank pair. This fixed effect captures all bank-specific time-invariant characteristics, such as banking sector dummy variables, and all time-invariant executive characteristics, such as gender. We find our previous findings confirmed. In Column (6), we model a bank-year-fixed effect. This fixed effect ensures that an executive appointed to be the CEO of a particular bank and year is compared to all other executives not appointed from the same bank and in the same year. Consequently, this model rules out that bank-specific characteristics drive the effect of outside directorships on the probability to be appointed as the CEO. Modelling such a bank-year fixed effect removes from the sample all bank-years where no inside turnover occurs and leaves us with 1,603 bank-years and 4,492 executives. We again find that long-term outside directorships increase the chances to be appointed to be the CEO.

We also find that executives with a doctoral academic degree have higher chances to be appointed as CEO, while female executives and older executives have lower chances to be appointed. This holds regardless of whether we exclude merger and turnover-related observations from the sample. Executives serving on boards of larger banks have lower chances to be appointed to the CEO position, because they have to compete with many other executives serving on the same management board. The effect of adjusted ROA is negative (Columns (1)–(3)), but loses significance once we focus on merger-

and turnover-unrelated inside appointments. Executives serving on boards of savings and cooperative banks have much higher chances to be appointed to the CEO position than executives serving on the boards of commercial banks. This might indicate that succession is more planned in the savings and cooperative bank sector than in the commercial sector.

We turn our attention from inside appointments towards the appointments of outsiders and investigate their position and bank size changes that come with the turnover. The underlying idea of this test is that when executives can use their outside directorships to signal their managerial ability, we should find in the data that executives holding more outside directorships get more renowned positions than executives who cannot offer such a signal. We start with a dummy variable that equals 1 when an executive is appointed for his or her first time to be CEO at the future bank, and zero otherwise. Table 8 delivers the results. We find that outside directorships have a positive effect on the probability to be appointed as the CEO, but the coefficient lacks significance (Columns (1)). This might be due to classifying executives who served as the CEO on the old and new bank board as zeros. Therefore, we exclude these executives from the sample in Column (2) and find that outside directorships significantly increase the probability to be appointed as a CEO of the future bank. This effect is in line with the argument that outside directorships proxy executives' managerial ability. While we do not find differences between outside directorships in supervisory and management boards (Column (3)), we again find an effect in line with reputational capital for busy executives (Column (4)), whose marginal effect is statistically significant, while the one of less busy executives is not. Also in line with considerations of managerial ability is the effect we observe for the executives' adjusted ROA of their former banks: Executives from banks with better performance have higher chances to serve as CEO of another bank.

## \*\*\*\* Insert Table 8 about here \*\*\*\*

Outside directorships may not only be helpful in getting more renowned positions, but they may also help in getting positions at larger banks. Outside directorships may help executives to increase total assets under management whenever they switch bank boards. Therefore, we test whether executives' outside directorships correlate with the size differential between executives' future and previous banks. We expect that outside directorships as a proxy of managerial ability help executives to switch from one bank to a substantially larger one. Unfortunately, all size differences we calculate (be it either absolute, relative, or ratios) show distributions that are far from symmetric. We therefore transform the size differential between the future bank and the previous bank into deciles; the first decile contains executives who switch to a smaller bank, while the tenth decile contains executives whose previous bank was much smaller than their future bank. Outside directorships in supervisory boards correlate positively with the size difference (Column (5)), but it seems to be that the effect is mostly driven by busy executives and not by executives with only one or two outside directorships (Column (6)).

#### 5. Performance effects

In the following, we investigate the relationship between bank executives' outside directorships and bank performance by using *ZSCORE* and *ROA*. *ZSCORE* denotes a distance-to-default measure which is the ratio of capital and profits of bank *i* at the end of year *t* to the standard deviation of profits of bank *i* over time, where each position is measured relative to total assets of bank *i*. A higher *ZSCORE* indicates a higher distance to default, thus lower overall risk.

## 5.1. Bank-specific fixed-effect regressions

We use the full bank-panel data set available and use either ZSCORE or ROA as a dependent variable in bank-fixed effect regressions. 10 The same bank-specific variables that we use before are included (except for ROA in both equations and EQratio when we look at ZSCORE) and we use board characteristics measured at the bank level. Table 9 presents estimation results for ZSCORE in Columns (1)-(3), and for ROA in Columns (4)-(6). We find that long-term outside directorships come with significantly higher ZSCORE, indicating that banks whose executive managers serve on supervisory boards of their customers or on management boards of subsidiaries have lower overall risk. This holds for long-term directorships defined on the level of the executive (Column (1)) as well as on the level of the executive-bank pair (Column (2)). We introduce this second measure of long-term directorships because defining long-term directorships on the level of executives and adding them over all board members implies that the variable jumps to a higher value when an outsider with long-term directorships is appointed to the board. Since executive outside turnovers are often associated with poor performing and high-risk banks, they may undermine finding a significant relationship between long-term outside directorships and return on assets. Therefore, our second measure considers long-term directorships at the executive-bank level, which decreases the emphasis put on long-term outside directorships of executives appointed from outside, since their directorships are then only considered in the measure three years after the appointment. Long-term directorships defined for executive-bank pairs also affect ROA significantly positively indicating that executives appointed from outside play a role for the relationship we are interested in. While this evidence is in line with the reputational capital hypothesis and the private information hypothesis, we want to note that we do not find any significant effect when we use dummy variables for outside directorships in supervisory and management boards, nor when we use dummy variables for busyness of executive directors. Thus, the long-term component in outside directorships is relevant for performance effects.

#### \*\*\*\* Insert Table 9 about here \*\*\*\*

The coefficients on  $D_TENURE$  in Columns (1) and (4) indicate that banks with recently appointed executives have higher risk and lower ROA. This is consistent with the argument of forced turnovers discussed by Schaeck et al. (2012). To get additional insights into turnover effects of

<sup>&</sup>lt;sup>10</sup> The number of observations is lower for *ZSCORE* because we need more data calculating it. The number of observations for ROA is lower than the one we have in Table 5 because we model here, but not in Table 5, a bank-fixed effect.

executives, we distinguish further whether the executive served on the board for the first time (s/he lacks a history on a bank management board,  $D\_INSIDE$ ), or whether s/he served on another bank board before s/he was appointed. We distinguish the executives appointed from outside further using their outside directorships into those with  $(D\_TURN^{WITH})$  and those without  $(D\_TURN^{W/O})$  outside directorships before their appointments. We find that appointments of executives from outside who hold outside directorships have the strongest negative effect on ZSCORE and ROA (Columns (2) and (5)).

In these performance estimations, we also consider dummy variables for whether the bank was either a target or an acquirer in a merger transaction. The coefficients on the dummy variables for being a target and for being an acquirer are negative, indicating that banks involved in these transactions have higher overall risk as measured by *ZSCORE* and they have lower *ROA* than banks not involved in merger transactions (which is also revealed in the summary statistics in Table 3). Since merger transactions are not exogenous, we also use a sample of banks without any merger activity in order to see whether the effect of outside directorships on risk and performance depends on banks involved in mergers. We find our previous results confirmed when we use such a restricted sample: Long-term directorships defined for executive-bank pairs are significantly positively related to *ZSCORE* and *ROA*.

#### 5.2. Difference-in-differences estimations

We use difference-in-differences estimations to see whether ZSCORE and ROA change after a bank receives an outside directorship for the first time as compared to a bank that does not. We consider two situations under which a bank receives its first outside directorship. First, executives serving on the treated bank's management board for some years acquire another board position. In this situation, the bank acquires outside directorships internally. Second, the bank receives its first directorship due to appointing an executive who serves additionally on another (supervisory or management) board, while all other executives of the bank management board do not hold outside directorships. We find 122 banks where a first outside directorship is installed without any executive turnover in the preceding and following two years. All of these banks install at that time a long-term outside directorship. We further find 288 banks that appoint an executive from outside who holds outside directorships, while all other board members do not.

To determine treatment effects, we match each treatment bank (either an insider gets a first directorship, or an outsider with outside directorships is appointed) to similar control banks. Control banks do not have outside directorships and turnover events in the preceding and following two years. For each treatment bank, control banks are selected from the same year and banking sector, and from the same size and ROA deciles in the year before the treatment bank receives its first outside directorship. The average age difference of the treatment and control bank is allowed to vary up to four years. For 91 treatment banks with newly installed outside directorships without turnover activity, and 163 treatment banks that appoint an executive from outside who holds outside directorships we find appropriate control banks. We employ these matched treatment- and control-bank samples to conduct difference-in-differences estimations and expect that the post-treatment effect on *ZSCORE* and *ROA* is

positive for banks whose executives acquire their first outside directorships. Given the findings from the bank-fixed effect regressions and on forced turnovers from the literature, we may see that the post-treatment effect on *ROA* is negative when banks appoint executives who were previously employed at another bank and who hold outside directorships.

#### \*\*\*\* Insert Table 10 about here \*\*\*\*

In Table 10 we present results from difference-in-differences estimations for both groups of treated banks. In Panel A, the treatment group are banks with newly installed outside directorships in which no outside turnover event occurs in the three years around the instalment. In line with the results from the bank-fixed effect regressions, we find that banks have higher ROA after installing their first outside directorship than similar banks. This effect holds regardless of whether we exclude or include control variables. In Panel B, the treatment group are banks that appoint an executive from outside who holds outside directorships, while all other executives on the board do not. We find that banks appointing outsiders with outside directorships underperform in the post-treatment period. This finding is in line with the one from the bank-fixed effect regressions and with recent findings in the literature (Schaeck, et al., 2012).

## 5.3. Change in outside directorships

Following recent literature (Fich and Shivdasani, 2006; Field, Lowry, and Mkrtchyan 2013; Falato, Kadyrzhanova, and Lel, 2014; Elyasiani and Zhang, 2015), one may argue that outside directorships are endogenous in performance regressions, because executives, who are successful, for instance, in terms of performance, are offered additional directorships. We postulate that this endogeneity problem is not as strong as in U.S. data, since bankers' outside directorships are one important element with which banks meet their transmission functions in the German corporate governance system. In order to see whether this is true, we test whether executives from the acquirer board take over outside directorships from target executives, and target executives potentially appointed to the acquirer board take over outside directorships from target executives whose position will not survive the merger. Such a relationship between changes in outside directorships and merger activity will not exist in countries where outside directorships do not serve as an information gathering tool used by bankers.

We use the full executive-year dataset to investigate whether the executives' annual change in outside directorships differs between merger and non-merger years. We are interested in dummy variables indicating whether the executive serves on the management board of a target or acquirer bank,  $D\_MERGE^{TAR}$  and  $D\_MERGE^{ACQ}$ . We restrict the sample in two ways in order to exclude appointment and retirement effects. We remove the first two years of each executive-bank combination in order to ensure that the effects we measure do not capture appointment effects. We remove two years, because several target appointees serve on the acquirer board in the year and in few cases even in two years before the merger is completed. Thus,  $D\_MERGE^{ACQ}$  is never equal to 1 for a target executive who is appointed to the acquirer board and consequently measures how many additional directorships

executives of the acquirer bank get in the course of a merger. We further remove the last two years of each executive to exclude retirement effects. Target executives not appointed to the acquirer board may retire and may start a secondary employment in the merger or pre-merger year with the intension to have a position for their retirement. These executive observations would inflate the number of additional board seats that we measure for target executives regardless whether these board seats are related to reorganising the banks' board seats, which is why we remove for each executive the last two years of their mandate as bank executive director. Since the change in directorships is a count number, and it is very often equal to zero, the assumptions of a classical linear regression model are not met. Therefore, we summarize the change in directorships in three categories, -1, 0 and 1, when the change is negative, zero or positive, and we use ordered probit models. We present marginal effects in Table 11.<sup>11</sup>

## \*\*\*\* Insert Table 11 about here \*\*\*\*

Acquirer and target executives have a higher chance of receiving additional outside directorships in merger years (Column (1)). Using the change in outside directorships as a dependent variable comes at the risk of missing important determinants, since their effect might drive both positive as well as negative changes, which may cancel out each other. For instance, only experienced bankers are expected to get outside directorships (positive correlation between experience and the change in outside directorships) and, therefore, only experienced bankers can have negative changes in outside directorships. Since these two effects may offset each other, we next split the change in outside directorships and use a dummy variable equal to 1 when the number of outside directorships increases (Column (2)), and another one equal to 1 when the number decreases (Column (3)). We find that target and acquirer executives have an increase in outside directorships in the merger years. These findings may indicate that board seat representations of bankers are more strongly reallocated in merger years than in non-merger years.

We put forward two further specifications to see whether outside directorships are really reallocated in the pre-merger and merger years with the intention to integrate the two banks. These additional specifications allow us to separate the merger effects in bankers' outside directorships from what Harford and Scholau (2013) attributed to a merger experience effect. More specifically, they test whether directors with merger experience have a higher number of outside directorships in the future potentially because directors with merger experience may add more value to the boards they serve on than directors without. Two dummy variables capture whether outside directorships are exchanged between executives serving on the same management board, or on different management boards. The

<sup>&</sup>lt;sup>11</sup> One problem with these estimations might be that executives are repeatedly included in the sample and clustering standard errors on the level of executives might be insufficient. Therefore, as an alternative model, we use a conditional logit specification (Andersen, 1970; Chamberlain, 1980), which provides a semi-parametric estimation of a logit model without estimating individual fixed effects, which capture as much heterogeneity as possible between executives. One drawback of this approach is that these fixed effects cover all executive characteristics which do not vary over time. These estimations confirm our results on the merger dummy variables.

results from the two models show interesting patterns, which support the argument that outside directorships are reallocated in merger years. Outside directorships are not transferred among target executives, as the marginal effect of  $D\_MERGE^{TAR}$  in Column (4) is insignificant, but among acquirer executives as the marginal effect of  $D\_MERGE^{ACQ}$  in Column (4) indicates. Moreover, outside directorships are reallocated between executives serving on different management boards (Column (5)): acquirer executives more likely get outside directorships from target executives (marginal effect of  $D\_MERGE^{ACQ}$ ), and target executives also more likely get outside directorships from acquirer executives (marginal effect of  $D\_MERGE^{TAR}$ ). Especially the results in Column (5) indicate that monitoring and advising activities of bank executives are reorganized in merger years. These findings contrast German bankers' outside directorships from unaffiliated outside directorships, in general, and bankers' outside directorships in countries with limited liability, in particular, since limited liability may lead to the fact that outside directorships are directors' personal connections and not so much the connections of the bank.

Executives' job-specific and personal characteristics matter for getting additional outside directorships. CEOs are more likely to get additional outside directorships. Executives who have experience outside their current bank, have higher chances to get directorships, which is also in line with reputational capital. Older executives are less likely to receive outside directorships (Columns (1) and (2)) and they are also less likely to get seats due to reallocations within and between bank management boards (Columns (4) and (5)). Executives with academic background have higher and female executives have poorer prospects of obtaining outside directorships (Column (1)).

Results on bank characteristics are also worthwhile to look at because they may deliver further insight into reputational effects of outside directorships. While U.S. CEOs of firms with higher performance hold more directorships (Ferris, et al. 2003; Harford and Schonlau, 2013; Brickley, et al. 1999; Coles and Hoi, 2003), accounting-based performance does not help explain the change in outside directorships in our sample (Column (1)). We find, however, that higher ROA makes it less likely to gain an outside directorship (Column (2)). We find some evidence in line with signalling management quality: Executives serving on management boards of banks in financial distress have higher chances that their seats are withdrawn (Column (3)). Gilson (1990) documents a similar effect for U.S. outside directors who leave the board of financially distressed firms. Our results on size and fee income are also in line with findings in the literature. Recent studies indicate that most supervisory boards of publicly listed firms are served from bankers of large banks (Gorton and Schmid, 2000; Dittmann et al. 2010), which explains the size effect we find (Column (1)). Dittmann et al. (2010), investigating large publicly listed non-financial firms, find that bankers promote their own business as M&A advisers. This promotion channel may explain the positive and significant effect of fee income on the chances to get additional directorships (Column (2)) and as a mirror effect to lose outside directorships (Column (3)).

#### 6. Conclusions

We study bank executive directors' outside directorships which are very important in the German corporate governance system. These directorships may play a specific role, because bank executives gain private information on their banks' business clients with which they may improve their career outcomes. Alternatively, these outside directorships may signal executives' management quality to future employers as they do in other corporate governance systems. Using a unique sample of all German bank executives, we find that target executives' retention probabilities increase with their outside directorships. We reduce a potential endogeneity of outside directorship measures by using long-term directorships, defined as those directorships where the executive serves on the board of the business client for several years, which cannot correlate with merger-activity due to the large time lag between two events. Since both signalling management quality and having a private information advantage may drive this link, we next compare merger-related with merger-unrelated appointments. The idea of this comparison is that in both situations signalling may play a role, while private information advantages are only (or much more) relevant for appointments of target executives to the acquirer board than they are for merger-unrelated appointments. We find that outside directorships increase the chances that the appointee is from the target bank and not from a merger-unrelated bank. This result is robust towards different tests that aim to reduce systematic differences between executives in merger-related and merger-unrelated appointments, such as executives' age and the size of their former banks. Tests on other appointment situations, such as CEO appointments, further confirm the positive role of outside directorships for executives' career outcomes. Thus, we find that outside directorships give bank executive directors a private information advantage, which they seem to use to improve their career outcomes.

Our findings on how long-term outside directorships affect performance are in line with the dual role of outside directorships in the German corporate governance system. We find that banks whose executive directors serve on clients' supervisory and management boards over several years have higher ROA and lower risk, which we capture by ZSCORE, in bank-fixed effect regressions. Difference-in-differences estimations confirm the ROA findings from bank-fixed effect regressions. After a bank installed an outside directorship for the first time, it outperforms banks without directorships that are similar in terms of pre-event ROA and size. To the contrary, after a bank appoints an executive from outside who holds outside directorships, the bank underperforms otherwise similar banks without directorships. In summary, we can conclude that the performance effect of outsider directorships can be confirmed with different approaches. This performance effect is similar to the one documented for the U.S. director labour market, although the particular type of the mechanism seems to differ in the sense that signalling management quality is more likely to be at work in the United States, while a mix of signalling management quality and information advantage is likely to be at work in the German banker labour market.

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Appendix 1. Definitions of variables

Variable	Description
Executives' chara	
SE	Executives' number of outside directorships.
SElong	Executives' number of long-term outside directorships, which last for at least three years.
	Dummy variable equals 1 when the executive serves on a supervisory board.
D_SE D_EX	Dummy variable equals 1 when the executive serves on another management board.
	Dummy variable equals 1 when the executive serves on another management board.  Dummy variable equals 1 when the executive holds at least three outside directorships.
D_Busy	
D_LessBusy D_CEO	Dummy variable equals 1 when the executive holds one or two outside directorships.  Dummy variable equals 1 when the executive is the CEO.
EXP	Number of banks the executive was previously employed including his or her current bank.
D TENURE	Dummy variable equals 1 when the executive joins the management board.
AGE	Age (in years) of the executive.
D ACAD	Dummy variable equals 1 when the executive holds an academic degree.
D FEMALE	Dummy variable equals 1 when the executive is female.
TIES	Log number of previous professional relationships between the target executive (merger-
1120	unrelated executive from outside) and members of the acquirer board (board of the future bank)
	that come from previous appointments within banks.
	with come from provided appointments within cumb.
Executives' chara	acteristics on the bank level
SElt_BL	Sum of the number of long-term outside directorships of all executive bank directors serving on
	the management board of a bank. Here, a directorship is classified long-term when the executive
	serves for at least three years on a supervisory or management board.
SElt2_BL	Sum of the number of long-term outside directorships of all executive bank directors serving on
	the management board of a bank. Here, a directorship is classified long-term when the executive
	serves for at least three years on a supervisory or management board AND on the management
	board of the bank. Thus, SElt2_BL starts to count long-term directorships after the executive
	joined the bank management board. This minimizes effects in SElt2_BL due to executive
D. DIGIDE	turnovers.
$D_{\_}INSIDE$	Dummy variable equals 1 when an executive who recently joined the bank management board
D TUDNWITH	lacks a history on bank management boards, i.e. s/he is appointed from inside.
$D_{\_}TURN^{WITH}$	Dummy variable equals 1 when an executive is appointed from outside and holds outside
D_TURN <sup>W/O</sup>	directorships before being appointed.  Dummy variable equals 1 when an executive is appointed from outside and does not hold outside
$D_{\perp}^{IORIV}$	directorships before being appointed.
$X\_BL$	Executive characteristic <b>X</b> is measured at the bank level. When <b>X</b> is continuous, the average value
A_BL	is used, while when it is a dummy variable its maximum value is used.
Bank characterist	
SIZE	Log total assets (deflated) of the bank. The former bank is used when looking at target executives
	and merger-unrelated appointees.
D_INJ	Dummy variable equals 1 when the bank received a capital support measure from the bankers
DO.	association's protection scheme (i.e. a strong indicator for bank distress).
ROA	Adjusted return on assets. It follows from subtracting the respective median return on assets for
I O A Nactio	each banking group and year.
LOANratio EOrotio	Ratio of customer loans to total assets.
EQratio FEEINC	Equity capital ratio.  Fee income relative to total income.
D CONGL	Dummy variable equals 1 when the bank belongs to a conglomerate.
D_CONGL D_SAVINGS	Dummy variable equals 1 when the bank is a savings bank.
D_SAVINGS D_COOP	Dummy variable equals 1 when the bank is a cooperative bank.
D DOUBLE	Dummy variable equals 1 when the acquirer has taken over more than one target in the calendar
D_DOODLL	year.
ZSCORE	A distance-to-default measure which is the ratio of capital and profits of bank <i>i</i> at the end of year
	to the standard deviation of profits of bank i over time, where each position is measured relative
	to total assets of bank i.
COUCRED	Lending to local governments (i.e. municipalities and municipalities associations) and other local
, , , , , , , , , , , , , , , , , , , ,	public authorities relative to total assets.
D MERGE <sup>TAR</sup>	Dummy variable equals 1 when the bank was targeted in year $t$ or year $t+1$ .
D_MERGE <sup>ACQ</sup>	Dummy variable equals 1 when the bank acquired another bank in year t.
DEL X	"Delta" target vs. acquirer (i.e. target's value in <b>X</b> minus acquirer's value in <b>X</b> ).
RelSIZE <sup>TAR/ACQ</sup>	Total assets of the target relative to total assets of the acquirer.
<del></del>	

Figure 1
Bank executive directors' outside directorships between 1977 and 2015.

This figure shows bank executive directors' number of outside directorships, and the number of outside seats on executive and supervisory boards. It also shows the percentage number of executive directors with at least one outside directorship.

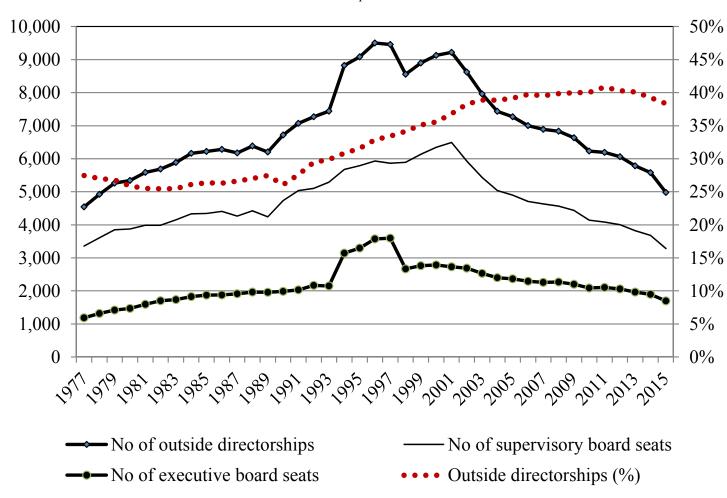


Table 1
The number of observations in sample.

The number of banks and executives is shown for the whole German universal banking system (UNIVERSE) and for target banks (TARGETS) between 1994 and 2014. All reasons are stated of why particular observations do not enter the sample.

UNIVERSE		TARG	EETS
Banks	Executives	Banks	Executives
4196		2130	
3989	24692	1763	4476
3876	23298	1750	4442
3868	22548	1734	4344
3836	21412	1623	3980
	3989 3876 3868	Banks         Executives           4196         24692           3876         23298           3868         22548	Banks         Executives         Banks           4196         2130           3989         24692         1763           3876         23298         1750           3868         22548         1734

Table 2 Bankers' outside directorships.

The number of executive bank directors' outside directorships is presented for several dimensions in the data. The number of executives we observe for a bank-company link reports how many different executives serving on the same bank management board (potentially at different points in time between 1994-2015) hold the *same* outside directorships in a specified company. The number of banks we observe for an executive-company link reports how many different banks are observed for the same outside directorship of particular executive. Please note that numbers of either executives or banks are truncated to 10 when they are larger than 10. The duration, calculated for each bank-company link as well as executive-company link, informs on how long outside directorships last in years.

		Executive-company links					
No. of executives	All	SB	EX	No. of banks	All	SB	EX
1	17,073	12,512	5,373	1	19,607	13,670	6,218
2	6,304	4,682	1,782	2	10,735	7,726	3,075
3	2,173	1,579	595	3	3,097	2,088	979
4	1,219	819	349	4	876	636	205
5	671	437	203	5	263	182	60
6	433	286	124	6	74	54	12
7	276	163	96	7	21	16	3
8	182	121	57	8	19	15	2
9	127	79	38	9	5	5	
10	351	219	101	10	2	1	1
Total	28,809	20,897	8,718	Total	34,699	24,393	10,555
<b>Duration of links in</b>	years						
Mean	7.32	5.21	2.11		7.05	4.89	2.16
Standard deviation	6.68	6.68	5.04		5.60	5.45	4.71

Table 3
Summary statistics of executive and bank characteristics.

The table shows means and standard deviations (sd) of key variables for bank executives. The summary statistics are shown for the full sample and three types of executives. Target executives appointed are executive directors who are appointed to the acquirer board in the course of a merger, target executives not appointed serve on the target board in the pre-merger year but do not serve on the acquirer board in the post-merger year. Merger-unrelated appointees are executives whose turnover is not related to merger activity. For target executives (appointed and not appointed) characteristics of the targeted and acquiring banks are presented for the pre-merger year. For merger-unrelated appointees, characteristics of their former and future banks are presented for the pre-turnover year. For all variable definitions, see Appendix I.

	All exe	cutives	Target e	xecutives	Target ex		Merger-u	
No. of executives	21,	412	-	720	2,2		appointees 1,821	
No. of obs.		,315		20	2,2		1,8	
No. of obs.	mean	sd	mean	sd	mean	sd	mean	sd
SE	1.034	5.012	0.806	1.856	0.559	1.639	0.980	2.141
SElong	0.623	2.786	0.461	1.255	0.336	1.169	0.486	1.338
D SB	0.025	0.430	0.401	0.415	0.138	0.345	0.449	0.432
D EX	0.209	0.407	0.221	0.413	0.133	0.355	0.189	0.392
D Busy	0.209	0.320	0.083	0.401	0.058	0.234	0.111	0.314
D LessBusy	0.116	0.436	0.035	0.270	0.189	0.392	0.256	0.437
D CEO	0.491	0.500	0.640	0.480	0.586	0.493	0.426	0.495
EXP	1.486	0.789	1.641	0.933	1.444	0.475	1.672	0.493
D TENURE	0.164	0.737	0.169	0.375	0.166	0.372	0.264	0.441
D ACAD	0.051	0.220	0.029	0.168	0.032	0.177	0.284	0.273
AGE	50.773	7.396	48.973	7.066	51.704	8.161	46.590	7.251
D FEMALE	0.031	0.173	0.031	0.173	0.047	0.212	0.029	0.167
TIES	0.031	0.175	0.262	0.783	0.115	0.517	0.045	0.299
Previous bank (TA	RGET)	-	- 0.202	0.703	0.113	0.517	- 0.015	0.277
SIZE	20.095	1.618	19.498	1.428	19.025	1.690	20.372	1.841
D INJ	0.045	0.207	0.069	0.254	0.135	0.342	0.110	0.313
ROA	0.024	0.171	-0.015	0.304	-0.119	0.533	-0.030	0.301
FEEINC	11.069	5.295	11.651	5.092	10.633	5.365	11.835	8.979
LOANratio	57.529	14.140	57.576	14.242	56.197	15.720	55.216	17.240
EQratio	5.317	1.790	5.142	1.835	5.342	2.933	5.182	2.958
D CONGL	0.074	0.262	0.024	0.154	0.044	0.205	0.110	0.313
D SAVINGS	0.363	0.481	0.267	0.442	0.224	0.417	0.357	0.479
D COOP	0.521	0.500	0.681	0.466	0.681	0.466	0.488	0.500
Future bank (ACC	QUIRER)							
SIZE			20.124	1.468	20.480	1.791	20.334	1.971
D INJ			0.048	0.213	0.081	0.272	0.116	0.321
ROA			0.011	0.208	-0.006	0.217	-0.045	0.615
FEEINC			11.686	5.174	11.214	4.931	11.665	9.413
LOANratio			57.860	14.184	57.971	14.520	55.226	16.735
<i>EQratio</i>			5.155	1.607	5.025	1.567	5.513	5.503
$D\_CONGL$			0.079	0.270	0.110	0.313	0.111	0.315
			0.158	0.365	0.231	0.422		

Table 4
Determinants of target executives' appointments.

Marginal effects on target executives' retention probabilities come from probit estimations. The dependent variable equals 1 when an executive serving on the board of a target bank in t-I becomes a member of the acquirer board in t+I. Column (5) includes smaller targets (below the median value of total assets), while Column (6) includes larger targets (above the median value of total assets). The inverse mills ratio comes from the model in Column (1) of Table 5. The regressions contain year fixed effects (not reported). Standard errors reported in parenthesis are corrected for heteroscedasticity and are clustered at the level of the merger. \*\*\*, \*\*\*, and \* indicate that marginal effects are significant at the 1%, 5%, or 10% levels, respectively.

Log(1+SE <sub>i,t-1</sub> )	(1) 0.058***	(2)	(3)	(4)	(5)	(6)
3( 3, 3)	(0.016)					
$Log(1 + SElong_{i,t-1})$		0.053*** (0.018)			0.066** (0.027)	0.048** (0.024)
$D\_SB_{i,t\text{-}1}$		(0.010)	0.071*** (0.021)		(0.027)	(0.02.)
$D\_EX_{i,t\text{-}1}$			0.032			
$D\_BUSY_{i,t\text{-}1}$			(0.020)	0.076**		
$D\_lessBUSY_{i,t\text{-}1}$				(0.034) 0.069***		
D_CEO <sub>i,t-1</sub>	0.091***	0.094***	0.090***	(0.018) 0.092***	0.054**	0.151***
D_CEO1,t-1	(0.018)	(0.018)	(0.018)	(0.018)	(0.022)	(0.029)
EXP <sub>i,t-1</sub>	0.016	0.017*	0.016	0.016	-0.004	0.047**
D2 <b>X</b> 1,t-1	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)	(0.018)
D TENURE <sub>i,t-1</sub>	-0.050**	-0.048**	-0.050**	-0.049**	-0.060**	-0.031
D_TENOREI,i-i	(0.022)	(0.022)	(0.022)	(0.022)	(0.026)	(0.037)
$AGE_{i,t-1}$	-0.015***	-0.015***	-0.015***	-0.015***	-0.015***	-0.017***
TTGEI,t-I	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
$D_ACAD_i$	-0.081*	-0.078*	-0.076*	-0.073*	-0.127*	-0.032
D_RCREAT	(0.045)	(0.045)	(0.043)	(0.044)	(0.072)	(0.051)
D_FEMALE <sub>i</sub>	-0.119***	-0.119***	-0.119***	-0.118***	-0.180***	-0.020
D_ITEMIALE:	(0.036)	(0.036)	(0.036)	(0.036)	(0.051)	(0.051)
TIES <sub>i,t-1</sub>	0.133***	0.134***	0.135***	0.136***	0.313***	0.031)
1 1L:31,t-1						
RelSIZE <sup>TAR/ACQ</sup> t-1	(0.029)	(0.029)	(0.029)	(0.029)	(0.052) 0.322***	(0.031)
ReiSiZE	0.266***	0.266***	0.264***	0.263***		0.166***
CLZE	(0.025)	(0.025)	(0.025)	(0.025)	(0.036)	(0.033)
$SIZE_{t-1}$	0.112***	0.116***	0.113***	0.113***	0.153***	0.074***
D INII	(0.013)	(0.012)	(0.012)	(0.013)	(0.017)	(0.019)
$D_INJ_{t-1}$	-0.291***	-0.290***	-0.290***	-0.292***	-0.317***	-0.200***
DEL BOA	(0.028)	(0.028)	(0.028)	(0.028)	(0.032)	(0.049)
DEL_ROA <sub>t-1</sub>	0.086***	0.083***	0.084***	0.084***	0.077***	0.096***
DEL PERDIC	(0.024)	(0.024)	(0.024)	(0.024)	(0.029)	(0.030)
DEL_FEEINC <sub>t-1</sub>	0.005**	0.005**	0.005**	0.005**	0.004	0.002
BBT TO 111 .	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
DEL_LOANratio <sub>t-1</sub>	0.001*	0.001*	0.001*	0.001*	0.000	0.001
P. P. C	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
DEL_EQratio <sub>t-1</sub>	0.005	0.006	0.005	0.005	0.003	-0.002
D. G.LTDIGG	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.010)
D_SAVINGS	0.261***	0.251***	0.249***	0.252***	0.027	0.171***
	(0.050)	(0.050)	(0.050)	(0.049)	(0.124)	(0.058)
D_COOP	0.363***	0.354***	0.356***	0.355***	0.123	0.265***
	(0.057)	(0.057)	(0.057)	(0.056)	(0.121)	(0.066)
$D_CONGLO_{t-1}$	-0.102***	-0.101***	-0.100***	-0.099***	-0.022	-0.100**
	(0.037)	(0.037)	(0.037)	(0.037)	(0.048)	(0.042)
$D_DOUBLE_{t-1}$	-0.101***	-0.101***	-0.100***	-0.100***	-0.084***	-0.086***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.024)	(0.032)
Inv. Mills	-0.158***	-0.159***	-0.158***	-0.158***	-0.149***	-0.153***
	(0.027)	(0.027)	(0.027)	(0.027)	(0.030)	(0.048)
No. of observations	3,980	3,980	3,980	3,980	2,473	1,507
No. of mergers	1623	1623	1623	1623	1207	416
$\chi^2$ test	632.4***	635.3***	629.5***	637.5***	435.3***	286.2***

Table 5
Determinants of merger probabilities.

Marginal effects on merger probabilities come from probit estimations. In Columns (1)-(3), the dependent variable is  $D\_MERGE^{TAR}$ , while in Columns (4)-(6), it is  $D\_MERGE^{ACQ}$ . The regressions contain year fixed effects (not reported). Standard errors reported in parenthesis are corrected for heteroscedasticity and are clustered at the bank-level. \*\*\*, \*\*, and \* indicate that marginal effects are significant at the 1%, 5%, or 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
$Log(1+SElt_BL_{t-1})$	-0.004**			0.013***		
	(0.002)			(0.001)		
$D_SB_BL_{t-1}$		-0.002			0.006***	
		(0.002)			(0.002)	
$D_EX_BL_{t-1}$		-0.010***			0.005**	
		(0.002)			(0.002)	
$D_BUSY_BL_{t-1}$			0.002			0.005**
			(0.003)			(0.003)
$D\_lessBUSY\_BL_{t\text{-}1}$			-0.010***			0.006***
			(0.002)			(0.002)
EXP_BL <sub>t-1</sub>	0.040***	0.041***	0.040***	0.024***	0.024***	0.024***
_ ·	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
D_TENURE_BL <sub>t-1</sub>	0.028***	0.028***	0.028***	0.059***	0.059***	0.059***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
D_ACAD_BL	0.012	0.011	0.011	-0.021**	-0.013	-0.013
	(0.011)	(0.011)	(0.011)	(0.009)	(0.009)	(0.009)
AGE_BL	0.002***	0.002***	0.002***	0.001***	0.001***	0.001***
_	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
D_FEMALE_BL	0.024***	0.023***	0.023***	-0.001	-0.001	-0.001
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
SIZE <sub>t-1</sub>	-0.030***	-0.029***	-0.029***	0.008***	0.010***	0.011***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
$D_INJ_{t-1}$	0.003	0.003	0.003	-0.017***	-0.017***	-0.018***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
$ROA_{t-1}$	-0.026***	-0.028***	-0.027***	0.020***	0.022***	0.022***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)
FEEINC <sub>t-1</sub>	-0.001***	-0.001**	-0.001**	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
LOANratio <sub>t-1</sub>	0.000	0.000	0.000	0.000**	0.000*	0.000*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
EQratio <sub>t-1</sub>	-0.006***	-0.006***	-0.006***	-0.001**	-0.002**	-0.002**
_ ((-)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
$D_{CONGLO_{t-1}}$	0.016**	0.015**	0.015**	0.022***	0.027***	0.027***
	(0.007)	(0.007)	(0.007)	(0.005)	(0.005)	(0.005)
D_COOP	-0.015**	-0.015**	-0.014**	0.057***	0.054***	0.055***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)
D_SAVINGS	0.022***	0.020***	0.022***	-0.003	-0.005	-0.005
	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)	(0.006)
COUCRED <sub>t-1</sub>	-0.001***	-0.001***	-0.001***	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
No. of observations	48,823	48,823	48,823	48,823	48,823	48,823
No. of banks	3836	3836	3836	3836	3836	3836
$\chi^2$ test	1478	1495	1498	2334	2369	2344

Table 6
Target versus merger-unrelated appointees.

Marginal effects come from probit estimations in which target appointees and merger-unrelated appointees are considered. The dependent variable equals 1 when the executive is a target appointee and 0 when s/he is a merger-unrelated appointee. The inverse mills ratio comes from the model in Column (1) of Table 5. The results in Columns (5) and (6) come from a matched sample where for each target appointee a similar merger-unrelated appointee is selected (same calendar year and banking group, banks belong to the same size deciles, and age difference is one year at a maximum). Bank-specific variables are from the appointees' former banks. The regressions contain year-fixed effects (not reported). Heteroscedasticity consistent standard errors are reported in parentheses. \*\*\*, \*\*, and \* indicate that marginal effects are significant at the 1%, 5%, or 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
$Log(1+SElong_{i,t-1})$	0.046**			0.077***	0.114**	0.143***
	(0.019)			(0.017)	(0.045)	(0.043)
$D_SB_{i,t-1}$	, ,	0.057***		` ,	, ,	` ,
<b>-</b> /		(0.020)				
$D_EX_{i,t-1}$		-0.006				
<i>- '</i>		(0.020)				
$D_BUSY_{i,t-1}$		,	0.078**			
			(0.031)			
D lessBUSY <sub>i,t-1</sub>			0.025			
,,.			(0.018)			
$D_{CEO_{i,t-1}}$	0.066***	0.063***	0.064***	0.043**	-0.026	-0.019
_	(0.019)	(0.019)	(0.019)	(0.017)	(0.037)	(0.036)
$EXP_{i,t-1}$	-0.042***	-0.042***	-0.042***	-0.110***	-0.105***	-0.149***
1,0 1	(0.009)	(0.009)	(0.009)	(0.008)	(0.015)	(0.015)
D TENURE <sub>i,t-1</sub>	-0.045**	-0.048**	-0.048**	-0.101***	-0.262***	-0.308***
_ ',,,,	(0.020)	(0.020)	(0.020)	(0.019)	(0.030)	(0.028)
$D_ACAD_i$	-0.078**	-0.083**	-0.082**	-0.062*	0.409***	0.402***
	(0.039)	(0.039)	(0.039)	(0.036)	(0.118)	(0.108)
$AGE_{i,t-1}$	0.008***	0.009***	0.008***	0.002*	-0.001	-0.004
11021,1-1	(0.001)	(0.001)	(0.001)	(0.001)	(0.003)	(0.003)
TIES <sub>i.t-1</sub>	0.462***	0.464***	0.460***	0.423***	0.356***	0.361***
11201,[-1	(0.037)	(0.037)	(0.037)	(0.035)	(0.060)	(0.060)
$SIZE_{t-1}$	-0.088***	-0.089***	-0.090***	(0.055)	-0.027	(0.000)
51212[-]	(0.008)	(0.008)	(0.008)		(0.021)	
$D_INJ_{t-1}$	-0.100***	-0.096***	-0.100***	-0.146***	-0.054	-0.072
D_11 (0[-]	(0.030)	(0.030)	(0.030)	(0.029)	(0.048)	(0.049)
$ROA_{t-1}$	0.109***	0.112***	0.112***	0.188***	0.248***	0.382***
1071[-]	(0.035)	(0.035)	(0.035)	(0.039)	(0.059)	(0.078)
FEEINC <sub>t-1</sub>	-0.000	-0.000	-0.000	0.002	-0.001	-0.003
I LLIIVO[-]	(0.002)	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)
LOANratio <sub>t-1</sub>	0.002)	0.002)	0.001	0.002)	-0.005***	-0.003**
LOTH Hattot-1	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
EQratio <sub>t-1</sub>	-0.038***	-0.039***	-0.039***	-0.015**	-0.046***	-0.020*
LQ1atiot-1	(0.007)	(0.007)	(0.007)	(0.006)	(0.014)	(0.011)
D_SAVINGS	0.078**	0.071*	0.079**	-0.024	-0.034	-0.090
D_SAVINGS	(0.037)	(0.037)	(0.037)	(0.034)	(0.112)	(0.108)
D COOP	0.061	0.061	0.063	-0.016	0.096	-0.080
D_C001	(0.041)	(0.040)	(0.041)	(0.036)	(0.114)	(0.099)
Inv. Mills	(0.041)	(0.040)	(0.041)	-0.445***	(0.114)	-0.352***
1111. 17111115				(0.015)		(0.042)
No of observations	2.501	2.501	2.501		1.061	
No. of observations	3,501	3,501	3,501	3,412	1,061	1,038
$\chi^2$ test	585.5***	582.1***	589.9***	844.5***	246***	259.6***

Table 7
Appointing insiders.

In Columns (1)-(4), marginal effects come from probit estimations, and in Column 5 (6), coefficients from executive-fixed (bank-year-fixed) effects estimations are reported. The dependent variable equals 1 when an executive who served on the bank board for at least one year without CEO position is appointed to be CEO, and zero when s/he stays a non-CEO. Column (4) excludes for each executive the first three years after being appointed to rule out lagged turnover effects and the pre-merger, post-merger and merger years to exclude merger-driven effects in outside directorships. All regressions contain year fixed effects (not reported). Heteroscedasticity consistent standard errors clustered on the executive level (Columns (1)-(5)) or on the bank-year level (Column (6)) are reported in parentheses. \*\*\*, \*\*, and \* indicate that marginal effects/ coefficients are significant at the 1%, 5%, or 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
$Log(1+SElong_{i,t-1})$	0.011***			0.009***	0.006***	0.183***
	(0.002)			(0.002)	(0.002)	(0.020)
$D_SB_{i,t-1}$		0.018***				
_		(0.002)				
$D_EX_{i,t-1}$		0.000				
		(0.002)				
$D_BUSY_{i,t-1}$			0.019***			
			(0.003)			
D_lessBUSY <sub>i,t-1</sub>			0.009***			
			(0.002)			
EXP <sub>i,t-1</sub>	0.002*	0.001	0.001	0.002	-0.003	0.068***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.003)	(0.012)
$D_{TENURE_{i,t-1}}$	0.039***	0.039***	0.039***		-0.029***	0.089***
	(0.002)	(0.002)	(0.002)		(0.002)	(0.025)
$D_ACAD_i$	0.012***	0.011***	0.011***	0.008**		0.114***
_	(0.003)	(0.003)	(0.003)	(0.004)		(0.042)
$AGE_{i,t-1}$	-0.001***	-0.001***	-0.001***	-0.000***	0.003***	-0.006***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
D FEMALE <sub>i</sub>	-0.012***	-0.012***	-0.012***	-0.013**	, ,	-0.215***
_	(0.004)	(0.004)	(0.004)	(0.005)		(0.049)
$SIZE_{t-1}$	-0.003***	-0.003***	-0.003***	-0.002**	0.013***	, ,
	(0.001)	(0.001)	(0.001)	(0.001)	(0.004)	
$D_INJ_{t-1}$	0.001	0.001	-0.000	-0.003	0.009	
_	(0.003)	(0.003)	(0.003)	(0.004)	(0.006)	
$ROA_{t-1}$	-0.011**	-0.011**	-0.011**	-0.003	-0.019***	
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	
FEEINC <sub>t-1</sub>	-0.001***	-0.001***	-0.001***	-0.001***	0.000	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
LOANratio <sub>t-1</sub>	-0.000	-0.000	-0.000	0.000	-0.000	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
EQratio <sub>t-1</sub>	0.001***	0.001**	0.001**	0.000	0.003***	
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
$D_CONGLO_{t-1}$	-0.003	-0.004	-0.004	-0.003	-0.011*	
	(0.003)	(0.003)	(0.003)	(0.004)	(0.006)	
D_SAVINGS	0.022***	0.021***	0.023***	0.027***		
	(0.004)	(0.004)	(0.004)	(0.005)		
D_COOP	0.072***	0.072***	0.072***	0.059***		
	(0.004)	(0.004)	(0.004)	(0.005)		
No. of observations	65,257	65,257	65,257	40,847	65,257	4,492
No. of cluster	11,527	11,527	11,527	7,695	11,527	1,603
$\chi^2$ test	2361***	2394***	2384***	719.7***	-	•
F-test					31.80***	41.23***

Table 8
Position and size changes of executives appointed from outside.

Marginal effects come from probit estimations in which all merger-unrelated appointees are considered. In Columns (1)–(4), the dependent variable equals 1 when an outsider is appointed to the CEO position, and zero otherwise. Columns (2)-(4) consider only executives who had a non-CEO position at their former bank. In Columns (5)–(6), it is the decile of the size difference between the future and the former bank. A higher value of this variable indicates that the new bank is substantially larger than the old one. Bank-specific variables come from the merger-unrelated appointees' former banks. The regressions contain year fixed effects (not tabulated). Heteroscedasticity consistent standard errors are reported in parentheses. \*\*\*, \*\*, and \* indicate that marginal effects are significant at the 1%, 5%, or 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Log(1+SElong <sub>i,t-1</sub> )	0.022	0.054*				
	(0.019)	(0.030)				
$D_SB_{i,t-1}$			0.032		0.342*	
			(0.034)		(0.181)	
$D_EX_{i,t-1}$			0.056		-0.076	
D DUGU			(0.036)	0.000**	(0.172)	0.552**
$D_BUSY_{i,t-1}$				0.099**		0.553**
D 1 DUGY				(0.048)		(0.263)
$D_{lessBUSY_{i,t-1}}$				0.033		0.037
EVD	0.012	0.035**	0.036**	(0.032) 0.036**	-0.160**	(0.159) -0.166**
$EXP_{i,t-1}$						
D TENURE <sub>i,t-1</sub>	(0.010) 0.038*	(0.017) -0.003	(0.017) -0.007	(0.017) -0.006	(0.076) -0.205	(0.076)
D_IENUKE <sub>i,t-1</sub>		(0.031)	(0.031)	(0.031)	(0.160)	-0.209
D ACAD <sub>i</sub>	(0.021) -0.052	-0.079	-0.080	-0.086*	0.160)	(0.161) 0.041
$D_ACAD_1$	(0.034)	(0.050)	(0.050)	(0.050)	(0.283)	(0.283)
$AGE_{i.t-1}$	-0.003**	0.000	0.000	0.000	-0.022**	-0.023**
$AGL_{l,t-1}$	(0.001)	(0.002)	(0.002)	(0.002)	(0.010)	(0.010)
D FEMALE <sub>i</sub>	-0.141**	-0.220**	-0.215**	-0.219**	-0.003	-0.037
D_I LWALL	(0.062)	(0.088)	(0.088)	(0.088)	(0.432)	(0.432)
TIES <sub>i.t-1</sub>	-0.055	-0.047	-0.043	-0.053	0.837*	0.786
1 1LO <sub>1,t-1</sub>	(0.062)	(0.090)	(0.089)	(0.088)	(0.483)	(0.484)
D INJ <sub>it-1</sub>	0.051*	0.048	0.053	0.051	0.339	0.311
D_I1 (3)[-1	(0.029)	(0.050)	(0.050)	(0.050)	(0.229)	(0.228)
$ROA_{t-1}$	0.077**	0.084*	0.088**	0.087*	-0.090	-0.106
1071-1	(0.032)	(0.045)	(0.044)	(0.045)	(0.273)	(0.275)
FEEINC <sub>t-1</sub>	-0.004***	-0.003	-0.003	-0.003	-0.007	-0.007
	(0.001)	(0.002)	(0.002)	(0.002)	(0.012)	(0.012)
LOANratio <sub>t-1</sub>	-0.000	-0.000	-0.000	0.000	0.006	0.006
	(0.001)	(0.001)	(0.001)	(0.001)	(0.005)	(0.005)
EQratio <sub>t-1</sub>	0.004	0.004	0.004	0.004	0.109***	0.110***
	(0.004)	(0.005)	(0.005)	(0.005)	(0.036)	(0.035)
D CONGLO <sub>t-1</sub>	-0.047	-0.060	-0.053	-0.066	-0.241	-0.261
	(0.035)	(0.049)	(0.049)	(0.050)	(0.327)	(0.327)
D SAVINGS	-0.038	-0.016	-0.017	-0.012	-0.432	-0.386
_	(0.032)	(0.045)	(0.044)	(0.045)	(0.302)	(0.303)
D_COOP	-0.095***	0.228***	0.222***	0.231***	0.110	0.143
	(0.031)	(0.046)	(0.045)	(0.046)	(0.291)	(0.293)
No. of observations	1,821	1,046	1,046	1,046	1,821	1,821
$\chi^2$ test	85.92	131.2	132	132.9	•	•
F-test					1.972***	2.044***

Table 9
Bank-fixed effects estimations of Z-score and ROA.

Results come from bank-fixed effects regressions. The dependent variable is *ZSCORE* in Columns (1)-(3), and *ROA* in Columns (4)-(6). The regressions contain year fixed effects (not reported). Standard errors reported in parenthesis are corrected for heteroscedasticity and are clustered at the level of the bank. \*\*\*, \*\*, and \* indicate that coefficients are significant at the 1%, 5%, or 10% levels, respectively.

	(1)	(3)	(6)	(13)	(15)	(18)
Log(1+SElt_BL <sub>t-1</sub> )	0.069***			0.005		
	(0.022)			(0.003)		
Log(1+SElt2_BL <sub>t-1</sub> )		0.085***	0.083***		0.005*	0.005*
		(0.022)	(0.022)		(0.003)	(0.003)
D_TENURE_BL <sub>t-1</sub>	-0.068***	-0.065***		-0.011***	-0.011***	
	(0.014)	(0.013)		(0.002)	(0.002)	
$D_TURN^{WITH}_{t-1}$			-0.085***			-0.013***
			(0.031)			(0.004)
D_TURNW/O <sub>t-1</sub>			-0.076***			-0.010***
			(0.015)			(0.002)
$D_{INSIDE_{t-1}}$			-0.056***			-0.009***
			(0.014)			(0.002)
$EXP\_BL_{t-1}$	-0.016	-0.012	-0.010	-0.021***	-0.020***	-0.020***
_	(0.027)	(0.027)	(0.027)	(0.004)	(0.004)	(0.004)
D_ACAD_BL	0.051	0.047	0.048	0.006	0.006	0.006
	(0.155)	(0.155)	(0.155)	(0.026)	(0.026)	(0.026)
AGE_BL <sub>t-1</sub>	-0.002	-0.002	-0.002	0.002***	0.002***	0.002***
_	(0.003)	(0.003)	(0.003)	(0.000)	(0.000)	(0.000)
D_FEMALE_BL	0.134	0.136	0.138	-0.011	-0.011	-0.011
	(0.165)	(0.165)	(0.165)	(0.021)	(0.021)	(0.021)
SIZE <sub>t-1</sub>	-0.122**	-0.124**	-0.120**	0.012	0.012	0.013
	(0.052)	(0.052)	(0.052)	(0.008)	(0.008)	(0.008)
$D_{INJ_{t-1}}$	0.021	0.022	0.022	-0.044***	-0.043***	-0.043***
_	(0.062)	(0.061)	(0.061)	(0.007)	(0.007)	(0.007)
FEEINC <sub>t-1</sub>	0.012**	0.012**	0.012**	0.002**	0.002**	0.002**
	(0.005)	(0.005)	(0.005)	(0.001)	(0.001)	(0.001)
LOANratio <sub>t-1</sub>	-0.000	-0.000	-0.000	0.000	0.000	0.000
	(0.002)	(0.002)	(0.002)	(0.000)	(0.000)	(0.000)
EQratio <sub>t-1</sub>				0.010***	0.010***	0.010***
				(0.002)	(0.002)	(0.002)
$D_{CONGLO_{t-1}}$	-0.611***	-0.611***	-0.612***	-0.023	-0.023	-0.023
_	(0.160)	(0.159)	(0.159)	(0.032)	(0.032)	(0.032)
$D_MERGE^{TAR}_t$	-0.114***	-0.114***	-0.115***	-0.006	-0.006	-0.006
	(0.029)	(0.029)	(0.029)	(0.004)	(0.004)	(0.004)
$D_MERGE^{ACQ}_t$	-0.083***	-0.078***	-0.080***	-0.023***	-0.022***	-0.023***
	(0.027)	(0.027)	(0.027)	(0.004)	(0.004)	(0.004)
No. of observations	37,161	37,161	37,161	47,156	47,156	47,156
No. of banks	3,144	3,144	3,144	3,413	3,413	3,413
F-test	34.02***	34.08***	32.19***	11.99***	11.97***	11.16***

# Table 10 Difference-in-differences estimations of Z-score and ROA.

Coefficients come from difference-in-differences estimations. The treatment group in Panel A are banks with newly installed outside directorships in which no outside turnover event occurred in the three years around the instalment of the directorship. In Panel B, the treatment group are banks that appoint an executive from outside who holds outside directorships, while all other executives on the appointing bank's management board do not. The control group consists of banks without outside directorships and without any turnover events in the preceding and following two years. For each bank in the two treatment groups control banks are matched with replacement from the same year and banking group, from the same size and ROA deciles in the year before the treatment bank installs its first outside directorship/appoints an outsider with outside directorships. The average age difference between the treatment and control bank board is allowed to vary up to four years. The model estimated is

 $Performance_{jt} = \beta_0 + \beta_1 TREAT_j + \beta_2 POST_t + \beta_3 TREAT_j \times POST_t + Controls_{jt} + \varepsilon_{jt}$ .

Performance denotes the annual change in ZSCORE in Columns (1) and (2) and the annual change in ROA in Columns (3) and (4). TREAT equals 1 if the bank j is in the treatment group, and zero otherwise. POST equals 1 in the post-treatment period. We consider up to three years before and after treatment. All estimations include bank-fixed effects; therefore no estimate is reported for TREAT. Standard errors reported in parenthesis are corrected for heteroscedasticity and are clustered at the level of the bank. \*\*\*, \*\*, and \* indicate that coefficients are significant at the 1%, 5%, or 10% levels, respectively.

	(1)	(2)	(3)	(4)					
	ZSCORE	ZSCORE	ROA	ROA					
Panel A: Banks with newly installed outside directorships without any turnover events									
POST	-0.021	-0.021	-0.602	-0.648					
	(0.016)	(0.016)	(0.504)	(0.514)					
$TREAT \times POST$	-0.002	-0.004	0.805*	0.914**					
	(0.020)	(0.020)	(0.421)	(0.426)					
Controls	No	Yes	No	Yes					
No. of observations	1,447	1,438	1,735	1,722					
No. of banks	266	263	270	268					

Panel B: Banks with executives appointed from outside who hold outside directorships
POST -0.009 -0.005 0.097

POST	-0.009	-0.005	0.097	0.047	
	(0.011)	(0.011)	(0.374)	(0.383)	
$TREAT \times POST$	-0.003	-0.014	-1.002***	-1.105***	
	(0.013)	(0.015)	(0.356)	(0.412)	
Controls	No	Yes	No	Yes	
No. of observations	2,563	2,551	2,981	2,947	
No. of banks	463	461	472	469	

Table 11 Reallocation of outside directorships.

This table reports results on the determinants influencing timely changes of bankers' outside directorships. All executive-year observations are considered except the ones in the appointment and post-appointment year and in the retirement and pre-retirement year. In Column (1), the dependent variable is the executive's timely change of the number of outside directorships which is transformed to three categories (decrease, increase, no change) and marginal effects from ordered probit models for an increase are reported. In Column (2), the dependent variable equals 1 when the executive's number of outside directorships increases, while in Column (3) it equals 1 when the number decreases. In Column (4) (Column (5)), the dependent variable equals 1 when the executive acquires an outside directorship from another executive serving on the same management board (on the management boards of another bank). In Columns (2)-(5), marginal effects come from probit models. The regressions contain year fixed effects (not reported). Standard errors are clustered at the executive-level (Petersen, 2009). \*\*\*, \*\*, and \* indicate that marginal effects are significant at the 1%, 5%, or 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)
D_MERGE <sup>TAR</sup> t	0.013***	0.020***	-0.002	0.003	0.023***
	(0.004)	(0.005)	(0.003)	(0.003)	(0.003)
$D_MERGE^{ACQ}_t$	0.014***	0.019***	-0.001	0.008***	0.019***
	(0.004)	(0.004)	(0.003)	(0.002)	(0.002)
$D\_CEO_{i,t-1}$	0.016***	0.045***	0.016***	0.008***	0.028***
	(0.002)	(0.003)	(0.002)	(0.001)	(0.002)
EXP <sub>i,t-1</sub>	0.005***	0.011***	0.003***	0.003***	0.007***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
$D_ACAD_{i,t-1}$	0.013***	0.024***	0.008***	0.006***	0.013***
	(0.004)	(0.004)	(0.002)	(0.002)	(0.002)
$AGE_{i,t-1}$	-0.002***	-0.002***	0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$D_FEMALE_{i,t-1}$	-0.006*	-0.020***	-0.009**	-0.010***	-0.005
	(0.004)	(0.007)	(0.004)	(0.004)	(0.004)
$SIZE_{t-1}$	0.015***	0.038***	0.013***	0.017***	0.022***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
$D_INJ_{t-1}$	-0.020***	-0.005	0.014***	0.003	0.002
	(0.004)	(0.005)	(0.002)	(0.003)	(0.003)
$ROA_{t-1}$	-0.000	-0.013**	-0.009**	-0.001	0.003
	(0.005)	(0.006)	(0.004)	(0.003)	(0.004)
FEEINC <sub>t-1</sub>	0.001***	0.003***	0.001***	0.000***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
LOANratio <sub>t-1</sub>	-0.000	-0.000***	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
EQratio <sub>t-1</sub>	0.003***	0.004***	0.000	0.002***	0.001**
	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)
$D_{CONGLO_{t-1}}$	-0.011**	0.003	0.010***	0.007***	0.002
	(0.004)	(0.004)	(0.002)	(0.002)	(0.002)
$D_SAVINGS_{t-1}$	0.010***	-0.012***	-0.019***	-0.008***	-0.002
	(0.004)	(0.004)	(0.002)	(0.002)	(0.003)
$D_{COOP_{t-1}}$	0.008**	-0.015***	-0.018***	-0.002	0.000
	(0.004)	(0.005)	(0.003)	(0.002)	(0.003)
No. of observations	96,073	96,073	96,073	96,073	96,073
No. of executives	14517	14517	14517	14517	14517
$\chi^2$ test	982.5	3809	2695	2956	2747