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Setting a Fox to Keep the Geese - Does the Comply-or-Explain Principle Work?

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Abstract: The German Corporate Governance Code works according to the comply-or-explain principle. One of its recommendations was to publish the remuneration of the members of the executive board on an individual basis. We examine the characteristics of the firms that comply with the code requirement. Our results indicate that firms that pay higher average remunerations to their management board members are less likely to comply, whereas firms with higher Tobin's Q are more likely to comply. We also document a non-monotonic relation between ownership concentration and the probability of compliance that is consistent with standard corporate governance arguments.

Due to the fact that the number of firms complying with the disclosure requirement was low, a new law was passed that mandates disclosure unless the shareholders' meeting (with a 75% majority) decides otherwise. We find that this "loophole" in the new legislation is exploited by smaller firms, firms with comparatively high levels of executive remuneration, and firms with concentrated ownership. We discuss the implications of our results for the effectiveness of the comply-or-explain regulation.

JEL classification: G30, G32, G38

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1 Introduction

In 2002, Germany enacted a Corporate Governance Code ("the code") that lists a number of recommendations and suggestions, the application of which is deemed to improve the governance of listed firms. Compliance with the code is not mandatory. Rather, listed firms have to publish an annual declaration of conformity that states their degree of compliance. This is referred to as the "comply-or-explain" principle.

The decision whether or not to comply with a particular recommendation or suggestion is likely to be non-random. Managers may exert their discretion to escape stringent monitoring. Therefore, the degree of compliance with the code is potentially informative about the amount of leeway that managers have. Consequently, recommendations in the code that aim at the disclosure of information are unlikely to yield unbiased results because the sample of disclosing firms is likely to be biased.

Disclosure that is prompted by a comply-or-explain rule is, in a sense, voluntary disclosure. Models such as those of Grossman and Hart (1980), Grossman (1981), or Okuno-Fujiwara et al. (1990) predict that when the cost of disclosing is low and the information can be verified easily, all firms (with the potential exception of the worst firms) will ultimately choose to disclose.[1] If firms decide sequentially, we might expect to observe unravelling - the earlier a firm discloses, the "better" the firm.

The present paper considers a very interesting case study. Since its inception, the code has required that firms disclose the remuneration of their executive directors on an individual basis.[2] However, only a small minority of firms (22 out of 146 in our 2003 sample) actually complied with this requirement. The government took the low number of complying firms as

[1] See Chapter 5 of Bolton and Dewatripont (2006) for an excellent survey on voluntary disclosure and the unravelling hypothesis.
[2] See Section 2 for details.

evidence that the comply-or-explain principle had failed in this particular case and introduced a new law, which requires that, starting with the fiscal year beginning in 2006, the annual report state the remuneration of executive directors on an individual basis. However, the law also contains a "loophole provision" that allows the shareholders' meeting to grant an exemption from the disclosure requirement.

The disclosure of executive compensation on an individual basis is an issue where the shareholders' transparency requirement is opposed to the managers' right to privacy. There are several reasons why disclosure is important for shareholders. First and foremost, the shareholders are the ultimate employers of the managers and thus ultimately pay their salaries. Second, shareholders require detailed and individualized information on executive pay in order to evaluate whether the right incentives are in place. An optimal compensation package may require that different members of the management team receive different salaries because they may differ with respect to their tasks, qualifications, or performance. Similarly, it may be optimal to set different incentives at different points in an executive's work-life cycle. For example, empirical evidence suggests that managers who are close to retirement might behave opportunistically in response to earnings-based incentives (Dechow and Sloan 1991, Gibbons and Murphy 1992, Murphy and Zimmerman 1993).

In the US, publicly listed firms have been subject to extensive disclosure requirements on executive remuneration for a long time. Recent changes to the rules that require disclosure of executive and director compensation indicate that the SEC regards information about executive compensation as very important. A press release relating to these changes (release 2006-123, http://www.sec.gov/news/press/2006/2006-123.htm) cites John W. White, Director of the SEC's Division of Corporation Finance:

> Investors have made it clear that disclosure about executive compensation and related matters is very important to them.

The same release cites SEC Chairman Christopher Cox:

> With more than 20,000 comments, and counting, it is now official that no issue in the 72 years of the Commission's history has generated such interest... The better information that both shareholders and boards of directors will get as a result of these new rules will help them make better decisions about the appropriate amount to pay the men and women entrusted with running their companies. Shareholders need intelligible disclosure that can be understood by a lay reader...

It thus seems safe to assume that shareholders prefer disclosure. By contrast, the fact that firms apparently do not disclose voluntarily, but have to be forced to disclose by the regulator, lends support to the view that managers are opposed to disclosure. The German evidence referred to above is a case in point.

We use three cross sections of 146 (in our 2002 and 2003 samples) and 140 (in the 2005 sample) German listed firms in order to analyze the characteristics of the firms that complied with the disclosure requirement in 2002 and 2003 and of the firms that filed for exemption in 2006. Using logit regressions, we find that (even after controlling for firm size and profitability) firms that offer higher per-capita executive compensation are less likely to disclose and are more likely to file for exemption. Consistent with the unravelling hypothesis, we find that firms that have a higher market valuation (as measured by Tobin's Q) are more likely to disclose in 2002 and in 2003. However, valuation does not affect the probability that a firm files for exemption in the 2005 sample. Finally, we document a non-monotonic relationship between ownership concentration and the willingness to comply with the code in 2003. The probability of disclosure is low for firms that have either a dispersed ownership structure or a high ownership concentration. It is highest at medium levels of free float (slightly below 60%). This is consistent with the fact that managers in firms that have dispersed ownership have more leeway. On the other hand, shareholders who have very large

ownership stakes are informed about managerial compensation anyway (they are typically represented on the supervisory board) and therefore do not need to pressure for disclosure in the annual report.

In the 2005 sample, the relation between ownership concentration and the decision to file for exemption appears to be positive and linear. We offer the following explanation. Managers of companies that have concentrated ownership can easily communicate with their shareholders and will only file for exemption if these shareholders signal their approval. The managers of companies that have more dispersed ownership cannot easily communicate with their shareholders. They might be afraid that their request will be turned down in the shareholders' meeting and may thus refrain from putting the item on the agenda.

These results have important implications that extend far beyond the issue of individualized disclosure of executive compensation. They cast doubt on the effectiveness of a comply-or-explain type of regulation *per se*. In contrast to the US, where compliance with corporate governance rules is generally mandatory and based on legal provisions, corporate governance practices in Europe are, to a large extent, founded upon the comply-or-explain principle.[3] In addition to Germany, the corporate governance codes of many major EU economies (for example, France, Spain, the Netherlands, and the UK) are based on this principle.[4]

Our study is related to previous research on the degree of compliance with the German Corporate Governance Code, and on the relation between code compliance and firm performance (Bassen et al. 2004, 2007, Drobetz et al. 2004, Nowak et al. 2004a, 2004b, 2006, Oser et al. 2004, v. Werder and Talaulicar 2005, v. Werder et al. 2005). However, none of these papers investigates what determines the degree of compliance. In this respect, the paper

[3] Charlie McCreevy (current European Commissioner for the Internal Market and Services) referred to the principle of "comply-or-explain" as "a central element of EU corporate governance" (EU press release IP/06/269 on March 6th 2006).

[4] On its website, the European Corporate Governance Institute (ECGI) maintains a list of corporate governance codes; see http://www.ecgi.org/codes/all_codes.php.

that comes closest to ours is Drobetz et al. (2005). They analyze the determinants of the corporate governance rating developed in Drobetz et al. (2004). However, the disclosure of executive compensation on an individual level is just one among a total of 30 criteria and is not analyzed separately.

The remainder of the paper is structured as follows. Section 2 provides background information on the institutional and regulatory setting in Germany. Section 3 develops arguments for, and presents, the hypotheses. Section 4 contains a description of our sample and data sources. In Section 5, we present descriptive statistics and the results of our multivariate logit analysis. Section 6 concludes.

2 Institutional Background

In 2001, the Minister of Justice appointed a commission whose mandate was to improve the governance of German listed corporations. Among the members of the commission were several current and former executives, a representative of the auditing profession, a representative of the Confederation of German Trade Unions (DGB), and two academics. In February 2002, the commission presented the initial version of the German Corporate Governance Code. The code contains sections on shareholders and the general meeting, the cooperation between management board and supervisory board, the management board, the supervisory board,[5] transparency, and the reporting and auditing of the annual financial statements. Each section contains a list of recommendations and suggestions that are deemed to constitute good corporate governance.

[5] The management board (Vorstand) is composed of the executive directors of the firm. The supervisory board is composed of shareholder and employee representatives. The shareholder representatives are appointed by the shareholders' general meeting. Typically, large shareholders will be represented on the supervisory board. However, this is not a formal requirement. Employee representation is mandated by the German co-determination laws. Among the tasks of the supervisory board are the appointment, monitoring, and dismissal of the members of the management board. The Stock Corporation Act requires that the supervisory boards of listed firms hold at least two meetings per year. The actual number of meetings is higher than this legally required minimum, but is lower than the number of board meetings of US corporations. A person cannot be a member of both the management board and the supervisory board.

The requirements and suggestions in the code are not compulsory. However, article 161 of the Stock Corporation Act (Aktiengesetz), amended in 2002, requires that listed firms publish an annual declaration of conformity. The statement must contain the information that the recommendations of the code "have been and are being complied with or which of the code's recommendations are not being applied."[6] Firms do not need to disclose whether a suggestion has or has not been followed. The declaration of conformity is signed jointly by the management board and the supervisory board and must be made permanently accessible to shareholders. Although not explicitly required by the law, the statement typically explains *why* a certain recommendation has not been applied.

The underlying principle of combining non-compulsory rules with the requirement to publish a statement of conformity is referred to as the "comply-or-explain" principle. Although largely absent in the US,[7] the comply-or-explain principle is widely used in Europe.[8] The most prominent example is the Combined Code in the UK, but many other EU member states have adopted codes that are based on this principle.

The German accounting rules, which are laid out in the German Commercial Code (Handelsgesetzbuch), require publicly listed firms to disclose the aggregate compensation of the members of the management board in their annual report. Individualized disclosure is not mandated by law. The first version of the code addressed the issue of individualized disclosure. It contained the suggestion that the figures on the compensation of the management board "should be individualized". This was only a suggestion; hence, the

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[6] Translation of Art. 161 Aktiengesetz (Stock Corporation Act) adopted from http://www.corporate-governance-code.de/eng/entsprechenserklaerung/index.html, the official homepage of the corporate governance commission.

[7] The Sarbanes Oxley Act (SOX) contains only two provisions that are similar to the "comply-or-explain" principle. Section 407a (Disclosure of Audit Committee Financial Expert) states: "The Commission shall issue rules… to require each issuer… to disclose whether or not, and if not, the reasons therefor, the audit committee of that issuer is comprised of at least 1 member who is a financial expert…" Section 406a (Code of Ethics for Senior Financial Officers) contains a similar provision.

[8] See the statement of the European Corporate Governance Institute on the comply-or-explain principle (http://ec.europa.eu/internal_market/company/docs/ecgforum/ecgf-comply-explain_en.pdf) for more information.

declaration of conformity did not need to state whether the suggestion was applied.[9] In July 2003, a new version of the code became effective, in which individual disclosure of the compensation of the members of the management board became a recommendation. As a consequence, the declaration of conformity now had to contain a statement on whether the recommendation was complied with.

However, only a small minority of firms (22 out of 146 in our 2003 sample) actually complied with this recommendation. The government took the low number of complying firms as evidence that the comply-or-explain principle had failed in this particular case and introduced a new law that makes disclosure mandatory. The law was passed in 2005. It requires that the annual report states the remuneration of executive directors on an individual basis. This applies to the annual report for the fiscal year beginning in 2006 and all future annual reports. However, the law also contains a provision that allows the shareholders' meeting to grant an exemption from the publication requirement. Managers who seek exemption from the reporting requirement for the 2006 financial report need to receive approval from a 75% majority at the 2006 shareholders' meeting. Approval can be granted for no more than five years, but can be renewed.

We can thus identify four regulatory regimes. Until 2002, firms were free to decide whether or not to disclose the individual compensation of the members of the management board. Checking the 2001 annual statements reveals that only one of our sample firms opted for full disclosure and one additional firm disclosed the compensation of the CEO. Because of this small number of observations, we did not include the 2001 data in our analysis.

From 2002 to 2003, individualized disclosure was included in the code as a suggestion. Of our sample firms, eight firms followed the suggestion fully and an additional two firms disclosed

[9] Note, though, that one can check whether the suggestion was applied by referring to the notes of the annual report.

the compensation of the CEO. In 2003, individualized disclosure was included in the code as a recommendation and non-compliance had to be reported in the declaration of conformity. The number of disclosing firms increased to 22. Since 2006, individualized disclosure has been a legal requirement that can be overruled by the shareholders' meeting. Forty out of 140 firms took advantage of this provision to opt out.

3 Hypotheses

We hold that the decision made by a firm as to whether or not to disclose the remuneration of its executives on an individual basis depends on the characteristics of the firm. In this section, we argue for this claim and derive testable hypotheses.

Previous academic research suggests that the level of information asymmetries between firms and (potential) investors is generally smaller for large firms (Petersen and Rajan 1992). Given that information asymmetries are related positively to the cost of external financing, firms have an incentive to convey private information to the market in order to reduce the information asymmetries. Financial analysts play an important role in collecting and disseminating information and thereby help to mitigate information asymmetries. In a model of the determinants of analyst coverage, Bushan (1989) shows that the extent to which analysts follow a firm is related positively to size. Bushan (1989) and Rock et al. (2001) confirm this prediction empirically and find a highly significant and positive relationship between the number of analysts and firm size. In addition, Brennan and Subrahmanyam (1995) suggest that increased coverage by analysts improves liquidity and attracts supposedly better informed institutional investors.

These findings suggest that large firms and firms that are more closely followed by analysts are subject to more intense monitoring by institutional investors and the general public. We therefore expect them to be under stronger pressure to comply with the regulation than smaller firms and formulate the following hypothesis:

H1: *The probability of disclosure is higher for larger firms and for firms followed by more analysts.*

Note that the term "higher probability of disclosure" refers to a) a higher probability that a firm discloses the managerial compensation individually in the 2002 and 2003 annual reports and b) a lower probability that the firm files for exemption from the legal disclosure requirement in the 2006 shareholders' meeting.

We use three alternative measures of firm size: the market value of equity, the book value of assets, and the number of employees. We use the number of analyst reports as a measure of analyst coverage.

It is a frequent perception that German accounting standards are not tuned to the informational requirements of investors in financial markets, and that financial statements based on German accounting standards are considered to be less informative than those based on international accounting standards.[10] In a study on the relative informativeness of accounting disclosures in different countries, Alford et al. (1993) show that earnings figures that are based on German accounting rules are less value-relevant than US GAAP earnings. In 2002 and 2003, firms had a choice of whether to use German accounting standards or apply international accounting rules (IFRS/IAS or US-GAAP).

In addition to voluntarily applying international accounting standards, companies might signal better corporate governance practices through cross-listings. The literature on cross-listings (see Karolyi 2006 for a recent survey) states that one motive for firms to list their shares on an exchange that has stronger disclosure requirements is to signal their quality. Coffee (1999, 2002) and Stulz (1999) suggest that by cross-listing, firms "bond" to a legal and regulatory system and (among other things) commit themselves to more rigorous disclosure.

[10] See e.g. Leuz and Wüstemann (2004, p. 475), who conclude that "[t]he evidence ... suggests that the level of public disclosure is lower in Germany and that financial statements in Germany are generally less informative than those of UK or US firms".

We expect that as these firms subject themselves voluntarily to more stringent publication requirements, they will also comply with the rules of the code. We therefore formulate the following hypothesis:

H2: The probability of disclosure is higher for firms that voluntarily adopt higher disclosure standards.

We test this hypothesis through two proxy variables. The first proxy is a dummy variable that is set to 1 for firms with a cross-listing on the NYSE (arguably the exchange that has the highest disclosure requirements). It is important to note that, even though firms that are listed on a US stock exchange are generally required to disclose executive remuneration on an individual basis, this requirement does not apply to foreign issuers. In this case, SEC disclosure rules allow firms to disclose only aggregate figures rather than individual remuneration (if so permitted in the issuer's home country). The second proxy is an indicator variable that is set to 1 if a company uses international accounting standards. Since 2005, exchange-listed firms have been required to apply international accounting standards. Therefore, our second proxy could only be included in the analysis of the 2002 and 2003 samples.

The level of executive compensation has become a subject of public debate in Germany. There appears to be a general feeling that salaries are too high.[11] In 2003, prosecutors indicted six former executives and supervisory board members of Mannesmann, a German telecom group, for excessive payouts. The charges concerned the approval of about € 60 million of bonuses and pension enhancements to Mannesmann's former CEO (Klaus Esser) and others after Mannesmann was taken over by Britain's Vodafone in 2000. After an initial bid of €101 billion, the anti-takeover fight of Mannesmann's executive board culminated in a hostile

[11] Management salaries in Germany are clearly lower than those in the US. Nevertheless, there is a widespread belief that they are too high. In autumn 2007, there was even a debate on whether a law should put a cap on management salaries.

takeover of €178 billion. In the aftermath of the takeover fight, Klaus Esser received a €15 million "appreciation award" for creating an increase in wealth of about €77 billion for Mannesmann's shareholders. The trial that followed in 2003 and 2004 adjudicated whether these bonus payments breached German law simply because of their size (Kolla 2004). Article 87 of the German Stock Corporation Act states that "when determining the total remuneration of individual executive directors, the supervisory board ... must ensure that total remuneration is kept in appropriate relation to the tasks of the executive director and the state of the company." The definition of the wording "appropriate relation" played a central role in the trial. Due to the provision of article 87, German law can be regarded as well-suited to controlling executive pay, compared with the law of many other countries (Cheffins 2001).

In his defence during the trial, Mr. Esser argued that it was not the magnitude of the bonus, but its public disclosure alone, that had led to the criminal charges (Jenkins and Major 2004). Even though the defendants were acquitted of criminal acts in 2004, the trial sensitised politicians and the general public to the issue of executive pay. Due to the public attention and the (perceived) risk of being charged with a breach of fiduciary duty, managers in firms that provide higher per-capita remuneration might be more reluctant to disclose their individual salaries. We therefore formulate the following hypothesis:

> *H3: The probability of disclosure decreases as the average per-capita executive compensation increases.*

Firm performance is another potential determinant of the probability of disclosure. Miller (2002) provides evidence that indicates that firms increase disclosure in response to earnings increases. During periods of earnings increases, levels of disclosure are not only higher with respect to financial information (e.g. earnings or sales forecasts) but also with respect to the voluntary disclosure of non-financial information (e.g. personnel changes). As earnings begin to decline, voluntary disclosure decreases and firms are shown to return to a lower level of

disclosure. In addition, Drobetz el al. (2004) document a positive relationship between past stock returns and a corporate governance rating for German firms. These findings suggest that there is a positive relationship between firm performance (both in terms of market-based and accounting-based measures) and the level of disclosure. Given the high degree of public attention given to executive remuneration in Germany, it also seems likely that higher compensation packages are justified more easily when profitability is high. Therefore, we expect the probability of disclosure to be related positively to measures of firm performance, and we expect that the probability that a firm files for exemption from the disclosure requirement is related negatively to these measures:

H4: The probability of disclosure is related positively to firm performance.

We use two measures of performance: the return on book equity, defined as net earnings divided by the book value of equity, and the index-adjusted stock return measured over the fiscal year.

The ownership structure of the firm may have an impact on the decision whether or not to comply with the regulation. In principle, external shareholders should seek increases in the level of disclosure by their firm, given that greater disclosure is related positively to share prices (Diamond and Verrecchia 1991, Bartov and Bodnar 1996). However, in firms in which ownership is less concentrated, control incentives for shareholders are usually low (Shleifer and Vishny 1986) and managers consequently have a lot of leeway. We thus expect managers in firms in which ownership is dispersed widely to be less willing to disclose their compensation on an individual basis in the 2003 annual report. On the other hand, large shareholders are in a position to put pressure on managers and to force disclosure. We therefore expect a positive relation between ownership concentration and the probability of disclosure. However, a *very* large shareholder does not have to rely on information published in the annual report and so will not be likely to try to force disclosure. For example, a

controlling shareholder will typically be represented on the supervisory board. Given that either the supervisory board or a committee consisting of some of its members decides upon the executive compensation, the controlling shareholder may be informed about the remuneration packages even if they are not disclosed publicly. Controlling shareholders might even be able to extract meaningful private benefits from the firm and seek lower disclosure in order to protect their consumption of perks from scrutiny (Doidge et al. 2004). For this reason, the relation between measures of ownership concentration and the probability of disclosure may become negative at very high levels of ownership concentration. In line with these arguments, Makhija and Patton (2004) provide evidence that suggests that public disclosure is related positively to external ownership at low levels of ownership and related negatively to external ownership if very large blockholders are present.

We do not expect a similar relation to hold between ownership concentration and the probability of disclosure in the 2005 sample. A manager who wants to avoid disclosure has to present the issue to the shareholders' meeting. Managers of firms that have large shareholders may communicate with these shareholders and elicit their opinion before filing for exemption. In this case, managers are only expected to file for exemption if the large shareholders have signalled their approval. By contrast, managers in firms in which ownership is dispersed widely cannot easily communicate with shareholders and therefore face the risk of being turned down at the shareholders meeting. Given the publicity that such an event would entail, managers of firms in which ownership is dispersed widely may well refrain from filing for exemption. These arguments lead us to formulate the following hypothesis:

H5: There is a (potentially non-monotonic) relation between the probability of disclosure and measures of ownership concentration in the 2002 and 2003 samples.

The measure we use to test this hypothesis is the free float, which is an inverse measure of the degree of ownership concentration.

The cost of disclosing the executive compensation is low and this information is likely to be easily verifiable. In these circumstances, theoretical models such as those of Grossman and Hart (1980), Grossman (1981), or Okuno-Fujiwara et al. (1990) might lead us to expect that all firms (with the potential exception of the worst firms) will ultimately choose to disclose. To test these predictions, we include Tobin's Q as a measure of valuation in the set of explanatory variables and formulate the following hypothesis:

H6: The probability of disclosure is higher for firms with higher Tobin's Q.

However, it is not entirely clear that the models referred to above apply to the present context. Although disclosure may cause little or no cost to the firm, it does cause non-monetary costs to the managers. Further, information on executive compensation is not related directly to the value of the firm. It is thus not obvious that firms of higher quality have a stronger incentive to disclose. There may, however, be an indirect link between disclosure and firm value. Assuming that shareholders prefer disclosure and managers prefer non-disclosure, owners of disclosing firms are likely to monitor the management more efficiently. Thus these firms have lower agency cost of equity which, in turn, may affect valuation (Diamond and Verrecchia 1991, Bartov and Bodnar 1996). Healy et al. (1999) find that firms that increase their voluntary disclosure experience significant increases in stock prices, irrespective of current earnings performance. Yet even in this case, the cost of disclosure is borne by management, while the benefits accrue largely to the shareholders. Thus, whether or not a firm discloses will depend on the intensity of monitoring and (the flip side of the coin) the amount of leeway that managers have. Our empirical analysis includes ownership concentration as a measure of the monitoring intensity *(H5)*. If managers hold large equity stakes or if their compensation depends strongly on the share price, they may have an incentive to disclose voluntarily. In order to control for these effects, we include in the set of explanatory variables a managerial

ownership variable and a dummy variable that is set to 1 if there is a stock option plan, and formulate the following hypothesis:

H7: The probability of disclosure is higher for firms in which managerial wealth or income is related more closely to the stock price.

4 Data

We study the disclosing behaviour of German firms by considering three cross-sections. Our initial sample consisted of the 150 stocks that were included in the DAX, MDAX, or SDAX[12] index as of December 31, 2002. Two firms subsequently filed for bankruptcy. One firm only published a preliminary annual report for the fiscal year 2002/2003, and the annual report of one firm did not provide the information required for our analysis.[13] Our final sample for 2002 and 2003 thus consisted of 146 firms. Six firms were delisted in the two years that followed. Our 2005 sample therefore consisted of 140 firms.

We used the annual reports for the fiscal years ending in 2002, 2003, and 2005 to obtain data on the average per-capita executive compensation.[14] These figures comprise the intrinsic value of stock options that were granted in the respective year. The information on whether the executive compensation was disclosed on an individual basis was also collected from the 2002 and 2003 annual reports.

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[12] The DAX (largest firms), MDAX (mid caps), and SDAX (small caps) are the three major indexes of Deutsche Börse for firms from classic sectors.

[13] Klöckner-Werke AG does not publish the aggregate executive compensation on the grounds that only one (out of a total of four) executive director receives his remuneration from the firm. In this case, disclosing the aggregate amount of executive compensation would be equivalent to disclosure on an individual basis. Due to the fact that the average per-capita executive remuneration is one of our explanatory variables, Klöckner-Werke AG has to be excluded from the sample.

[14] As noted in Section 2, disclosure of the *aggregate* executive remuneration is mandated by the German Commercial Code. Thus, firms have to disclose the aggregate board remuneration even if they decide not to voluntarily disclose individual figures. We combine the information on aggregate compensation with information on the number of board members to compute the average per-capita remuneration for all sample firms.

As mentioned above, publicly listed companies can file for an exemption from the disclosure of individual executive remuneration, which is otherwise mandatory from the 2006 annual report onwards. In order to circumvent disclosure, the approval of at least 75% of the voting capital represented at the 2006 shareholders' meeting is required. In the invitation to the 2006 shareholders' meeting, it is stated whether or not the management wish to file for exemption. We collected this information for our sample firms. In most cases, firms report the results of the votes on their websites. In other cases, the results on the opting-out decision was obtained from the companies' investor relations department.

We obtained data on the ownership concentration from Hoppenstedt Aktienführer.[15] Data on the size of the executive board (to calculate per-capita compensation) and on the accounting standard used (German or international, i.e., IFRS/IAS or US-GAAP) was collected from the same source. Stock prices and balance sheet information were taken from Datastream. We used the CDAX performance index to adjust stock returns. The number of analysts that follow each firm was obtained from the Institutional Broker's Estimate System (I/B/E/S).

5 Results

5.1 Univariate Analysis

Table 1 presents descriptive statistics for the 2002 and 2003 samples. The first row shows the number of disclosing and non-disclosing firms. In 2002, only 10 out of 146 firms disclosed the compensation of the members of the management board on an individual basis. Two of these firms published the compensation of the chair of the management board, but not the

[15] We use the free float as our measure of the ownership concentration. It is defined as the fraction of equity that is not held by large shareholders. Large shareholders are shareholders who hold more than 5% of the equity. Until the beginning of 2007, shareholdings below 5% did not have to be reported to the German Financial Supervisory Authority (BaFin). This data limitation affects the free float variable as well as the managerial ownership variable used to test Hypothesis 7. The Hoppenstedt Aktienführer is a yearly publication that provides detailed information (e.g., ownership structure, board composition, balance sheet information) on German listed firms.

other members of the board. We categorized these firms as disclosing firms.[16] In 2003, the number of disclosing firms increased to 22 (15%).

Please insert Table 1 about here

In the remainder of Table 1, we compare disclosing and non-disclosing firms. Panel A shows the results for the binary variables. The proportion of NYSE-listed firms is significantly higher among the disclosing firms. Similarly, disclosing firms are more likely to use international accounting standards and to have a stock option plan in place. These results are consistent with Hypotheses 2 and 7.

Panel B provides the results for the cardinal variables. The average per-capita compensation of the members of the management board is higher in disclosing firms. This contradicts Hypothesis 3. Note, however, that we do not control for firm size (which is correlated highly with per-capita compensation).

We use three measures of firm size: the market value of equity, the book value of assets, and the number of employees. Disclosing firms appear to be larger, although the differences are significant for only one of the measures. In addition, the free float is higher among disclosing firms (yet only weakly significant in 2003). Further, disclosing firms are followed by a larger number of analysts, and have a higher Q. These results are consistent with Hypotheses 1 and 6. We do not find significant differences in the two performance measures and the executive shareholdings.[17] There is thus no support for Hypothesis 4.

For the 2003 sample, we provide additional information on those firms that already disclosed in 2002. Consistent with the unravelling hypothesis, they have a higher Q than the group of all firms that disclosed in 2003 (and thus, in particular, have a higher Q than those firms that

[16] The results of our analysis remain unchanged when we a) classify these firms as non-disclosing or b) eliminate them from the sample.

[17] The differences in the return on book equity are large, but insignificant (mainly because of large variability among the non-disclosing firms). The difference is not driven by firms from a specific industry (e.g., banks).

disclosed for the first time in 2003). These firms are also followed by more analysts and have higher per-capita executive compensation.

Table 2 provides essentially the same information for the 2005 sample. Figures for firms that filed for exemption (these are the non-disclosing firms) are shown in column 1 and figures for firms that did not file for exemption are shown in column 2. Due to the fact that the adoption of international accounting standards was mandatory in 2005, we dropped this variable from the table.

Please insert Table 2 about here

Forty out of 140 firms (29%) filed for exemption from the disclosure requirement in the 2006 shareholders' meeting. In three cases, the item was eliminated from the agenda shortly before the meeting, probably due to opposition by shareholders.[18] We treated these firms as non-disclosing firms, because the management initially filed for exemption. Treating them as disclosing firms or eliminating them from the sample does not change the results materially.

The sub-sample of disclosing firms (firms that did not file for exemption) contains a larger proportion of NYSE-listed firms and a larger proportion of firms that have a stock option plan in place. This is consistent with our Hypotheses 2 and 7. Consistent with the results for 2002 and 2003, but in contrast to Hypothesis 3, the average per-capita compensation is higher for disclosing firms. Again, it should be noted that the univariate analysis does not control for firm size. In addition, the disclosing firms are larger, followed by more analysts, and have a higher free float and thus less concentrated ownership. These findings are in line with Hypotheses 1 and 5. There are no significant differences for the remaining variables. Thus, we do not find support for Hypotheses 4 and 6.

[18] In two cases the "Deutsche Schutzvereinigung für Wertpapierbesitz" (DSW) explicitly claims that the item was eliminated from the agenda as a reaction to their opposition. DSW is an organization that defends the interests of minority shareholders.

5.2 Logit Models

The descriptive analysis presented thus far does not control for interdependencies between the independent variables. We therefore estimate logit models in which the disclosure decision is the dependent variable.

The right-hand-side variables include one measure of firm size, one measure of firm performance, Tobin's Q, the natural logarithm of the per-capita executive compensation, the free float and the squared free float (in order to account for nonlinearity in the relation between ownership structure and the disclosure decision), the percentage of shares held by executives, the number of analysts following, and dummy variables identifying firms that use German accounting standards (only in the 2003 sample[19]), firms the shares of which are listed on the NYSE, and firms that have a stock option plan in place.

We have three firm size measures and two performance measures. In order to avoid multicolinearity, we included only one size measure and one performance measure in any individual regression. This results in a total of six models.[20]

The results for the 2002 sample are not reported in detail, because only 7% of the sample firms disclose executive remuneration individually. Only Tobin's Q has explanatory power for the disclosure decision. Firms that have a higher valuation are more likely to disclose. All other explanatory variables are insignificant. In fact, if we re-estimate the model without Tobin's Q, a likelihood ratio test does not reject the null hypothesis that the independent variables are jointly insignificant for three of the six models at the 10% level.

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[19] The adoption of international accounting standards was mandatory for the 2005 annual report. Thus, all firms in the 2005 sample use international accounting standards. In the 2002 sample, all disclosing firms adopt international accounting standards (see Table 1). We thus have separation, which makes estimation of the model infeasible. Omission of the variable that causes separation is a standard procedure (see Zorn 2005).

[20] We simultaneously include one of the size measures and analyst coverage. This may also cause multicolinearity. We therefore re-estimated all models without the analyst coverage variable. The results are qualitatively similar. The NYSE dummy becomes significant at the 10% level in four (out of 18) models, which provides (weak) support for Hypothesis 2.

When interpreting these results, it should be kept in mind that in 2002 the code only *suggested* the individual disclosure of the compensation of the members of the management board. The declaration of conformity did not need to state whether the suggestion was followed. Thus, in a sense, disclosure was voluntary. Our finding that firms with a higher Q are more likely to disclose is thus supportive of the predictions of voluntary disclosure models (Hypothesis 6). It should be noted, though, that the low fraction of disclosing firms in the 2002 sample reduces the explanatory power of the model.

Table 3 reports the results for the 2003 sample. A likelihood ratio test easily rejects the null hypothesis that the independent variables do not have explanatory power. We note that neither the size nor the performance measure is significant in any of the six models. The same applies to the executive shareholdings, the number of analysts following, and the dummy variables that identify firms that use German accounting standards, firms with a NYSE listing, and firms that have a stock option plan in place.

As in the 2002 sample, the coefficient on Tobin's Q is positive and significant. We further find a negative and significant relation between the average per-capita compensation of the members of the management board and the probability of disclosure.

The relation between the free float and the probability of disclosure is non-linear and significant. The sign and magnitude of the coefficients suggest that the probability of disclosure is low for firms that have dispersed ownership, increases with ownership concentration up to a maximum level, and then decreases again. The probability of disclosure is highest for levels of free float slightly below 60%.[21] This result is consistent with managers in firms in which ownership is dispersed widely having a high degree of leeway. When

[21] The coefficient estimates in a logit model do not represent marginal effects. However, the ratio of two coefficients is equal to the ratio of the marginal effects. We can use this relation to obtain the level of free float that maximizes the probability of disclosure. The corresponding values range from 57.7% to 58.8% in the six models. Thirty-eight of the 146 sample firms have a free float above 60%.

ownership concentration increases, managers face increasing pressure to comply with the disclosure requirement. However, at very high levels of ownership concentration (i.e., low free float), the dominant shareholders do not have to rely on published information (e.g. because they are represented on the supervisory board) and therefore does not seem to pressure for disclosure.

In summary, the results for the 2003 sample provide support for Hypotheses 3 (average compensation), 5 (ownership concentration) and 6 (firms with higher Tobin's Q are more likely to disclose voluntarily).

Please insert Table 3 about here

The results for the 2005 sample are shown in Table 4. The dependent variable is set to 1 if a firm does *not* file for exemption from the legal disclosure requirement. With this definition of the left-hand-side variable, we expect the same coefficient signs as before. Again, the null hypothesis that the independent variables do not have explanatory power is easily rejected. The logit models for the 2005 sample include one additional control variable, a dummy that indicates whether or not a firm disclosed in the previous year. This variable turns out to be positive and highly significant.[22]

The positive coefficients on two of the size measures (market capitalization and number of employees) suggest that large firms are more likely to disclose executive compensation on an individual basis, i.e. they are *less* likely to file for exemption from the legal disclosure requirement. This supports Hypothesis 1.

Consistent with Hypothesis 3 and the results for the 2003 sample, we find that the coefficient on per-capita executive remuneration is always negative and significant in five out of six

[22] We could not include a dummy variable for disclosure in the previous year in the other two models because of the separation problem addressed earlier. All firms that disclosed in 2002 also disclosed in 2003 (and similarly for 2001 and 2002); hence, estimation of a model with the lagged dependent variable on the right-hand side is infeasible. In the 2005 sample, the problem does not arise because there are firms that disclosed in 2004 but filed for exemption from the disclosure requirement in 2006.

models. Thus, firms that have higher average executive compensation are less likely to disclose.[23]

The coefficient on the free float variable is positive and significant, whereas the squared term is insignificant. The relation between ownership concentration and the disclosure decision thus appears to be linear. Additional regressions without the squared term (not reported) confirm this pattern and show highly significant (at the 0.01-level) coefficients for the free float variable in all model specifications. This implies that firms that have greater free float, and thus a more dispersed ownership structure, are more likely to disclose. As already noted, managers of firms in which ownership is dispersed widely may refrain from filing for exemption because of the risk of being turned down in the shareholders' meeting.

The other explanatory variables are insignificant. Thus, we do not find support for Hypotheses 2, 4, 6, or 7. The fact that Tobin's Q is insignificant may be surprising, given the results for the 2002 and 2003 samples. We should keep in mind, though, that we are considering a regulatory regime in which disclosure is mandated by law. Thus, and notwithstanding the opting-out clause, it is not obvious that a hypothesis that builds on the voluntary disclosure literature is appropriate.

Please insert Table 4 about here

[23] In additional regressions (not reported), we analyze whether the difference in per-capita remuneration between disclosing and non-disclosing firms is also economically significant. Hence, we estimate several cross-sectional (OLS) regressions in which the per-capita remuneration is the dependent variable. On the right-hand side, we included typical variables identified by the executive compensation literature (firm size, profitability, managerial ownership, ownership structure, and a dummy for stock option plans; see, e.g. Ryan and Wiggins 2001). We add a dummy variable that indicates whether the remuneration is disclosed individually. In these regressions, we find statistically and economically significant and negative coefficients for disclosing firms. The coefficient values indicate that per-capita compensation is much lower for disclosing firms, by about 250,000 € in 2003, and by about 330,000 € in 2005.

6 Discussion

The German Corporate Governance Code works according to the comply-or-explain principle. When initiated in 2002, the code was given a legal basis through a mandatory declaration of conformity introduced by an amendment to the German Stock Corporation Act. All firms have to publish an annual statement that documents which recommendations have been met. Non-conformity with suggestions does not need to be declared.

In the first version of the code, the publishing of executive remuneration on an individual basis was included as a suggestion and in 2003 its status was changed to that of a recommendation. We examined the functioning of this type of regulation, using a sample of about 150 German companies. In particular, we analyzed the characteristics of the firms that complied with the code.

In 2002, disclosure was only a suggestion and thus largely voluntary. We found that the only variable that significantly affects the probability of disclosure in our 2002 sample is Tobin's Q. This result is consistent with the predictions of voluntary disclosure models.

The result that Tobin's Q positively affects the probability of disclosure is confirmed in the 2003 sample. We further found that firms that have higher per-capita executive compensation are less likely to disclose. Ownership concentration has a significant, but non-monotonic influence on the probability of disclosure. The probability is highest at a level of free float of slightly below 60% and lower if shareholdings are either highly concentrated or dispersed. This can be interpreted as evidence of free-rider problems in companies in which ownership is dispersed widely, where small shareholders do not have the power to enforce disclosure. On the other hand, dominant shareholders who can obtain this information by means other than the disclosure in the annual report do not have an incentive to encourage disclosure. In both cases, small shareholders are discriminated against.

Our results also show that, even after controlling for firm performance and size, average per-capita compensation has a negative and significant influence on the probability to disclose remuneration packages in detail. This implies that individual remuneration is not disclosed in those cases where it is potentially most interesting.

As a response to the low fraction of disclosing firms, a new law was enacted that mandates disclosure from the 2006 annual report onwards unless the shareholders' meeting grants an exemption from the disclosure requirement. This loophole is exploited by about 30% of the firms in our sample. We analyzed empirically the characteristics of the firms that filed for exemption from the disclosure requirement. The decision to put forward a request at the 2006 shareholders' meeting is related significantly to several firm characteristics. The probability that a firm files for exemption is significantly lower for larger firms. In line with the results for the 2003 sample, firms that have a higher average executive remuneration package are less likely to disclose. With respect to the influence of ownership concentration, we document a linear relationship, with there being a higher probability of not filing for exemption for firms that have a more dispersed ownership structure. In our view, this is due to the fact that managers of firms in which ownership is dispersed more widely cannot communicate easily with their shareholders and therefore face the risk of being turned down at the shareholders meeting. If firms have dominant shareholders, managers are likely to present their request to the shareholders' meeting only when the dominant shareholders have signalled their approval in advance.

In sum, our findings cast doubt on the effectiveness of the comply-or-explain principle. Managers can decide not to commit themselves to transparency requirements if the ownership structure and the accompanying monitoring incentives give them the freedom to do so. Most interestingly, managers tend to avoid disclosure in precisely the cases in which binding transparency regulation would be of a great importance: i) if minority shareholders – who

cannot push for disclosure – are present and ii) if executive remuneration is particularly high. Our results further indicate that a mandatory disclosure rule with a loophole provision strengthens the position of small shareholders.

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Table 1: Descriptive Statistics 2002 & 2003

The table presents descriptive statistics for the sample firms (n=146). Panel A shows information on binary variables. It presents the number and percentage (in parentheses) of firms in each subgroup; percentages are related to the total number of firms in each subgroup. For example, the percentage of NYSE-listed firms among all non-disclosing firms is 0.08 (11/136) in 2002. Panel B contains means of cardinal variables. The market value of firms' equity was obtained at the end of each year. Stock returns were index-adjusted using the CDAX performance index and measured over the fiscal year ending in 2002 and 2003, respectively. The return on book equity is defined as net earnings divided by the book value of equity. This variable could not be calculated for two firms that had negative book values of equity. The free float was calculated by subtracting all shareholdings larger than 5% from the total number of shares. Executive shareholdings are defined as the percentage of voting shares held by members of the executive board at the end of the (calendar) year. The number of analyst reports was calculated by averaging the number of analysts that follow a company in January, June, and December of each year as reported in the I/B/E/S database. Tobin's Q was computed as the market value of equity + (total assets – book value of equity) divided by total assets. We tested whether firm characteristics are equal in disclosing and non-disclosing firms using the non-parametric Wilcoxon rank-sum test. A superscript * [**, ***] denotes significance at the 10% [5%, 1%] level.

Panel A: Binary Variables

	2002		2003		
	No disclosure	Disclosure	No disclosure	Disclosure	*thereof, firms that disclosed in 2002*
Individual disclosure	136	10	124	22	*10*
NYSE-listing	11 (0.08)	4 (0.40)***	10 (0.08)	8 (0.36)***	*5*
International accounting standards (IFRS / US-GAAP)	92 (0.68)	10 (1.00)**	90 (0.73)	20 (0.91)*	*10*
A stock option plan exists	84 (0.62)	9 (0.90)*	73 (0.59)	18 (0.82)**	*9*

Panel B: Cardinal Variables

	2002		2003		
	No disclosure	Disclosure	No disclosure	Disclosure	*thereof, firms that disclosed in 2002*
Average per-capita executive compensation (€ 1,000)	819.69	1,285.93 **	901.14	1,089.59	*1,414.47*
Market value of equity (€ m., Dec 31)	3,109	6,084 ***	3,143	8,309 **	*8,449*
Book value of assets (€ m., end of fiscal year)	32,029	9,401	28,228	38,134	*9,116*
Number of employees (end of fiscal year)	31,422	41,361	27,377	55,453	*40,683*
Return on book equity over the fiscal year [n = 144]	-1.91%	13.19%	-4.28%	5.28%	*11.20%*
Stock return (index-adjusted)	13.40%	0.90%	13.3%	0.84%	*8.9%*
Free float	41.68%	50.80%	39.86%	50.56% *	*50.68%*
Executive shareholdings	6.32%	1.21%	6.55%	2.72%	*1.10%*
Number of analyst reports	13.22	24.97 ***	12.91	22.91 ***	*27.67*
Tobin's Q	1.12	1.73 **	1.20	1.81 ***	*2.11*

Table 2: Descriptive Statistics 2005

The table presents descriptive statistics for the sample firms in 2005 (n=140). Panel A shows information on binary variables. It presents the number and percentage (in parentheses) of firms in each subgroup; percentages are related to the total number of firms in each subgroup. For example, the percentage of NYSE-listed firms among all firms that filed for exemption is 0.03 (1/40). Panel B contains means of cardinal variables. The market value of equity was obtained at the end of 2005. Stock returns were index-adjusted using the CDAX performance index and measured over the fiscal year ending in 2005. The return on book equity is defined as net earnings divided by the book value of equity. The free float was calculated by subtracting all shareholdings larger than 5% from the total number of shares. Executive shareholdings are defined as the percentage of voting shares held by members of the executive board at the end of 2005. The number of analyst reports was calculated by averaging the number of analysts that follow a company in January, June, and December of 2005 as reported in the I/B/E/S database. Tobin's Q was computed as the market value of equity + (total assets – book value of equity) divided by total assets. We tested whether firm characteristics are equal in disclosing and non-disclosing firms using the non-parametric Wilcoxon rank-sum test. A superscript * [**, ***] denotes significance at the 10% [5%, 1%] level.

Panel A: Binary Variables

	Filed for exemption	Did not file
Individual disclosure	40	100
NYSE-listing	1 (0.03)	19 (0.19) **
A stock option plan exists	15 (0.38)	69 (0.69) ***

Panel B: Cardinal Variables

	Filed for exemption	Did not file
Average per-capita executive compensation (€ 1,000)	891.88	1,199.67 **
Market value of equity (€ m., Dec 31)	1,516	6,708 ***
Book value of assets (€ m., end of fiscal year)	15,952	39,253 ***
Number of employees (end of fiscal year)	8,967	41,834 **
Return on book equity over the fiscal year	11.76%	3.95%
Stock return (index-adjusted)	17.99%	5.49%
Free float	27.95%	50.39% ***
Executive shareholdings	11.11%	3.58%
Number of analyst reports	7.24	15.42 ***
Tobin's Q	1.53	1.47

Table 3: Logit Models, 2003 Sample

The table shows the results of logit regressions. The dependent variable is a binary variable that indicates whether a firm disclosed the executive compensation on an individualized basis in its 2003 annual report. The first column shows the independent variables. The return on book equity is defined as net earnings divided by the book value of equity. Stock returns were index-adjusted using the CDAX performance index and measured over the fiscal year ending in 2003. Tobin's Q was computed as market value of equity + (total assets – book value of equity) divided by total assets. The free float was calculated by subtracting all shareholdings larger than 5% from the total number of shares. Executive shareholdings are defined as the percentage of voting shares held by members of the executive board at the end of the (calendar) year. Analyst coverage was calculated by averaging the number of analysts that follow a company in January, June, and December of 2003 as reported in the I/B/E/S database. 'Executive stock option plan' is an indicator variable that is set to 1 if a company uses stock options as part of the executive remuneration. Each cell shows the estimated coefficient and the z-value (in parentheses). A superscript * [**] denotes significance at the 10% [5%] level. The last three lines show the maximized log likelihood, the p-value of a LR test of the null hypothesis that all slope coefficients are jointly zero, and the McFadden-R^2. The sample size is reduced to 144 in models 1-3 (the models that include the return on book equity as an explanatory variable) because we had to exclude two firms with negative book value of equity.

	1	2	3	4	5	6
Constant	0.033 (0.01)	-0.298 (-0.07)	-0.008 (-0.00)	-0.961 (-0.29)	-1.392 (-0.33)	-1.036 (-0.30)
Log(market value of equity)	0.023 (0.06)			0.120 (0.35)		
Log(total assets)		0.031 (0.14)			0.059 (0.26)	
Log(number of employees)			0.020 (0.08)			0.069 (0.28)
Return on book equity	0.425 (0.52)	0.429 (0.55)	0.432 (0.55)			
Index-adjusted stock return				-0.567 (-0.86)	-0.562 (-0.86)	-0.570 (-0.86)
Tobin's Q	0.761** (2.03)	0.792* (1.90)	0.774** (1.99)	0.809** (2.16)	0.891** (2.20)	0.871** (2.31)
Log(per-capita executive compensation)	-1.112** (-2.00)	-1.114** (-2.05)	-1.114** (-1.99)	-1.054* (-1.85)	-1.020* (-1.86)	-1.037* (-1.82)
Free float	8.404* (1.79)	8.417* (1.83)	8.380* (1.82)	8.700* (1.82)	8.446* (1.82)	8.455* (1.83)
Free float^2	-7.279* (-1.67)	-7.281* (-1.69)	-7.261* (-1.68)	-7.391* (-1.67)	-7.174* (-1.66)	-7.198* (-1.66)
Executive shareholdings	0.086 (0.02)	0.106 (0.04)	0.088 (0.03)	0.410 (0.14)	0.387 (0.14)	0.418 (0.15)
Accounting standard	0.944 (0.99)	0.961 (1.01)	0.940 (1.01)	0.959 (1.01)	0.937 (0.99)	0.918 (0.99)
NYSE listing	0.902 (1.13)	0.901 (1.13)	0.899 (1.12)	0.919 (1.15)	0.917 (1.15)	0.908 (1.14)
Analyst coverage	0.066 (1.17)	0.065 (1.41)	0.067 (1.63)	0.054 (0.99)	0.060 (1.30)	0.062 (1.48)
Executive stock option plan	0.377 (0.56)	0.387 (0.57)	0.384 (0.56)	0.376 (0.56)	0.392 (0.58)	0.394 (0.58)
Log likelihood	-47.19	-47.18	-47.19	-46.98	-47.01	-47.01
LR-Test - p-value	0.002	0.002	0.002	0.002	0.002	0.002
McFadden-R^2	0.233	0.234	0.234	0.241	0.240	0.241

Table 4: Logit Models, 2005 Sample

The table shows the results of logit regressions. The dependent variable is a binary variable that indicates whether a firm filed for exemption from the disclosure requirement in the 2006 shareholders' meeting. The variable is set to 1 if the firm did *not* file for exemption. The first column shows the independent variables. The return on book equity is defined as net earnings divided by the book value of equity. Stock returns were index-adjusted using the CDAX performance index and measured over the fiscal year ending in 2005. Tobin's Q was computed as the market value of equity + (total assets – book value of equity) divided by total assets. The free float was calculated by subtracting all shareholdings larger than 5% from the total number of shares. Executive shareholdings are defined as the percentage of voting shares held by members of the executive board at the end of the (calendar) year. Analyst coverage was calculated by averaging the number of analysts that follow a company in January, June, and December of 2005 as reported in the I/B/E/S database. 'Executive stock option plan' is an indicator variable that is set to 1 if a company uses stock options as part of the executive remuneration. Each cell shows the estimated coefficient and the z-value (in parentheses). Each cell shows the estimated coefficient and the z-value. A * [**] denotes significance at the 10% [5%] level. The last three lines show the maximized log likelihood, the p-value of a LR test of the null hypothesis that all slope coefficients are jointly zero, and the McFadden-R^2. The sample comprised 140 firms.

	1	2	3	4	5	6
Constant	1.050 (0.37)	-0.557 (-0.17)	0.684 (0.24)	3.030 (1.08)	0.752 (0.23)	2.381 (0.84)
Disclosure in 2004	1.385 ** (1.98)	1.503 ** (2.15)	1.613 ** (2.27)	1.429 ** (2.06)	1.446 ** (2.08)	1.581 ** (2.25)
Log(market value of equity)	0.579 ** (1.98)			0.526 * (1.92)		
Log(total assets)		0.294 (1.44)			0.313 (1.53)	
Log(number of employees)			0.414 ** (1.97)			0.386 ** (1.87)
Return on book equity	-1.673 (-1.14)	-0.987 (-0.81)	-1.346 (-0.93)			
Index-adjusted stock return				-0.900 (-1.62)	-0.811 (-1.49)	-0.766 (-1.44)
Tobin's Q	-0.176 (-0.66)	0.034 (0.12)	0.029 (0.11)	-0.232 (-0.93)	0.023 (0.09)	-0.024 (-0.09)
Log(per-capita executive compensation)	-0.870 * (-1.77)	-0.776 (-1.62)	-0.889 * (-1.83)	-1.191 ** (-2.27)	-1.070 ** (-2.10)	-1.162 ** (-2.27)
Free float	5.008 (1.49)	4.275 (1.31)	4.770 (1.45)	6.426 * (1.82)	5.460 * (1.73)	5.830 * (1.73)
Free float^2	-0.684 (-0.31)	-0.565 (-0.15)	-1.039 (-0.27)	-2.516 (-0.65)	-1.566 (-0.41)	-1.965 (-0.51)
Executive shareholdings	-0.684 (-0.47)	-0.739 (-0.53)	-0.738 (-0.53)	-0.899 (-0.61)	-0.807 (-0.57)	-0.829 (-0.58)
NYSE listing	0.783 (0.63)	0.969 (0.78)	0.802 (0.64)	0.670 (0.54)	0.871 (0.69)	0.731 (0.58)
Analyst coverage	0.001 (0.02)	0.032 (0.76)	0.040 (1.05)	0.015 (0.33)	0.037 (0.87)	0.048 (1.27)
Executive stock option plan	0.425 (0.85)	0.457 (0.92)	0.418 (0.83)	0.713 (1.36)	0.709 (1.37)	0.655 (1.26)
Log likelihood	-57.21	-58.30	-57.38	-56.83	-57.58	-57.00
LR-Test - p-value	0.000	0.000	0.000	0.000	0.000	0.000
McFadden-R^2	0.317	0.304	0.315	0.321	0.313	0.320

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