

Does self-regulation work in a civil law country?  
An empirical analysis of the declaration of conformity  
to the German Corporate Governance Code

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**Abstract**

This paper studies the short-run announcement and long-run effects of compliance with the German Corporate Governance Code ('the Code') on firm value. First, we present evidence and implications from an analysis of firms' compliance behaviour regarding the Code. Second, event study results suggest that firm value is unaffected by the announcement, although such market reactions to the first time disclosure of the declaration of conformity were widely assumed by the private and public promoters of the Code. Finally, we find that acceptance of the Code has no long-term impact neither on stock price performance nor on relative market valuation (as measured by Tobin's Q). These results from acceptance of the German Code add further evidence to the hypothesis that regulatory corporate governance initiatives that rely on mandatory disclosure without monitoring and enforcement are ineffective in civil law countries.

*JEL classification:* G14, G34, G38, K22

*Keywords:* Corporate Governance, Self-regulation, Event Studies, Governance Index

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*“Thou who dare not to comply with The Code shall be punished by the capital market.”*  
*Gerhard Cromme, Former CEO, Chairman of the Supervisory Board of ThyssenKrupp AG, and*  
*Chairman of the German Corporate Governance Code Commission.*

## **1. Introduction**

A growing body of empirical literature shows that good corporate governance is associated with higher firm value and superior stock returns.<sup>1</sup> Motivated by this (somewhat less surprising) findings as well as increased public demands for better shareholder protection and higher transparency, most countries in the European Union have started self-regulation initiatives to apply standards of good corporate governance via ‘codices’.<sup>2</sup> What comes from an empirical analysis of these corporate governance initiatives is a basis to evaluate what can be expected from voluntary codices or self-regulation solutions in general.<sup>3</sup>

For the United Kingdom, the recommendations of the Cadbury Commission supposedly led to positive changes in corporate control through better board supervision (Stiles and Taylor, 1993), higher sensitivity of management turnover to performance (Dahya et al., 2002), as well as to an improvement in the average performance of the firms (Dedman, 2000; Peasnell et al., 2000). Using the Netherlands as another example, the results of self-regulation appear to be quite different. In 1996, the “Committee on Corporate Governance” (Peters-Commission) was established. According to De Jong et al. (2004) the recommendations of the Peters-Commission led to no positive influence on firm value. Additionally, no stock price reactions can be found when resolutions suggested by the Peters-Commission were adopted. For Spain, Fernandez-Rodriguez et al. (2004) report that the market reaction to announcements of compliance with the code seems to be only positive for firms which also announce a major restructuring of the board structure, concurrently. Alves and Mendes (2004) also find no systematic effect of compliance on the performance of Portuguese firms.

The different results for UK on the one hand, and Portugal, Spain, and the Netherlands on the other hand, are probably contingent on different standards of investor protection in these countries. While UK is assigned to the Anglo-Saxon common law system with traditionally high enforcement standards in investor protection, the Netherlands,

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<sup>1</sup> Examples are Coombes and Watson (2000); McKinsey (2002); Gompers et al. (2003); Bauer et al. (2004); Drobetz et al. (2004).

<sup>2</sup> Compare for example the list of codices available at the ECGI web site (<http://www.ecgi.org>). See also Aguilera and Cuervo-Cazurra (2004).

<sup>3</sup> Even a comparative legal study by Weil et al. (2002, p. 79), which positively evaluates the code approach, comes to the following conclusion: “The greatest distinctions between corporate governance practices in EU Member States appear to result from *differences in law* and not from differences in recommendations that emanate from the types of codes.”

Portugal, and Spain abide by the French civil law system (La Porta et al., 1998). Under the legal conditions in the Netherlands, management and supervisory board have many ways to separate cash flow and voting rights, which considerably minimizes the control rights of the (minority) shareholders. The very different outcomes between the private self-regulation initiatives in UK and the Netherlands are seen by De Jong et al. (2004) to concur with the idea of Hart (1995) that changes in the corporate governance system by means of self-regulation necessitates a high quality system of investor protection incorporated into the market mechanism.

Our paper complements and expands these studies by looking at the short-run and long-run effects of the German Corporate Governance Code ('the Code'). The German Code is particularly interesting to investigate for the following reasons: (i) all (quoted) German stock companies have to reject the Code, or accept it completely or in part. Thus we are able to investigate not only the general effect but also the effect of varying degrees of compliance with the Code; (ii) all German firms have to disclose annually a declaration of conformity with the Code, enabling us to examine both, the imminent reaction of individual share prices, as well as the long-term impact of corporate governance compliance on firm valuation and stock returns. We are also able to draw general conclusions about the compliance behaviour of firms.

Our results suggest that firm value is unaffected by the announcement, although such market reactions were widely assumed by private and public promoters of the Code. In sum, we find that acceptance of the Code has neither effect on stock price performance nor relative market valuation. Even in the long term, better governance (measured by the degree of compliance with the Code) does not lead to higher firm valuation. Because complying seems to be costless, the overall degree of compliance looks high on the surface but is not equivalent to quality of governance. Our results have pessimistic implications for the future success of the German Code. We conclude that corporate governance regulation relying on disclosure without enforcement is ineffective in civil law countries; therefore, the German Code is likely to be over-turned by codified law in the future.

The rest of the paper is organized as follows. The next section gives an overview on the German corporate governance system from a 'law & finance'-perspective. Section 3 explains the development and design of the German Corporate Governance Code in detail. In section 4 we formulate testable hypotheses on the functioning of the Code, based on underlying assumptions made by the regulator, experiences with the failure of other self-regulation initiatives, and other evidence. Section 5 describes the data and analyzes

compliance behaviour. In section 6 we present the empirical results of the event study, while the long-run effects of compliance are analyzed in Section 7. Section 8 concludes.

## **2. A 'law & finance'-view on the German corporate governance system**

The 'law & finance'-literature depicts the German corporate governance system as incorporating pronounced creditor protection but deficient protection of minority shareholders (La Porta et al., 1997, 1998, and 2000; Wenger and Kaserer, 1998). This characterization is based on differences in the legal enforceability of investor protection in existing legal systems. According to the workings of the French comparative legal historian René David (David and Jauffret-Spinosi, 2002)<sup>4</sup>, one must differentiate between the Anglo-Saxon system<sup>5</sup> of common law and the civil law systems (derived from Roman law) in France, Germany, and Scandinavia. The tradition of Anglo-Saxon common law is sturdily built on universal legal principles such as fairness, fiduciary duty and loyalty; its solid roots in case law ensure stricter ex-post protection of claimants. In comparison, continental Europe's tradition of civil law is bound to a comprehensive set of rules (codified law), which limits the chance of a dispensation of justice in protection of investors, e.g., minority shareholders. Accordingly, a successful verdict which recognizes discrimination of minority shareholders becomes possible only in the case of violation of a concrete law (that has formerly been enacted by the parliament).

Based on this notion, La Porta et al. (1998) show in various cross-national comparisons, that common law certifies a more comprehensive protection of external investors. As a result of the disparities in the amount of regulation and investor protection in legal systems, it is necessary to evaluate corporate governance standards and their possible implementation in the context of the individual country.<sup>6</sup> Though the protection of minority shareholders in the German capital market is traditionally assumed to be quite weak, recent changes have given way to a fundamentally new view. The German government has passed a number of new bills which have radically modernised the capital market and corporate governance system (Nowak, 2001). One of the latest of these regulatory initiatives was the introduction of the German Corporate Governance Code.

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<sup>4</sup> The most recent edition of his theory is David and Jauffret-Spinosi (2002), although the version most widely cited in the economics literature is the English adaptation of the second French edition, David and Brierley (1985).

<sup>5</sup> To be precise, David does not speak of legal 'systems' but of legal 'families'. We will use both terms interchangeably.

<sup>6</sup> For an analysis of corporate governance mechanisms taking into account the differences in the US-American and German legal system see Schneider and Strenger (2000).

### **3. The German Corporate Governance Code**

#### *3.1 The German Corporate Governance Code – an Overview*

The ‘Government Commission on Corporate Governance’ (Baums-Commission) was introduced in July 2000 by the German government and charged with developing detailed recommendations regarding individual governance standards and advancements to German company law.<sup>7</sup> In its final report from July 2001 (Baums, 2001), the Commission suggested a code of best practice and articulated support for a voluntary self-regulation mechanism, since adoption of legally enforced regulations were arguably often cumbersome and detrimentally delayed.<sup>8</sup> According to Baums (2001), such laws often would lack enough leeway for necessary differentiation between firms. This missing legal enforcement was indeed highly appreciated by the corporate sector, since it is a common view that the German economy is already ‘over-regulated’ (with almost 20,000 legal provisions) and constraining to business activity (von Rosen, 2004).

Overall, the Baums-Report aims to show a strong orientation towards the flexible stock corporation laws of the federal states in the US. But contrary to Germany, investor protection in the US is based on three strong grounds: (i) the common law tradition of a judicial ex-post protection, in case of violations of fiduciary duty by majority shareholders or breaches of loyalty by the board; (ii) the powerful SEC’s investor protection regime; and (iii) the pressure of an efficient capital market (institutional investors, analysts, financial press, and listing rules). Nevertheless, the Baums-Commission argued that transferring these flexible corporate governance principles into the legal and institutional German capital market environment was reasonable, because they anticipate convergence of investor protection standards in Germany and other continental European countries in the direction of Anglo-Saxon stock corporation law (Baums, 2001). However, the validity of this convergence hypothesis is debated among academics (Pro: Gilson, 2000; Contra: Schmidt and Spindler, 2002), and even the Commission points out that investor protection in Germany is different from US investor protection in two of the three fundamental principles outlined: (i) the consequences for effective ex-post investor protection resulting from the existence of different legal traditions; and (ii) the differences in the authorities of the SEC and the Federal

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<sup>7</sup> Appendix I gives a detailed chronological overview on the regulatory stages introducing the Code.

<sup>8</sup> The Baums-Report also considered the experience of two private initiatives (Schneider and Strenger, 2000; Peltzer and von Werder, 2001), both having published a voluntary code of best practice for German companies. Weil et al. (2002) and Strenger (2004) provide further evidence.

Securities Supervisory Office.<sup>9</sup> The Commission even addressed this second point when justifying a voluntary code, arguing against the further development of the Federal Financial Supervisory Authority ('Bundesanstalt fuer Finanzaufsicht' – BaFin) into a more all-encompassing capital market supervisor like the SEC (Baums, 2001).

As a major result of the recommendations by the Baums-Commission, the 'Government Commission German Corporate Governance Code' (Cromme-Commission) was mandated in September 2001 to develop an official German Corporate Governance Code, which was released February 26, 2002. Although established by the German government, the Cromme-Commission is formally independent.<sup>10</sup> Various parties were invited to assign representatives to the Commission in order to develop a code that should be broadly accepted and supported by all relevant interest groups. The members of the Cromme-Commission are from large and medium-sized listed companies representing different industries, institutional and private investors, auditors, unions as well as academic experts of law and business (but not finance). For selected issues the Commission consults further experts e.g. from executive search or law firms and international investors.

The Code (2002, p. 1) 'presents essential statutory regulations for the management and supervision (governance) of German listed companies and contains internationally and nationally recognized standards for good and responsible governance.' The recommendations of the Code (2002, p. 2) are marked in its text by use of the word "shall". Companies can deviate from them, but are then obliged to disclose this annually. This should enable companies to reflect sector and enterprise-specific requirements. Thus, the Code aims to contribute to more flexibility and more self-regulation in the German corporate constitution. Furthermore, the Code contains suggestions which can be deviated from without disclosure; for those, the Code uses terms such as "should" or "can". The remaining passages of the Code not marked by these terms contain provisions that enterprises are compelled to observe under applicable law. According to the prevailing legal opinion in Germany the Code embodies legally unbinding best practice standards (Hopt, 2002; Lutter, 2002). Nevertheless, the legal nature of the Code (esp. the distinction between law, contract, and fiduciary duty)

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<sup>9</sup> The former Federal Securities Supervisory Office ('Bundesaufsichtsamt fuer den Wertpapierhandel' - BAWe) was established in Frankfurt am Main on January 1, 1995 to secure the proper functioning of the securities and derivatives markets by pursuing the underlying principles of investor protection, market transparency, and market integrity. Following the adoption on April 22, 2002, of the Law on Integrated Financial Services Supervision, the BAWe, together with the former offices for banking supervision and insurance supervision was integrated to form a single state regulator, the new Federal Financial Supervisory Authority ('Bundesanstalt fuer Finanzdienstleistungsaufsicht' - BaFin). The BaFin, established on May 1, 2002, supervises banks, financial services institutions, and insurance companies across the entire financial market and comprises the key functions of consumer protection and solvency supervision.

<sup>10</sup> In a letter to one of the authors, the responsible Minister of Justice, Zypries (2004), has stressed that the Cromme-Commission acts independently from the government.

has been questioned, e.g., by Seidel (2004), and its constitutionality has even been called into doubt. In this respect, further clarification is necessary.

The content of the Code is divided into six chapters: (i) shareholder rights with a special focus on the general meeting; (ii) cooperation between management board and supervisory board; (iii) management board issues regarding its responsibilities, composition, compensation and conflicts of interest, (iv) supervisory board issues with additional regard to the role of the chairman, committees and its efficiency; (v) transparency; (vi) reporting and audit of the annual financial statements.<sup>11</sup>

According to the Cromme-Commission the general objective of the Code is to make Germany's corporate governance rules transparent for both national and international investors, thus *strengthening confidence in the governance of German corporations*. This general objective was emphasized in a speech by the Minister of Justice at a recent conference on the German Code (Zypries, 2003). To achieve the stated objective, the Code considers all major criticisms usually referred to German corporate governance – especially from international investors.<sup>12</sup> Each of the main themes is addressed in the provisions and stipulations of the Code, also taking into consideration the legal framework. Since the Code is principle-based - and thus cannot cover every single detail - it rather provides a framework which the individual companies will have to fill in. The Code is regularly reviewed by the Commission and adapted to new laws and developments in the capital market. This continual process aims to ensure that conformation of the regulations to recent changes is flexible and pragmatic.<sup>13</sup>

The second main purpose of the Code (2002, p. 1) is to *promote the trust of international and national investors* as well as other stakeholders (customers, employees and the general public) in the management and supervision of listed German stock corporations. To stress its special relevance for the capital markets, the Preamble of the Code (2002) accentuates that 'the Code clarifies the rights of shareholders, who provide the company with the required equity capital and who carry the entrepreneurial risk.'

### 3.2 The Declaration of Conformity according to Article 161 of the Stock Corporation Act

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<sup>11</sup> For the current version the Code and its amendments since publication compare the official web site of the Code Commission at: <http://www.corporate-governance-code.de>

<sup>12</sup> Namely inadequate focus on shareholder interests; the two-tier system of executive board and supervisory board; inadequate transparency of German corporate governance; inadequate independence of German supervisory boards; limited independence of financial statement auditors. See Commission of the German Corporate Governance Code. Internet: <http://www.corporate-governance-code.de>

<sup>13</sup> The Code has been changed twice thus far: the first adjustment occurred November 7, 2002 and the second, more comprehensive change took place May 21, 2003. In its recent annual meeting on June 8, 2004, the Commission decided not to alter the Code.

The Code has a (codified) legal basis through the *declaration of conformity* according to Article 161 of the Stock Corporation Act ('Aktiengesetz' – AktG) as amended by the Transparency and Disclosure Law, entered into force on July 26, 2002. As outlined by the Ministry of Justice (2002, p. 21) the purpose of the declaration of conformity is the provision of firm-specific information to the capital market participants regarding compliance of the companies with the Code. Accordingly, German companies must disclose their past and planned future Code compliance ('comply or explain'-principle). Any pertinent deviations from the Code must be reported individually; beyond this requirement no further explanation is necessary. The declaration of conformity must be accessible to the shareholders (published on the internet) and updated at least annually. As the rules of conduct generally apply collectively to the board, the declaration must be submitted jointly by the management board and supervisory board. The mandatory annual review of the Code aims at inducing the board members to repeatedly revise its standards of conduct. The first declaration of conformity was to be submitted by the end of 2002<sup>14</sup>, and according to Article 285 of the German Commercial Law ('Handelsgesetzbuch' – HGB, paragraph 1, number 16), subsequent filings would occur at the end of each financial year. The firm must turn in its declaration together with the annual reporting to the register of corporations as outlined in Article 325 of the Commercial Law (HGB).

### *3.3 The Role of the Capital Market in Code Implementation*

While disclosure of compliance is mandated by law, monitoring and enforcement of the Code shall occur through self-regulation in conjunction with the capital market (Hopt, 2002; Lutter, 2002a; Ministry of Justice, 2002; Seibert, 2002; Ulmer, 2002). Interestingly, the government consciously neglected to mandate the disclosure of an explanation of Code deviations, as each firm should act in its own best interests in this respect: 'It can be assumed that the firm will issue a justification for each case of non-conformity' (Ministry of Justice, 2002, p. 21).<sup>15</sup>

The particularly important role of the capital market in monitoring and enforcing of the Code is magnified by the complete lack of other enforcement mechanisms. In particular, Code compliance is no listing requirement and is not supervised by the Federal Financial Supervisory Authority BaFin. Also, an external examination of the correctness of the conformity declarations, e.g. by the firm's auditor, is not required. The auditor's sole

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<sup>14</sup> Explanation of current and future conduct was required in the first submission.

<sup>15</sup> Unlike the comply or explain-principle in the UK that requires companies not only to explain where but also why they deviate from the Combined Code.

responsibility is to testify that the declaration of conformity has been filed according to the law, without reviewing the accuracy of its contents (IDW, 2003).

#### **4. Hypotheses on the Functioning of Code Enforcement**

##### *4.1 The Governmental and Judicial View regarding Code Enforcement in Germany*

It is generally assumed by proponents of the Code that significant cases of non-compliance will be sanctioned by the capital market.<sup>16</sup> To ensure the effectiveness of this system, it is imperative that the filing of the conformity declaration triggers a price reaction: 'The implied premise of the model is the expectation that information made available to capital market participants regarding non-conformity with Code recommendations will lead to (negative) reactions' (Schueppen, 2001, p. 1271). Representatives of the Cromme-Commission, the government ministry, and a majority of judicial commentaries on the Code continue to accept this capital market reaction as a certain fact of life (Cromme, 2002; Hopt, 2002; Lutter, 2002a; Seibert, 2002). Ihrig and Wagner (2002, p. 2514) serve to represent this dominant view: according to their evaluation, 'firms which declare significant instances of non-conformity before the end of 2002 *will immediately be punished with a drop in stock price*, while firms in fundamental compliance with the recommendations *will experience a rise in stock price*.'<sup>17</sup> It is also fairly often assumed (Lutter, 2002a; Lutter, 2002b; Ulmer, 2002) that discrete Code deviations are capable of considerably influencing the stock price, in the sense of a *material event* as defined under Section 15 Paragraph 1 of the Securities Trading Act ('Wertpapierhandelsgesetz' – WpHG). Seidel (2004) even acknowledges that due to the widely expected economical pressure to comply with the Code recommendations they already have *an impact similar to legal rules*.

However, it has not yet been empirically proven that a connection between compliance with the '*shall recommendations*' of the Code and the stock valuation of firms truly exists. Apparently, the corresponding judicial literature refers to two pertinent and often-quoted witnesses: the *investor opinion surveys* completed by the consulting firm McKinsey (Coombes and Watson, 2000; McKinsey, 2002), and the empirical study by Gompers et al. (2003).<sup>18</sup>

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<sup>16</sup> Cromme (2001), chairman of the Code-Commission, has been quoted accordingly: "Thou who dare not to comply with the Code will be punished by the capital market."

<sup>17</sup> Italics added.

<sup>18</sup> McKinsey (2002) is quoted by Hopt (2002); Ihrig and Wagner (2002), and Ulmer (2002). Gompers et al. (2003) is quoted as a working paper by Hopt (2002) and Lutter (2002b).

The practical relevance of both studies for the German capital market has to be evaluated critically. The most recent McKinsey (2002) survey includes 200 institutional investors whose actual investing behaviour cannot be verified based on the information collected from the questionnaire.<sup>19</sup> Also, the questions are based on only a few relevant criteria of *good governance*. An analysis of the influence of individual governance characteristics on the firm's market price is lacking. It is incomprehensible how a market price should emerge by just considering investor's opinions. Furthermore, data about German investors is lacking, making it impossible to draw conclusions about the economic implications of this evidence. This would be particularly relevant in discussion of implementation of the Code's recommendations.

The likewise often quoted study by Gompers et al. (2003) is based on more robust methodological grounds: They construct a governance-index composed of 24 legal and statutory corporate governance criteria of 1,500 publicly listed US companies. The existence of each governance criterion is assumed to lead to a restriction of shareholder rights due to the stronger position of management in the firm.<sup>20</sup> Companies which possess at most five of these criteria are classified as shareholder-friendly and organized into a "democracy portfolio", firms displaying fourteen or more of these criteria are aggregated to form a "dictatorship portfolio." Since these two portfolios incorporate the respective extreme cases they are used to investigate any differences in firm performance between 1990 and 1999. The results are unambiguous: (i) the democracy portfolio exhibits a 9.3% higher return per annum than the dictatorship portfolio<sup>21</sup>; (ii) Tobin's Q (a measure of company value) averages 1.77 in the democracy portfolio and just 1.47 in the dictatorship portfolio; this discrepancy was only partially priced into the market price of the firms: the value reduction for the dictatorship portfolio averaged 19% in 1990 and grew to 56% in 1999; (iii) the companies in the democracy portfolio also show superior operating performance.

Nevertheless, an application of these results to the German capital market is highly restricted due to the following reasons: (i) Gompers et al. (2003) use a corporate governance definition with a strict focus on anti-takeover measures; and (ii) the transfer of these results to

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<sup>19</sup> The central survey question is: "Suppose you are considering investing in the following companies, A and B, in the same country. Past performance has been virtually identical and future market potential appears to be similar for both companies. However, they differ in board governance practices. B has put in place "good" board governance practices. Questions: 1. In those countries for which you are the key investment decision-maker, would you be willing to pay more for company B's stock compared to A's? 2. If yes, what percentage premium do you estimate you would be willing to pay for B's stock?," McKinsey (2002), Exhibit 11.

<sup>20</sup> See Appendix 1 in Gompers et al. (2003) with a detailed commentary of the considered takeover defenses, such as classified boards, cumulative voting, golden parachutes and poison pills.

<sup>21</sup> This higher return is only partly explained through known influential factors such as market influence ( $\beta$  factor), market capitalisation (size), book to market value (company value), and momentum (return growth). After adjusting for these factors, a significant 8.5% annual return discrepancy remains.

Germany must be considered in the context of a number of differences of the US-American and German legal systems; German law either lacks equivalent regulations (e.g. business combination laws, unequal voting) or they are far less common in German business practices (e.g. cumulative voting); (iii) they focus on the distribution of control rights between shareholders and management. On the contrary, the German Code mainly considers internal structural and efficiency issues within the management and supervisory board as well as better transparency and financial disclosure. Improvements of shareholder rights are thus generally not in the scope of the Code. Summing up, these fundamental differences suggest that the US evidence is hardly transferable to Germany. However, we will later apply the methodology used by Gompers et al. (2003) to examine the impact of the German code, matching the governance criteria to fit the specific regulatory and institutional environment.

#### *4.2 Derivation of relevant research questions*

Initial doubts about the effectiveness of the Code arise in light of past experiences with self-enforced market regulations in Germany. The suitability of the German civil law system to operate with voluntary enforcement mechanisms, such as intended for the Code, has been already questioned twice by two self-regulation experiences, namely the *Insider Trading Code* and the *Takeover Code*.<sup>22</sup> The experiences with these self-regulation initiatives show that a voluntary code was eventually replaced by a law with a binding sanctioning mechanism. It stands to reason after considering the analysis of the experiences with voluntary corporate governance standards in other countries, that the efficiency of private self-regulation is not self-evident. Since in quite a few studies a connection was established between the development of the financial markets (an intended goal of the German Corporate Governance Code) and investor protection (including its enforcement), the German Code is an ideal natural experiment to study self-regulation impact on the capital market.<sup>23</sup>

The declaration of conformity informs investors about firm-specific compliance with the Code. So, in theory, investors can assess firm-specific governance characteristics and adjust investment decisions accordingly. Based on this theoretical consideration, leading German law experts and even members of the Cromme-Commission have build up high

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<sup>22</sup> See Appendix II for a detailed overview on these failed regulatory efforts.

<sup>23</sup> Arguing for a voluntary corporate governance code, it must not be overlooked that under codified law (German civil law system), an effective investor protection principal is more difficult to enact than under the Anglo-Saxon common law system. Until now, it could not be convincingly demonstrated why it is necessary to refrain from legally binding norms in a system in which legal enforcement of investor protection is just starting to develop.

expectations regarding the German capital market as an effective enforcement mechanism for the Code. Yet, no empirical evidence is available to demonstrate that filing a declaration of conformity will result in the anticipated adjustments by the capital market either initially or during the one-year period of its validity.

Our study aims to fill the gap in two ways: First, we apply event study methodology to test the immediate capital market reactions to filing of declarations of conformity by German firms in Deutsche Boerse's 'Prime Standard' segment of the Frankfurt stock exchange. Second, we analyze the long-term impact of governance compliance, applying the methodology of Gompers et al. (2003). In particular we try to shed light on the following questions: (i) What is the relevance of the Code and the declaration of conformity for the German capital market? (ii) Does the capital market respond to acceptance or non-acceptance of the Code with stock price adjustments? (iii) Does the capital market differentiate between firms according to their degree of Code compliance?

## **5. Data description and analysis of compliance behavior**

The basic data was compiled for all firms of Deutsche Boerse's 'Prime Standard' market segment.<sup>24</sup> In this segment 398 securities were listed as of October 31, 2003 (record date for data collection). 40 securities issued by foreign companies had to be excluded since the Code only applies to German companies. Another 21 securities had to be excluded to avoid double counting of companies that have issued more than one share class, e.g. common and preferred stock, adding up to a total population of 337 companies.

Relevant for this study is the first-time declaration of conformity that had to be published by all listed German companies until the end of 2002. This first-time declaration of conformity was gathered from company websites or solicited in writing. All but 20 declarations (which were not published any more in the internet at the time of data compilation and not sent upon request) were collected. The data thus contains the initial declarations of conformity of 317 firms, representing 94% of the total population of firms.

The initial finding relates to the overall acceptance of the Code. According to the law, a company can choose to reject the Code in total, for example, if it has published its own governance principles. However, only two of 317 investigated companies completely

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<sup>24</sup> For details on the entry requirements to the Deutsche Boerse Prime Standard, see bylaw of the Frankfurt stock exchange ('Boersenordnung') § 60-67, available at <http://deutsche-boerse.com>.

rejected the Code.<sup>25</sup> The evidence that the vast majority of companies comply with the Code in principle, at first sight, suggests a positive impact of the Code on firm governance.<sup>26</sup> On the other hand, full acceptance of all 61 ‘shall recommendations’ of the Code is a mere voluntary requirement. Therefore, the number of deviations from the Code recommendations is an objective measure to evaluate Code compliance. Thus, for the 315 firms that accepted the Code, we calculate the number of deviations.<sup>27</sup> On that basis the picture looks quite different: Only 23 companies explain that they follow all Code recommendations, i.e. an amazing 93% of the sample companies report at least one (up to a maximum of 21) deviation(s). Figure 1 shows the frequency distribution of deviations by companies.

[Insert Figure 1 here]

To assess whether the overall average of 4.3 Code deviations (median 4.0) is a significant number, it is important to note that the government, when introducing the declaration of conformity, was convinced that companies would publish a statement explaining each deviation with firm-specific reasons (Ministry of Justice, 2002, p. 21). Yet, one third of the companies actually does not state any reason for deviation. Even fewer companies, only 5.3%, disclose their (non-)compliance with the ‘should suggestions’ of the Code, another voluntary requirement. These findings suggest that overall Code acceptance is rather low and the average value of 4.3 deviations signals existing governance deficits in many companies.

Table 1 gives a detailed description of compliance rates by index membership. The Prime Standard market segment includes four main indices: (i) DAX (30 German large caps), (ii) MDAX (50 international mid caps), (iii) TecDAX (30 international technology firms), and (iv) SDAX (50 international small caps), as well as additional sector indices. We find that the number of Code deviations is correlated with index membership: DAX-firms on average have the lowest number of deviations (2.0) followed by MDAX- and TecDAX-firms (2.9 and 3.3, respectively). Companies of the SDAX index have most deviations, on average (5.2). As index membership is determined by market capitalization, trade volume, and free float, it can be regarded as a proxy for company size (and thereby capital market orientation).

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<sup>25</sup> Geratherm Medical AG (the explanation being insufficient time and financial resources) and Fortec AG (no explanation provided). For both companies the exact disclosure date is not available. Thus, no further evidence on market impact can be derived from these cases.

<sup>26</sup> And is interpreted in this respect by members of the Commission and the Ministry of Justice. As evidenced by a letter to one of the authors from Zypries (2004), and von Werder et al. (2003).

<sup>27</sup> As we analyse the first-time declaration of conformity the relevant Code version is that of February 26, 2002 with the amendment of November 7, 2002 (provision for a new law on directors' dealings).

Thus, a potential explanation for the differences in compliance according to index membership is an orientation towards international governance standards by larger companies who need access to international investors and a broader shareholder base (provided that these standards form part of the Code). Consequently, Code compliance for companies in the SDAX and for companies without index membership – exhibiting low market capitalization and low liquidity – is below-average.

[Insert Table 1 here]

A small group of 23 companies in the sample has a dual listing at a US stock exchange (thereof 17 companies at NYSE). These companies that have to comply with tougher US listing standards and disclosure requirements can be assumed to have governance structures in place that automatically comply with most Code recommendations (Stulz, 1999). Our analysis shows, that indeed seven of the companies in question fully comply with the Code, a ratio of 30% compared to just 6.8% for all companies. Of the remaining 16 companies 13 comprehensively explain their deviations, i.e. 81 % compared to just 68 % for all companies. The average number of deviations is 2.6 compared to 4.3 for all companies. Thus, as suggested by Licht (2003), it seems reasonable to assume that a dual listing at a US stock exchange provides for good governance as defined by the Code. But if one considers the respective index membership of these firms, the findings become rather weak as all companies do not deviate significantly from their respective index averages. On the basis of the latter we conclude that dual listing itself has no causal effect on better Code compliance. Instead we suggest that better governance standards as implied by dual listing are not reflected in the Code and thus, the Code is rather irrelevant for German companies with a dual listing in the US.

An analysis of Code acceptance by industry supports the assumption that industry membership has an important influence on firm governance. As shown in Table 2 firms from already highly regulated sectors (e.g., banking) report on average fewer deviations than firms from less regulated sectors. Another reason for this difference could be various degrees of capital market orientation in different industries.

[Insert Table 2 here]

We further investigate additional firm-specific criteria to assess a more defined view of governance quality. These criteria are: (i) indications of future conduct in areas of Code deviation; (ii) implementation details of ‘should suggestions’ of the Code, and (iii) corporate governance reporting. On the basis of these criteria, we develop a corporate governance-rating to also account for qualitative governance differences. This rating is computed for all companies. As there is a high correlation between the (quantitative) measure of Code deviations and the results of this corporate governance-rating, we finally find that the number of Code deviations can be interpreted as a reasonable proxy for governance quality.

The next step in the analysis is concerned with *critical* Code recommendations, i.e. recommendations a significant number of companies has chosen to deviate from. Overall, there is one particular Code recommendation (no. 3.8 paragraph 2 'Deductible for D&O-insurance') with a majority of deviations by all companies. Four recommendations exhibit a deviation-ratio of more than 25% and ten recommendations have ratios between 10% and 25%. On the contrary, 18 recommendations exist with less than 1% deviation of all companies. Table 3 shows all recommendations with a deviation-ratio of more than 25%.

[Insert Table 3 here]

The most critical recommendations are related to supervisory board compensation and qualification as well as financial reporting. Thus, it seems that critical recommendations of the Code can be – and indeed are – avoided by many of the companies. This finding sheds already doubtful light on the ability of the Code to significantly improve corporate governance practices in Germany, which was the main task of the Cromme-Commission.

## **6. Event study analysis of the declaration of conformity**

### *6.1 Testable Hypotheses on the stock price impact of the declaration of conformity*

In this section, we apply standard event study methodology to test the capital market reaction on the first disclosure of the declaration of conformity.<sup>28</sup> Testable hypotheses can be directly derived from the assumptions made by members of the Cromme-Commission concerning implementation of the official German Code in 2002.<sup>29</sup> According to this view, when a firm

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<sup>28</sup> For the application of event study methodology in law and finance see the survey articles of Bhagat and Romano (2002a, 2002b). Earlier texts include Mitchell and Netter (1994) and Marais, Laurentius, and Schipper (1995).

<sup>29</sup> See chapter 4.1.

accepts the Code, it demonstrates self-commitment and initiative in enacting good governance procedures as well as readiness to increase transparency. The declaration of conformity provides the capital market with information content that allows investors to improve their firm-specific risk assessment. Information asymmetries should decrease, reducing investors' desired risk premium and thus, the expected rate of return. If a company decides not to disclose its Code conformity it aggravates efficient monitoring by the market. As a result, it will immediately be punished by a depressed stock price. Consequently, the following basic Hypothesis 1 can be derived:

H1: Firms that (not) accept the Code will generate (negative) abnormal stock returns

(H<sub>1</sub>0: Firms that accept the Code will generate no abnormal returns)

However, since almost every listed German firm has accepted the Code, a more detailed analysis seems necessary to detect potential market sanctions. The quality of the conformity declaration can be interpreted as a signal for the commitment to maintain or improve firm-specific governance practices. High compliance should result in smaller risk premiums and lead to stock return appreciations and vice versa. An additional voluntary statement that explains the reasons for deviation of the declaration of conformity might create confidence that a company nevertheless belongs to the 'high compliance' firms. Firms of low governance quality find that the costs of a conformity declaration with high compliance or detailed explanations are prohibitive. We formulate Hypothesis 2 accordingly:

H2: Firms which file a high (low) compliance declaration of conformity generate a positive (negative) abnormal return

(H<sub>2</sub>0: The degree of compliance is not related to stock returns or firm valuation)

Testing the two hypotheses, we have to control for the fact that the sample firms are listed in various stock exchange indices. Therefore, as a possible extension of the hypothesis, one could expect that in some indices the compliance effect is more pronounced than in others, since the market requires a certain governance standard in certain indices. In that sense it can be assumed that the reaction is more distinct in the DAX index as a result of the more comprehensive coverage by analysts, financial press, and investors compared to, e.g., small caps without index listing.

Another extension of the hypothesis is the possibility that market participants consider the firm's industry when evaluating the quality of the conformity declaration, so that in some industries a high quality declaration carries greater value than in other industries. We expect that a higher rate of transparency is required in industries with high acceptance rates and that a higher importance is attached to the quality of the conformity declaration.

## *6.2 Sample selection*

For all 317 companies in the sample we determine the publication date of the declaration of conformity. Likewise, all confounding information around the event date which could cause a price effect (e.g., ad-hoc news, press releases) has been identified. Data was collected from the respective company websites and a number of companies were directly contacted and interviewed to verify the event date. The results are shown in Table 4. For 138 declarations the exact disclosure day cannot be determined because the date was not mentioned in the declaration and the companies did not participate in our survey. For three companies, regression parameters or share price data are not available. Of the remaining companies with exact event dates, thirty are excluded due to simultaneous company news releases, which cannot be definitively isolated to have no price effect. One company did not publish its declaration of conformity and thus has to be excluded. Finally, a total of 145 firms are selected for event study analysis.

[Insert Table 4 here]

We use the number of deviations reported by the companies in the declaration of conformity as differentiation factor in order to partition the sample into two groups of 'high' and 'low' corporate governance compliance (CG-compliance), respectively (Table 5). The higher the number of deviations (" $D$ ") the lower is the measure of CG-compliance.<sup>30</sup> Based on the two extreme quartiles of  $D$  drawn from total number of firms (Table 1), we define high CG-compliance firms ( $D \leq 2$ ) and low CG-compliance firms ( $D \geq 6$ ). This definition is used for the construction of governance portfolios. Additional sub-samples are created using index membership and industry as differentiation factors. Table 6 gives some summary statistics on the high and low compliance portfolio firms. According to expectations, high compliance firms are larger and older than low compliance firms.

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<sup>30</sup> Our measure  $D$  can thus be interpreted in the same manner as the Governance Index  $G$  constructed by Gompers et al. (2003), with the difference that the provisions are defined by the German Code.

[Insert Tables 5 and 6 here]

### *6.2 Event study design*

We investigate the event date  $[t_0]$  and a number of small event windows around  $t_0$  for significant price changes (abnormal or excess returns), the largest event window being  $[t_{-2}, t_{+5}]$ . The calculation of abnormal returns helps us to ascertain the effect of the declaration of conformity on the stock price. We calculate discrete daily returns (using the closing prices of the respective stocks on the Frankfurt stock exchange). The market returns are approximated using the DAFOX market index of the Technical University of Karlsruhe.<sup>31</sup> We estimate standard market model returns with an estimation window defined as the time period of 120 trading days  $[t_{-123}, t_{-3}]$  before the event period. A post event window of 21 days is defined to check for the persistence of abnormal returns. Instead of the market model we also apply a constant-mean return model to estimate abnormal returns, which does not change the results.

Due to the large sample size in our study, we first use the parametric simple t-test to determine the relationship between the average abnormal returns to the variance of the time series. To minimize possible biases in the analysis, the significance is simultaneously checked with the non-parametric rank test according to Corrado (1989), which produces more reliable results particularly with smaller sample sizes. This test does not require the assumption of a normal distribution and is particularly appropriate in cases of skewed t-test conclusions due to outliers. Finally, we also apply the standardized cross-sectional test for averages from Boehmer et al. (1991). This test statistic (abbreviated BMP test) reduces the influence of very volatile time series of returns on the result by placing a lower weight on data with high return volatility. Boehmer et al. (1991) show that the BMP test is not influenced by event-induced changes of the variance.

### *6.4 Results*

The null hypotheses of Hypothesis 1 ( $H_10$ ) formulated above cannot be rejected. There is no statistically significant price reaction upon acceptance of the Code considering the results of all three test statistics.

[Insert Table 7 here]

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<sup>31</sup> See <http://finance.wiwi.uni-karlsruhe.de/Forschung/DAFOX>.

Although Table 7 shows at first sight a weakly significant, positive average cumulative abnormal return for the event window  $[t_0, t+2]$ , this result disappears when a longer event window is considered, as illustrated in Figure 2. The median value shows that the center value of the extra returns is barely different from zero. The difference between the median and mean value of the CARs is evident, however. This is due to the fact that the distribution of the extra returns is highly skewed toward the left. That means that a few extreme values may have exerted an unjustifiably high influence in raising the mean. Figure 2 shows in a more detailed manner that the identified abnormal returns are not persistently positive, but rather move up and down around the event date and the following days. The additional investigation with the ranking test from Corrado (1989) and the standardized cross section test from Boehmer et al. (1991) also demonstrate no significant returns in  $t_0$  and  $t_1$ .

[Insert Figure 2 here]

In a further analysis (not reported), we also explore abnormal changes in the trading volume (in addition to stock price fluctuations). This investigation serves to confirm the previous conclusion that the null hypotheses of no significant effect cannot be rejected. Ultimately, separate robustness tests of individual indices and industries also demonstrate insignificance (not reported).

Because there is severe clustering of events, we apply the aggregated portfolio method as proposed by Campbell et al. (1997) to control for overlapping of events in calendar time. We construct portfolios of all firms who publish the declaration of conformity at the same day. Then we aggregate all abnormal returns into a portfolio dated using event time, and conduct a security level analysis to this portfolio. The three trading days for which we build such portfolios are December 18, 19, and 20, where most declarations have been published, i.e. 14, 16, and 20 declarations, respectively. However, even controlling for clustering, the inference of no significant abnormal returns upon the event remains unchanged.

### *6.5 Capital Market Reactions to Code Deviations*

Although there is on average no abnormal price reaction for the whole sample, one could suggest that the capital market differentiates between firms with unexpectedly high or low compliance declarations. However, our results concerning null hypothesis  $H_20$  show that the capital market does also not react to the level of Code compliance with a corresponding price adjustment. Based on our event study methodology, there are no significant abnormal returns

in the two subgroups (see Table 8). Only for the group of companies with low (!) compliance level a significant excess return (according to the simple t-test) can be found in the event window [t-2, t+5]. The average cumulative abnormal returns of the ‘high compliance’ group are even slightly negative in the time period around the event date. Based on a Mann-Whitney U-test, the returns of the firms with ‘high compliance’ declarations of conformity are not significantly different from the returns of firms with ‘low compliance’ declarations. The median values and eyeball checks on Figure 3 support our interpretation of these results, since all values lie very close to an abnormal return of zero.

[Insert Table 8 and Figure 3 here]

Summarizing, the stock market does not react in any way to the first time announcement of the declaration of conformity, and also the degree of compliance has no immediate impact on a firm’s stock price (and if any, the correlation is a negative one). While we cannot rule out completely that this finding may be driven by the fact that the corporate governance orientation of the firms was already reflected in their stock price before, in any case it shows that the information content of the declaration of conformity is negligible. Thus the main disclosure instrument of the Code is ineffective.

#### *6.6 Capital Market Reactions to regulatory events*

The counter hypothesis that any positive effect of the implementation of the Corporate Governance Code was already reflected in the share prices of the regulated firms may cause concern about our interpretation of the results. Therefore, as a final robustness check we conduct an event study on the price reaction to the stock market as a whole for each definite step of the regulatory process. The events of the regulatory process used for this study are outlined in Appendix I. This test is crude but similar in spirit to the empirical analysis conducted by De Jong et al. (2004). We proxy for the market by using the DAFOX index as the market portfolio and calculate constant-mean abnormal returns. The normal benchmark return is calculated over the estimation window [-141, -21] before the first event. The event-day abnormal returns are calculated as the raw return on the event day minus the benchmark return. Cumulative abnormal returns are obtained by adding the abnormal at the days returns, before, at, and after the event [-1, 0, +1]. Statistical significance is obtained using the simple t-statistics of the time series.

[Insert Table 9 here]

We find only one regulatory event concerning the Code that experienced any significant positive abnormal returns on the event day (but not for the 3-day CAR): On August 8, 2002, the Code was published in the Federal Bulletin, and the stock market's abnormal return is 2.33 percent. On the other hand, there are seven out of the 12 regulatory events which experience negative abnormal returns. One such event is the official appointment of the members of the Cromme-Commission on September 6, 2001. The composition of the commission could indeed have been a disappointment to the market participants, given that most members are CEOs themselves (regulating other CEOs) and shareholder groups and finance experts are almost not represented in the body. The stock market dropped abnormally by 2.28 percent on that day and by seven percent over the 3-day window. Upon the day of the first meeting of the commission, November 7, 2003, there is also a slightly significant negative abnormal return of 3.4 percent. All other events show not the slightest stock market significance, not even at the 10 percent level.

In sum, the market reaction to the regulatory events related to the introduction of the Code can be evaluated from mixed (but more negative) to not taking notice at all. We would not suggest drawing any conclusions about a positive (or negative) market reaction; rather it seems to have been a non-event, in general and at the firm level.

## **7. Long-term Effects of Code Compliance**

### *7.1 Background*

The hypotheses tested in the former section presume the existence of immediate price reactions on a semi-efficient capital market. However, the findings by Gompers et al. (2003) rather suggest a long-term correlation, i.e., corporate governance quality might have a long-term effect on firm value and its cost of capital. Also, the German capital market may not have fully incorporated the information immediately upon disclosure of code compliance. Given that the conformity declaration is filed on a yearly basis, we are able to perform an additional analysis of the correlation between corporate governance compliance, stock returns, and firm value over the period of one year. We test the hypothesis that there is a relationship between the degree of Code compliance – as expressed in the declaration of conformity – and long-term (one year) firm performance (stock price returns) and firm value (Tobin's Q) in the spirit of Gompers et al. (2003).

### 7.2 Code Compliance and One-year Returns

Following Gompers et al. (2003) we build two portfolios containing firms with high and low CG-compliance (based on  $D$ ), respectively, as described above. This is an absolute measure of compliance with the Code comparable to the governance index  $G$  used in Gompers et al. (2003). From these portfolios, we compute value-weighted returns to a zero investment strategy. To account for well-known risk factors, we estimate a four-factor model in the spirit of Carhart (1997) as

$$R_{LS_t} = \alpha + \beta_1 (R_{mt} - R_{ft}) + \beta_2 SMB_t + \beta_3 HML_t + \beta_4 MOM_t + \varepsilon_t, \quad (1)$$

where  $R_{LS_t}$  is the excess return to some asset in week  $t$ ,  $R_{mt} - R_{ft}$  is the week  $t$  value-weighted market return minus the risk-free rate, and the terms  $SMB_t$  (small minus big),  $HML_t$  (high minus low), and  $MOM_t$  are the week  $t$  returns on zero-investment factor-mimicking portfolios designed to capture size, book-to-market, and momentum effects, respectively. Factor portfolios for  $SMB_t$  and  $HML_t$  are constructed following the approach of Liew and Vassalou (2000). Momentum portfolios are calculated according to the methodology proposed by Carhart (1997). We also calculate monthly instead of weekly excess returns with no difference in results.

[Insert Table 10 here]

The results of estimating equation (1) are shown in Table 10. As indicated by the alpha, the performance differential between the high and low CG-compliance portfolio is about -1.1%. However, the performance differential is not statistically significant. Although the results have to be interpreted with care, at least, the negative sign of the alpha supports our event study findings of no (or even a negative) long-term performance impact of high compliance with the Code. Because of the inclusion of  $SMB_t$  we can rule out a small-firm effect. Unadjusted raw returns to a zero investment strategy of buying the low compliance portfolio and shorting the high compliance portfolio would even be much higher (not reported).

### 7.3 Code Compliance and Firm Value

To further analyze the impact of the Code we compare firm values as measured by Tobin's  $Q$  for all observations and for sub-samples of the high and low CG-compliance portfolios for 2002 and 2003, the periods before and after the changes introduced by the Code became

effective (i.e., the first-time disclosure of the declaration of conformity). The results are reported in Table 11.

[Insert Table 11 here]

The comparisons show for the pre-Code period higher mean values of Tobin's Q in the high CG-compliance portfolio as compared to the low CG-compliance portfolio. The high CG-compliance portfolio also exhibits above average values of Tobin's Q, the respective value of the low CG-compliance portfolio is below average. For 2003, the period after the Code was widely established on the companies' agendas, for all values the opposite comes true. Now, the comparisons show for the after-Code period lower (!) mean values of Tobin's Q in the high CG-compliance portfolio as compared to the low CG-compliance portfolio. The high CG-compliance portfolio now exhibits below (!) average values of Tobin's Q, the respective value of the low CG-compliance portfolio clearly increases well above average. This positive change in firm value for companies that seem to have difficulties complying with the Code, and the concurrent decrease for the group of companies with high compliance values, at first sight, supports our former finding based on one-year returns, that companies significantly deviating from the Code have higher (!) stock returns. Whether this translates, ceteris paribus, into a higher firm valuation is tested by using multivariate regression analysis as in Gompers et al. (2003). Besides governance compliance we test for the following well known factors that could also affect Tobin's Q: firm's book value of assets (BV), age (in years since first listing), and return-on-equity (ROE) in the current and the previous year as control variables. We estimate the following cross-sectional equation:

$$Q_{it} = \alpha + \beta_1 CG_{it} + \beta_2 BV_{it} + \beta_3 AGE_{it} + \beta_4 ROE_{it} + \beta_5 ROE_{it-1} + \varepsilon_t, \quad (2)$$

where  $CG_{it}$  is the firm's CG-compliance. We estimate the regression for the whole year 2003, i.e. the full period the declaration of conformity is valid. Until the end of 2003, all companies have to disclose their updated declaration of conformity whether their underlying governance characteristics have changed or not. Table 12 presents the results.

[Insert Table 12 here]

As the coefficient for CG-compliance is not significantly different from zero, this analysis provides additional evidence for our presumption that the German Code is at best irrelevant for firm valuation.

## **8. Summary and implications of the results**

The introduction of the German Corporate Governance Code ('the Code') in 2002 creates a particularly interesting natural experiment for evaluating a self-regulatory 'comply-or-explain' initiative in a civil law country. In this paper, we have investigated the value-effects of compliance behaviour by analyzing the first-time disclosure of the annual declaration of conformity with the Code. We study short-run announcement and long-run effects of Code compliance on firm value. Before doing this, we put the Code in the 'law & finance'-perspective of the German corporate governance system and the history of similar self-regulation efforts (which ultimately failed).

We start by presenting evidence and implications from a descriptive analysis of compliance behaviour regarding the Code. Then, we examine the reaction of share prices to the first-time disclosure of the declaration of conformity. Our event study results suggest that firm value is unaffected by the announcement, although such market reactions were widely assumed by the private and public promoters of the Code. Finally, we examine the long-term impact of corporate governance characteristics on firm valuation. We find that acceptance of the Code has neither effect on stock price performance nor relative market valuation (as measured by Tobin's Q). Empirical analyses suggest that – even in the long-term – better governance (measured by the degree of compliance with the Code) does not lead to higher firm valuation.

Based on our results, we build pessimistic expectations for the future success of the German Code. In accordance with evidence from other studies, we conclude that corporate governance regulation relying on disclosure without monitoring and legal enforcement is ineffective in civil law countries. Most likely, therefore, the German Code will be overturned by codified law in the future, finally sharing the fate of its two predecessors, the Insider Trading Code and the Takeover Code. So even for the regulation of capital markets, history often repeats itself.

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## Tables

**Table 1**

Deviations from Code Recommendations for all Firms in the Sample and by Index Membership

	<b>Prime Standard</b>	<b>DAX</b>	<b>MDAX</b>	<b>TecDAX</b>	<b>SDAX</b>	<b>Remaining Prime Standard</b>
Firm Selection						
Regular Size	398	30	40	30	50	238
Adjusted Size <sup>1</sup>	337	30	47	25	47	188
Firms in the Sample <sup>2</sup>	317	30	44	25	42	176
Coverage	0.94	1.00	0.94	1.00	0.89	0.96
Code Deviations <sup>3</sup> ( <i>D</i> )						
Mean	4.3	2.0	2.9	3.3	5.2	4.7
Standard Deviation	3.4	2.2	2.4	2.6	4.0	3.5
Median	4.0					
Minimum	0					
Maximum	21					
Number of firms						
$D \leq 2$ (High compliance)	86					
$D = 3$	47					
$D = 4$	57					
$D = 5$	45					
$D \geq 6$ (Low compliance)	80					
Total	315					

This table provides summary statistics on the overall sample selection and the distribution of Code deviations (*D*) by index membership. The Code contains 61 recommendations in total. Companies have to disclose in their annual Declaration of Conformity which of the 61 recommendations they do not comply with. Companies with  $D \leq 2$  are considered as high compliance firms, companies with  $D \geq 6$  are considered low compliance firms. Index definition according to Deutsche Boerse Group, <http://deutsche-boerse.com>.

<sup>1</sup> Adjustments necessary due to foreign companies and additional share classes per company that had to be deleted.

<sup>2</sup> The first Declaration of Conformity had to be disclosed until the end of 2002. Companies are required to update their Declaration at least annually. Declarations that were not available online any more at the time of the data collection have been requested from the respective companies by mail. 20 companies did not respond.

<sup>3</sup> Code Deviations are calculated for 315 firms since two companies in the sample, Geratherm Medical AG and Fortec AG, have rejected the Code.

**Table 2**

## Deviations from Code Recommendations by Industry

<b>Industry</b>	<b>Mean</b>	<b>Number of Companies*</b>
Banks	1,2	5
Utilities	1,7	3
Transport&Logistics	2,7	7
Chemicals	3,1	9
Financial Services	3,4	17
Food&Beverages	3,5	2
Basic Resources	3,8	4
Insurance	3,8	6
Industrial	3,9	64
Pharma&Healthcare	4,0	32
<b>Prime Standard</b>	<b>4,3</b>	<b>315</b>
Media	4,4	21
Technology	4,5	20
Construction	4,7	5
Retail	4,8	15
Software	4,8	64
Telecommunication	4,8	10
Automobile	4,9	14
Consumer	5,6	17

This table provides summary statistics on the distribution of Code deviations (D) by industry. The Code contains 61 recommendations in total. Companies have to disclose in their annual Declaration of Conformity which of the 61 recommendations they do not comply with. Industry classification and denotations according to Deutsche Boerse Group's 'Guide to the Equity Indices', November 3, 2003 (available at <http://deutsche-boerse.com>). Deutsche Boerse Group has defined a two-tier model for industry classification. Assignment to one of 62 industry groups (second tier) is contingent upon a company's sales focus. The classification into one of the 18 sectors of the Prime Standard (first tier) is done on the basis of the prior industry group classification.

\* Two of the 317 companies in the sample, Geratherm Medical AG and Fortec AG, have rejected the Code. They belong to the Pharma&Healthcare and Technology sector, respectively. Both companies were excluded when calculating average deviations from Code recommendations. The median value for the sample of 315 companies is 4,0 deviations.

**Table 3**

Most frequent Deviations from Code Recommendations  
by all companies in the sample (n = 315)

<b>Code Reference</b>	<b>Code Recommendation</b>	<b>Frequency of Deviation</b>
3.8 (2)	Deductible for D&O-insurance	54%
5.4.5 (2)	Performance-related compensation for the supervisory board	46%
7.1.2	Consolidated financial statements and interim reports publicly accessible within 90 and 45 day, respectively	39%
5.3.1	Supervisory board to form committees with sufficient expertise	32%
5.4.5. (1)	Supervisory board compensation to consider exercise of additional tasks by board members, e.g. committee chair	29%

This table presents five of all 61 Code recommendations with most frequent deviations by all 315 sample companies excluding two companies that rejected the Code in total. The reference in the first column is based on the German Corporate Governance Code, November 7, 2002. The second column provides a short description of the content of the respective Code recommendation. Only those Code recommendations are shown with deviation-ratios of more than 25%. The percentage numbers in the third column show the non-compliance with a given Code recommendation of all sample companies.

**Table 4**

## Sample Selection for the Event Study

Description	Number
Total Company Universe (Prime Standard <sup>1</sup> )	337
- Declaration of Conformity not available <sup>2</sup>	20
<hr/>	
Total number of Declarations of Conformity	317
<hr/>	
- Declaration disclosed but exact Event Date not certifiable	138
- Company disclosed material news around the Event Date	30
- Parameter values or share price data not available	3
- Declaration of Conformity not disclosed by the Company	1
<hr/>	
Total number of Event Firms	145
- of which high compliance firms ( $D \leq 2$ )	46
- of which low compliance firms ( $D \geq 6$ )	42

<sup>1</sup> In the Prime Standard segment of Frankfurt Stock Exchange 398 securities were listed as of October 31, 2003 (record date for data collection). 40 securities issued by foreign companies had to be excluded since the Code only applies to German companies. Another 21 securities had to be excluded to avoid double counting of companies that have issued double share classes, i.e. common and preferred stock.

<sup>2</sup> The first Declaration of Conformity had to be disclosed until the end of 2002. Companies are required to update their Declaration at least annually. Declarations that were not available online any more at the time of the data collection have been requested from the respective companies by mail. 20 companies did not respond.

**Table 5**

Criteria defined for the construction of portfolios based on Corporate Governance (CG)-Compliance

(1) <b>Governance Portfolio</b>	(2) <b>Number of Code Deviations</b>	(3) <b>Portfolio Size</b>
High CG-Compliance	$D \leq 2$	N = 46
Low CG-Compliance	$D \geq 6$	N = 42

The test of the second null hypothesis that the level of compliance with the Code recommendations is not related to stock returns requires the construction of two style portfolios based on governance compliance levels, i.e. high vs. low (column 1). As shown in column 2, the threshold for companies selected for the high (low) CG compliance portfolio are two or less (six or more) deviations from the Code recommendations. The number of companies in each portfolio is shown in column 3.

**Table 6**

Summary Statistics

	<b>Mean (Median), high compliance portfolio (n = 46)</b>	<b>Mean (Median), low compliance portfolio (n = 42)</b>	<b>Difference</b>
Book to Market	0,705 (0,567)	0,833 (0,691)	-0,127 (0,124)
Profit Margin (%)	-6,37 (1,87)	-6,66 (1,10)	0,29 (0,77)
ROE (%)	-1,67 (5,36)	-11,20 (4,12)	9,53 (1,24)
Book Value (m€)	42482 (1444)	2713 (134)	39770 (1310)
Age	28 (7)	11 (5,5)	16 (1,5)

This table gives descriptive statistics for the relationship of compliance with Code recommendations and accounting measures in December 2002. Age is defined as the first trading day of the stock as published by Deutsche Boerse AG.

**Table 7**

Average Cumulative Abnormal Returns in the whole sample (n = 145)

	(1)	(2)	(3)
<b>Event period</b>	<b>Average CAR (in %)</b>	<b>Median CAR (in %)</b>	<b>Ratio of positive returns (in %)</b>
$t_0$	-0,06	-0,21	47,32
$t_0$ till $t_{+1}$	0,25	0,03	48,82
$t_0$ till $t_{+2}$	0,96*	0,02	49,58
$t_{-2}$ till $t_{+2}$	0,64	-0,05	48,96
$t_{-2}$ till $t_{+5}$	0,30	-0,05	50,84

This table presents event study results for all 145 sample companies. We calculate discrete daily returns (using the closing prices of the respective stocks on the Frankfurt stock exchange). We estimate market model returns with an estimation window defined as the time period of 120 trading days [ $t_{-123}$ ,  $t_{-3}$ ] before the event period. The market returns are approximated using the DAFOX market index of the Technical University of Karlsruhe. The parameters  $\alpha$  (mean value = -0,00045) and  $\beta$  (mean value = -0,66127) of the market model were estimated during a period of 120 trading days before the event date. The mean value of the coefficient of determination  $R^2$  is large enough to suggest a sufficient quality of the regression. For five event periods with length of 1, 2, 3, 5, and 7 trading days average and median CARs are shown in column (1). Column (3) presents the ratio of positive returns for the respective event periods. T-Statistics: Significance at the 10 percent, 5 percent and 1 percent levels is indicated by \*, \*\* and \*\*\*, respectively. No significant average CARs when applying the non-parametric rank test according to Corrado (1989) or the BMP-test.

**Table 8**

Average and Median Cumulative Abnormal Returns in the  
High and Low CG-Compliance Portfolio

Event period	(1) Companies with $\leq 2$ deviations from Code recommendations (n = 46)		(3) Companies with $\geq 6$ deviations from Code recommendations (n = 42)		(5) Mann- Whitney-Test of difference
	Average CAR (in %)	Median CAR (in %)	Average CAR (in %)	Median CAR (in %)	Z-Value
$t_0$	-0,33	0,05	-0,2	0,19	-0,705
$t_0$ till $t_{+1}$	-0,99	-0,09	-0,52	0,02	0,603
$t_0$ till $t_{+2}$	-0,93	-0,39	0,35	-0,17	0,212
$t_{-2}$ till $t_{+2}$	0,08	-0,28	0,27	-0,02	-0,501
$t_{-2}$ till $t_{+5}$	-1,05	-0,26	1,76*	0,11	-1,240

This table presents event study results for two sub-samples of 46 companies with  $D \leq 2$  and 42 companies with  $D \geq 6$  deviations from Code recommendations. Calculation of market model returns are the same as described in Table 7. For five event periods with length of 1, 2, 3, 5, and 7 trading days the average and median CARs are shown in column (1) and (2) for the High CG-Compliance Portfolio and in column (3) and (4) for the Low CG-Compliance Portfolio. Column (5) presents the Z-Value of the two-sample Wilcoxon rank-sum test (Mann-Whitney-test) for the respective event periods.

T-Statistics: Significance at the 10 percent, 5 percent and 1 percent levels is indicated by \*, \*\* and \*\*\*, respectively. No statistically significant average CARs when applying the non-parametric rank test according to Corrado (1989) or the BMP-test.

**Table 9**

## Capital Market Reactions to Regulatory Events

Event Number	Event Date	German Stock Market Index (DAFOX)	
		Event Day Abnormal Return (in %)	3-day CAR (in %)
1	May 29, 2000	0,35	1,19
2	June 20, 2000	0,25	-2,91
3	July 10, 2001	-0,66	-1,81
4	Sep 6, 2001	-2,28**	-7,01**
5	Dec 18, 2001	-0,60	0,31
6	Feb 26, 2002	0,19	2,17
7	April 11, 2002	-0,93	-0,56
8	July 26, 2002	-0,20	4,15
9	Aug 8, 2002	2,33**	2,34
10	Nov 7, 2002	-3,39*	-6,43
11	May 21, 2003	-0,94	-0,70
12	June 10, 2003	0,78	0,80

This table presents event study results of the capital market reaction towards announcements before and after the introduction of the German Corporate Governance Code. A detailed description of the events is given in Appendix I. Abnormal returns (AR) are calculated using the return on the DAFOX market index in a constant-mean return model. The estimation window is calculated over 120 trading days  $[t_{-141}, t_{-21}]$ . CARs are the sum of ARs on days  $[-1, 0, +1]$ . Statistical significance at the 10 percent, 5 percent and 1 percent levels is indicated by \*, \*\* and \*\*\*, respectively.

**Table 10**

## Corporate Governance-Compliance and Returns

	(1)	(2)	(3)	(4)	(5)
	$\alpha$	$R_{mt} - R_{ft}$	SMB	HML	MOM
High minus Low-CG- Compliance	-0,011 (0,010)	0,026 (0,069)	0,002 (0,113)	-0,269 (0,204)	0,046 (0,083)

This table shows the results of the performance evaluation regressions, equation 8 from the text, for a portfolio that buys the High CG-Compliance Portfolio and sells short the Low-CG-Compliance Portfolio. We estimate four-factor regressions of weekly returns for the portfolios.  $R_{mt} - R_{ft}$  is the value-weighted market return minus the risk-free rate. The equation is corrected for style exposures following Carhart (1997): SMB (small minus big), HML (high minus low), and MOM are the returns on zero-investment factor-mimicking portfolios designed to capture size, book-to-market, and momentum effects, respectively. The portfolios are reset every quarter. Standard deviations are stated in parentheses.

**Table 11**

Corporate Governance-Compliance and Firm Value (Tobin's Q)  
in the pre- and post-Code periods

	(1)		(2)		(3)	
	Year 2002		Year 2003		Differences	
	Mean	Standard Deviation	Mean	Standard Deviation	Difference	t-value
High CG-compliance	1,797	1,637	1,580	1,242	-0,216	(0,89)
Low CG-compliance	1,474	1,354	1,808	2,538	0,334	(0,93)
Prime All Share	1,567	1,725	1,655	2,007	0,088	(0,65)

This table presents firm value as measured by Tobin's Q for sub-samples of the high and low CG-compliance portfolios and for all observations for 2002 and 2003, the periods before and after the changes introduced by the Code became effective (i.e., the first-time disclosure of the declaration of conformity). Column (3) shows the differences resulting from a comparison of the means (two-tailed t-test) of the Tobin's Q in the one year before and after the introduction of the Code. The sample consists of 267 observations from the Prime Standard (Prime All Share), thereof 71 observations in the High- and 66 observations in the Low-CG-Compliance Portfolio.

Comparison of the means yields no significance.

**Table 12**

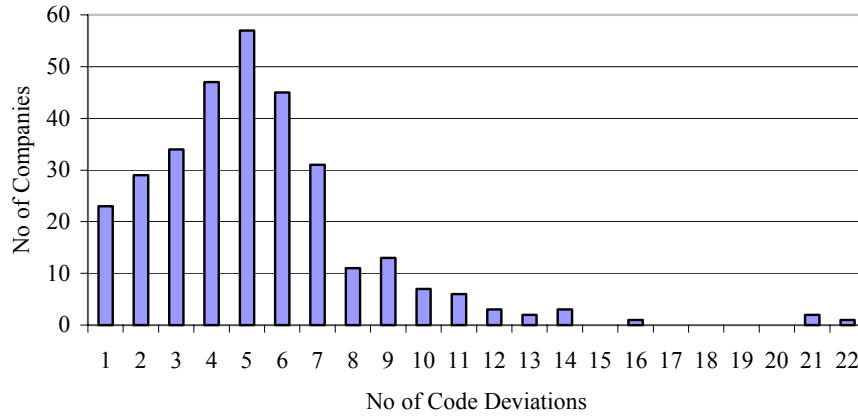
## Corporate Governance and Firm Value (style adjusted) - Q Regression

	(1)	(2)	(3)	(4)	(5)	(6)
<b>Year</b>	<b><math>\alpha</math></b>	<b>C G</b>	<b>BV</b>	<b>AGE</b>	<b>ROE</b>	<b>ROE-1</b>
2003	1,912	0,076	-0,004	-0,001	0,001	-0,026
	(4,934)	(1,105)	(-0,102)	(-0,165)	(-3,377)	0,250

This table shows the results of the regression of Tobin's Q on Corporate Governance-compliance and control variables. Besides governance compliance CG in column (2) we test for the following factors that could also affect Tobin's Q: firm's book value of assets (BV), age in years since first listing (AGE), and return-on-equity in the current (ROE) and the previous year (ROE-1) as control variables (compare equation 9 in the text). The coefficients are presented in the first row, the second row presents standard errors.

## Figures

**Figure 1:** *Number of companies with respective Number of Deviations from Code Recommendations (n=315)\**



\* Two of the 317 companies in the prime sample, Geratherm Medical AG and Fortec AG, have rejected the Code. Both companies were excluded when calculating deviations from Code recommendations.

**Figure 2:** *Average CARs for the whole sample (n=145)*

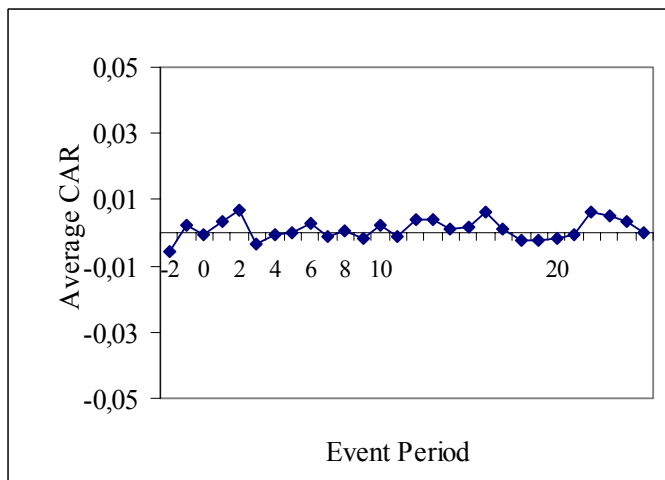
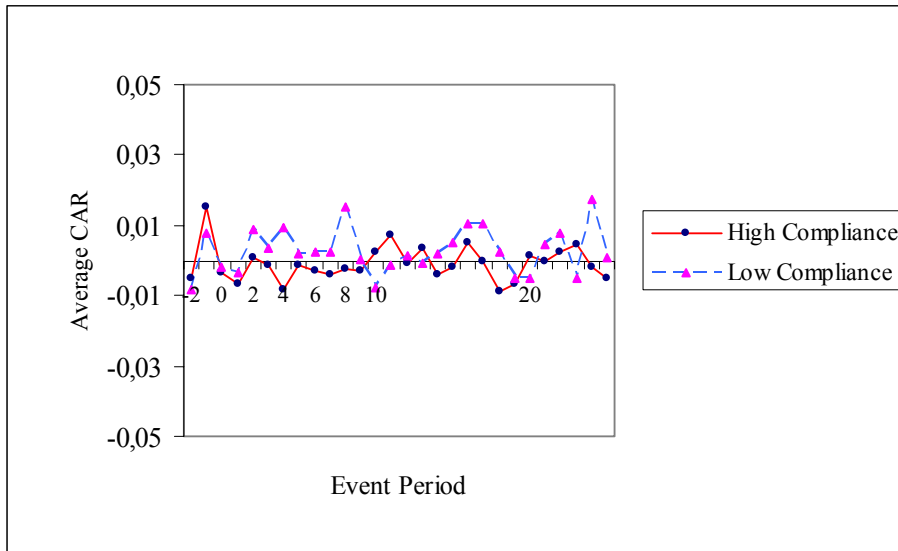


Figure 3: *Average CARs for High and Low CG-Compliance Portfolios (n = 46 and n=42, resp.)*



**Appendix I: Chronological overview of events prior and past the introduction of the German Corporate Governance Code of 2002**

<b>Event</b>	<b>Date</b>	<b>Event</b>	<b>Description</b>
<b>1</b>	May 29, 2000	Appointment of the Baums-Commission	Appointment of the members of the first government commission on corporate governance chaired by Theodor Baums.
<b>2</b>	June 20, 2000	Start of work by the Baums-Commission	Issuance of a questionnaire to all relevant parties requesting comments on potential corporate governance changes in Germany. The Baums-Commission was also influenced by the 'Corporate Governance Principles' published by the Frankfurt Panel in January 2000 and the 'German Code of Corporate Governance' published by the Berlin Panel in June 2000.
<b>3</b>	July 10, 2001	Report of the Baums-Commission	Publication of the final report of the Baums-Commission including recommendations to introduce a voluntary Corporate Governance code based on a comply-or-explain-principle.
<b>4</b>	Sep 6, 2001	Appointment of the Cromme-Commission	The Minister of Justice appointed the members of the second government commission German Corporate Governance Code chaired by Gerhard Cromme to develop an official Code.
<b>5</b>	Dec 18, 2001	Presentation of a draft version of the Code	Public presentation of the draft version for the Code.
<b>6</b>	Feb 26, 2002	Presentation of the Code	Public presentation of the final version of the Code.
<b>7</b>	April 11, 2002	Draft Transparency and Disclosure Law	Publication of printing matter 14/8769 regarding the planned Transparency and Disclosure Law by the German Bundestag explaining the rationale for the introduction of the German Corporate Governance Code and the comply-or-explain-principle.
<b>8</b>	July 26, 2002	Transparency and Disclosure Law	Commencement of the Transparency and Disclosure Law of July 19, 2002, including new Article 161 of the Stock Corporation Act (Aktiengesetz) requiring a Declaration of Conformity with the Code (published in the Federal Bulletin July 29, 2002; press release by the Ministry of Justice July 30, 2002).
<b>9</b>	Aug 8, 2002	Publication of the Code in the Federal Bulletin	Publication of the German Corporate Governance Code in the Electronic Federal Bulletin (Elektronischer Bundesanzeiger): From this date until the end of 2002 German listed companies had to publish their first Declaration of Conformity according to Article 161 of the Stock Corporation Act.
<b>10</b>	Nov 7, 2002	First meeting of the Cromme-Commission	The Cromme-Commission decided one minor amendment of the Code (Section 6.6 first paragraph) in order to reflect new Article 15a of the Securities Trading Act (WpHG) introduced by the Transparency and Disclosure Law of July 19, 2002 (press release Nov 8, 2002; published in the Federal Bulletin Nov 26, 2002).
<b>11</b>	May 21, 2003	Second meeting of the Cromme-Commission and Code amendments	The Cromme-Commission decided major amendment of the Code of 2002 mainly concerning board remuneration (Sections 3.10, 4.2.2, 4.2.3, 4.2.4, 5.4.5, 6.6 and 7.2.1).
<b>12</b>	June 10, 2003	Indications for the application of Code amendments	Press release by the Ministry of Justice explaining the application of Article 161 of the Stock Corporation Act regarding the changed version of the Code decided by the Cromme-Commission at its second meeting May 21 (the Code of May 21, 2003, was published in the Federal Bulletin July 4, 2003).
<b>13</b>	June 8, 2004	Third meeting of the Cromme-Commission	The Cromme-Commission decided no amendments of the Code.

## **Appendix II Past experiences with self-regulation in German corporate governance**

Initial doubts about the effectiveness of the Code arise in light of past experiences with self-enforced market regulations in Germany. The suitability of the German civil law system to operate with voluntary enforcement mechanisms, such as intended for the Code, has been already questioned twice by two self-regulation experiences, namely the Insider Trading Code and the Takeover Code.

### *The Insider Trading Code*

In the 1980ies, many figures of the German banking and stock market industries were firmly of the opinion that voluntary conventions (“gentlemen agreements”) could achieve better results than a legal insider trading prohibition enforced by the government (Camman, 1986). A so called “merchants' honour code”, which was to voluntarily guarantee renunciation of insider trading and “good publicity” was seen as a sufficient measure. Under the influence of their customers – especially banks but also other issuers of listed securities – even the German stock exchange itself plead fundamentally in favour of “gentlemen agreements” since it saw them as more effective than legally enforced regulations. Many people thus saw no need to enact legal regulation to combat insider trading or to form a government agency to oversee securities trading.

The Commission of Securities Market Experts ('Boersensachverstaendigenkommission' – BSK) at the Government Ministry of Economics first decided to concern itself with insider issues on July 15, 1969. Until this time, possible insider transactions in the Federal Republic of Germany were legally unrestricted and succeeded in eluding all registration efforts. Banks, stock markets, and trade associations pressed for voluntary regulation as a self-regulation mechanism, hoping to prevent a threatening legal ban of insider trading (Assmann and Schneider, 1999). The Government Ministry of Economics finally agreed to the details of the plan on November 13, 1970, giving Germany its first set of recommendations regarding insider problems, the “Recommendations of the Commission of Stock Exchange Experts to the German Ministry of Commerce to resolve the so-called ‘insider-problems’.” However, increasing doubt prompted the leading Trade Associations and the Working Committee of German Stock Exchanges to publish an extended commentary on the insider recommendations in 1971.

It was shown in practice that the insider recommendations and its implementation procedures were inflexible; impeding sensible action by the Board of Examiners. Due to this problem, a second edition of the insider regulations was adopted on July 1, 1976. In light of international criticism and under pressure from investors – especially the German Association for Shareholder Protection ('Deutsche Schutzvereinigung für Wertpapierbesitz' – DSW) – the set of rules was revised and expanded in May 1988. Only since then, passing on inside knowledge to third parties was prohibited, in addition to the previous ban on profiting privately from such information. The dissemination of insider facts through information systems was also addressed. To ensure greater transparency, the Board of Examiners was given more freedom to both publish information about Code compliance as

well as to introduce a red flag in official financial press for firms that did not recognize the voluntary insider regulations.

Although most stock companies accepted and attempted to adhere to the Code, it was nevertheless just a “gentleman’s agreement” that did not seem to impose a credible threat upon insiders and clearly failed to measure up to international standards (Blum, 1986). The lack of power to sanction insider violations was a construction fault of the recommendations from the beginning. The firm itself was responsible to take action against an employee in case of insider trading. The affected members of the board of directors themselves were to decide about appropriate sanctions. It is no wonder that no spectacular insider cases became public, as the recommendations essentially had no teeth. A rare exception is the case of the labor union official Franz Steinkuehler in 1991. In the end, under international pressure of EC guidelines of November 13, 1989 did this voluntary “self-regulation” condition give way to legal provisions, when the Securities Trading Act went into effect in 1994.

#### *The Takeover Code*

The Takeover Code, developed by the BSK, took effect on January 10, 1995 and it was replaced January 1, 2002 by the Takeover Act ('Wertpapiererwerbs- und Uebernahmegesetz' – WpUeG). Adherence to the rules was monitored by the Takeover Commission, though it had no enforcement power in case of code violations. 95 proceedings were registered by the Takeover Commission up to June 2000.

The Takeover Commission estimated that the Code was a successful transitional solution to closing a critical hole in the regulation of the German capital market but it could not be effectively implemented as an instrument of self-regulation. First, it was shown that in most cases, despite monitoring, the takeover offer was not filed as required. Second, no overall acceptance of the Takeover Code was ever achieved. As of June 2000, only 64% of publicly listed firms had accepted the Code, likewise 93% of the DAX-30 companies and 79% of the DAX-100 companies. Because of the previously named problems, the BSK and the Takeover Commission both spoke out for enacting binding takeover regulations.

It is indisputable that the duty of the bidder to file an offer to buy (*Mandatory Bid Rule*) mandated by the Takeover Code (and correspondingly required by the WpUeG) serves to protect the minority shareholders of the takeover target. This rule grants a call option to the minority shareholders of the firm being purchased. This essentially represents an asset transfer between the minority shareholders of both firms affected by the takeover (the buyer and seller). Because of the costs of a bid, a takeover will only take place when the controlling shareholder considers it possible to significantly increase cash flow at the purchased firm with its own management. Hoffmann-Burchardi (1999) has empirically proven the expected higher efficiency of aspired takeovers (and

corresponding wealth effect for the minority shareholders of the bidding firm) by the positive price reaction upon acceptance of the Code.

If requiring a firm to file a bid in a takeover provides protection to minority shareholders of both firms affected, then it is interesting in hindsight that a number of firms chose not to adopt the Takeover Code. A rejection of the Code could be interpreted as an indication of intentional use of control rents by the controlling shareholder to the obvious detriment of the individual minority shareholders. This argument, based on theoretical considerations, finally supported replacing the voluntary Code with a binding legal provision.