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Diffusion of Regulatory Innovations: The Case of Corporate Governance Codes

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Abstract. Since the 1990s, most European countries have adopted detailed corporate governance codes regulating listed companies. Even though the initial codes were designed against the backdrop of a particular jurisdiction, best practice standards have become remarkably similar across legal traditions. This raises the question whether the codes are sufficiently responsive to local conditions, or standard setters are mainly motivated by the concern not to fall behind internationally accepted benchmark standards. The article quantifies central corporate governance provisions and maps their international diffusion. Controlling for differences in legal families and ownership structure, the article shows that the diffusion of best practice standards leads to a statistically significant increase in the likelihood that a foreign standard setter will adopt a broadly similar provision. The findings indicate that codes are often seen as signalling devices, irrespective of whether or not the adopted standards are well aligned with the domestic economic and legal environment.

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1. Introduction

In 1992, a British committee composed of businessmen, accountants, and members of independent regulators, the so-called Cadbury Committee, produced a report entitled "The Financial Aspects of Corporate Governance", which was concerned with the perceived lack of accountability of corporate boards in the UK. It contained a Code of Best Practice making various recommendations in order to improve the control and reporting functions of boards. These recommendations included the requirement to provide for "a clearly accepted division of responsibilities at the head of a company", appoint "non-executive directors of sufficient calibre and number" to the board, ensure that the majority of the non-executive directors were "independent of management and free from any business or other relationship which could materially interfere with the exercise of their independent judgement", and establish non-executive board committees to deal with questions of executive compensation and internal control.[1]

The publication of the Cadbury Code was what can be called the birth of the corporate governance movement in Europe. More than two decades later, virtually all European countries, and a considerable number of countries worldwide, have adopted corporate governance codes that apply on a comply-or-explain basis to companies listed on national stock exchanges. The regulatory innovations promulgated in the Cadbury Code have been taken up by other corporate governance codes, and concepts such as "independent non-executive director" or "remuneration committee" are now commonplace. This poses a question that is, arguably, asked too rarely, both by academics and policy makers, and that has not been answered convincingly by either of these groups (or others) involved in the corporate governance debate. The Cadbury Report presented a response to specific problems afflicting the British corporate economy in the late 1980s and early 1990s, accentuated by well-known corporate scandals such as the Guinness share-trading fraud or the collapse of Robert Maxwell's media empire. The Code's best practice standards were developed against the backdrop of a specific legal system and reflected "existing best practice" in British companies (Cadbury Report

[1] Cadbury Report (1992), Best Practice Rules 1.2, 1.3, 2.2, 3.3 and 4.3.

1992, 1.7). The Committee did not intend to replace British corporate governance structures and practices, but build on them and enhance them to strengthen their effectiveness. Thus, it can be said that the drafters of the Cadbury Code expected the code's best practice standards to be effective, given the prevalence of certain economic and legal conditions in Britain at the time.

The question that this article is concerned with, accordingly, is the following: Why should policy makers in other legal systems, operating under a different set of economic and legal constraints, adopt provisions that are, at least at first sight (this point will be addressed more formally below), similar to those developed by the Cadbury Committee? Relevant differences that influence potentially the effectiveness of best practice standards include the binding legal environment, most importantly the choice between a one-tier and two-tier board structure, but also other requirements affecting board composition, such as rules on co-determination or gender quotas, and the ownership structure of public companies. Widely dispersed shareholders may be more reliant on strong independent directors than blockholders who are able to control management effectively. In the latter case, providing for a regulatory environment that is attractive to outside investors may involve implementing safeguards against rent seeking by the majority owners, rather than focusing on the managerial agency problem. If corporate governance rules promulgated by foreign standard setters are emulated simply because they are internationally perceived as "best practice", without being responsive to local economic or legal conditions, they risk being irrelevant at best and harmful to business because of increased compliance costs and legal uncertainty at worst.

It is important to emphasise that this study does *not* assess the efficiency of corporate governance rules as implemented in different countries. A large number of publications have addressed this point, and the discussion in the literature often centres on determining whether governance structures cause economic outcomes or arise endogenously in response to particular firm characteristics (e.g. Armstrong, Core and Guay 2014; a literature survey is given by Adams, Hermalin and Weisbach 2010). In contrast, this study focuses on what can be called the "political economy side" of corporate governance regulation. I seek to understand how novel regulatory concepts, for example independence of directors or delegated decision-making by board committees, spread from one

country to another and why standard setters in other countries emulate regulatory innovations initially promulgated under distinct legal and economic conditions.

In order to answer these questions not only in an intuitive manner, but by providing empirical evidence, it is necessary (1) to identify a number of regulatory concepts typically contained in corporate governance codes (as opposed to national legislation) that can, accordingly, be traced by mapping the adoption of codes internationally; (2) define what is meant with "similar rules", which involves determining a formulation of the regulatory concept at issue that can be used as a standard for comparison with the formulations actually found in corporate governance codes, and further developing a metric that allows the quantification of the distance between the two formulations; and (3) analyse the association between the differences thus found and predictors capturing potentially influential features of the economic and legal environment.

Thus, the article relates to different strands of the literature: the corporate governance literature; research dealing with the methodological problems of quantifying legal rules; and the diffusion of innovations. Research on the spread of corporate governance codes is relatively limited. Zanetti and Cuomo (2008) find that common law countries are more likely to issue stringent recommendations than civil law countries. Aguilera and Cuervo-Cazurra (2004, 2009) argue that the diffusion of codes occurs both in order to compensate for deficiencies in a country's investor protection system and to increase legitimacy in the eyes of foreign investors. However, in contrast to this article, they do not analyse the content of codes and hence do not measure how individual, clearly defined best practice standards have spread across borders, but simply ask whether a country has adopted a code. In addition, none of the above studies examines the effect that the process of diffusion itself has on the probability of code adoption.

Measuring the "distance" between two formulations of a best practice standard requires the quantification of these standards. Whether legal rules and regulations are susceptible to quantitative analysis, and if yes, how rules should be quantified, is probably the most controversial aspects of the strand of research that has become known as "law and finance". Since the pioneering work of La

Porta et al. (1997, 1998, 2000), the methodology of quantifying legal rules has been highly controversial, and some scholar have questioned the usefulness of quantitative legal research altogether (Siems, 2005b). Prior research has been criticized for not taking account of the existence of functional substitutes, interactions between norms, and difficulties in the comparison of norms that were structured and conceptualised against the backdrop of different jurisdictions and legal traditions (for some contributions from the voluminous literature, see Armour et al., 2009a; Siems, 2005a, 2007; Spamann, 2006, 2009a). Furthermore, it has been pointed out that binary coding systems, such as the one employed by La Porta et al. (1998), fail to appreciate nuances in the operation of legal rules (Armour et al., 2009b; Siems, 2005a; Spamann, 2006). Surprisingly, while the question of how to code norms is of central importance to empirical legal research, Epstein and Martin (2010) observe that almost no attempt has been made to develop a sound methodological foundation for this type of research, with the exception of a few legal studies, notably Siems (2005b) and Spamann (2009b). This article seeks to contribute to the still evolving methodological debate. Section 3 discusses the challenges that the quantification of legal rules or best practice standards involves. It identifies best practice standards that can be coded meaningfully without running the risk of overlooking functional substitutes and develops a quantification method that is responsive to normative nuances and able to resolve ambiguities, while ensuring consistency in coding.

Finally, research on the diffusion of innovations, pioneered by Rogers 2003, is wide-ranging and includes studies examining the diffusion of technical innovations, models of management, social attitudes, and public policies (overviews are given by Graham et al., 2013; Strang and Soule, 1998). However, in spite of the large number of diffusion studies, few deal with issues related to law or regulatory practices, and none with the diffusion of individual best practice standards in corporate governance. Aguilera and Cuervo-Cazurra (2004, 2009) and Zanetti and Cuomo (2008) examine the spread of corporate governance codes as a whole. Twining (2005) offers a theoretical discussion of the diffusion of law, but does not model the diffusion of specific regulatory innovations. Other examples include Canon and Baum (1981), who study the diffusion of tort doctrines in US state courts, and Davis and Greve (1997), who analyse the spread of poison pills. The present study contributes to

this literature by providing the first formal model of the international diffusion of best practice standards in corporate governance codes, building on empirical diffusion studies that focus on the effect of prior adoptions (e.g. Burns and Wholey, 1993). While an analysis of the precise channels of diffusion is beyond the scope of the article, it lays the groundwork for future research by assessing how widely and how fast corporate governance innovations spread and whether past diffusion is associated with the likelihood of future adoption.

The remainder of the article is organised as follows. Section 2 formulates the hypotheses that will be tested empirically. Section 3 addresses the methodological challenges in quantifying best practice standards and specifies the empirical model. Section 4 presents the results of the Cox regression analysis. Section 5 discusses the findings and concludes.

2. Theory and hypotheses

Aguilera and Cuervo-Cazurra (2009) explain that the diffusion of corporate governance codes may be a function of two factors: efficiency accounts and social legitimation. According to the former, corporate governance reform leads to efficiency gains by addressing shortcomings in the existing legal system. The need for social legitimation, on the other hand, is explained with the pressures of globalisation and increased flows of capital. In an economy that depends to a comparatively greater extent on foreign trade and investment inflows, corporate governance codes are more likely to serve primarily as a signal to foreign investors that appropriate governance mechanisms are in place, irrespective of actual efficiency gains from an improved legal system. Aguilera and Cuervo-Cazurra test this hypothesis by examining whether a country's openness to trade (imports and exports as a percentage of GDP) and foreign portfolio investment flows are positively associated with the likelihood that the country will adopt a corporate governance code. However, it is difficult to disentangle efficiency and legitimation considerations in this way. For example, the increased presence of foreign portfolio investors changes the ownership structure of the domestic corporate economy, and as a result the effectiveness of certain legal mechanisms may need to be reassessed. Notably, strategies to protect minority shareholders, for example minority representation on the board,

gain in importance. It is suggested that the signalling function of corporate governance codes can be tested better by assessing the effect that the emergence of internationally accepted standards of best practice has on the activities of code issuers. As explained, this is possible with the data compiled for this article because best practice standards relating to the structure of corporate boards (identified more precisely in Section 3) are coded, so that the adoption of standards corresponding to specific definitions can be determined precisely and traced across countries and over time. If codes were used as a signal, rather than to increase the effectiveness of the domestic regulatory environment, we would expect code issuers to be responsive to the international diffusion of best practice standards, controlling for differences in a country's legal system and investment flows. Therefore, I propose to use the number of code issuers having adopted a similarly formulated best practice standard at any given point in time as a predictor of future adoption of this best practice standard and hypothesise accordingly:

H1: The likelihood that a code issuer will adopt a particular best practice standard on board structure increases as the number of corporate governance codes in force in other countries that contain such a best practice standard increases.

In contrast to Aguilera and Cuervo-Cazurra (2009), this predictor, arguably, captures the effect of diffusion *as such*, whereas Aguilera and Cuervo-Cazurra focus on what Strang and Soule (1998) call "external sources" of diffusion. It is, of course, important to investigate the role of such external factors as well. As pointed out by Aguilera and Cuervo-Cazurra (2009), a country's integration into the global economy may lead to greater legitimation pressures or, as mentioned above, to economic changes that necessitate a different regulation of the corporate economy. In particular, the rise of institutional investors and the changing ownership structure of firms are well documented (Gilson and Gordon, 2013; Kahan and Rock, 2010). Scholars have related these developments to changes in the regulatory environment. Famously, La Porta et al. (1998) argue that strong investor protection laws are negatively associated with concentrated ownership structure. Ferreira and Matos (2008) show that domestic institutional investors have a preference for strong minority shareholder rights. Thus, it is possible that the presence of domestic and/or foreign institutional investors is

associated with a higher likelihood that internationally accepted best practice standards are adopted. Such an association can be explained with both efficiency and legitimacy considerations. The best practice standards may be adopted because the drafting committee believes that such standards constitute an appropriate response to the actual regulatory needs of institutional and foreign investors, which presupposes that the focus of the best practice standards is on protecting minority shareholder interests, for example by decoupling management and control functions on the board of directors. As will be discussed in Section 3.1, this is indeed how a comparatively higher score in the regulatory variables computed here can be interpreted. Alternatively, the corporate governance committee may seek to meet the expectations or preferences of investors, which would be in line with the legitimation account, without involving any statement about the efficiency of the regulatory change. I hence contend that:

H2a: Economies with a comparatively large presence of foreign investors are associated with the adoption of best practice standards that are perceived to protect their interests.

H2b: Economies with a comparatively large presence of domestic institutional investors are associated with the adoption of best practice standards that are perceived to protect their interests.

Conversely, if ownership structure is dominated by corporate insiders (blockholders), we may expect drafting committees to be responsive to the regulatory needs or expectations of the insiders, and accordingly adopt best practice standards that do *not* focus on strengthening control and constraining managerial discretion.[2] We can therefore also formulate:

H2c: Economies with a comparatively large presence of blockholders are negatively associated with the adoption of best practice standards that are perceived to protect the interests of foreign and/or domestic institutional investors.

Finally, it is a long-standing claim of the law and finance literature that common law countries have a predisposition to stronger (minority) investor protection than German or French legal

[2] Again, as will be discussed in Section 3.1, this would correspond to a comparatively lower score in the regulatory variables.

origin countries (La Porta et al., 1997, 1998, 2000; Djankov et al., 2008). The diffusion literature builds on this claim to test whether corporate governance codes are adopted to compensate for deficiencies in a country's binding company law (Aguilera and Cuervo-Cazurra, 2009; Zanetti and Cuomo, 2008). It is questionable whether La Porta et al.'s claim should be embraced in this generality for present purposes. The methodological problems surrounding this strand of research have been mentioned in Section 1 above. Armour et al. (2009b) and Siems (2005a) have also criticised La Porta et al.'s classification of legal systems into four broad legal families (common law, German, French and Scandinavian legal origins) for overstating the differences between legal systems and neglecting the hybrid nature of many jurisdictions. It is indeed questionable whether characteristics such as general regulatory ideologies can be attributed to legal systems as a whole and whether these characteristics, if they exist, are uniquely and exogenously determined by a jurisdiction's legal origins, as La Porta et al. claim. However, in individual legal areas, including corporate governance, distinct regulatory strategies can be identified that correlate within, but not between legal families (Gerner-Beuerle and Schuster, 2014). In the same manner, the likelihood that a particular best practice standard is adopted may vary between legal families. It is important to emphasise that such variation, if it indeed existed, would not be an indication of a high or low level of investor protection. As Cools (2005) has convincingly argued, the absence of a particular regulatory strategy may simply be the result of the use of substitute mechanisms in a different part of the legal system. With this caveat in mind, testing for legal origins can inform us about the regulatory technique preferred by a country: soft law or binding legislative measures.

Theory and prior research are ambiguous in the direction of the association between legal origins and the adoption of stringent best practice standards. If the findings by Zanetti and Cuomo (2008) that civil law countries tend to adopt more ambiguous and lenient recommendations apply to the best practice standards analysed here, or if Cools (2005) is correct in her claim that the main channel of investor protection in civil law countries can be found in the allocation of decision rights in company law statutes, we would expect that:

H3a: Civil law countries are negatively associated with the adoption of best practice standards that are perceived to protect the interests of investors, compared with common law countries.

An alternative account is suggested by Aguilera & Cuervo-Cazurra (2004), who see corporate governance codes as a mechanism to compensate for otherwise inadequate investor protection rules in civil law countries. If this account holds in the present context, we would expect that:

H3b: Civil law countries are positively associated with the adoption of best practice standards that are perceived to protect the interests of investors, compared with common law countries.

3. Methodology, data and model specification

The sample consists of all corporate governance codes adopted in 23 European countries since the publication of the Cadbury Report in 1992 (106 codes in total). These countries were chosen because they have promulgated two or more codes available in English, cover 98% of the market capitalization of the EEA including Switzerland,[3] and represent diverse legal traditions. Central provisions of the codes were quantified to calculate a set of "regulatory variables" (Table 1.A, further discussed in Section 3.1 below). In quantifying the provisions, two main methodological challenges had to be addressed, which may be termed the "identification problem" and the "reductionism problem". The former refers to the difficulty in identifying regulatory concepts that can be compared meaningfully, given that legal systems use different regulatory techniques to address the same social conflict and that norms interact in various ways with the legal system in which they are embedded. Second, norms are necessarily to a greater or lesser extent nuanced and open-ended in order to be adaptable to a variety of factual circumstances. The process of quantification, both of best practice standards and binding statutory law, therefore faces the challenge of using interpretation to condense complex normative information into numerical data in a consistent manner and without succumbing to reductionism. I will deal with the two problems in turn.

[3] Source: World Bank World Development Indicators.

3.1. Identification

Certain issues addressed in corporate governance codes in some jurisdictions may be regulated in binding laws in others. Comparing the regulatory responses to such issues would not render particularly meaningful results since no conclusions could be drawn from the fact that a country did not emulate a best practice standard. It is therefore important to focus on mechanisms that will typically be *insulated* from the codified corporate law of a country and dealt with predominantly by soft law. In addition, the relevant issues should lend themselves to prescriptive, detailed regulation, as opposed to regulation by means of general guidelines or broad standards, in order to be amenable to coding.

Arguably, both conditions are satisfied by rules that structure the board of directors of listed companies. While basic tenets of board structure regulation, notably the distinction between one-tier and two-tier boards, are generally laid down in binding legislation, the detailed aspects of board structure, such as the number of independent directors or the requirement to establish board committees, are commonly not found in the codified law. These requirements depend on changing characteristics of the company and the market for non-executive directors. To give just a few examples, a small or medium-sized company may find it unnecessarily cumbersome and inefficient to establish separate nomination, remuneration and audit committees. In smaller economies, the market for non-executive directors may not be sufficiently deep to allow companies to find qualified individuals meeting a long list of independence requirements. In some companies, it may be particularly important to retain firm-specific expertise and hence allow retiring executives to continue to serve in a non-executive capacity on the board of directors or supervisory board. The comply-or-explain principle of corporate governance codes is more appropriate to regulate these issues than binding law. Indeed, board structure regulation is a centrepiece of all codes analysed in the sample, and often the relevant recommendations contain detailed prescriptions of how boards should be structured. Other issues addressed by corporate governance codes are either less well insulated from the binding company law or formulated in open-ended terms less amendable to quantification. For example, executive remuneration is increasingly regulated in binding acts, which impose extensive

disclosure obligations and more recently also shareholder approval requirements, and provisions dealing with shareholder engagement or internal control commonly only establish general guidelines.

It is widely accepted in corporate governance theory (and also by some policy makers) that effective boards should be structured so as to contain a strong non-executive and independent element on the board, avoid a concentration of power at the helm of the company by requiring that the roles of chairman and CEO be separated, and delegate issues that involve particularly pronounced conflicts of interest to independent committees, namely succession planning, responsibility for the review of internal control procedures and the appointment of the external auditor, and remuneration decisions (see, e.g., Mallin, 2015, and Commission Recommendation 2005/162/EC). These considerations of what constitutes good governance have been translated into six elements of board structure regulation: (1) the requirement that at least half of the board shall consist of non-executive directors; (2) a majority of the non-executive directors must be independent; (3) independence is defined prescriptively in the form of an enumeration of factors that must be satisfied, most importantly not having been an executive director or employee of the company in a senior management position for a specified number of years, receiving additional remuneration from the company, representing a major shareholder, or having a significant business relationship or family ties with the company; (4) the roles of CEO and chairman shall not be exercised by the same individual; (5) the CEO shall not become chairman upon retirement as chief executive (cooling-off period); and (6) companies shall establish nomination, audit and remuneration committees composed of a majority of independent non-executive directors (Table 1.A).

These best practice standards form the six variables that measure changes in regulation and determine the value of a second set of variables, called “diffusion variables”, which count how many standard setters have adopted a similar formulation of each of the six standards (Table 1.B). The variables are coded by assigning a value between 0 and 1, as set out in Table 1.A, with higher values representing a comparatively more stringent formulation (from the perspective of the executive directors or corporate insiders). A code provision is “similar” to the definition of the best practice standard used for purposes of comparison (the most stringent alternative of the definitions given in

Table 1.A), if the value of the respective variable is equal to or greater than 0.75. The dichotomous indictor variable "adoption of benchmark rule" takes the value 1 if a standard setter adopts a provision similar to the definition, and the dichotomous indictor "regulatory innovation" takes the value 1 if a standard setter changes the code so that the provision is more similar to the comparator definition than before. These dichotomous indicators are used as dependent variables in the empirical models in Section 4.

<Tables 1 and 2 about here>

While the regulatory variables chosen here operate generally independently of the corporate law in place in the respective jurisdiction, certain interdependencies between soft law and the binding legislative framework are unavoidable. Most importantly, it is clear that the six elements of board structure regulation are not equally applicable to one-tier and two-tier boards. In jurisdictions with a two-tier board structure, executive and non-executive directors are by definition separated and the board ultimately responsible for monitoring, the supervisory board, consists entirely of non-executive directors, who may or may not be independent. Similarly, the positions of chairman of the supervisory board and chairman of the executive board (CEO in Anglo-American parlance) cannot be exercised by the same individual. Thus, elements (1) and (4) are omitted from the analysis if the legal system employs the two-tier board model. The coding protocol contains further explanations, including references to statutory sources where appropriate.[4]

Panel A of Table 2 reports summary statistics. In the first row, 'board structure' is based on the mean of the scores for the six (or four, as applicable) elements of board structure received by the codes in the sample. The other rows report summary statistics for the six individual elements of board structure as well as the ownership variables, Panel B correlation coefficients, and Panel C mean values of the regulatory variables broken down by country.

[4] Appendix B.

3.2. Reductionism

The second methodological challenge, here called the "reductionism problem", needs to be addressed by all legal research using quantitative methods. Norms are often not phrased in a binary way, but may provide for a catalogue of exceptions or allow market actors to modify or disapply the norm contractually. In addition, a norm may be susceptible to more than one interpretation, and a universally accepted interpretation ensuring legal certainty may not exist. A binary or otherwise not sufficiently nuanced coding system could not capture these aspects and would, therefore, be prone to measurement error and lead to a loss of information. On the other hand, a more gradual quantification necessarily requires judgments to be made that will, to some extent, be conditional on the interpretation found most convincing. Scholars generally do not go so far as to conclude that quantitative techniques are inappropriate in legal scholarship because of these reasons, but they caution against oversimplification and the blind faith in the comparability of any aspect of a legal system (Epstein and Martin, 2010; Michaels, 2009; Siems, 2005b). The key, it seems, is to be aware of the tradeoff between accuracy and objectivity inevitably involved in the quantification of social phenomena that are open to interpretation and rational disagreement about their meaning (Gompers, Ishii and Metrick, 2003).

In order to make allowance for this tradeoff, I propose a two-step approach to coding. The first step consists in a mechanical application of a simple metric that is usually composed of not more than three levels:[5] a lower bound reflecting the absence of any meaningful regulation of the relevant issue (in which case the variable equals zero), an upper bound reflecting the most stringent regulation practically relevant (the variable equals one), and one intermediate stage reflecting best practice standards that impose meaningful constraints but fall short of the most stringent formulations available (the variable equals 0.5). In this first step, any ambivalence in the formulation of the best

[5] The only exception is the variable "definition of independence". In this case, the enumeration of criteria indicating independence (see for example Commission Recommendation 2005/162/EC, Annex II) lends itself to a more gradual coding.

practice standard, exemptions or the possibility to disapply the rule, for example upon a motion by shareholders, are disregarded.

In a second step, the value derived in the first step is adjusted if the mechanical quantification does not accurately reflect the true import of the rule. The adjustment is confined to two scenarios that relate to the *strictness* and *precision* of the provision. The value is either adjusted if the rule is formulated in an optional way and provides for exemptions or allows non-compliance outside the comply-or-explain principle, i.e. the company is in full compliance with the code, and accordingly is not required to publish an explanation, although the provision is not applied, or the provision is phrased so ambivalently or in such general terms that precise behavioural prescriptions cannot be derived from it. In both cases, the first-step value is adjusted as explained, for each case of adjustment, in the coding protocol.[6]

It may be useful to explain the operation of the two-step analysis with the help of an example. I take element (4), separation of CEO and chairman of the board, and analyse how the UK Corporate Governance Code of 2012 and the Italian Corporate Governance Code of 2011 correspond to the metric developed here. The two code provisions are as follows:

> *UK Corporate Governance Code 2012, A.2:*
> **Main Principle**
> There should be a clear division of responsibilities at the head of the company between the running of the board and the executive responsibility for the running of the company's business. No one individual should have unfettered powers of decision.
>
> **Code Provision**
> A.2.1. The roles of chairman and chief executive should not be exercised by the same individual. The division of responsibilities between the chairman and chief executive should be clearly established, set out in writing and agreed by the board.
>
> *Italian Corporate Governance Code 2011, Article 2:*
> **Principles**

[6] Appendix B.

2.P.4. It is appropriate to avoid the concentration of corporate offices in one single individual.
2.P.5. Where the Board of Directors has delegated management powers to the chairman, it shall disclose adequate information in the Corporate Governance Report on the reasons for such organisational choice.

Criteria

2.C.3. The Board shall designate an independent director as lead independent director, in the following circumstances: (i) in the event that the chairman of the Board of Directors is the chief executive officer of the company; (ii) in the event that the office of chairman is held by the person controlling the issuer.

Comment

The international best practice recommends to avoid the concentration of offices in one single individual without adequate counterbalances; in particular, the separation is often recommended of the roles of chairman and chief executive officer … The Committee is of the opinion that, also in Italy, the separation of the above-mentioned roles may strengthen the characteristics of impartiality and balance that are required from the chairman of the Board of Directors. The Committee, in acknowledging that the existence of situations of accumulation of the two roles may satisfy, in particular in issuers of smaller size, valuable organizational requirements, recommends that, should this be the case, the figure of the lead independent director be created.

The UK code provides that there should be a clear division of responsibilities at the head of the company and the roles of chairman and chief executive should not be exercised by the same individual. This falls squarely within the upper bound of the definition of element (4). The provision is unambiguous and does not contain any qualifications or exemptions. Therefore, the UK Corporate Governance Code receives the value 1 for “separation chairman/CEO”.

The Italian code is different in several respects. First, it is phrased in more ambiguous terms. The concentration of the roles of chairman and CEO is not prohibited, but the code holds that it is “appropriate” to avoid it. Code Principle 2.P.5 and Criteria 2.C.3 envisage a situation where the company decides not to separate the two offices. However, they intend to ensure transparency and the existence of an appropriate counterweight in the form of a “lead independent director” in case the

same person acts as CEO and chairman. Finally, the comments, which are included in the code to clarify the principles and criteria, explicitly acknowledge that the accumulation of the roles of chairman and CEO may be beneficial and satisfy "valuable organizational requirements". Is this a prohibition of the concentration of corporate offices that warrants quantifying the Italian code pursuant to the upper bound of the definition of element (4) (the roles of CEO and chairman must not be exercised by the same individual)? Arguably, it is a prohibition because companies must give reasons in the corporate governance report if they concentrate the offices, which is in line with the essence of corporate governance codes. However, the *quality* of the prohibition is different from that of the UK code. Clearly, this is a difference that cannot be captured by a simple binary metric and mechanical coding. At this point, the second, qualitative stage of coding becomes relevant.

The Italian code is an example for an ambivalent rule. It merely speaks of the "appropriateness" to separate the roles of chairman and CEO, but does not establish a clear precept by means of a deontic statement, and acknowledges the usefulness of combining the roles of chairman and CEO. Furthermore, it makes provision for the delegation of executive powers to the chairman *within the framework of the code*, i.e. the company is technically in compliance with the code if the offices are combined, even though transparency is required by virtue of the code.[7] Therefore, it would be inappropriate to give the Italian code the same value as a code that prohibits the accumulation of the roles strictly and unambiguously, as the UK code. On the other hand, the code provides for two substitute mechanisms if management powers have been delegated to the chairman. The board has to disclose the reasons for this organisational choice in the corporate governance report, and it shall designate an independent director as lead independent director, who "represents a reference and coordination point for the requests and contributions of non-executive directors".[8] Thus, the Italian code is also not comparable to corporate governance codes that fail to impose clear and unconditional precepts *and* do not provide for substitute mechanisms, for example codes that merely "encourage"

[7] Provision 2.P.5.
[8] Provision 2.C.4.

the separation of offices.[9] It stands between these two archetypical provisions – the UK rule and the "encouragement" formulation – and should accordingly receive a penalty reflecting this intermediate position.[10] This example shows that the coding even of provisions pursuing supposedly simple regulatory goals can involve difficult questions of interpretation. Only a detailed and transparent interpretation of norms, following commonly accepted canons of construction, can resolve such ambiguities.

3.3. Model specification

Proportional hazard models are a widely used method to estimate the rate of diffusion of innovations as a function of a set of predictors, including the diffusion of "regulatory" innovations. For example, Ramirez et al. (1997) apply event history analysis to the spread of women's suffrage rights and Wotipka and Ramirez (2008) to the ratification of international treaties. This article is concerned with a similar diffusion phenomenon, the spread of corporate governance institutions over time among standard setters based in different countries. An appropriate event history method is the Cox regression model, which has the advantage of not requiring any distributional assumptions, only the assumption that the effect of predictors, in principle, is constant over analysis time (proportionality assumption). A Cox regression estimates the function

$$h(t_{ij}) = h_0(t_j)e^{\beta X_{ij}} ,$$

where $h(t_{ij})$ is the hazard that individual i will experience the event at time t_j; $h_0(t_j)$ denotes the baseline hazard, i.e. the hazard when all predictors are 0; and X_{ij} is a vector of covariates, which are allowed to vary between individuals and over time. Here, in order to test the three hypotheses formulated above, three sets of predictors are included as covariates: diffusion, ownership and legal origins variables. The diffusion variables were described in Section 3.1 above. I have ownership data on shareholdings by foreign investors and domestic institutional investors as a percentage of total

[9] See, for example, the Greek Corporate Governance Code 1999, s. 5.5, providing that "[t]he separation of duties and responsibilities in the highest levels of the corporation's governance should be encouraged".
[10] See Appendix B, note 181.

equity of listed companies for most country/year combinations when corporate governance codes were adopted. Historical ownership data on the size of the largest voting blocks is fragmentary and not always comparable across countries. Therefore, in order to measure ownership concentration, I include a dummy variable that equals 1 if the median largest voting block is equal to or larger than the median value of all countries in the sample according to the most contemporaneous data available. Legal origins distinguish between the four legal families common law, German, French and Scandinavian legal origins. As additional controls, I create dummy variables that distinguish between one-tier and two-tier board systems, jurisdictions that require employee representation at board level, and the adoption of codes before and after two major corporate governance reforms entered into force that could have had an impact on the activities of standard setters: the Sarbanes-Oxley Act in the United States in 2002 and Commission Recommendation 2005/162/EC in the EU in 2006.[11]

The relevant event is defined in two alternative ways. In the first specification of the model, it is the adoption of a rule that corresponds to the benchmark formulation of the six elements of board structure given in Table 1.A. Since it is quite common that corporate governance codes are ambivalent or in other ways fall short of the formulation of the six components of board structure that is used for coding, the dichotomous indicator scores one if the code provision takes a value of at least 0.75. Once the event occurs, the code issuer no longer contributes to the risk set. In the second specification, subjects can experience recurrent events, which are defined, for each component of board structure, as an increase in the value of the respective variable compared to the previous code adopted by the same issuer.[12] In both models, code issuers were right censored if they had not experienced the event by the end of 2012.[13]

[11] See Appendix C.2 for summary statistics of legal origins and the additional controls.
[12] Alternatively, the model could also be estimated with "regulatory innovation" defined as a negative, rather than positive change in the variable. However, such changes are very rare in the dataset, with seven changes in the case of "board committees", five in the case of "definition of independence", and 2-4 in the remaining cases. For this reason, an event history analysis of negative regulatory innovations is not pursued further.
[13] Time is recorded in months, since it was in all cases possible to determine the publication of the code at least by year and month.

A problem frequently discussed in the diffusion literature is the interdependence between different actors that consider whether to adopt an innovation (so-called Galton's problem). Unless it can be assumed that the actors are influenced solely by factors that relate to the inherent characteristics of the innovation and the problem it is intended to address, rather than the decisions of others (Braun and Gilardi, 2006), models need to take account of possible relationships of mutual influence between actors. In statistical terms, failure to do so might result in an omitted variable bias. Jahn (2006) gives an overview of the solutions to this problem that have been developed in the literature. Here, we are particularly interested in the reaction of standard setters to the degree of international diffusion that a best practice rule has already achieved. In other words, the goal is to examine specifically the effect of a factor that is *not* related to corporate governance problems faced by the legal system in question, but captures the process of diffusion itself. Therefore, I model the hazard rate of adoption of a best practice rule as a function of prior adoptions of the same rule by other standard setters.

Two further considerations are important for a correct specification of the model. It is possible that the influence of the international spread of corporate governance innovations is not linear. For example, the probability that a corporate governance committee adopts a foreign regulatory innovation may increase initially as the innovation gains international acceptance. However, once it has become widely known because it has been adopted by a sufficient number of countries, say six or seven out of the sample of 23, the marginal effect of each additional adoption may be decreasing. The effect of diffusion would therefore resemble the well-known S-shaped form of other diffusion processes (Rogers, 2003). Intuitively, it could be said that the corporate governance committee has had the opportunity to consider the adoption of the rule and decided that it was not suitable, given the country's economic situation, legal system, or other reasons. In that case, it is maybe still possible, but less likely that the further spread of the regulatory innovation will prompt the committee to change its mind.

Similarly, it is possible that the effect of the international spread of a regulatory innovation is not constant over time. Once an innovation has been pioneered by one country, it can be expected that

corporate governance committees in other countries, especially those belonging to the EU or EEA and, consequently, being in fairly constant exchange, discuss the innovation and decide relatively quickly whether to adopt it or not. If this is correct, we would expect to see the adoption of regulatory innovations, once they have been promulgated by the forerunners in the corporate governance movement, by committees set up in other countries during the first years of their existence. As time passes after the establishment of the committee, it may become less likely that they will revisit well-known questions and adopt corporate governance institutions with a considerable delay. Thus, the impact of the diffusion of regulatory innovations may decrease over time while a committee is in existence and deals with rule changes.

In order to investigate these possibilities, I compute the martingale residuals for a null model to examine the functional form of the continuous predictors. The residuals indicate that the diffusion predictors are not linear, whereas a plot of the residuals against the other continuous predictors does not show any discernible pattern. Second, I test the proportionality assumption both graphically by examining the scaled Schoenfeld residuals and log cumulative hazard functions, and by regressing the Schoenfeld residuals on time. I do not reject the proportionality assumption, except in one model: the effect of the diffusion of the benchmark definition of independence is not constant, but rather decreases over time. These findings suggest that a quadratic term, "diffusion squared", needs to be included in the equations assessing benchmark rules regarding the number of non-executive directors, independent directors, the separation of chairman and CEO, and board committees, and an interaction term with time in the equation dealing with the diffusion of the benchmark formulation of independence.[14]

[14] I do not model the diffusion of "Cooling-off period" since the benchmark rule has not been adopted by more than a few countries (see *infra* note 15).

4. Diffusion of Best Practice Standards

4.1. Descriptive Statistics

This section explores how new corporate governance institutions spread from one country to another. The data allow us to identify when and where a regulatory innovation was introduced for the first time and which code issuers adopted it subsequently. Panel A of Table 3 reports the year of adoption of the first corporate governance code of each issuer and the year of adoption of rules satisfying the benchmark definition for the six elements of board structure regulation.[15] Panel B summarises the difference in years between the adoption of the first corporate governance code in Europe and the first code of each of the other 22 code issuers, as well as the rate of diffusion of corporate governance innovations, measured as the number of years between the promulgation of the first rule satisfying the benchmark definition and the adoption of benchmark rules by other issuers. Panel C reports the percentage of code issuers from the sample that had adopted a corporate governance code and benchmark rules within 3-15 years after the first corporate governance initiative (Cadbury) and the first formulation of the respective benchmark rules.

<Table 3 about here>

The first countries to promote corporate governance initiatives were the United Kingdom with the Cadbury Report of 1992 and France with the Viénot I Report of 1995. These reports initiated a development that led to the publication of reports and recommendations on good governance in other countries, notably the Peters Report in the Netherlands (1997), the Olivencia Report in Spain (1998), and the Cardon Report in Belgium (1998). In the following years, the corporate governance movement gathered momentum, and by 2002, 17 European countries had adopted codes of good governance. The pioneering position of the countries that produced the first reports is reflected in the

[15] The benchmark definition is that of "Adoption of benchmark rule" as defined *supra* in Table 1 for all components of the board structure variable except "Cooling-off period", for which I use a benchmark value of 0.5. The higher benchmark (a value of 0.75 or higher for the regulatory variable) is only met by three code issuers (the Netherlands and the UK in 2003 and Slovenia in 2005). The 0.5 benchmark, therefore, contains more informational value for the diffusion of this institution.

fact that they were usually also the first to provide for rules meeting the benchmark definition of what is regarded as effective board structure regulation. They did so not necessarily in the first corporate governance codes published, but they continued to be at the forefront of the corporate governance movement and influenced its development through regular revisions of their standards of good governance.

Panel B shows that with one exception – the number of independent directors – other countries began to adopt rules largely comparable to the benchmark formulations of the six institutions regulating board structure quickly after the forerunner country promulgated the rule, one to three years after the initial innovation. The innovation then spread to other countries in the sample over the next four to seven years on average. The reason for the significant time lag in the spread of the independent directors requirement was that only the UK codes placed emphasis on independence early on, while other early influential reports, for example the French Viénot I Report and the Spanish Olivencia Report, were more sceptical. It was felt that independence in the Anglo-American sense was not entirely appropriate, given the limited experience of companies with the concept of independent directors and the more concentrated ownership structure prevalent in France, Spain, and other countries.

Panel C shows that the diffusion of the six components of board structure regulation has not been equally pervasive. The requirements to have a strong presence of non-executive directors on the board, separate the roles of chairman and CEO, and establish board committees are by now widely accepted and have been adopted by about two-thirds of the countries in the sample. On the other hand, independence is a more controversial concept, which may explain why the adoption rate is lower. Finally, even in countries that usually have a high compliance rate with corporate governance recommendations, for example the UK, it is contested whether outgoing CEOs should be prohibited from becoming chairman of the board of directors (Davies and Worthington, 2016, 14-75), and many codes in the sample do not even mention the issue.

4.2. Survival Analysis

This section examine the association of each predictor, in the case of the diffusion variables together with the corresponding quadratic term and, where appropriate, together with interaction terms with time, with the adoption of benchmark rules. Table 4 reports the regression results.

<Table 4 about here>

The results show that the diffusion of benchmark rules, i.e. the number of corporate governance codes containing a provision that satisfies the benchmark formulation of the relevant element of board structure, is positively associated with the subsequent adoption of a corresponding benchmark rule by the response code. For each additional corporate governance code satisfying the benchmark formulation, the odds of adoption of a similar provision increase by a factor of between 1.7 and 3.2. The association is statistically significant at the 5 or 1 percent level for all analysed components of board structure except "Non-executive directors". Further, the results show that the marginal effect of the diffusion of a regulatory innovation decreases as the innovation spreads and is adopted by additional code issuers, and that the diffusion effect decreases over time in the case of equation (3).

Ownership structure is generally not statistically significantly associated with the analysed event, with the exception of "Concentrated ownership structure" in equations (1) and (3), where we find a significant negative relationship. The fact that an economy is characterised by concentrated ownership cuts the odds of adopting a rule requiring at least half of the board members to be non-executive directors and a rule satisfying the benchmark formulation of independence by the large factor of about 4, compared with a country where shareholders are dispersed. Likewise, the coefficients on legal origins are generally not statistically significant, except in equation (2), where I find an economically large negative association with the German and French legal families.

In Table 5, I add the three sets of predictors in several steps to examine their multivariate effect. The regressions confirm the findings from the univariate model. The strongest explanatory factor of the adoption of a benchmark formulation of best practice standards is the diffusion of that formulation. With the exception of the first element of board structure regulation, "Non-executive

directors", the diffusion of benchmark rules is positively and statistically significantly associated with the subsequent adoption of a corresponding rule by another code issuer. Each additional benchmark code in force increases the odds that the dependent code will emulate the benchmark formulation by a factor of between 1.7 and 3.4. The effect of concentrated ownership structure is again strongly negative and statistically significant in models examining the first three board structure elements (equations (1)-(5)). These results are robust to the inclusion of different sets of covariates and further control variables distinguishing between jurisdictions following the one-tier and two-tier board models, requiring employee representation at board level, and codes adopted before and after the Sarbanes-Oxley Act and Commission Recommendation 2005/162/EC entered into force.[16] The likelihood ratio tests at the bottom of Table 5 indicate that the addition of the diffusion variables improves the fit of the model significantly in all equations except the first and the addition of the ownership variables leads to an improvement in models dealing with the first three elements of board structure. The regression analysis therefore provides statistically significant evidence in support of Hypothesis 1 and, for the first three elements of board structure, Hypothesis 2c, but only limited evidence in support of Hypothesis 3a and no evidence in support of Hypothesis 2a, 2b or 3b.

<Table 5 about here>

The effect of the diffusion and concentrated ownership predictors can be illustrated with plots of survivor and hazard functions. I use equation (3) of Table 5 to show how concentrated ownership structure and the spread of benchmark rules shift the odds of adopting a rule that requires a majority of non-executive directors to be independent. First consider Figure 1, which plots survivor functions for code issuers operating in a concentrated ownership economy (Blockholding=1), and in an economy where shareholders are comparatively widely dispersed (Blockholding=0), with the other predictors evaluated at the mean. In concentrated ownership economies the odds of survival, i.e. the odds that code issuers do not require a majority of non-executive directors to be independent, is significantly higher over the whole period of analysis time. In fact, the survival probability never falls

[16] Results are here omitted.

below 0.66, indicating that the clear majority of blockholder economies are unlikely ever to adopt this element of board structure regulation in its most stringent form. In dispersed shareholder economies, on the other hand, a considerable number of code issuers emulate the benchmark definition already in the first code issued, which is borne out by the relatively low initial survival probability of 0.56. Median lifetime is only 3 years and 1 month, and by the end of analysis time the survival probability has fallen to 0.21.

<Figures 1 and 2 about here>

Figure 2 plots the smoothed hazard function, again based on equation (3) of Table 5. It depicts, first, how hazard changes over time. The "risk" of adoption of the benchmark rule is relatively high in the beginning of a corporate governance committee's existence, as the committee reviews international formulations of corporate governance mechanisms and decides whether to adopt them. It then decreases slightly since committees will generally wait for a number of years before they begin with the revision of the code. The risk peaks in years 6 and 7 and then decreases steadily, implying that if committees decide not to emulate the international benchmark definition on occasion of the first few code revisions, they become increasingly less likely to do so later, presumably because they have become convinced that the benchmark definition is not suitable for their purposes. This mirrors the typical S-shaped form of the diffusion of technical innovations.

Second, the figure shows that the adoption of a rule requiring a majority of non-executive directors to be independent by one additional international code issuer shifts the hazard function upwards, while preserving the general evolution of the hazard over time. A similar shift can be observed for the other board structure elements.

I explore the impact of the diffusion of best practice standards further by examining when and how code issuers amend their corporate governance codes. For each element of board structure, I use the variable "regulatory innovation" as dichotomous indicator and add three sets of predictors as in the model from Table 5. Again, because the effect of the diffusion of benchmark rules is likely not linear, a quadratic term is included for each component of board structure. In contrast to the

benchmark model, I do not find any evidence that the effect of the diffusion predictors (or any of the other predictors) changes over time. Interaction terms with time are therefore not added.

The results of Cox proportional hazards regressions confirm the above findings. Table C.3 (in the online appendix) shows that the odds that the corporate governance committee will amend the code in a way that reduces the distance to the benchmark formulation increase by a factor of between 1.2 and 2.2 for each additional code in force at the time of drafting of the response code that already includes a benchmark formulation of the corresponding component of board structure (offering evidence in support of Hypothesis 1). The diffusion effect decreases as additional code issuers follow the example of countries at the forefront of the corporate governance movement. I also find some evidence that code issuers are less likely to adopt more demanding rules if listed companies are predominantly owned by large blockholders (Hypothesis 2c).

5. Discussion and conclusion

The clearest finding that emerges from the analysis is the significant effect that the international diffusion of best practice standards has on the activities of standard setters. By controlling for certain channels of diffusion (different types of investors becoming more or less important in the corporate economy) and legal origins, the analysis suggests that the diffusion of international benchmark standards of good governance as such prompts standard setters to emulate these standards. Two interpretations of this finding are possible. Standard setters may seek to emulate benchmark standards for the simple reason that they have become internationally widely accepted. This account is in line with the legitimacy considerations examined, for example, by Aguilera and Cuervo-Cazurra (2004) and Zanetti and Cuomo (2008). It may be the case that standard setters respond to pressures to conform to international benchmark standards, irrespective of whether or not such standards are efficient in light of domestic ownership structures or regulatory mechanisms already in place elsewhere in the legal system. Accordingly, corporate governance codes would be used as a signal of the quality of a country's corporate governance system, rather than as a means of actually improving the system. To the extent that the ownership and legal origins variables used here are reliable proxies

for relevant differences in ownership structure and legal environment, the findings provide some evidence that legitimation concerns indeed play a role.

On the other hand, it is clear that legal origins have limitations in capturing the detailed characteristics of a country's company law regime. In particular, the research design does not allow us to test the interaction between the efficiency of particular legal rules and best practice standards. Therefore, a possible alternative explanation of the significant effect of the diffusion of best practice standards is the following account. Standard setters may realise that certain standards address a deficiency in the domestic legal system that is not controlled for by legal origins because it varies within legal families. As a benchmark rule diffuses and is discussed more widely internationally, an increasing number of standard setters may appreciate that it constitutes an efficient response to the regulatory problem they face. Thus, standard setters may be motivated by efficiency considerations, either exclusively or in addition to legitimation concerns, in emulating standards of good governance.

The significant association between the diffusion of a benchmark rule and the subsequent adoption of that rule by additional standard setters holds for all components of board structure tested here save one: the number of non-executive directors. A possible explanation may be the fact that the requirement to have non-executive directors on the board is the least controversial element of board structure. Code issuers adopted rules satisfying the benchmark definition in short succession. Mean and median year of adoption is 2002, earlier than with any other component. In any event, the direction and magnitude of the association, including the quadratic term, are in line with those found for the other components of board structure.

In contrast to the findings of Zanetti and Cuomo (2008), the empirical analysis does not provide any evidence in support of the hypothesis that stringent corporate governance rules are more likely to be adopted by common law countries than civil law countries. However, one exception is the negative association of German and French legal origins with the independent director recommendation (equation (2) in Table 4 and equation (4) in Table 5). This result, together with the finding that economies dominated by blockholder ownership are less likely to require a strong non-

executive and independent element on the board (equations (1), (3) and (5) in Table 5 and (5) and (8) in Table C.3), raises the question whether civil law and blockholder economies act contrary to the efficiency rationale advanced in the diffusion literature. In blockholder economies, which include many German and French legal origin countries, the majority/minority-shareholder agency problem is particularly salient. An efficient regulatory response can be expected to focus on minority representation on the board and independence of the non-executive directors not only from management, but also from the blockholders. However, the analysis suggests that blockholder economies tend to require fewer independent directors to sit on the board and are less likely to adopt a definition of independence that is prescriptive and includes independence from the major shareholders. On the other hand, it is important to emphasise that this analysis is confined to best practice rules in a country's corporate governance code. Whether it is indeed an indication that standard setters in these economies seek to accommodate blockholders and disregard the interests of minority shareholders, possibly because the corporate insiders have sufficient political clout to influence the formulation of the corporate governance standards, is beyond the scope of this study. An alternative explanation may point to institutional complementarities and the substitutability of regulatory strategies. The lack of a stringent regulation in a corporate governance code may be efficient because of the existence of other legal or non-legal substitute mechanisms in the economy that protect investors.

The findings raise important questions for future research. The benchmark formulations used here to map diffusion were often pioneered by the UK. It is questionable whether they are equally effective and efficient in all regulatory settings, especially those where they constitute a foreign transplant not in line with traditional modes of regulation. Thus, the risk exists that the practice of emulating internationally emerging benchmark standards of good governance imposes additional regulatory burdens on issuers without generating commensurate benefits and may prove ultimately harmful to the corporate economy. In order to pursue this question further, investigate which best practice standards, if any, give rise to inefficiencies, and distinguish between the legitimation and efficiency accounts mentioned above, it will be necessary to analyse the interaction between best

practice standards and a country's company and capital markets laws at a granular level that takes account of differences in individual legal mechanisms between and within legal families.

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Figure 1. Survivor function: adoption of benchmark rule number of independent directors

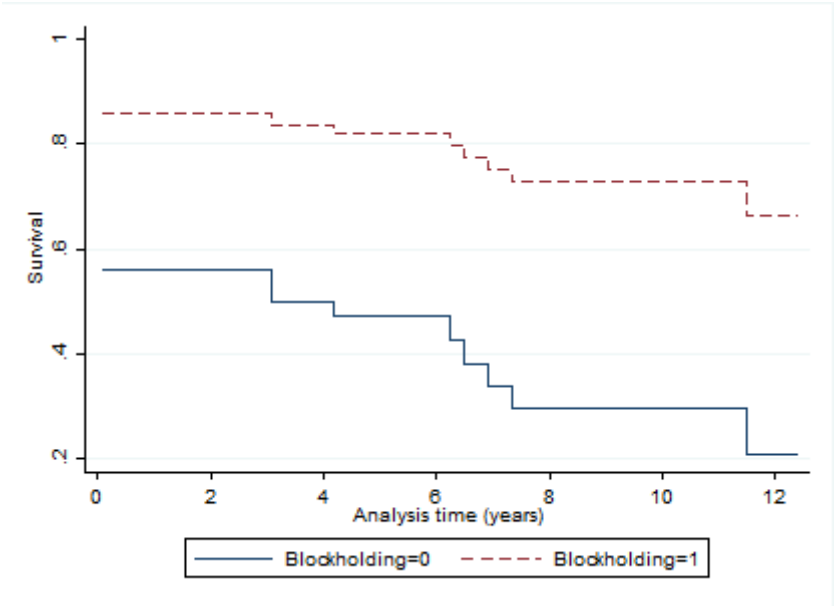

Figure 2. Kernel smoothed estimate of hazard function: adoption of benchmark rule number of independent directors

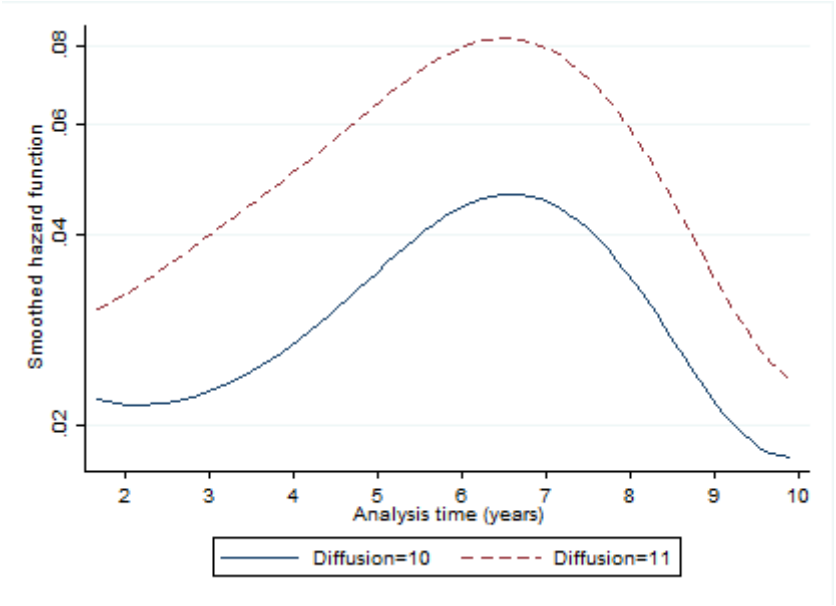

Table 1. Description of the variables

Variable		Description
A.	Regulatory variables	
	Non-executive directors	= 1 if at least half of the board members must be non-executive directors; = 0.5 if less than half, but a specified number or proportion of members must be non-executive directors; = 0 otherwise (not coded for legal systems where the two-tier board model is predominant)
	Number independent directors	= 1 if a majority of the non-executive directors must be independent; = 0.5 if less than a majority, but a specified number or proportion of directors must be independent; = 0 otherwise
	Definition of independence	Index ranging from 0 to 1 and aggregating 10 requirements that directors must satisfy to be considered as independent (see Appendix A.1 for details). If the corporate governance code contains only a general definition of independence (for example that directors should not have any 'business or personal relationships' with the company) and does not provide for a list of independence criteria, the variable takes the value 0.3.
	Separation chairman/CEO	= 1 if the roles of CEO and chairman must not be exercised by the same individual; = 0 otherwise (not coded for legal systems where the two-tier board model is predominant)
	Cooling-off period	= 1 if the CEO should not go on to be chairman of the board for a period of at least three years after stepping down as CEO; = 0.5 if the waiting period is one or two years; = 0 otherwise
	Nomination, audit and remuneration committee	For each committee = 1 if a committee composed of a majority of independent non-executive directors must be established; = 0.5 if a committee must be established, but it does not need to be composed of a majority of independent non-executive directors; = 0 otherwise; total value is the mean of the score for the three committees
	Board structure	Mean of the above six variables (for countries with a two-tier board model, 'Non-executive directors' and 'Separation chairman/CEO' are excluded)
	Legal origins	Dummy variable that classifies national company laws as belonging either to common law, the German, French, or Scandinavian legal family (see Appendix C)
B.	Diffusion variables	
	Adoption of benchmark rule	= 1 for each component of the board structure variable ('Non-executive directors', 'Number independent directors', 'Definition of independence', 'Separation chairman/CEO', 'Cooling-off period', and 'Board committees') if the value of the respective component variable is equal to or greater than 0.75; = 0 otherwise

	Regulatory innovation	= 1 if the code contains a regulatory innovation, which is defined, for each component of the board structure variable, as an increase in the value of the respective variable compared to the previous code adopted by the same issuer. If a previous code does not exist, regulatory innovation is defined as any value greater than 0, with the exception of 'Definition of independence' and 'Board committees', in which case the variable must be equal to or greater than 0.3 (i.e. the code must contain at least a general definition of independence and require the establishment of two committees, respectively). Innovation = 0 if the regulation does not change compared to the previous code or if the value decreases. If the component variable reaches the value 1, the code is ignored in subsequent years, unless it drops again below 1.
	Diffusion	Number of codes in force in the relevant year (for codes adopted until June, this is the year before adoption of the code, for codes adopted after June this is the year of adoption, which is assumed to be the year of drafting) satisfying the benchmark definition for each of the six components of the board structure variable as defined above ('Adoption of benchmark rule')
	Diffusion^2	Diffusion squared
C.	Ownership variables	
	Ownership foreign	Shareholding by foreign investors as a percentage of total equity of listed companies on the country's main stock exchange. For corporate governance codes adopted until June, data are for the year before adoption of the code, for codes adopted after June data are for the year of adoption, which is assumed to be the year of drafting. Source: Eurostat, IMF (CPIS), national stock exchange data, IODS calculations for this study.
	Ownership financial institutions	Shareholding by institutional investors (domestic banks, insurance & pension funds, investment companies, mutual funds) as a percentage of total equity of listed companies on the country's main stock exchange. Year of measurement and sources as for 'Ownership foreign'.
	Concentrated ownership structure	Dummy variable = 1 if the economy is characterized by concentrated ownership structure, which is defined as a median largest voting block equal to or greater than 0.44, the median of the countries from the sample for which detailed data on the largest voting block are available. Data for Austria, Belgium, Finland, France, Germany, Italy, Norway, Portugal, Spain, Sweden, Switzerland, and UK are from Faccio and Lang (2002); data for the Netherlands from Barca and Becht (2001); data for Bulgaria, Hungary, Poland, and the Slovak Republic from Berglöf and Pajuste (2003). For the other countries, the assessment is based on ownership data from BvD Orbis and Capital IQ.

Table 2. Summary statistics

Panel A. Summary statistics of board structure and ownership variables

'Board structure' is based on the mean of the scores for the six elements of board structure received by the codes in the sample. The other rows report summary statistics for the six individual elements of board structure as well as the ownership variables.

	Obs.	Mean	Median	Min.	Max.	SD
Board structure	106	0.492	0.48	0.013	0.925	0.24
Executive/non-exec. (EXD)	64	0.63	0.75	0	1	0.38
No. independent directors (NO-IND)	103	0.56	0.5	0	1	0.41
Definition of independence (DEF-IND)	102	0.48	0.4	0	1	0.27
Separation chairman/CEO (SEP)	69	0.62	0.75	0	1	0.41
Cooling-off period (COOL)	105	0.17	0	0	1	0.31
Committee structure (COM)	106	0.62	0.67	0	1	0.32
Ownership foreign	104	0.36	0.36	0.038	0.889	0.16
Ownership financial institutions	104	0.19	0.17	0.02	0.61	0.11
Concentrated ownership	106	0.54	1	0	1	0.50

Panel B. Pairwise correlation of elements of board structure regulation

	EXD	NO-IND	DEF-IND	SEP	COOL	COM
EXD	1					
NO-IND	0.558	1				
DEF-IND	0.548	0.506	1			
SEP	0.275	0.456	0.535	1		
COOL	0.141	0.191	0.171	0.27	1	
COM	0.648	0.576	0.452	0.42	0.183	1

Panel C. Number of codes and governance variables by country (mean values)

Country	N	Board structure	EXD	NO-IND	DEF-IND	SEP	COOL	COM
Austria	6	0.45		0.50	0.29		0.33	0.67
Belgium	4	0.45	0.75	0.25	0.55	0.50	0	0.65
Bulgaria	2	0.21	0	0	0.10	1	0	0.17
Cyprus	4	0.62	0.63	1	0.52	0.75	0	0.83
Denmark	6	0.57		1	0.67	0.67	0	0.50
Finland	3	0.75	1	1	0.63	1	0	0.89
France AFG	5	0.49	0.50	0.50	0.65	0.60	0	0.67
France MEDEF	6	0.45	0.67	0.67	0.40	0	0	0.83
Germany	11	0.21		0	0.30		0.25	0.28
Greece	3	0.35	0.58	0.33	0.40	0.25	0.08	0.47
Hungary	4	0.66		1	0.30		0.38	0.91
Italy	4	0.25	0	0.13	0.33	0.38	0	0.65
Luxembourg	2	0.30	0	0	0.30	1	0	0.50
Malta	2	0.40	0.25	0.50	0.30	0.88	0	0.48
Netherlands	3	0.68		0.67	0.57		0.83	0.67
Norway	8	0.74	1	0.81	0.70	1	0	0.92
Poland	6	0.33		0.50	0.68		0	0.13
Portugal	4	0.24	0.25	0.31	0.18	0.25	0	0.44
Slovakia	2	0.59		0.75	0.36		0.25	1
Slovenia	4	0.65		0.88	0.67		0.63	0.44
Spain	4	0.47	0.88	0.44	0.55	0.31	0	0.63
Sweden	4	0.76	1	1	0.53	1	0.13	0.83
Switzerland	2	0.34	1	0	0.30	0	0	0.75
UK	7	0.77	0.61	1	0.62	0.82	0.71	0.86

Table 3. Diffusion of regulatory innovations: descriptive statistics

Panel A. Year of adoption

	N	Min.	Median	Max.	SD
Adoption of first code	24	1992	2001	2007	3.41
Non-executive directors	10	1998	2002	2009	3.28
Number independent directors	15	1992	2003	2011	4.25
Definition of independence	9	2003	2007	2011	2.98
Separation chairman/CEO	13	1998	2004	2010	3.50
Cooling-off period	8	1997	2005	2008	3.59
Board committees	17	2002	2004	2011	3.15

Panel B. Years since first initiative

	Min.	Mean	Median	Max.	SD
Corporate governance code	3	9.04	9	15	2.93
Non-executive directors	1	4.88	4.50	11	2.90
Number independent directors	9	12.12	11.50	19	2.98
Definition of independence	1	4.38	5.00	8	2.77
Separation chairman/CEO	3	6.83	6.00	12	3.07
Cooling-off period	3	7	7	10	2.38
Board committees	1	4.23	3	9	2.95
Average board structure	3.00	6.93	6.57	12.00	2.85

Panel C. Percentage of countries in the sample having adopted the code/rule

	After 3 years	After 6 years	After 9 years	After 12 years	After 15 years
Code	0.08	0.25	0.54	0.92	1
Non-executive directors	0.19	0.44	0.50	0.56	0.63
Number independent directors	0.04	0.04	0.13	0.46	0.48
Definition of independence-	0.17	0.32	0.41	-	-
Separation chairman/CEO	0.18	0.47	0.59	0.71	0.71
Cooling-off period	0.04	0.13	0.21	0.25	0.25
Board committees	0.46	0.50	0.67	0.67	-

Table 4. Diffusion of regulatory innovations: univariate hazards model

The table reports estimation results of a Cox proportional hazards model, using Efron's approximation for ties. Equations (1) to (5) examine the univariate effect of the diffusion of the respective component of board structure ('Cooling-off period' is omitted because of the low number of events), as well as the univariate effect of ownership structure and legal origins on the adoption of a benchmark rule.

Predictors	Event: adoption of benchmark rule				
	(1)	(2)	(3)	(4)	(5)
Diffusion non-executive directors	1.738				
	(1.28)				
Diffusion number independent directors		2.585***			
		(2.59)			
Diffusion definition of independence			3.123**		
			(1.99)		
Diffusion separation chairman/CEO				3.211**	
				(2.52)	
Diffusion committee structure					1.807***
					(2.68)
Diffusion^2	0.940	0.934**		0.912**	0.962***
	(-1.33)	(-2.55)		(-2.24)	(-2.82)
Interaction with time			0.988**		
			(-2.10)		
Ownership foreign	0.948	0.212	0.006*	3.184	2.327
	(-0.03)	(-0.78)	(-1.73)	(0.55)	(0.56)
Ownership financial institutions	0.665	23.53	40.03	0.216	0.393
	(-0.16)	(1.29)	(1.42)	(-0.52)	(-0.41)
Concentrated ownership structure	0.252**	0.434	0.235**	0.423	0.446
	(-2.08)	(-1.58)	(-1.99)	(-1.43)	(-1.59)
Legal origins German	1.855	0.116**	0.485	0.000	1.084
	(0.61)	(-2.50)	(-0.77)	(-0.00)	(0.10)
Legal origins French	0.884	0.066***	0.365	0.248*	1.223
	(-0.13)	(-2.89)	(-0.97)	(-1.75)	(0.23)
Legal origins Scandinavian	6.650*	1.312	1.179	0.620	3.630
	(1.85)	(0.35)	(0.16)	(-0.58)	(1.42)
N observations	104	169	253	113	184
N events	10	15	9	13	17

*** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent level.
The table reports hazard ratios, t-statistics are in parentheses.

Table 5. Multivariate hazards model: benchmark rules

The table reports estimation results of a Cox proportional hazards model, using Efron's approximation for ties. Event is the adoption of a benchmark rule regarding the respective component of board structure. In equation (8), the three legal families are replaced by an indicator variable 'civil law' that conflates the civil law categories, because none of the codes from German legal origin countries reached the benchmark definition of 'Separation chairman/CEO'. Likelihood ratio test statistics are calculated for models including the three sets of predictors measuring diffusion, ownership structure, and legal origins compared with nested models. 'LR test (Diffusion)' reports test statistics for a model with 'Diffusion' and 'Diffusion^2' as predictors against the null model, 'LR test (Ownership)' for a model including the ownership variables against a model with the diffusion variables, and 'LR test (Legal origins)' for a model including the legal origins variables against a model with the diffusion variables. The LR test for the models with ownership variables is computed by excluding observations from the nested model for which ownership data is missing.

Predictors	Event: adoption of benchmark rule									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Diffusion non-executive directors	2.060	1.364								
	(1.57)	(0.63)								
Diffusion number independent directors			3.397***	2.604**						
			(2.75)	(2.17)						
Diffusion definition of independence					3.216*	2.971*				
					(1.83)	(1.73)				
Diffusion separation chairman/CEO							3.339**	3.030**		
							(2.30)	(2.37)		
Diffusion committee structure									1.808**	1.745**
									(2.51)	(2.50)
Diffusion^2	0.918	0.953	0.921***	0.927**			0.916**	0.923**	0.964***	0.962***
	(-1.54)	(-0.95)	(-2.63)	(-2.38)			(-2.04)	(-1.98)	(-2.61)	(-2.77)
Interaction with time					0.990*	0.988*				
					(-1.75)	(-1.90)				
Ownership foreign	0.060		0.119		0.0002*		0.880		0.294	
	(-0.89)		(-0.86)		(-1.77)		(-0.05)		(-0.53)	

Ownership financial institutions	0.002		207.5		27.84		11.58		0.269	
	(-1.07)		(1.43)		(0.65)		(0.54)		(-0.37)	
Concentrated ownership structure	0.128**		0.262**		0.104**		0.316*		0.369*	
	(-2.24)		(-2.01)		(-2.24)		(-1.69)		(-1.68)	
Legal origins German		2.182		0.104**		0.966				1.495
		(0.74)		(-2.53)		(-0.03)				(0.36)
Legal origins French		1.129		0.061**		0.477				1.288
		(0.13)		(-2.54)		(-0.61)				(0.24)
Legal origins Scandinavian		9.240*		1.696		1.483				4.242
		(1.91)		(0.63)		(0.31)				(1.18)
Legal origins civil law								0.209*		
								(-1.88)		
-2LL	37.66	40.74	61.72	61.92	33.9	43.28	43.52	48.68	68.32	74.3
LR test (Diffusion)	2.002		8.176**		5.640*		9.276***		10.93***	
LR test (Ownership)	6.289*		7.554*		10.39**		3.459		2.872	
LR test (Legal origins)		4.746		13.66***		1.053		3.233*		2.691
N observations	101	104	165	169	247	253	112	113	180	184
N events	10	10	14	15	9	9	12	13	16	17

*** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent level.
The table reports hazard ratios, t-statistics are in parentheses.

Appendix A: Definition of the board structure variable

Table A.1. Unitary boards

Elements	Quantification
(1) Distinction between executive and non-executive directors (EXD)	Measured on a scale from 0 to 1 and shall be: (a) 1 if at least half of the board members must be non-executive directors; (b) 0.5 if less than half, but a specified number or proportion of members must be non-executive directors (e.g., two members or one third); (c) 0 otherwise, including if the code contains only general statements, such as that the balance between executive and non-executive directors should be "appropriate".[1]
(2) Quantitative measure of independence of non-executive directors (NO_IND)	Measured on a scale from 0 to 1 and shall be: (a) 1 if a majority of the non-executive directors must be independent; (b) 0.5 if not a majority, but a specified number or proportion of directors must be independent (e.g., two members or one third); (c) 0 otherwise, including if the code contains only general statements, such as that a "sufficient number" of non-executive directors should be independent.[2]
(3) Qualitative measure of independence of non-executive directors (DEF_IND)	EITHER measured on a scale from 0 to 1 by adding 0.1 for each of the following criteria that the definition of independence in the code contains:[3] (a) the director was not an executive director of the company or an associated company for a period of time not shorter than five years preceding his/her appointment;[4] (b) the director was not an executive director of the company or an associated company for a period of time not shorter than three years (or one year, in which case the value to be added is 0.05) preceding his/her appointment (if the code provides for a minimum period of five years or more, both (a) and (b) are satisfied and the cumulative value to be added is, accordingly, 0.2);[5] (c) the director was not an employee of the company or an associated company in a senior management position for a period of time not shorter than three years preceding his/her appointment;[6] (d) the director does not receive significant additional remuneration from the company or an associated company (apart

[1] See e.g. UK Corporate Governance Code 2012, B.1, Supporting Principle: "The board should include an appropriate combination of executive and non-executive directors (and, in particular, independent non-executive directors) such that no individual or small group of individuals can dominate the board's decision taking."
[2] See e.g. Commission Recommendation 2005/162/EC, Sec. 4: "A sufficient number of independent non-executive or supervisory directors should be elected to the (supervisory) board of companies to ensure that any material conflict of interest involving directors will be properly dealt with."
[3] The criteria listed in Annex II of Commission Recommendation 2005/162/EC are used, with some alterations, as a benchmark.
[4] Commission Recommendation 2005/162/EC, Annex II(1)(a).
[5] Not contained in Commission Recommendation 2005/162/EC.
[6] Commission Recommendation 2005/162/EC, Annex II(1)(b).

	from the fee received as non-executive director), for example consulting fees;[7] (e) the director is not, and does not represent, a major shareholder, defined, inter alia, as a shareholder holding at least 20% (or a smaller percentage as determined by the code) of the company's voting rights or having significant influence on the appointment of a majority of the board's members, notwithstanding the percentage of voting rights held (if the code provides that the director should not be, and should not represent, a shareholder holding a *majority* of the company's voting rights, the value to be added is 0.05);[8] (f) the director does not have a significant business relationship with the company or an associated company, either directly or as a partner, shareholder, director or senior employee of a body having such a relationship;[9] (g) the director is not, and has not been within the last three years, partner or employee of the present or former external auditor of the company or an associated company;[10] (h) the director is not an executive director of another company in which an executive director of the company is a non-executive director;[11] (i) the director has not served for more than 12 years (or a shorter period) as a non-executive director;[12] (j) the director is not a close family member of an executive director;[13] OR the value 0.3 if the code contains only general statements, such as that independent directors should not have any "business or personal relationships" with the company or its management; OR, if the code contains both a list of criteria and general statements, whichever of the above values is higher.
(4) Separation of chairman and CEO (SEP)	Measured on a scale from 0 to 1 and shall be: (a) 1 if the roles of CEO and chairman must not be exercised by the same individual; (b) 0 if the same individual can be chairman of the board and CEO.

[7] Commission Recommendation 2005/162/EC defines "additional remuneration" as follows: "Such additional remuneration covers in particular any participation in a share option or any other performance-related pay scheme; it does not cover the receipt of fixed amounts of compensation under a retirement plan (including deferred compensation) for prior service with the company (provided that such compensation is not contingent in any way on continued service)", see Annex II(1)(c).
[8] Commission Recommendation 2005/162/EC requires that the director should not be, and should not represent, a "controlling shareholder" and refers to Art 1(1) of council Directive 83/349/EEC for the determination of control, see Annex II(1)(d).
[9] Commission Recommendation 2005/162/EC, Annex II(1)(e).
[10] Commission Recommendation 2005/162/EC, Annex II(1)(f).
[11] Commission Recommendation 2005/162/EC, Annex II(1)(g).
[12] Commission Recommendation 2005/162/EC, Annex II(1)(h).
[13] Commission Recommendation 2005/162/EC, Annex II(1)(i).

(5) Cooling-off period for the CEO to become chairman of the board (COOL)	Measured on a scale from 0 to 1 and shall be: (a) 1 if the CEO should not go on to be chairman of the board for a period of at least three years after the end of his/her tenure as CEO; (b) 0.5 if the waiting period is one or two years; (c) 0 otherwise.
(6) Board committees (COM)[14] (a) Appointments to the board (b) Responsibility for internal control and appointment of the external auditor (c) Remuneration decisions	(a) Appointments to the board: the variable is measured on a scale from 0 to 1 and shall be: (i) 1 if the code requires that a nomination committee is set up within the board to make the appointment decision or prepare the appointment decision of the board and that the committee is composed of a majority of independent non-executive directors;[15] (ii) 0.5 if the code requires that a nomination committee is set up within the board, but the code does not require a majority of the board members to be independent non-executive directors; (iii) 0 if neither (i) nor (ii) are satisfied. (b) Responsibility for internal control and appointment of the external auditor: the variable is measures on a scale from 0 to 1 and shall be: (i) 1 if the code requires that an audit committee is set up within the board to monitor the integrity of the financial information provided by the company, review the internal control and risk management systems, decide on, or make recommendations with respect to, the selection, appointment, and removal of the external auditor, and the committee is composed of a majority of independent non-executive directors;[16] (ii) 0.5 if the code requires that an audit committee is set up within the board, but the code does not require a majority of the board members to be independent non-executive directors; (iii) 0 if neither (i) nor (ii) are satisfied. (c) Remuneration decisions: the variable is measured on a scale from 0 to 1 and shall be: (i) 1 if the code requires that a remuneration committee is set up within the board to determine the remuneration of the executive directors or make proposals for the determination of remuneration and the committee is composed of a majority of independent non-executive directors;[17] (ii) 0.5 if the code requires that a remuneration committee is set up within the board, but the code does not require a majority of the board members to be independent non-executive directors; (iii) 0 if neither (i) nor (ii) are satisfied.

[14] Commission Recommendation 2005/162/EC identifies three conflicts of interest that are particularly important, see Sec. 5. The variable deals with these three conflicts.
[15] This is the benchmark according to Commission Recommendation 2005/162/EC, Annex I(2.1)(2).
[16] Commission Recommendation 2005/162/EC, Annex I(4.1), requires that the committee should be composed exclusively of non-executive or supervisory directors and that a majority of its members should be independent. I have simplified the recommendation to focus on a criterion that is relevant for both unitary and dual board systems.
[17] Commission Recommendation 2005/162/EC, Annex I(3.1)(2), requires that the committee should be composed exclusively of non-executive or supervisory directors and that a majority of its members should be independent. I have simplified the recommendation to focus on a criterion that is relevant for both unitary and dual board systems.

	The total value for "Structures to mitigate conflicts of interest" is the average of the above components, provided that they are applicable.

Table A.2. Dual boards[18]

Elements	**Quantification**
(1) Distinction between executive and non-executive directors (EXD)	Not applicable, since the distinction between executive and non-executive directors is inherent in the structure of two-tier boards.
(2) Quantitative measure of independence of members of the supervisory board (NO_IND)	Measured on a scale from 0 to 1 and shall be: (a) 1 if a majority of the supervisory board members must be independent; (b) 0.5 if not a majority, but a specified number or proportion of supervisory board members must be independent (e.g., two members or one third); (c) 0 otherwise, including if the code contains only general statements, such as that a "sufficient number" of supervisory board members should be independent.
(3) Qualitative measure of independence of members of the supervisory board (DEF_IND)	As in Panel A, but replace "executive director" by "member of the management board" and "non-executive director" by "member of the supervisory board".
(4) Separation of chairman and CEO (SEP)	Not applicable, since the separation of chairman and CEO is inherent in the structure of two-tier boards.
(5) Cooling-off period for the CEO (chairman of the management board) to become chairman of the supervisory board (COOL)	Measured on a scale from 0 to 1 and shall be: (a) 1 if the CEO should not go on to be chairman of the supervisory board for a period of at least three years after the end of his/her tenure as CEO; (b) 0.5 if the waiting period is one or two years; (c) 0 otherwise.
(6) Board committees (COM) (a) Appointments to the board (b) Responsibility for internal control and appointment of the external auditor (c) Remuneration decisions	(a) Appointments to the management board: the variable is measured on a scale from 0 to 1 and shall be: (i) 1 if the code requires that a nomination committee is set up within the supervisory board to make the appointment decision or prepare the appointment decision of the supervisory board and that the committee is composed of a majority of independent members of the supervisory board;

[18] This panel applies to the following countries: Austria, Germany, Hungary, Netherlands, Poland, Slovakia, and Slovenia. See below Appendix B, Table B.1.

	(ii) 0.5 if the code requires that a nomination committee is set up within the supervisory board, but the code does not require a majority of the board members to be independent members of the supervisory board; (iii) 0 if neither (i) nor (ii) are satisfied. (b) Responsibility for internal control and appointment of the external auditor: the variable is measures on a scale from 0 to 1 and shall be: (i) 1 if the code requires that an audit committee is set up within the board to monitor the integrity of the financial information provided by the company, review the internal control and risk management systems, decide on, or make recommendations with respect to, the selection, appointment, and removal of the external auditor, and the committee is composed of a majority of independent non-executive directors; (ii) 0.5 if the code requires that an audit committee is set up within the supervisory board, but the code does not require a majority of the board members to be independent members of the supervisory board; (iii) 0 if neither (i) nor (ii) are satisfied. (c) Remuneration decisions: the variable is measured on a scale from 0 to 1 and shall be: (i) 1 if the code requires that a remuneration committee is set up within the supervisory board to determine the remuneration of the members of the management board or make proposals for the determination of remuneration and the committee is composed of a majority of independent members of the supervisory board; (ii) 0.5 if the code requires that a remuneration committee is set up within the supervisory board, but the code does not require a majority of the board members to be independent members of the supervisory board; (iii) 0 if neither (i) nor (ii) are satisfied. The total value for “Structures to mitigate conflicts of interest” is the average of the above components, provided that they are applicable.

Appendix B: Coding of the board structure variable

Notes on coding methodology

In coding corporate governance provisions, I follow a two-step process. The first step consists in a mechanical application of the definitions given in Appendix A to the code provision. However, in many cases provisions contain exemptions, are ambivalent or phrased in an optional way that allows for non-compliance outside the comply-or-explain principle, i.e. the company is in full compliance with the code, and accordingly is not required to publish an explanation, although the provision is not applied. In such a case, it is not justified to assign the full value according to above definitions of the board structure variable. On the other hand, the code does address the relevant issue and may use terms such as "[t]he separation of duties and responsibilities in the highest levels of the corporation's governance *should be encouraged*".[19] Therefore, it would also not be appropriate to disregard the rule altogether. In a second step, I consequently adjust the value derived in the first step. As a default, adjustment consists in the application of a penalty of 50% if the provision is optional or allows for exceptions. The penalty is applied to the relevant step of the coding definition. For example, if the requirement that at least half the board should comprise non-executive directors applies only to companies of a certain size, but all companies are required to have at least two non-executive directors,[20] the exception relates to EXD(a), but not EXD(b).[21] Accordingly, the full value for EXD(b) is given, and 50% of the difference between EXD(a) and EXD(b), resulting in a total value of 0.75.

In certain cases, it is possible to identify provisions standing between codes that are phrased ambivalently or contain exemptions and codes imposing precise, unconditional obligations. In such cases, the penalty should make allowance for the *comparative* strictness and precision of the codes. For example, several codes in the sample allow the board of directors to determine the independence of directors and, in doing so, deviate from the independence criteria laid down in the code. The wide discretion of the board is sometimes combined with the requirement of the directors to give reasons in the corporate governance report. Thus, it is possible to form clusters of codes that deviate in similar ways from the rigid definitions used in the first step of the quantification and rank the clusters against each other by applying the same penalty to all codes in the same cluster. Accordingly, in a number of cases, codes have been divided into three clusters: receiving no penalty, a penalty of 25 percent, and a penalty of 50 percent. All adjustments are explained in detail in the coding protocol below.

[19] See below n 180 (emphasis by author).
[20] UK Corporate Governance Code 2012, B.1.2: "Except for smaller companies [Footnote: A smaller company is one that is below the FTSE 350 throughout the year immediately prior to the reporting year], at least half the board, excluding the chairman, should comprise nonexecutive directors determined by the board to be independent. A smaller company should have at least two independent non-executive directors."
[21] See the definition above, Appendix A.1(1).

Table B.1: Distinction between executive and non-executive directors (EXD)

Country	Value	Adjustment Factor (%)	Total value	Code provision
†Austria				
2012	n/a			
2009	n/a			
2007	n/a			
2006	n/a			
2005	n/a			
2002	n/a			
‡Belgium				
2009	1	100	1	2.3
2004	1	100	1	2.2
1998E[22]	0	-	0	1.3, 2.2
1998C[23]	1	100	1	I.B.1.4
‡Bulgaria				
2012	0	-	0	3.2
2007	0	-	0	3.2
*Cyprus				
2012	1	75[24]	0.75	A.2.1, A.2.3
2009	1	75[25]	0.75	A.2.1, A.2.3
2006	0.5	100	0.5	A.2.1
2002	0.5	100	0.5	A.2.1
‡Denmark				
2011	n/a[26]			
2010	n/a			
2008	n/a			
2005	n/a			
2003	n/a			
2001	n/a			
‡Finland				
2010	1	100	1	14, 15
2008	1	100	1	14, 15
2003	1	100	1	17, 18
‡France				
2011[27]	0.5[38]	100	0.5	II.B.1
2010M[28]	1	75[45]	0.75	6.3, 8.2
2010A[29]	0.5[39]	100	0.5	II.B.1

[22] Author: Federation of Belgian Enterprises (VBO/FEB).
[23] Cardon Report, prepared by the Belgian Corporate Governance Committee – Commission Bancaire et Financiere.
[24] The 50% requirement applies only to larger companies listed on the CSE's Main Market. The provision is comparable to the UK Code of 2012, see n 66 below.
[25] Same as above n 24.
[26] Danish company law provides for a hybrid board structure that requires the majority of the members of the supervisory board to be non-executive directors, *see* Companies Act, § 111(1)(a); Jesper L. Hansen, *The Danish Green Paper on Company Law Reform – Modernising Company Law in the 21st Century*, 10 EBOR 73, 87 (2009); Report on Corporate Governance in Denmark of 2003, p. 16. Therefore, this element of the board structure variable does not have any relevance for the determination of the character of Danish corporate governance codes. Accordingly, the board structure variable is calculated by disregarding EXD and taking the mean of the remaining elements.
[27] Author: Association Française de la Gestion Financière (AFG-ASFFI).
[28] Author: Association Française des Entreprises Privées (AFEP), Mouvement des Entreprises de France (MEDEF).
[29] AFG.

2008M[30]	1	75[46]	0.75	6.3, 8.2
2008A[31]	0.5[40]	100	0.5	II.B.1
2004[32]	0.5[41]	100	0.5	II.B.1
2003[33]	1	75[47]	0.75	6.3, 8.2
2002[34]	1	75[48]	0.75	p. 9
1999[35]	0.5[42]	100	0.5	Part 2, II.23
1998[36]	0.5[43]	100	0.5	II.B.1
1995[37]	0.5[44]	100	0.5	II.2
†Germany				
2012[49]	n/a			
2010	n/a			
2009	n/a			
2008	n/a			
2007	n/a			
2006	n/a			
2005	n/a			
2003	n/a			
2002[50]	n/a			
2000B[51]	n/a			

[38] The code does not contain a separate provision regarding the balance between executive and non-executive directors, but requires one third of the board to be comprised of directors "free from conflicts of interest". Since this encompasses the requirement that the director should not be an officer of the corporation, I assign the value of 0.5. Code de Commerce, Art. L225-53, provides that the number of executive directors (directeurs généraux délégués) shall not exceed five. Given that the number of directors on the board of the public company (société anonyme) shall range between 3 and 18 (Art. L225-17), the statute does not necessarily require a greater proportion of non-executive directors than the code.

[39] See n 38.

[45] The code does not contain a separate provision regarding the balance between executive and non-executive directors, but requires half of the board to be comprised of independent directors in widely held companies without controlling shareholders, and one third in other corporations. Accordingly, I assign the value of 1, but adjust by 75 percent to take account of the fact that the correct value for companies without dispersed ownership structure is 0.5.

[30] MEDEF.

[31] AFG.

[32] AFG.

[33] MEDEF.

[34] MEDEF.

[35] Viénot II Report.

[36] AFG. The code was adopted in 1998 with a few amendments made in 2001 (see below n 178).

[37] Viénot I Report. The Viénot commission was set up by the French Employers' Association CNPF (Conseil National du Patronat Français) and AFEP.

[40] See n 38.

[41] See n 38.

[42] Similar to n 38.

[43] See n 38.

[44] The code does not contain a separate provision regarding the balance between executive and non-executive directors, but restrictions are derived from statute, see already n 38 above. See also p. 10 of the Viénot I Report (pointing out that in practice boards of French companies contain only few executive directors).

[46] See n 45.

[47] See n 45.

[48] See n 45.

[49] German Corporate Governance Code, prepared by the Government Commission on the German Corporate Governance Code. All following codes are predecessors prepared by the same commission, unless stated otherwise.

[50] Cromme Code, prepared by the Government Commission (n 49).

2000[52]	n/a			
*Greece				
2011[53]	1	75[56]	0.75	A.II.2.2
2001[54]	0	-	0	B.2.1
1999[55]	1	100	1	5.6
‡Hungary				
2012	n/a			
2008	n/a			
2007	n/a			
2004	n/a			
‡Italy				
2011	0	-	0	2.P.3
2006	0	-	0	2.P.3
2002	0	-	0	2.1
1999[57]	0	-	0	2.1
‡Luxemb.				
2009	0	-	0	3.3
2006	0	-	0	3.3
*Malta				
2005	0.5	100	0.5	3.2
2001	0	-	0	2.3
‡Netherl.				
2008	n/a			
2003	n/a			
1997	n/a			
*Norway				
2012	1	100	1	8
2011	1	100	1	8
2010	1	100	1	8
2009	1	100	1	8
2007	1	100	1	8
2006	1	100	1	8
2005	1	100	1	8
2004	1	100	1	8
†Poland				
2012	n/a			
2010	n/a			
2007	n/a			
2004	n/a			
2002G[58]	n/a			
2002C[59]	n/a			
‡Portugal				
2010	0.5[60]	100	0.5	II.1.2.1

[51] German Code of Corporate Governance, prepared by the Berlin Initiative Group (Berliner Initiativkreis).
[52] Corporate Governance Rules for German Quoted Companies, prepared by the German Panel on Corporate Governance.
[53] Author: Hellenic Federation of Enterprises (SEV).
[54] Author: same as n 53.
[55] Author: Committee on Corporate Governance in Greece, set up by the Capital Market Commission.
[56] The code allows smaller companies (as defined in Annex I) to have less than half the board comprised of non-executive directors.
[57] Preda Code.
[58] Gdańsk Code.
[59] Polish Corporate Governance Forum

2007	0.5[61]	100	0.5	II.1.2.1
2003	0	-	0	IV.8
1999	0	-	0	14
†Slovakia				
2008	n/a			
2002	n/a			
‡Slovenia				
2009	n/a			
2007	n/a			
2005	n/a			
2004	n/a			
*Spain				
2006	1	100	1	II.10
2004	0.5[62]	100	0.5	I.3
2003	1	100	1	IV.3
1998	1	100	1	3
*Sweden				
2010	1	100	1	III.4.3
2008	1	100	1	III.4.3
2005	1	100	1	3.2.4
2001	1	100	1	3.1
‡Switzerl.				
2007	1	100	1	12
2002	1	100	1	12
*UK				
2012	1	75[66]	0.75	B.1.2
2010	1	75[67]	0.75	B.1.2
2008	1	75[68]	0.75	A.3.2
2006	1	75[69]	0.75	A.3.2
2003[63]	1	75[70]	0.75	A.3.2
1998[64]	0.5	100	0.5	3.14
1992[65]	0	-	0	1.3
COM[71]				

[60] The code does not specify a minimum number of non-executive directors, but it requires that at least one fourth of the board is composed of independent directors. According to the Portuguese Company Act, Art. 414-A(1)(b), independence means that the director must not exercise management functions within the company.
[61] See n 60 above.
[62] The code does not provide for a minimum proportion of non-executive directors, but at least one third of the board members must be independent. Independence requires that the director does not perform executive functions (see Code Provision I.4).
[63] Combined Code on Corporate Governance, based on the Higgs Report and Smith Report and published by the Financial Reporting Council (FRC).
[64] Principles of Corporate Governance based on the Hampel Report.
[65] Code of Best Practice proposed by the Cadbury Report. The coding is *not* based on the Report itself, but on the Code of Best Practice derived from the Report, since the code is the part of the Report to which the comply-or-explain principle applies (see para. 3.7 of the Report). It should be noted that the Report is in several respects more shareholder-friendly than the code.
[66] The code allows smaller companies (defined as companies below the FTSE 350) to have less than half the board comprised of non-executive directors.
[67] Same as above n 66.
[68] Same as above n 66.
[69] Same as above n 66.
[70] Same as above n 66.
[71] Commission Recommendation 2005/162/EC of 15 February 2005 on the role of non-executive or supervisory directors of listed companies and on the committees of the (supervisory) board, OJ L 52/51.

2006[72]	0	-	0	3.1
OECD				
2004	0[73]	-	0	VI.E.1
1999	0[74]	-	0	V.E.1

*denotes countries with a unitary board system.
†denotes countries with a dual board system for public companies.
‡denotes countries that offer a choice between the unitary and dual board systems. In this case, the assessment is based on the unitary board system (with the exception of the Netherlands, where the dual system is mandatory for large companies (*structuur vennootschappen*), Hungary, where the unitary board system has only recently been introduced (2006) and has no tradition in Hungarian company law,[75] and Slovenia, where the majority of companies opt for the two-tier system).[76] In Switzerland, board structure is formally based on the one-tier model, but corporate law is so flexible that corporations can structure (and many corporations have, in fact, structured) the board in a way that resembles the German two-tier model.[77] We use the definitions of the board structure variable applicable to the one-tier board. The Danish model is also a hybrid form that distinguishes between the (supervisory) board and the executive board (management). However, the two boards are not as clearly separated as, for example, in the German system, and the supervisory board may be composed of both executive and non-executive members.[78] We therefore use the definitions of the board structure variable applicable to the one-tier board.[79]

[72] The Recommendation was adopted in 2005, but Member States are "invited to take the necessary measures to promote[its] application by 30 June 2006", see Art. 14 of the Recommendation.
[73] The principles speak of "a sufficient number of non-executive board members capable of exercising independent judgement" (VI.E.1).
[74] Same as n 73 above.
[75] In addition, in some cases the two-tier board structure is mandatory, for example if the company has more than 200 full-time employees, János Tóth and János Csáki, 'Hungary' in Alessandro Varrenti et al., *Company Directors* (Thomson Reuters, 2012), 215, 216.
[76] For Portugal, the analysis is based on the so-called "Latin model", the model most commonly adopted by Portuguese listed and unlisted companies. In the Latin model, the governance structure consists of a board of directors and a supervisory function, which may be in the form of a statutory auditor or a supervisory board (Arts. 278(1)(a), 413(1) Commercial Company Act). In spite of the terminology, the supervisory board, which must be formed by certain large listed companies (Art. 413(2) Commercial Company Act), is not comparable to the supervisory board of, for example, the German Stock Corporation Act. In particular, its composition is different (Art. 414 Commercial Company Act) and it has more limited powers, which concern mostly the supervision of the internal control and audit systems and of the process of preparing and disclosing financial information, proposing the appointment of the statutory auditor, and reviewing the financial statements (Art. 420 Commercial Company Act). For a more detailed description of the Portuguese corporate governance system see F. Brito e Abreu and J. Torres Ereio, 'Portugal' in W.J.L. Calkoen (ed.), *The Corporate Governance Review* (Law Business Research, 4th ed. 2014), 273.
[77] Swiss Code of Obligations (Obligationenrecht), Arts. 707-726.
[78] On the Danish system *see* Jesper L. Hansen, *The New Danish Companies Act of 2009*, 11 EBOR 87 (2010); Hansen, n 26 above.
[79] But see n 26 above: The first element of the board structure variable (EXD) will be disregarded because of legal requirements applying to Danish companies.

Table B.2. Quantitative measure of independence of non-executive directors/members of the supervisory board (NO_IND)

Country	Value	Adjustment Factor (%)	Total value	Code provision
Austria				
2012	1	100	1	53
2009	1	100	1	53
2007	0	-	0	53
2006	0	-	0	53
2005	1	50[80]	0.5	52-55
2002	1	50[81]	0.5	52-55
Belgium				
2009	0.5	100	0.5	2.3: at least three members
2004	0.5	100	0.5	2.2: at least three members
1998E	0	-	0	2.2
1998C	0	-	0	I.B.2.2
Bulgaria				
2012	0	-	0	3.2
2007	0	-	0	3.2
Cyprus				
2012	1	100	1	A.2.3
2009	1	100	1	A.2.3
2006	1	100	1	A.2.2
2002	1	100	1	A.2.2
Denmark				
2011	1[82]	100	1	5.4.1
2010	1[83]	100	1	5.4.1
2008	1[84]	100	1	V.4
2005	1[85]	100	1	V.4
2003	1[86]	100	1	V.4
2001	1[87]	100	1	V.4
Finland				
2010	1	100	1	14
2008	1	100	1	14
2003	1	100	1	17
France				
2011	0.5	100	0.5	II.B.1
2010M	1	75[89]	0.75	8.2

[80] See n 81.
[81] Quantitative independence requirements relate only to particular types of relation of the director with the company (see, e.g., 52: "To ensure the independence of the advisory and monitoring tasks of the supervisory board, not more than two former members of the management board or senior management may be appointed to the supervisory board.").
[82] The code requires half of the members elected by the general meeting to be independent. Since independence means that the board member is a non-executive director, the requirement of NO_IND(a) is satisfied that a majority of the non-executive directors should be independent (members not elected by the general meeting are not considered).
[83] Same as n 82 above.
[84] Same as n 82 above.
[85] Same as n 82 above.
[86] The code requires a majority of the members elected by the general meeting to be independent. Since independence means that the board member is a non-executive director, the requirement of NO_IND(a) is satisfied that a majority of the non-executive directors should be independent (members not elected by the general meeting are not considered).
[87] Same as n 86 above.

2010A	0.5	100	0.5	II.B.1
2008M	1	75[90]	0.75	8.2
2008A	0.5	100	0.5	II.B.1
2004	0.5	100	0.5	II.B.1
2003	1	75[91]	0.75	8.2
2002	1	75[92]	0.75	p. 9
1999	0.5[88]	100	0.5	Part 2, II.23
1998	0.5	100	0.5	II.B.1
1995	0.5	100	0.5	II.2: at least two members
Germany				
2012	0	-	0	5.4.2
2010	0	-	0	5.4.2
2009	0	-	0	5.4.2
2008	0	-	0	5.4.2
2007	0	-	0	5.4.2
2006	0	-	0	5.4.2
2005	0	-	0	5.4.2: “adequate number” of NEDs
2003	0	-	0	5.4.1
2002	0	-	0	5.4.1
2000B	0	-	0	No mention of independence.
2000	0	-	0	III.1(b): sufficient number of ind. directors
Greece				
2011	1	100	1	A.II.2.3
2001	0	-	0	B.2.3
1999	0	-	0	6.2
Hungary				
2012	n/a[93]			
2008	n/a[94]			
2007	n/a[95]			
2004	1	100	1	1.5.5

[89] The code requires half of the members of the board to be independent in widely held corporations without controlling shareholders and one-third in other corporations. Since independence means that the board member is a non-executive director, the requirement of NO_IND(a) that a majority of the non-executive directors should be independent is satisfied for widely held corporations. However, it is not necessarily satisfied for companies with controlling shareholders. I therefore adjust by 75 percent.

[88] The code requires one-third of the board to be composed of independent directors. Independence means that the board member is a non-executive director. However, it depends on the board size and the number of executive directors whether the requirement of NO_IND(a) that a majority of the non-executive directors should be independent is satisfied. Boards may not have more than five executive directors and not more than 18 members in total (see n 38 above). From this it follows that if there is one executive director on the board, the one-third independence requirement never ensures that a majority of non-executive directors are independent. In the case of two or three executive directors it ensures that a majority of non-executive directors are independent for small boards of a maximum of five and eight members, respectively, and in the remaining cases it does so for boards of up to 11 or 12 members. Considering this, it does not seem to be justified to award the value 1 to the provision.

[90] Same as n 89 above.

[91] Same as n 89 above.

[92] Same as n 89 above.

[93] The code simply requires “the right proportion of independent members” on the supervisory board (provision 2.4.2). The reason for the lack of a more specific regulation in the code is that the Act on Business Associations of 2006 provides that “[t]he majority of the board of directors [or supervisory board in case of a dual board structure] … shall be made up of independent persons”, ss. 309(2), 310. These provisions are reproduced on p. 48 of the 2012 Code. Since element NO_IND is accordingly irrelevant in determining the character of the Hungarian code, the board structure variable is calculated as the mean of the remaining applicable elements.

[94] Same as an 93 above.

[95] Same as an 93 above.

Italy				
2011	0.5	100	0.5	3.P.1, 3.C.3: one-third of the board[96]
2006	0	-	0	3.P.1, 3.C.3
2002	0	-	0	3
1999	0	-	0	3
Luxemb.				
2009	0	-	0	3.4
2006	0	-	0	3.4
Malta				
2005	1	100	1	3.2: majority
2001	0[97]	-	0	2.5
Netherl.				
2008	1	100	1	III.2.1
2003	1	100	1	III.2.1
1997	0	-	0	2.3
Norway				
2012	1	100	1	8: one-half
2011	1	100	1	8
2010	1	100	1	8
2009	1	100	1	8
2007	1	100	1	8
2006	0.5	100	0.5	8
2005	0.5	100	0.5	8
2004	0.5	100	0.5	8
Poland				
2012	0.5	100	0.5	III.6: at least two members
2010	0.5	100	0.5	III.6
2007	0.5	100	0.5	III.6
2004	0.5	100	0.5	20(a): one-half
2002G	0.5	100	0.5	II.1: at least two members
2002C	0.5	100	0.5	20(a)
Portugal				
2010	0.5	100	0.5	II.1.2.2: one-fourth
2007	0.5	100	0.5	II.1.2.1
2003	0.5	25[98]	0.125	IV.9: at least one member
1999	0.5	25[99]	0.125	15: at least one member
Slovakia				
2008	1	50[100]	0.5	V.E.1

[96] For issuers belonging to the FTSE-Mib index; otherwise at least two directors shall be independent.

[97] The code provides that "[n]on-executive Directors should be free from any business or other relationship, which could interfere materially with the exercise of their independent and impartial judgement." See Code Provision 2.5. The provision, therefore, requires some degree of independence of *all* non-executive directors, but it is submitted that it does not require a specified proportion of non-executive directors to be independent in the formal sense. This interpretation is confirmed by the fact that Code provision 2.3 stipulates that listed companies shall "have balanced Boards of Directors including both executive and non-executive Directors (including independent non-executives)", without specifying the number of non-executive directors that need to be independent, and by Code provision 2.6, which contains a formal definition of independence that is stricter than provision 2.5.

[98] Independence is understood not in the common sense of independent from management, but only from the dominant shareholders (see also DEF_IND) (although it is acknowledged that the dominant shareholders are likely to exert control over the company's operations; independence from them is, therefore, of particular importance in jurisdictions characterised by large blockholdings). In addition, the code's requirement ("one or more members") is not substantially different from the definition of NO_IND(c) (the code contains only general statements). Therefore, I adjust two times by the usual amount (50 percent).

[99] Same as n 98 above.

2002	1	100	1	1.6
Slovenia				
2009	0.5	100	0.5	6.2
2007	1	100	1	3.3.1
2005	1	100	1	3.3.1
2004	1	100	1	3.3.1
Spain				
2006	0.5	100	0.5	II.13
2004	1	75[102]	0.75	I.3
2003	0.5[101]	100	0.5	IV.3
1998	0	-	0	2
Sweden				
2010	1	100	1	III.4.4
2008	1	100	1	III.4.4
2005	1	100	1	3.2.4
2001	1	100	1	3.1
Switzerl.				
2007	0	-	0	12
2002	0	-	0	12
UK				
2012	1	100	1	B.1.2
2010	1	100	1	B.1.2
2008	1	100	1	A.3.2
2006	1	100	1	A.3.2
2003	1	100	1	A.3.2
1998	1	100	1	2.5, 3.9
1992	1	100	1	2.2
COM				
2006	0	-	0	4
OECD				
2004	0	-	0	VI.E.1
1999	0	-	0	V.E.1

[100] The binding principle only provides that the supervisory board "should include independent members" and that the chairman "should always be an independent person." The requirement that a majority of the members of the supervisory board shall be independent is included in the Notes to Code Principle V.E.1. Since the notes are non-binding (see Corporate Governance Code for Slovakia, p. 4), I apply an adjustment of 50 percent.

[101] The code speaks of "a very significant number of independent directors", which I interpret as being more than merely a general statement within the meaning of NO_IND(c).

[102] The code requires only companies without a majority or controlling shareholder to have a majority of independent non-executive directors. For other companies, the number should not fall below one third of total board members. The provision is, therefore, between NO_IND(a) and (b).

Table B.3. Qualitative measure of independence of non-executive directors/members of the supervisory board (DEF_IND)

Country	Value	Adjustment Factor (%)	Total value	Code provision
Austria[103]				
2012	0.33[104]	100	0.33	53, Annex 1
2009	0.33[105]	100	0.33	53, Annex 1
2007	0.33[106]	100	0.33	53, Annex 1
2006	0.33[107]	100	0.33	53, Annex 1
2005	0.2	100	0.2	52, 53, 55[108]
2002	0.2	100	0.2	52, 53, 55[109]
Belgium				
2009	1	100	1	Appendix A
2004	0.9	100	0.9	Appendix A
1998E	0	-	0	2.2
1998C	0.35	50[110]	0.3[111]	I.B.2.2
Bulgaria				
2012	0.1	100	0.1	3.3, 4.4
2007	0.1	100	0.1	3.3, 4.4: no definition of independence, but independent directors shall not receive any additional remuneration
Cyprus				

[103] The Austrian legislator amended the Stock Corporation Act in 2005, introducing the prohibition for supervisory board members to hold executive directorships in another company if an executive director is a member of the supervisory board of that company, s. 86(2), no. 3 Stock Corporation Act, as amended by Gesellschaftsrechtsänderungsgesetz (GesRÄG) 2005, BGBl. I no. 59/2005. Element DEF_IND(h) (no cross-directorships) therefore has no meaning for codes that were adopted after the adoption of the act (after July 2005). This is the case for all codes starting with the code of 2006 (the 2005 code was adopted in April 2005). Accordingly, for these codes DEF_IND consists of 9 instead of 10 elements and the value for DEF_IND is the sum of these elements divided by 9. If independence is defined in general terms, which would normally receive the value 0.3, the value 0.33 is assigned.

[104] The code contains the general statement that independent supervisory board members should "not have any business or personal relations with the company or its management board that constitute a material conflict of interests". Annex 1 also contains a list of factors that indicate independence. However, these factors are merely guidelines (see Annex 1). Pursuant to Code Provision 53, the supervisory board has to define the criteria that constitute independence on the basis of the general clause and "[t]he guidelines in Annex 1 shall serve as further orientation." Therefore, I assign only the value for the general statement.

[105] See n 104.

[106] See n 104.

[107] See n 104.

[108] Only Code provision 52 ("not more than two former members of the management board or senior management may be appointed to the supervisory board") is binding. Code provisions 53 and 55, which contain additional independence requirements (e.g. prohibition of cross-representation), are so-called R-rules, i.e. the rule "is a recommendation; non-compliance . . . requires neither disclosure nor explanation" (Code of 2005, p. 6).

[109] See n 108.

[110] I apply an adjustment of 50 percent because the independence criteria are only an expression of the view of the Belgian Commission on Corporate Governance (see Code Provision B.2.2: "The Belgian Commission on Corporate Governance takes the view that a director may be considered independent if . . ."). The ultimate decision whether a director is independent is with the board: "It is for the board to decide whether an independent director satisfies the definition of independence given below."

[111] Since the score for DEF_IND is below 0.3 after the adjustment applied in n 110, but the code also contains a general description of independence that warrants the value 0.3 according to our definition, I assign the latter.

2012	0.85[112]	75[113]	0.64	A.2.3
2009	0.85	100	0.85	A.2.3
2006	0.3	100	0.3	A.2.2
2002	0.3	100	0.3	A.2.2
Denmark				
2011	1	100	1	5.4.1
2010	1	100	1	5.4.1
2008	0.6[114]	100	0.6	V.4
2005	0.6[115]	100	0.6	V.4
2003	0.4[116]	100	0.4	V.4
2001	0.4[117]	100	0.4	V.4
Finland				
2010	0.8	50 for (j) and (k)[119]	0.7	15
2008	0.8	50 for (j) and (k)[120]	0.7	15
2003	0.5[118]	100	0.5	18
France				
2011	0.7	100	0.7	II.B.1
2010M	0.85	50[121]	0.425	8.3-8.5
2010A	0.7	100	0.7	II.B.1
2008M	0.85	50[122]	0.425	8.3-8.5
2008A	0.7	100	0.7	II.B.1
2004	0.7	100	0.7	II.B.1
2003	0.85	50[123]	0.425	8.3-8.5
2002	0.85	50[124]	0.425	p. 10

[112] The same considerations as below n 149 for the UK Code of 2012 apply, since the provisions are largely identical.
[113] The 2012 Code introduced a provision giving the board discretion to regard a director as independent, even if not all of the independence criteria are fulfilled, provided that "a comprehensive explanation of the reasons for which the Director is regarded as independent should be given in the Annual Report on Corporate Governance", Code Provision A.2.3, last paragraph. This provision is comparable to provision B.1.1 of the UK Code of 2012, see n 154 below, and the adjustment factor is accordingly the same.
[114] Some of the independence criteria listed in the code do not fit well within DEF_IND, in particular that the director shall not have any "essential strategic interest in the company other than that of a shareholder". I relate this requirement to DEF_IND(f) and quantify the variable accordingly.
[115] Same as n 114 above.
[116] Same as n 114 above.
[117] Same as n 114 above.
[118] The code also contains a provision defining independence from significant shareholders (as opposed to independence from the company), but Code provision 17 requires the majority of independent directors to be independent only from the company (in addition, at least two directors shall be independent of significant shareholders). Therefore, independence from shareholders is not counted as part of the general definition of independence.
[119] According to the Finnish code, criteria (j) in Code recommendation 15 referring to a tenure of not more than 12 years and criterion (k) referring to related persons are not fixed requirements, but shall be taken into account by the board when it makes its overall evaluation of the director's independence.
[120] Similar to n 119 above. The considerations from n 118 above also apply.
[121] The adjustment of 50 percent is applied because the board, in judging independence, "may consider that, although a particular director meets all of the above criteria, he or she cannot be held to be independent owing to the specific circumstances of the person or the company, due to its ownership structure or for any other reason. Conversely, the Board may consider that a director who does not meet the above criteria is nevertheless an independent director." See Code Provision 8.3. Hence, the board has some discretion that may be used to dilute the independence criteria.
[122] Same as n 121 above.
[123] Same as n 121 above.

1999	0.3	100	0.3	Part 2, II.22
1998	0.45	100	0.45	II.B.1
1995	0.4	100	0.4	II.2
Germany[125]				
2012	0.33	100	0.33	5.4.2
2010	0.33	100	0.33	5.4.2
2009	0.33	100	0.33	5.4.2
2008	0.33	100	0.33	5.4.2
2007	0.33	100	0.33	5.4.2
2006	0.33	100	0.33	5.4.2
2005	0.33	100	0.33	5.4.2
2003	0.33	100	0.33	5.4.2
2002	0.33	100	0.33	5.4.2
2000B	0	-	0	No mention of independence.
2000	0.33	100	0.33	III.1(b)
Greece				
2011	0.8	100	0.8	A.II.2.5
2001	0.1[126]	100	0.1	B.2.3
1999	0.3	100	0.3	6.3
Hungary				
2012	n/a[127]			
2008	n/a[128]			
2007	n/a[129]			
2004	0.3	100	0.3	1.5.5
Italy				
2011	0.8	50[130]	0.4	3.P.1, 3.C.1
2006	0.8	50[131]	0.4	3.P.1, 3.C.1
2002	0.3	100	0.3	3
1999	0.2	100	0.2	3
Luxemb.				

[124] Same as n 121 above.

[125] The variable DEF_IND is coded as explained above in Table A.2, with one exception: DEF_IND(h) (no cross-directorships) has no meaning for the German Corporate Governance Code since cross-directorships are prohibited (and have been prohibited since the reforms of 1965) by s. 100(1), sentence 1, no. 3 German Stock Corporation Act. Therefore, DEF_IND consists of 9 instead of 10 elements for the German codes and the value for DEF_IND is the sum of these elements divided by 9. If independence is defined in general terms, which would normally receive the value 0.3, the value 0.33 is assigned.

[126] Independence is only defined with regard to the shareholders.

[127] The corporate governance code contains only a general definition of independence, but the Act on Business Associations of 2006 provides for a list of detailed criteria that follow the definition in Commission Recommendation 2005/162/EC, see ss. 309(3), 310. These provisions are reproduced on p. 48 of the 2012 Code. Since element NO_IND is accordingly irrelevant in determining the character of the Hungarian code, the board structure variable is calculated as the mean of the remaining applicable elements.

[128] Same as n 127 above.

[129] Same as n 127 above.

[130] The list of independence criteria is not binding on the board of directors when it evaluates the independence of the board's non-executive members, but serves merely as an example. Code Provision 3.C.1 provides that the board should have "regard more to the contents than to the form and [keep] in mind that a director usually does not appear independent in the following events [the list of criteria], to be considered merely as an example". Further, the Comment makes it clear that the board "may adopt, for the purpose of its evaluations, additional or different, in whole or in part, criteria from those mentioned [in Code Provision 3.C.1]". However, the board must also give "adequate information to the market together with the relevant reasons" (Comment to Art. 3). Therefore, transparency is at least partly ensured.

[131] Same as n 130 above.

2009	0.3[132]	100	0.3	3.5, Appendix D
2006	0.3[133]	100	0.3	3.5, Appendix D
Malta				
2005	0.3	100	0.3	3.3
2001	0.3	100	0.3	2.6
Netherl.				
2008	0.7	100	0.7	III.2.2
2003	0.7	100	0.7	III.2.2
1997	0.3	100	0.3	2.6, 2.11
Norway				
2012	0.7	100	0.7	8
2011	0.7	100	0.7	8
2010	0.7	100	0.7	8
2009	0.7	100	0.7	8
2007	0.7	100	0.7	8
2006	0.7	100	0.7	8
2005	0.7	100	0.7	8
2004	0.7	100	0.7	8
Poland				
2012	1	100	1	III.6
2010	1	100	1	III.6
2007	1	100[134]	1	III.6
2004	1	50[135]	0.5	20(a), (b)
2002G	0.3	100	0.3	II.2
2002C	0.3	100	0.3	20(a)
Portugal				
2010	0.5[136]	100	0.5	II.1.2.3
2007	0	-	0	II.1.2.3
2003	0.1[137]	100	0.1	IV.9
1999	0.1[138]	100	0.1	15

[132] The Luxembourg code reproduces the independence criteria of the Commission Recommendation in Appendix D, but the appendix is not binding. The code stipulates that "the company *may* make use of the independence criteria appearing in Annex II of the European Commission Recommendation of 15 February 2005" (emphasis by author). Only the general formulation in Code Provision 3.5 is binding.

[133] Same as n 132 above.

[134] As opposed to the 2004 Code (see n 135 below), the code now unequivocally requires that "[t]he independence criteria should be applied under Annex II to the Commission Recommendation of 15 February 2005 on the role of non-executive or supervisory directors of listed companies and on the committees of the (supervisory) board."

[135] The code is ambivalent. On the one hand, it defines independence as the absence of any "relations with the company and its shareholders or employees which could significantly affect the independent member's ability to make impartial decisions" (provision 20(a)) and requires "[d]etailed independence criteria [to] be laid down in the company's statutes" (provision 20(b)). On the other hand, a footnote to code provision 20(b) stipulates that the committee "hereby recommends rules based on European standards, i.e. the independence criteria set out in the Commission's Recommendation on strengthening the role of non-executive or supervisory directors". Thus, the drafting committee "recommends" the Commission Recommendation's detailed independence requirements, but it is not clear whether this provision is part of the formal recommendations of the code since it is contained in a footnote.

[136] Code Provision II.1.2.3 stipulates that, in assessing independence, the board of directors "shall take into account the legal and regulatory rules in force concerning the independency requirements and the incompatibility framework applicable to members of other corporate boards", which refers to Arts. 414, 414-A of the Portuguese Commercial Company Act, establishing eligibility requirements for supervisory board members. The Code Provision continues: "An independent executive member shall not be considered as such, if in another corporate board and by force of applicable rules, [he] may not be an independent executive member." Thus, the code incorporates the statutory independence requirements for supervisory board members. Our assessment takes this into consideration.

[137] Independence is only defined with regard to the dominant shareholders.

Slovakia				
2008	0.85	50[139]	0.425	V.E.2
2002	0.3	100	0.3	1.6
Slovenia[140]				
2009	1	100	1	6.2, 8, 17, Appendix C
2007	0.67[141]	100	0.67	3.3.1, 3.5.4
2005	0.67[142]	100	0.67	3.3.1, 3.5.4
2004	0.33	100	0.33	3.3.1, 3.5.4
Spain				
2006	0.9	100	0.9	III.5
2004	1	100	1	I.4
2003	0.3	100	0.3	IV.2.1(c)
1998	0[143]	-	0	2
Sweden				
2010	0.9[144]	75 for all plus 50 for (e)[147]	0.64	III.4.4, 4.5
2008	n/a[145]			III.4.4
2005	1	50 for (e)[148]	0.95	3.2.4, 3.2.5
2001	0[146]	-	0	3.1

[138] See n 137 above.

[139] The adjustment of 50 percent is justified because the criteria for independence are contained in the non-binding notes to the Code Principle, while the Principle itself advances only general statements.

[140] The same considerations as n 125 above apply. The Slovenian Companies Act of 2006 (ZGD-1) prohibits cross-directorships in Art. 273(1). The predecessor of the ZGD, the Companies Act of 1993, contained the same prohibition in Art. 263.

[141] As opposed to the 2004 Code, provision 3.3.1 of the 2007 Code does not explicitly incorporate the list of conflicts of interest in code provision 3.5.4, which contains some of the elements of DEF_IND, into the definition of independence (the 2004 Code provided that "[a]n independent member of the Supervisory Board is one who has no conflict of interest in accordance with Chapter 3.5. of this Code"). However, a conflict of interest that is "not of a temporary nature" (provision 3.5.7), such as that the director "has, or has had, within the past three years, an important business relationship with the company" (3.5.4), has the consequence that the director's mandate shall be terminated (3.5.7). For this reason, it is justified to qualify such not merely temporary conflicts as independence requirements.

[142] Same as n 141 above.

[143] The code only gives a very general definition of independent directors as "prestigious professionals with no links to the management team or the significant shareholders."

[144] The code only requires independent directors not to have been CEO of the company within the last five years; it does not establish the general rule that former executive directors cannot be considered as independent (as opposed to the definition in DEF_IND(a), (b)). However, in Swedish companies no more than one member of the board may be an executive director, and this member is generally the CEO, see Swedish Corporate Governance Code, p. 11.

[145] In contrast to the 2005 Code, the 2008 Code does not contain a list of criteria defining independence. The definition is now contained in the regulations of OMX Nordic Exchange Stockholm, and the 2008 Code simply refers to these independence requirements, which apply to listed companies (III.4.4, n. 7). The lack of a comprehensive definition in the code therefore does not have any explanatory value. Accordingly, the board structure variable is calculated as the mean of the remaining five elements, without taking account of DEF_IND. The OMX definition was removed in 2009, see Annual Report 2010 of the Swedish Corporate Governance Board, p. 3.

[146] Independence is only defined with regard to the company's management, and even in that respect the code does not set a minimum time limit, as envisaged in DEF_IND(a)-(c).

[147] The adjustment of 75 is justified because, in contrast to the 2005 Code, the 2010 Code does not unequivocally provide that directors shall not be considered to be independent if one of the criteria listed in III.4.4 applies. Instead, the code states that "[a] director's independence is to be determined by a *general assessment* of all factors that may give cause to question the individual's independence of the company or its executive management" and that in performing this general assessment, the independence criteria listed in the code "should be *considered*" (emphases by author), see Code

Switzerl.				
2007	0.3	100	0.3	22 (applies only to committee composition)
2002	0.3	100	0.3	22 (applies only to committee composition)
UK				
2012	1[149]	75[154]	0.75	B.1.1
2010	1[150]	75[155]	0.75	B.1.1
2008	1[151]	75[156]	0.75	A.3.1
2006	1[152]	75[157]	0.75	A.3.1
2003	1[153]	75[158]	0.75	A.3.1

Provision III.4.4. On the other hand, the code grants the nomination committee conducting the assessment less flexibility than the Italian Codes of 2011 and 2006 (see n 130 above) and the French MEDEF Codes (see n 121 above). If the nomination committee intends to qualify a candidate as independent even though one or more of the criteria listed in provision III.4.4 are not satisfied, it is required "to justify its position" to the shareholders (Code Provision 2.6). The code therefore stands between the Italian and French codes and codes that do not allow for any deviation from the independence criteria (for a comparable rule see the UK codes, n 154 below). As far as DEF_IND(e) is concerned, Code Provision 4.5 requires that at least two members of the board are independent of the company's major shareholders, in addition to satisfying the independence requirements of Code Provision 4.4. I therefore adjust the value for DEF_IND(e) by 50 percent (in addition to the 75 percent adjustment).

[148] Same as n 147 above (in the 2005 Code, the relevant provision is 3.2.5).

[149] As opposed to the Commission Recommendation, Annex II(1)(a) and (b), the UK Corporate Governance Code does not contain separate provisions requiring independent directors not to have been executive directors and not to have been employees. The UK Code merely provides that the independent director must not have been an employee of the company within the last five years, see Code Provision B.1.1. However, since executive directors are employees, the UK Code addresses both factors listed separately by the Commission Recommendation. Therefore, I understand the UK provision as satisfying DEF_IND(a)-(c). In addition, the Code does not mention explicitly independence from the present or former external auditor of the company or an associated company (see Commission Recommendation 2005/162/EC, Annex II(1)(f)). However, this requirement is satisfied because the Code provision, more generally, prohibits directors from having "a material business relationship with the company either directly, or as a partner, shareholder, director or senior employee of a body that has such a relationship with the company" (B.1.1), which comprises working for the external auditor.

[150] Same as n 149.

[151] Same as n 149.

[152] Same as n 149.

[153] Same as n 149.

[154] B.1.1 provides that "[t]he board should determine whether the director is independent in character and judgement and whether there are relationships or circumstances which are likely to affect, or could appear to affect, the director's judgement. The board should state its reasons if it determines that a director is independent notwithstanding the existence of relationships or circumstances which may appear relevant to its determination, including [the factors corresponding to the definition of DEF_IND]." This means that the board can determine that it acts in compliance with the independence requirements even though a director does not satisfy all of the criteria that the code considers to be relevant for the determination of independence. As a consequence, the directors would be technically in full compliance with the Code and did not have to provide an explanation for non-compliance, see David Kershaw, *Company Law in Context* (2nd ed., OUP 2012), p. 258. However, since the Code provision itself requires the directors to state their reasons and since transparency is, therefore, ensured, I only apply an adjustment of 75 percent (similar to Sweden 2010, n 147 above). In the case of the Italian Codes of 2011 and 2006, the adjustment is larger (50 percent, see n 130 above), because the requirement to give reasons for not following the list of criteria is not enshrined in the Code Provisions, but only mentioned in the official comment to the rule (Comment to Art. 3 Italian Corporate Governance Code 2011). A similar reasoning applies to France (see n 121 above).

[155] Same as n 154.

[156] Same as n 154.

[157] Same as n 154.

1998 1992	0.3 0.3	100 100	0.3 0.3	3.9 2.2
COM 2006	0.95	50[159]	0.475	13, Annex II
OECD 2004 1999	 0.3 0.3	 50[160] 50[161]	 0.15 0.15	 VI.E, Annotations p. 64 V.E., Annotations p. 24

[158] Same as n 154.

[159] The list of independence criteria in Annex II of the Recommendation is merely understood to be "guidance" to be taken into account when the Member States define independence. The Recommendation also points out that "[t]he determination of what constitutes independence is fundamentally an issue for the (supervisory) board itself to determine. The (supervisory) board may consider that, although a particular director meets all the criteria laid down at national level for assessment of the independence of directors, he cannot be considered independent owing to the specific circumstances of the person or the company, and the converse also applies." See Sec. 13.2 of the Recommendation. On the other hand, "[p]roper information should be disclosed on the conclusions reached by the (supervisory) board in its determination of whether a particular director should be regarded as independent" (Sec. 13.3), so that transparency is at least partly ensured.

[160] The principles themselves contain no definition, they only stipulate that "[t]he board should be able to exercise objective independent judgement on corporate affairs" (Principle VI.E). A definition can be found in the annotations, which specify that objectivity (and independence) require "that a sufficient number of board members not be employed by the company or its affiliates and not be closely related to the company or its management through significant economic, family or other ties" (p. 64). However, the annotations are not binding; they merely "contain commentary on the Principles and are intended to help readers understand their rationale [and they] may also contain descriptions of dominant trends and offer alternative implementation methods and examples that may be useful in making the Principles operational" (p. 14).

[161] The principles only stipulate that "[t]he board should be able to exercise objective judgement on corporate affairs independent, in particular, from management" (Principle V.E). The Annotations specify that "[b]oard independence usually requires that a sufficient number of board members not be employed by the company and not be closely related to the company or its management through significant economic, family or other ties" (p. 24). However, the annotations are not binding, see n 160 above for further details.

Table B.4. Separation of chairman and CEO (SEP)

Country	Value	Adjustment Factor (%)	Total value	Code provision
Austria				
2012	n/a			
2009	n/a			
2007	n/a			
2006	n/a			
2005	n/a			
2002	n/a			
Belgium				
2009	1	100	1	1.5
2004	1	100	1	1.5
1998E	0	-	0	1.2
1998C	0	-	0	I.B.1.3
Bulgaria				
2012	1	100	1	3.3
2007	1	100	1	3.3
Cyprus				
2012	1	75[162]	0.75	A.2.6
2009	1	75[163]	0.75	A.2.6
2006	1	75[164]	0.75	A.2.4
2002	1	75[165]	0.75	A.2.4
Denmark				
2011	1	100[166]	1	4.3.4
2010	1	100[167]	1	4.3.4
2008	1	50[168]	0.5	-
2005	1	50[169]	0.5	-
2003	1	50[170]	0.5	-

[162] The code requires that there "should be a clear division of responsibility in the positions of Chairman of the Board of Directors and Chief Executive Officer." The provision continues: "In the event that these positions are not separate, this should be justified in part two of the report." This is comparable to the provision of the UK Corporate Governance Code described above in n 154, which allows for deviations from the corporate governance rules but ensures transparency.
[163] Same as n 162 above.
[164] Same as n 162 above.
[165] Same as n 162 above.
[166] The Danish Companies Act, § 114, stipulates that the chairman of the board is not entitled to exercise such powers on behalf of the company as are not a natural part of the office of chairman of the board, apart from individual tasks which the person concerned is requested to perform by and for the board of directors (see Hansen, n 26 above, 87; Report on Corporate Governance in Denmark of 2003, p. 16). The corporate governance code further specifies that the chairman may, "in exceptional cases . . . briefly participate in the day-to-day management" of the corporation. However, the performance of management duties requires a board resolution and the disclosure of any agreements regarding the chairman's participation in the company's management. Arguably, the brief participation in the day-to-day management does not jeopardise the general separation of CEO and chairman of the board as required by the Companies Act. It is therefore justified not to adjust the value of 1.
[167] Same as n 166 above.
[168] The rule derives from Danish company legislation, see n 166 above. As opposed to the 2011 Code discussed in n 166, the 2008 Code does not contain additional restrictions, disclosure obligations, or procedural requirements to be followed when the chairman is entrusted with management powers. In order to take account of the lower level of regulation in the 2008 Code, an adjustment of 50 percent is applied.
[169] Same as n 168 above.
[170] Same as n 168 above.

2001	1	50[171]	0.5	-
Finland				
2010	1	100	1	36
2008	1	100	1	36
2003	1	100	1	40
France				
2011	1	75[174]	0.75	II.A.3
2010M	0	-	0	3.1-3.2
2010A	1	75[175]	0.75	II.A.3
2008M	0	-	0	3.1-3.2
2008A	1	50[176]	0.5	II.A.3
2004	1	50[177]	0.5	II.A.3
2003	0	-	0	3.1-3.2
2002	0	-	0	p. 5
1999	0[172]	-	0	Part 1, I.1
1998	1	50[178]	0.5	II.A.3
1995	n/a[173]			

[171] Same as n 168 above.

[172] The code merely states that "[t]he The Committee is favorable to the introduction in French law of an alternative allowing the Board of Directors to opt for combination or separation of the offices of chairman and chief executive officer". This is different from the AFG code, see n 174, below, which expresses a clear preference for separation, rather than simply commending the introduction of the alternative models.

[173] The French Commercial Code initially provided that the *président du conseil d'administration* shall also have overall responsibility for the management of the company. With the reforms introduced by Law no. 2001-420 of 15 May 2001 (Loi relative aux nouvelles régulations économiques (NRE)), JORF n° 113 of 16 May 2001, p. 7776, the incorporators that adopt the one-tier board structure (*conseil d'administration*) now have the choice between combining the roles of chairman and general manager in the person of the *président directeur général* or separating the functions. The discussion about separation of CEO and chairman, accordingly, has only become relevant with the first codes anticipating the new law (the MEDEF code of 1999 and the AFG code of 1998, as amended in 2001). For the 1995 code, the question is not relevant (and neither is the element COOL), although it is discussed in the Viénot I report, *see* I.4. We therefore do not consider the two elements SEP and COOL in the calculation of the board structure variable for 1995, which is the mean of the remaining four elements.

[174] The code holds that "AFG is in favour of the general principle of separation of functions, namely executive and control power, through a separation of the function of chairperson of the board from that of the chief executive officer, or through a supervisory and management board's structure." However, the code also acknowledges that companies, "as an exception, [may] decide not to implement such a separation of functions". In spite of this ambiguity in the code provision, the adjustment factor is 75% for the following reasons: First, the Code Provision itself requires the company to explain the decision to the shareholders. The transparency envisaged by corporate governance codes is, therefore, ensured (see n 154 above for a similar argument). Second, the code requires that if the two functions are not separated a lead independent director shall be appointed who has power to monitor the board, add items to the board agenda, and convene the board if necessary.

[175] Same as n 174 above.

[176] An adjustment factor of 50 percent is used because the code does not require the separation of CEO and chairman unambiguously. Code Provision II.A.3 merely provides that "AFG is in favour of the general principle of separation of functions through a separation of the function of chairman of the board function from that of the chief executive officer".

[177] Similar to n 176.

[178] An adjustment factor of 50 percent is used because the code does not require the separation of CEO and chairman unambiguously. Code Provision II.A.3 merely provides that "AFG-ASFI *invites* companies to deliberate on . . . the option provided by the law on the separation of the functions of the Chairman of the Board and the Managing Director" and that "AFG-ASFI *is in favor* of this separation in the interest of shareholders" (emphases by author). This amendment was introduced in 2001 in

Germany				
2012	n/a			
2010	n/a			
2009	n/a			
2008	n/a			
2007	n/a			
2006	n/a			
2005	n/a			
2003	n/a			
2002	n/a			
2000B	n/a			
2000	n/a			
Greece				
2011	1	25[179]	0.25	A.III.3.3
2001	0	-	0	-
1999	1	50[180]	0.5	5.5
Hungary				
2012	n/a			
2008	n/a			
2007	n/a			
2004	n/a			
Italy				
2011	1	75[181]	0.75	2.P.4, 2.P.5, 2.C.3, 2.C.4
2006	1	75[182]	0.75	2.P.4, 2.P.5, 2.C.3
2002	0	-	0	2.1, 4.3 (Comment)
1999	0	-	0	2.1, 4.3 (Comment)
Luxemb.				
2009	1	100	1	1.3
2006	1	100	1	1.3
Malta				
2005	1	100	1	2.1
2001	1	75[183]	0.75	2.3

reaction to the changes of the company law allowing for the separation of chairman and CEO (see n 173).

[179] Companies may combine the roles of chairman and CEO, but in that case, or where the former CEO has been appointed as chairman within three years of his retirement, the board must appoint an independent vice-chairman. The code specifies the competences of the vice-chairman. The vice-chairman has responsibility, *inter alia*, for the evaluation of the executive chairman (Code Provision 3.4). In light of these specific rules, it seems justified to use the value for SEP(a), significantly adjusted. See also below n 187 for a comparable provision.

[180] I use an adjustment factor of 50 percent because the code merely provides that "[t]he separation of duties and responsibilities in the highest levels of the corporation's governance *should be encouraged*" (emphasis by author).

[181] The code does not require unambiguously that CEO and chairman should be separated, it merely provides that "[i]t is appropriate to avoid the concentration of corporate offices in one single individual" (2.P.4). The code acknowledges that "the existence of situations of accumulation of the two roles may satisfy, in particular in issuers of smaller size, valuable organizational requirements" (see Comment to Art. 2). However, the code also stipulates that if management powers have been delegated to the chairman, the board should disclose the reasons for this organisational choice in the corporate governance report (2.P.5). In addition, in this case the board shall designate an independent director as lead independent director (2.C.3), who "represents a reference and coordination point for the requests and contributions of non-executive directors" (2.C.4). In light of these substitute mechanisms, it is appropriate to assign the Italian Code the value of 1 and apply an adjustment of 75 percent.

[182] Similar to n 181 above.

[183] The code is ambivalent in that it does not prohibit the combination of the roles of CEO and chairman, but merely stipulates that "[i]deally, the Chairman's role in leading the Board should be separate from that of the Chief Executive." The provision is comparable to that in the Italian code of

Netherl.				
2008	n/a			
2003	n/a			
1997	n/a			
Norway				
2012	1	100	1	8
2011	1	100	1	8
2010	1	100	1	8
2009	1	100	1	8
2007	1	100	1	8
2006	1	100	1	8
2005	1	100	1	8
2004	1	100	1	8
Poland				
2012	n/a			
2010	n/a			
2007	n/a			
2004	n/a			
2002G	n/a			
2002C	n/a			
Portugal				
2010	1	50[184]	0.5	II.2.1, II.2.3
2007	1	50[185]	0.5	II.2.1, II.2.3
2003	0	-	0	-
1999	0	-	0	-
Slovakia				
2008	n/a			
2002	n/a			
Slovenia				
2009	n/a			
2007	n/a			
2005	n/a			
2004	n/a			
Spain				
2006	1	25[187]	0.25	II.17
2004	1	100	1	I.2
2003	0	-	0	IV.4
1998	0[186]	-	0	5

2011 (see n 181 above) because it requires that if the roles of CEO and chairman are combined the company must provide an explanation to the market. Hence, the provision conforms to the transparency rationale of corporate governance codes. In addition, the code stresses that in such cases "it is important that the nonexecutive Directors are of sufficient calibre to bring an independent judgement to bear on the various issues brought before" the board. Accordingly, the code requires that directors are appointed "whose independence and standing would offer a balance to the strength of character of such a chairman."

[184] The code stipulates that "the Board of Directors shall delegate the day-to-day running" of the company (II.2.1), but it also allows for the possibility that executive duties remain with the chairman of the board. In that case, "the Board of Directors shall set up efficient mechanisms for coordinating non-executive members that can ensure that these may decide upon, in an independent and informed manner, and furthermore shall explain these mechanisms to the shareholders in the corporate governance report" (II.2.3).

[185] Same as n 184 above.

[186] The code merely provides that if the offices of chairman and CEO are combined, the board "should adopt the necessary safeguards to mitigate the risks of concentrating power in a single person."

[187] The code does not require the chairman and CEO to be separated, but where the two roles are exercised by the same person, an independent director shall be empowered to request the calling of board meetings and the inclusion of new business on the agenda in order to coordinate and give voice

Sweden				
2010	1	100	1	II.4, III.6.2
2008	1	100	1	II.4, III.6.2[188]
2005	1	100	1	3.4.3
2001	1	100	1	3.1
Switzerl.				
2007	0	-	0	18
2002	0	-	0	18
UK				
2012	1	100	1	A.2.1, A.3.1
2010	1	100	1	A.2.1, A.3.1
2008	1	100	1	A.2.1, A.2.2
2006	1	100	1	A.2.1, A.2.2
2003	1	100	1	A.2.1, A.2.2
1998	1	75[189]	0.75	3.17
1992	0	-	0	1.2
COM				
2006	1	50[190]	0.5	3.2
OECD				
2004	1	50[192]	0.5	VI.E., Annotations p. 63
1999	0[191]	-	0	V.E, Annotations p. 24

to the concerns of external directors, and lead the board's evaluation of the chairman (Code Provision 17). In light of this provision, it does not seem to be justified to assign the value of 0 to the Spanish Code. Rather, the value of 1 should be adjusted significantly to take into account the lack of formal separation on the one hand, but the introduction of a controlling element in the form of the senior lead independent director with specified powers. Consequently, I treat the provision as comparable to Greece 2011, discussed above n 179. Note that the adjustment is higher than in the cases of France 1998 (n 178), Greece 1999 (n 180), Italy 2011 (n 181), and Malta 2001 (n 183), because, as opposed to these codes, the Spanish rule does not give any recommendation at all, not even one that is phrased ambiguously. Compare the other codes with the formulation of the Spanish provision: "The concentration of powers can provide companies with clear internal and external leadership, while avoiding the information and coordination costs that would otherwise be generated. . . . [G]iven the divergence of international practice and the lack of empirical evidence for a precise recommendation, the Code makes no comment on the advisability or otherwise of separating the two positions." See Comment before Code Provisions 16 and 17.

[188] See in particular II.4: "The chief executive officer may be a member of the board but not its chair."

[189] The same considerations as in n 162 above apply.

[190] The Recommendation envisages the separation of chairman and CEO, but it does not require it unambiguously. It acknowledges that a company may "choose[…] to combine the roles of chairman and chief executive" (Sec. 3.2). Where it does so, this organisational choice "should be accompanied with information on any safeguards put in place" (ibid.).

[191] The principles themselves do not address the separation of CEO and chairman. The annotations explain that "[i]n unitary board systems, the separation of the roles of the Chief Executive and Chairman is often proposed as a method of ensuring an appropriate balance of power, increasing accountability and increasing the capacity of the board for independent decision making" (p. 24). However, this sentence simply reports that some legal systems require the separation of the two roles. In contrast to the 2004 amendments (see n 192 below), the annotations do not have a normative dimension and do not establish a specific best practice rule. Therefore, it does not seem justified to allocate a value of 1.

[192] The principles themselves do not address the separation of CEO and chairman. The annotations specify that "[s]eparation of the two posts may be regarded as good practice" (p. 63). On the role of the annotations see n 160 above.

Table B.5. Cooling-off period for the CEO to become chairman of the (supervisory) board (COOL)

Country	Value	Adjustment Factor (%)	Total value	Code provision
Austria				
2012	0.5	100	0.5	55: two years
2009	0.5	100	0.5	55: two years
2007	0.5	100	0.5	55: two years
2006	0.5	100	0.5	55: two years
2005	0	-	0	-
2002	0	-	0	-
Belgium				
2009	0	-	0	1.5
2004	0	-	0	1.5
1998E	0	-	0	1.2
1998C	0	-	0	I.B.1.3
Bulgaria				
2012	0	-	0	3.3
2007	0	-	0	3.3
Cyprus				
2012	0	-	0	A.2.6
2009	0	-	0	A.2.6
2006	0	-	0	A.2.4
2002	0	-	0	A.2.4
Denmark				
2011	0	-	0	4.3.4
2010	0	-	0	4.3.4
2008	0	-	0	-
2005	0	-	0	-
2003	0	-	0	-
2001	0	-	0	-
Finland				
2010	0	-	0	36
2008	0	-	0	36
2003	0	-	0	40
France				
2011	0	-	0	II.A.3
2010M	0	-	0	3.1-3.2
2010A	0	-	0	II.A.3
2008M	0	-	0	3.1-3.2
2008A	0	-	0	II.A.3
2004	0	-	0	II.A.3
2003	0	-	0	3.1-3.2
2002	0	-	0	p. 5
1999	0	-	0	Part 1, I.1
1998	0	-	0	II.A.3
1995	n/a[193]			
Germany				
2012	0.5	50[194]	0.25	5.4.4: two years

[193] See the discussion above n 173.

[194] Adjustment factor is 50% because Code provision 5.4.4 stipulates that "Management Board members may not become members of the Supervisory Board of the company within two years after the end of their appointment unless they are appointed upon a motion presented by shareholders holding more than 25% of the voting rights in the company. In the latter case appointment to the chairmanship of the Supervisory Board shall be an exception to be justified to the General Meeting."

2010	0.5	50[195]	0.25	5.4.4
2009	0.5	50[196]	0.25	5.4.4
2008	1	50[197]	0.5	5.4.4
2007	1	50[198]	0.5	5.4.4
2006	1	50[199]	0.5	5.4.4
2005	1	50[200]	0.5	5.4.4
2003	0	-	0	5.4
2002	0	-	0	5.4
2000B	0	-	0	IV.4.4
2000	0	-	0	III.1
Greece				
2011	1	25[201]	0.25	A.III.3.3: three years
2001	0	-	0	-
1999	0	-	0	5.5
Hungary				
2012	1	50[202]	0.5	2.5.5: three years
2008	1	50[203]	0.5	2.5.6: three years
2007	1	50[204]	0.5	2.5.6
2004	0	-	0	1.5.4[205]
Italy				
2011	0	-	0	2.P.4, 2.P.5, 2.C.3, 2.C.4
2006	0	-	0	2.P.4, 2.P.5, 2.C.3
2002	0	-	0	2.1, 4.3 (Comment)
1999	0	-	0	2.1, 4.3 (Comment)
Luxemb.				
2009	0	-	0	1.3

This exception does not preserve transparency to the same extent as the comply-or-explain principle requires. The company is technically in compliance with the code when the CEO is appointed as chairman without waiting for two years. The supervisory board only has to give reasons to the general meeting, but it does not have to explain the deviation from the code in the next annual report. Therefore, outside investors cannot easily assess whether the cooling-off period was applied consistently or not. Note also that the code provision goes beyond s. 100(2), sentence 1, no. 4, prohibiting members of the management board to become members of the supervisory board within two years of their retirement, unless they are appointed upon a motion presented by shareholders holding more than 25% of the voting rights (inserted by Art. 1, no. 3c of Law of 31.07.2009, Gesetz zur Angemessenheit der Vorstandsvergütung (VorstAG), BGBl. I p. 2509). How the code provision is phrased therefore continues to be of relevance even after 2009.

[195] Same as n 194 above.

[196] Same as n 194 above.

[197] Code provision 5.4.4 is phrased in ambivalent terms. It stipulates that it "*shall not be the rule* for the former Management Board chairman or a Management Board member to become Supervisory Board chairman or the chairman of a Supervisory Board committee" (emphasis by author). The code also envisages that there will be exceptions, and in such a case it requires "special reasons [to] be presented to the annual general meeting." This requirement preserves some transparency, but it does not impose a strict requirement, deviation from which would need to be explained in the annual report (see n 194 above for a similar reason).

[198] Same as n 197 above.

[199] Same as n 197 above.

[200] Same as n 197 above.

[201] The adjustment is justified for the same reasons as explained in n 179 above.

[202] Code provision 2.5.5 is a so-called "suggestion", not a "recommendation". This means that the comply-or-explain principle does not apply with full force. Companies are only required to "indicate whether they apply the given guideline or not; there is no need for a specific explanation" in the annual report, see the 2012 Code, p. 5.

[203] Same as n 202 above.

[204] Same as n 202 above.

[205] Referring to the chairman of the board of directors (not the supervisory board) and the CEO.

2006	0	-	0	1.3
Malta				
2005	0	-	0	2.1
2001	0	-	0	2.3
Netherl.				
2008	1	100	1	III.4.2: no former managers
2003	1	100	1	III.4.2: no former managers
1997	1	50[206]	0.5	2.5
Norway				
2012	0	-	0	8
2011	0	-	0	8
2010	0	-	0	8
2009	0	-	0	8
2007	0	-	0	8
2006	0	-	0	8
2005	0	-	0	8
2004	0	-	0	8
Poland				
2012	0	-	0	-
2010	0	-	0	-
2007	0	-	0	-
2004	0	-	0	-
2002G	0	-	0	-
2002C	0	-	0	-
Portugal				
2010	0	-	0	II.2.3
2007	0	-	0	II.2.3
2003	0	-	0	-
1999	0	-	0	-
Slovakia				
2008	1	50[207]	0.5	V.E.1, V.E.2
2002	0	-	0	1.8
Slovenia				
2009	0.5	100	0.5	10.1
2007	1	100	1	3.3.11
2005	1	100	1	3.3.11
2004	0	-	0	-
Spain				
2006	0	-	0	II.17
2004	0	-	0	I.2
2003	0	-	0	IV.4
1998	0	-	0	5
Sweden				
2010	0[208]	-	0	III.2.6, III.6.2

[206] The prohibition is not unambiguous. Code provision 2.5 stipulates that "no more than one former member of the company's Board of Directors should serve on the Supervisory Board. A point of consideration here should be the influence that a person's former membership of the Board of Directors may have on that individual's functioning on the Supervisory Board as well as on the functioning of the Supervisory Board and of the Board of Directors. This applies especially in cases where a former chairman of the Board of Directors is the intended chairman of the Supervisory Board."

[207] Code Principle V.E.1 requires that the chairman of the supervisory board must be independent. As part of the independence criteria, the code stipulates that the director should not have been a member of the company's management in the last five years. However, the independence criteria are contained in the non-binding notes to Code Principle V.E.2, which is why an adjustment of 50 percent is applied.

[208] Code Provision III.2.6 only provides that "[i]f the outgoing chief executive officer is nominated for the post of chair, reasons for this proposal are . . . to be fully explained."

2008	0[209]	-	0	III.2.6, III.6.2
2005	0[210]	-	0	3.4.2
2001	1	50[211]	0.5	3.1
Switzerl.				
2007	0	-	0	18
2002	0	-	0	18
UK				
2012	1	100	1	A.2.1, A.3.1
2010	1	100	1	A.2.1, A.3.1
2008	1	100	1	A.2.1, A.2.2
2006	1	100	1	A.2.1, A.2.2
2003	1	100	1	A.2.1, A.2.2
1998	0	-	0	3.17
1992	0	-	0	1.2
COM				
2006	0[212]	-	0	3.2
OECD				
2004	0[213]	-	0	VI.E, Annotations p. 64
1999	0	-	0	-

[209] Similar to n 208 above.
[210] Similar to n 208 above.
[211] The code does not lay down a waiting period or stipulate that the CEO should never go on to become chairman of the board; it merely provides that "[a] Managing Director who is leaving that position should normally not be appointed as Chairman or remain on the board." Because of this ambivalence the value is adjusted by 50 percent.
[212] The Recommendation is non-committal. It merely provides that one option to ensure that "present or past executive responsibilities of the (supervisory) board's chairman [do] not stand in the way of his ability to exercise objective supervision … may be that the chief executive does not immediately become the chairman of the (supervisory) board" (Sec. 3.2).
[213] The principles do not contain any recommendations concerning a cooling off period. The annotations mention that "[i]n the case of two tier board systems, consideration should be given to whether corporate governance concerns might arise if there is a tradition for the head of the lower board becoming the Chairman of the Supervisory Board on retirement" (p. 64). This formulation is too vague to warrant a coding other than zero.

Table B.6. Board committees (COM)

Country	Value	Adjustment Factor (%)	Total value	Code provision
Austria				
2012	(a): 1; (b): 1; (c): 1[214]	100	1	Nomination: 39, 41; audit: 39-40; remuneration: 39, 43
2009	as 2012	100	1	as 2012
2007	(a): 0.5; (b): 0.5; (c): 0.5	100	0.5	as 2012
2006	as 2007	100	0.5	as 2012
2005	as 2007	100	0.5	Nomination: 43; audit: 40-41; remuneration: 43
2002	as 2007	100	0.5	as 2005
Belgium				
2009	(a): 1; (b): 1; (c): 1	100	1	Nomination: Appendix D; audit: Appendix C; remuneration: Appendix E
2004	(a): 1; (b): 1; (c): 1	100	1	Nomination: Appendix D; audit: Appendix C; remuneration: Appendix E
1998E	(a): 0; (b): 0; (c): 0.5	50 for (c)[215]	0.25/3=0.08	Nomination:2.3; audit: 4.3; remuneration: 3.1
1998C	(a): 0.5; (b): 1; (c): 0.5	50 for (a) and (c)[216]	(0.25+1+ 0.25)/3=0.5	Nomination:I.B.2.4; audit: I.B.4.3; remuneration: I.B.3.2
Bulgaria				
2012	(a): 0; (b): -[217]; (c): 0	100	0	6.2
2007	(a): 0; (b): 1; (c): 0	100	1/3=0.33	6.2
Cyprus				
2012	(a): 0.5;[218] (b): 1; (c): 1	100	(0.5+1+1)/3 =0.83	Nomination: A.4.1; audit: C.3.1; remuneration: B.1.1, B1.2
2009	as 2012	100	0.83	as 2012
2006	as 2012	100	0.83	as 2012
2002	as 2012	100	0.83	as 2012

[214] (a), (b), and (c) refer to board appointments, responsibility for internal control and appointment of the external auditor, and remuneration, respectively.

[215] The code does not require a remuneration committee to be established, but if the company sets up such a committee, it must be composed exclusively of non-executive directors. Furthermore, the code provides that, if no remuneration committee is established, the remuneration of executive directors should be submitted to the non-executive directors (3.1). Therefore, it seems justified to give some credit to the code for these provisions.

[216] The code does not require a nomination or remuneration committee to be established, but if the company sets up such committees, the code stipulates how they should be composed (similar to n 215).

[217] The 2012 code does not require the establishment of an audit committee, but merely stipulates that "[d]epending on the requirements of the existing legislation and based on the criteria defined therein, the Board of Directors proposes to the general meeting of shareholders of the company to elect an audit committee whose composition should comply with the legal requirements and the specific needs of the company." Art. 40f(3) and (4) of the Independent Financial Audit Act, State Gazette No. 101/23.11.2001, as amended, contain some requirements as to composition and remit of the audit committee, but they also do not unequivocally require a majority of members to be independent (following Art. 41(1) Directive 2006/43/EC, at least one member must be independent). The provision in the code therefore does not add anything in terms of audit committee regulation and is irrelevant for an assessment of the character of the code. The variable CON is consequently computed by calculating the mean of the remaining two elements.

[218] A majority of the members of the nomination committee should be non-executive directors, but the code does not require independence.

Denmark				
2011	(a): 1; (b): 1; (c): 1	100	1	5.10
2010	as 2011	100	1	5.10
2008	(a): 1; (b): 1; (c): 1	50 for all[219]	0.5	V.10, VIII.7, Appendix A
2005	as 2008	50 for all[220]	0.5	V.10, VIII.7, Appendix A
2003	0	-	0	V.10, VIII.7 (audit committee)
2001	0	-	0	V.9
Finland				
2010	(a): 1; (b): 1; (c): 1	100	1	Nomination: 28-30; audit: 24-27; remuneration: 31-33
2008	(a): 1; (b): 1; (c): 1	100	1	Nomination: 28-30; audit: 24-27; remuneration: 31-33
2003	(a): 0.5; (b): 1; (c): 0.5	100	(0.5+1+0.5)/3 =0.67	Nomination: 31-33; audit: 27-30; remuneration: 34-36
France				
2011	(a): 0.5; (b): 0.5; (c): 1	100	(0.5+0.5+1)/3 =0.67	II.B.2
2010M	(a): 1; (b): 1; (c): 1	100	1	Nomination: 15; audit: 14; remuneration: 16
2010A	(a): 0.5; (b): 0.5; (c): 1	100	(0.5+0.5+1)/3 =0.67	II.B.2
2008M	(a): 1; (b): 1; (c): 1	100	1	Nomination: 15; audit: 14; remuneration: 16
2008A	(a): 0.5; (b): 0.5; (c): 1	100	(0.5+0.5+1)/3 =0.67	II.B.2
2004	(a): 0.5; (b): 0.5; (c): 1	100	(0.5+0.5+1)/3 =0.67	II.B.2
2003	(a): 1; (b): 1; (c): 1	100	1	Nomination: 16; audit: 14; remuneration: 15
2002	(a): 0.5; (b): 1; (c): 1	100	(0.5+1+1)/3 =0.83	Nomination: p. 17; audit: p. 12; remuneration: p. 14
1999	(a): 0.5; (b): 0.5; (c): 1	100	(0.5+0.5+1)/3 =0.67	Part 2, II.23 and III
1998	(a): 0.5; (b): 0.5; (c): 1	100	(0.5+0.5+1) /3=0.67	II.B.2
1995	(a): 0.5; (b): 0.5; (c): 0.5	100	0.5	Nomination: II.5; audit: III.3; remuneration: III.3
Germany				
2012	(a): 0.5; (b): 0.5; (c): 0	100	(0.5+0.5) /3=0.33	Nomination: 5.3.3; audit: 5.3.2; remuneration: 5.3.4
2010	(a): 0.5; (b): 0.5; (c): 0	100	(0.5+0.5) /3=0.33	Nomination: 5.3.3; audit: 5.3.2; remuneration: 5.3.4
2009	(a): 0.5; (b): 0.5; (c): 0	100	(0.5+0.5) /3=0.33	Nomination: 5.3.3; audit: 5.3.2; remuneration: 5.3.4
2008	(a): 0.5; (b): 0.5; (c): 0	100	(0.5+0.5) /3=0.33	Nomination: 5.3.3; audit: 5.3.2; remuneration: 5.3.4
2007	(a): 0.5; (b): 0.5; (c): 0	100	(0.5+0.5) /3=0.33	Nomination: 5.3.3; audit: 5.3.2; remuneration: 5.3.4
2006	(a): 0; (b): 0.5; (c):	100	0.5/3=0.17	Nomination: 5.1.2; audit: 5.3; remuneration: 5.1.2

[219] The code does not require the establishment of committees unambiguously. It merely provides that the supervisory board shall "consider and decide whether to establish committees, including nomination, remuneration and audit committees" (provision V.10). If the board establishes committees, the majority of members "should be independent persons" (Appendix A).
[220] Same as n 219.

	0[221]			
2005	(a): 0; (b): 0.5; (c): 0	100	0.5/3=0.17	Nomination: 5.1.2; audit: 5.3; remuneration: 5.1.2
2003	(a): 0; (b): 0.5; (c): 0	100	0.5/3=0.17	Nomination: 5.1.2; audit: 5.3; remuneration: 5.1.2
2002	(a): 0; (b): 0.5; (c): 0	100	0.5/3=0.17	Nomination: 5.1.2; audit: 5.3; remuneration: 5.1.2
2000B	(a): 0.5; (b): 0.5; (c): 0.5	100	0.5	IV.3.4
2000	(a): 0.5; (b): 0.5; (c): 0.5	50 for all[222]	0.25	III.3
Greece				
2011	(a): 0.5; (b): 1; (c): 1	100	(0.5+1+1)/3 =0.83	Nomination: A.V.5.4, 5.5; audit: B.I.1.4; remuneration: C.I.1.6-1.9
2001	(a): 0; (b): 0.5; (c): 0.5	100	(0.5+0.5)/3 =0.33	Nomination: -; audit: E.5.2; remuneration: E.5.3
1999	(a): 0; (b): 0.5; (c): 0.5	50 for (b)[223]	(0.25+0.5)/3 =0.25	Nomination: -; audit: 4.7; remuneration: 7.2
Hungary				
2012	(a): 1; (b): -[224]; (c): 1	75 for (a)[227]	(1+0.75)/2 =0.875	Nomination: 3.3.1-3.3.5; audit: 3.2.1-3.2.4; remuneration: 3.4.1-3.4.7
2008	(a): 1; (b): -[225]; (c): 1	75 for (a)[228]	(1+0.75)/2 =0.875	Nomination: 3.3.1-3.3.5; audit: 3.2.1-3.2.4; remuneration: 3.4.1-3.4.7
2007	(a): 1; (b): -[226]; (c): 1	75 for (a)[229]	(1+0.75)/2 =0.875	Nomination: 3.3.1-3.3.5; audit: 3.2.1-3.2.4; remuneration: 3.4.1-3.4.7
2004	(a): 1; (b): 1; (c): 1	100	1	Nomination: 1.8.3; audit: 1.8.2; remuneration: 1.8.4
Italy				
2011	(a): 1; (b): 1;[230] (c): 1	75 for all[231]	0.75	Nomination: 5.P.1 ; audit: 7.P.4; remuneration: 6.P.3

[221] The supervisory board "*can* delegate preparations for the appointment of members of the Management Board to a committee, which also determines the conditions of the employment contracts including compensation" (emphasis by author), but the establishment of such a committee is not required, see Code provision 5.1.2.

[222] The code does not require the establishment of committees of the supervisory board unambiguously; it stipulates that "[i]ncorproation and duties of committees are subject to the specific circumstances and the size of the Company" and then lists a number of committees (among them the audit committee and personnel committee, responsible for succession planning with regard to the management board and compensation of the management board members) that "could be instituted".

[223] The code merely provides that "[t]he establishment of an Internal Audit Committee *should be encouraged*" (emphasis by author).

[224] The Act on Business Associations of 2006 requires the establishment of an audit committee composed of three independent members of the board of directors or the supervisory board, as applicable, s. 311. The provision is reproduced on p. 47 of the 2012 Code. The corporate governance code does not add anything to these requirements that would be of relevance for our purposes. For this reason, the coding of CON considers only the other two committees. The variable is calculated by taking the mean of the two elements.

[225] See n 224 above.

[226] See n 224 above.

[227] The code recommends that a nomination committee is set up (thus triggering the comply-or-explain principle) (provision 3.3.1), but it only "suggests" that a majority of the members of the nomination committee shall be independent (provision 3.3.4). Suggestions constitute a weaker mechanism than regulations, see n 202 above. Therefore, the value for CON(a)(ii) remains unadjusted (i.e. the full value of 0.5 is assigned), but the value for CON(a)(i) is adjusted by 50% (a value of 0.25 is assigned), resulting in an overall adjustment of 75% for CON(a).

[228] Same as n 227 above.

[229] Same as n 227 above.

2006	(a): 1; (b): 1; (c): 1	50 for (a)[232]	(0.5+1+1)/3 =0.83	Nomination: 6.P.2 ; audit: 8.P.4; remuneration: 7.P.3
2002	(a): 0.5; (b): 1; (c): 0.5	50 for (a)[233]	(0.25+1+0.5) /3=0.58	Nomination: 7.2 ; audit: 10.1; remuneration: 8.1
1999	(a): 0.5; (b): 0.5; (c): 0.5	50 for (a)[234]	(0.25+0.5+ 0.5)/3=0.42	Nomination: 7.2 ; audit: 10.1; remuneration: 8.1
Luxemb.				
2009	(a): 0.5; (b): 0.5; (c): 0.5[235]	100	0.5	Nomination: 4.2-4.6; audit: 9.1-9.13; remuneration: 8.1-8.7
2006	(a): 0.5;[236] (b): 0.5;[237] (c): 0.5[238]	100	0.5	Nomination: 4.2-4.6; audit: 9.1-9.13; remuneration: 8.1-8.7
Malta				
2005	(a): 0.5; (b): 0; (c): 1	100 for (a) and (c)	(0.5+1)/3=0.5	Nomination: -; audit: 9; remuneration: 10
2001	(a): 0.5; (b): 0.5; (c): 1[239]	50 for (a), 75 for (b) and (c)[240]	(0.25+0.375+ 0.75)/3=0.46	Nomination: 2.10; audit: 6; remuneration: 8

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[230] This value refers to the control and risk committee because the board of statutory auditors, which performs some of the functions of a traditional audit committee, has to be established pursuant to the Civil Code. The external auditor is appointed by shareholder resolution upon a proposal by the board of auditors (Art. 13 of Legislative Decree 27 January 2010, no. 39). See also Mads Andenas and Frank Wooldridge, *European Comparative Company Law* (CUP 2009), pp. 324-330.

[231] I apply an adjustment because the committee structure is not binding. However, pursuant to Code Provision 4.C.2, the board is only entitled to refrain from establishing one of the three committees if at least half of the board members are independent directors and the board describes the reasons for not forming one or more committees in detail in the corporate governance report. In light of these restrictions, an adjustment of less than 50 percent seems to be appropriate.

[232] The Code does not require the establishment of a nomination committee, but if such a committee is established, it should be composed of a majority of independent directors. Accordingly, I treat this code provision similar to those analysed above n 215, 216.

[233] The Code does not require the establishment of a nomination committee, but if such a committee is established, it should be composed of a majority of non-executive directors. Accordingly, I treat this code provision in the same way as those analysed above n 215, 216.

[234] Same as n 233 above.

[235] The binding recommendations require the three committees to be composed of a majority or exclusively of non-executive directors, including "a sufficient number of independent directors" (code provisions 4.3, 8.6, 9.3). See also n 236 below.

[236] The rule that the nomination committee should be composed of a majority of independent directors is only contained in a non-binding guideline, see Code Provision 4.3. The "comply or explain" principle does not apply to guidelines (Code of 2006, p. 7).

[237] Same as n 236.

[238] Same as n 236.

[239] The code requires a majority of the members of the nomination and audit committees to be non-executive directors (Code Provisions 2.10, 6.1), but they do not need to be independent. The remuneration committee, on the other hand, "should be composed of a majority of independent non-executive Directors with no personal financial interest other than as shareholders in the Company" (Code Provision 8.2).

[240] The code does not require the establishment of a nomination committee unambiguously. Code Provision 2.10 merely provides that "the use of Nomination Committees is encouraged." The Code is also ambiguous with respect to the other two committees, but it makes it clear that the establishment of such committees is expected. *See* Code Provision 6.1: "It is good practice for the Board to create and maintain an Audit Committee . . .". Code Provision 8.1 begins with the vague statement that "[t]he use of Remuneration Committees by Listed Companies is to be *positively considered*." But it continues more strongly by requiring that "Boards of Directors *should establish* Remuneration Committees"

Netherl.				
2008	(a): 1; (b): 1; (c): 1	100[242]	1	III.5
2003	(a): 1; (b): 1; (c): 1	100[243]	1	III.5
1997	(a): 0; (b): 0; (c): 0[241]	-	0	3.2
Norway				
2012	(a): 1; (b): 1; (c): 1	100[244]	1	Nomination: 7; audit: 9; remuneration: 9
2011	(a): 1; (b): 1; (c): 1	100[245]	1	Nomination: 7; audit: 9; remuneration: 9
2010	(a): 1; (b): 1; (c): 1	100[246]	1	Nomination: 7; audit: 9; remuneration: 9
2009	(a): 1; (b): 1; (c): 1	100[247]	1	Nomination: 7; audit: 9; remuneration: 9
2007	(a): 1; (b): 1; (c): 1	75 for (b) and (c)[248]	(1+0.75+ 0.75)/3=0.83	Nomination: 7; audit: 9; remuneration: 9
2006	(a): 1; (b): 1; (c): 1	75 for (b) and (c)[249]	(1+0.75+ 0.75)/3=0.83	Nomination: 7; audit: 9; remuneration: 9
2005	(a): 1; (b): 1; (c): 1	75 for (b) and (c) [250]	(1+0.75+ 0.75)/3=0.83	Nomination: 7; audit: 9; remuneration: 9
2004	(a): 1; (b):	75 for (b)	(1+0.75+	Nomination: 7; audit: 9; remuneration: 9

(emphases by author). Therefore, I apply an adjustment factor of 75 percent regarding the latter two committees.

[241] The code merely states that the supervisory board "considers whether to appoint from its midst a selection and nomination committee, an audit committee and a remuneration committee" and that the board's decisions "*can* be prepared" by these committees (emphasis by author). These are neutral statements without any normative implications.

[242] The requirement to establish the three committees is only mandatory if the supervisory board consists of more than four members. Since this is often the case, and the code applies most of the provisions that regulate the best practice of committees to the supervisory board if it does not establish one or more committees, it is appropriate not to adjust the value of 1.

[243] See n 242 above.

[244] The Public Companies Act requires large companies to set up an audit committee. In smaller companies, the entire board of directors may act as the company's audit committee. The corporate governance code does not require smaller companies to establish an audit committee either, but merely states that such companies "should give consideration to establishing an audit committee." Likewise, the code is non-committal with regard to the remuneration committee. It provides that the board of directors "should also consider appointing a remuneration committee". On the other hand, in Norwegian companies the board of directors often does not contain any executive directors. If it does, the corporate governance code is stricter. Code Provision 8 states that the board should employ the use of committees, and the commentary to Code Provision 9 requires that "[i]f any member of the executive personnel is a member of the board, an audit committee and a remuneration committee should be established in order to ensure the greatest possible independence for the board's deliberations". Therefore, no adjustment is performed.

[245] Same as n 244 above.

[246] Same as n 244 above.

[247] Same as n 244 above.

[248] Similar considerations as in n 244 apply. Code Provision 9 stipulates that the board "should consider appointing board committees". Code Provision 8 requires the use of board committees where the board includes executive directors. However, the 2007 code is more lenient than the one from 2012 in only requiring the establishment of audit and remuneration committees where the *chief executive* is a member of the board (the 2012 code speaks of "any member of the executive personnel"). Therefore, I adjust by 75 percent for the audit and remuneration committees.

[249] Same as n 248 above.

[250] Same as n 248 above.

	1; (c): 1	and (c) [251]	0.75)/3=0.83	
Poland				
2012	(a): 0; (b): - [252]; (c): 0	-	0	III.8
2010	(a): 0; (b): - [253]; (c): 0	-	0	III.8
2007	(a): 0; (b): 0.5; (c): 0 [254]	100	0.5/3=0.17	Audit: III.7; other committees: III.8
2004	(a): 0; (b): 1; (c): 1	50 for (b) and (c) [255]	(0.5+0.5)/3 =0.33	Audit and remuneration: 20(c)
2002G	(a): 0; (b): 0.5; (c): 0	50 for (b) [256]	0.25/3=0.08	Audit: VII
2002C	(a): 0; (b): 0.5; (c): 0.5	50 for (b) and (c) [257]	(0.25+0.25)/3 =0.17	Audit and remuneration: 20(c)
Portugal				
2010	(a): 0.5; (b): - [258]; (c): 1	100	(0.5+1)/2 =0.75	II.5

[251] Same as n 248 above.

[252] In implementing Art. 41(1) of Directive 2006/43/EC, mandatory legislation requires since 2009 that Polish listed companies establish an audit committee with at least three members, at least one of who shall be independent, see D. Dobija, 'Exploring audit committee practices: oversight of financial reporting and external auditors in Poland' (2013) *Journal of Management & Governance* 8-9. For this reason, provision III.7 from the 2007 Code has been deleted in the subsequent codes. Thus, the absence of any regulation on audit committees is irrelevant for an assessment of the character of the code, and the variable CON is consequently computed by calculating the mean of the other two elements. For an interpretation of provision III.8 referring to other board committees see n 254 below.

[253] See n 252 above.

[254] Code provisions III.7 and III.8 are ambivalent. III.7 requires the supervisory board to "establish at least an audit committee", which "should include at least one member independent of the company and entities with significant connections with the company". III.8 refers, as far as the committees' "tasks and [their] operation" are concerned, to Commission Recommendation 2005/162/EC. This presumably means that only an audit committee must be established, but that if the board decides to establish other committees, the provisions of the Commission Recommendation referring to the role and operation of the respective committee apply (Annex I, 2.2, 2.3, 3.2, 3.3, 4.2, 4.3 of the Recommendation). The provisions that require nomination, audit, and remuneration committees to be established and that determine their composition (Annex I, 2.1, 3.1, 4.1 of the Recommendation), on the other hand, do not apply.

[255] The code does *not* require the establishment of an audit or remuneration committee. However, it requires for some decisions that would fall within the remit of these committees "the consent of the majority of independent supervisory board members" (Code Provision 20(c)). This is comparable to the provision of the 2002C Code (see n 257 below), with the difference that the *majority* of independent members must approve the resolution. I assign the value of 1, adjusted by 50 percent, to take account of the fact that the independent element on the board has effectively a veto right, even though an independent committee does not make the decision.

[256] The code does *not* require the establishment of an audit committee. I did, however, assign the value 0.5, adjusted by a factor of 50 percent, in order to take account of the fact that the code provides that the auditor should be appointed by the supervisory board and that the relevant resolution of the board should require a yes vote of at least two independent board members. This ensures that the independent elements on the board have at least some say in the appointment decision.

[257] The code does *not* require the establishment of an audit or remuneration committee. I did, however, assign the value 0.5 with regard to these two committees, adjusted by a factor of 50 percent, in order to take account of the fact that the code provides that at least one independent member of the supervisory board has to give his/her consent when resolutions are adopted concerning "performances of any kind by the company . . . in favor of members of the management board" (i.e., also the determination of the directors' remuneration) and the appointment of the external auditor (Code Provision 20(c)).

2007	(a): 0; (b): -[259]; (c): 1	100	(0+1)/2=0.5	II.5
2003	(a): 0.5; (b): -[260]; (c): 0.5	50 for all[262]	0.25	IV.11
1999	(a): 0.5; (b): -[261]; (c): 0.5	50 for all[263]	0.25	17
Slovakia				
2008	(a): 1; (b): 1; (c): 1	100	1	Nomination: V.E.4.A; audit: V.E.4.C; remuneration: V.E.4.B
2002	(a): 1; (b): 1; (c): 1	100	1	5.10, Annotations to 1.6
Slovenia				
2009	(a): 0.5; (b): 1; (c): 0.5	75 for (b)[264]	(0.5+0.75 +0.5)/3=0.58	Nomination: 13, Appendix B.3; audit:13, App. B.1; remuneration: 13, App. B.2
2007	(a): 0.5; (b): 1; (c): 0.5	75 for (b)[265]	(0.5+0.75 +0.5)/3=0.58	Nomination: 3.2.2, 3.8; audit: 3.7; remuneration: 3.9
2005	(a): 0.5; (b): 1; (c): 0.5	50 for all plus 75 for (b)[266]	(0.25+0.375+ 0.25)/3=0.29	Nomination: 3.2.2, 3.8; audit: 3.7; remuneration: 3.9
2004	(a): 0.5; (b): 1; (c): 0.5	50 for all plus 75 for (b)[267]	(0.25+0.375+ 0.25)/3=0.29	Nomination: 3.2.2, 3.8; audit: 3.7; remuneration: 3.8
Spain				
2006	(a): 1; (b): 0.5;[268] (c):	100	0.67	II.44-58

[258] In the so-called Latin model, the internal audit functions are performed by the supervisory board, which is separate from the company's management, see n 76 above. For this reason, the Portuguese corporate governance codes do not contain any provisions on the audit committee (if the company opts for the unitary board model, the establishment and composition of the audit committee are also determined by binding company law, *see* Portuguese Commercial Company Act, Art. 423-B). The audit committee is therefore not considered here and the total value of CON is computed by dividing by 2.

[259] See n 258 above.

[260] See n 258 above.

[261] See n 258 above.

[262] The code does not require the establishment of committees unambiguously. It merely provides that "[t]he board is encouraged to set up internal control committees, made up of non-executive administrators, with the power to intervene in relation to all matters which could potentially lead to conflicts of interests, such as the evaluation of corporate structure and governance."

[263] The code does not require the establishment of committees unambiguously. It merely provides that "[t]he board is encouraged to create internal control committees with powers conferred for matters in which there are potential situations of conflict of interests, such as the nomination of directors and managers, the analysis of the remuneration policy and assessment of the corporate structure and governance."

[264] The code does not require a majority of members of the audit committee to be independent, but it establishes some eligibility requirements that are part of the definition of independence in many legal systems (see Appendix B.1: "[t]he majority of the … members of the audit committee are not former members of the company's management board, or if they are at least 5 years have passed since their mandate").

[265] The code does not require a majority of members of the audit committee to be independent, but it establishes some eligibility requirements that are part of the definition of independence in many legal systems (see provision 3.7.3: "[t]he majority of the … committee members should not be composed of former members of the company's management board whose terms of office have expired less than five (5) years before").

[266] The code merely provides that the supervisory board *may* appoint the respective committee. For (b) (audit committee), see n 265 above.

[267] Same as n 266 above.

	0.5			
2004	(a): 1; (b): 1; (c): 0.5	100	(1+1+0.5)/3 =0.83	Nomination: I.8; audit: I.11; remuneration: I.9
2003	(a): 0.5; (b): 0.5; (c): 0.5	100	0.5	Nomination: IV.5.3; audit: IV.5.2; remuneration: IV.5.3
1998	(a): 0.5; (b): 0.5; (c): 0.5	100	0.5	8
Sweden				
2010	(a): 1; (b): 1; (c): 1	100[269]	1	Nomination: III.2; audit: III.7.3; remuneration: III.9
2008	(a): 1; (b): 1; (c): 1	100[270]	1	Nomination: III.2; audit: III.10.1; remuneration: 9.1
2005	(a): 0.5; (b): 1; (c): 1	100[271]	(0.5+1+1)/3 =0.83	Nomination: 2.1; audit: 3.8.2; remuneration: 4.2.1
2001	(a): 0.5; (b): 0.5; (c): 0.5	100	0.5	Nomination: 3.1.1; audit: 5.1; remuneration: 3.1.1,[272] 4.1.2
Switzerl.				
2007	(a): 0.5; (b): 1; (c): 1	75 for (b)[273]	(0.5+0.75 +1)/3=0.75	Nomination: 27; audit: 23; remuneration: 25
2002	(a): 0.5; (b): 1; (c): 1	75 for (b)[274]	(0.5+0.75 +1)/3=0.75	Nomination: 27; audit: 23; remuneration: 25
UK				
2012	(a): 1; (b): 1; (c): 1	100	1	Nomination: B.2.1; audit: C.3.1; remuneration: D.2.1
2010	(a): 1; (b): 1; (c): 1	100	1	Nomination: B.2.1; audit: C.3.1; remuneration: D.2.1
2008	(a): 1; (b): 1; (c): 1	100	1	Nomination: A.4.1; audit: C.3.1; remuneration: B.2.1
2006	(a): 1; (b): 1; (c): 1	100	1	Nomination: A.4.1; audit: C.3.1; remuneration: B.2.1
2003	(a): 1; (b): 1; (c): 1	100	1	Nomination: A.4.1; audit: C.3.1; remuneration: B.2.1
1998	(a): 0.5; (b):	100	(0.5+0.5+1)/3	Nomination: 2.7, 3.19; audit: 2.21, 6.3;

[268] Formation of the audit committee is required by the Securities Market Law (Law 44/2002, 22 November 2002), but composition and remit are explained in the code. The value is 0.5 because the code does not require a majority of the committee's members to be independent directors (however, they must be non-executive directors). The same requirements apply to the remuneration committee.

[269] According to the code, only the establishment of the nomination committee is mandatory. The functions of the audit and remuneration committees may be performed by the whole board (Code Provisions 7.3 (n. 7), 9.2). But since the board consists almost exclusively of non-executive directors (generally only with the exception of the CEO) and the majority of the directors elected by the shareholders (i.e., excluding the employee representatives on the board) must be independent, the usual conflicts on unitary boards that necessitate the committee structure are muted in the case of Swedish companies. In addition, the code provides that if the whole board decides about remuneration, no executive director shall participate in this work, Code Provision 9.2. Therefore, it is justified not to adjust the respective values.

[270] See n 269 above.

[271] See n 269 above.

[272] The nomination committee is expected to deal with questions of remuneration. In addition, the board is required to appoint a remuneration committee responsible for drawing up contracts for the key executives.

[273] The code does not unambiguously require the members of the audit committee to be independent directors. It merely stipulates that the committee "should consist of non-executive, *preferably* independent members of the Board of Directors" (emphasis by author). This means that the provision falls in between the definitions of CON(b)(i) and (ii). Applying an adjustment of 50 percent would not be appropriate because then the provision would be effectively coded as CON(b)(ii).

[274] *See* n 273.

1992	0.5; (c): 1 (a): 0; (b): 0.5; (c): 0.5	100	=0.67 (0.5+0.5)/3 =0.33	remuneration: 2.12, 4.11 Nomination: -; audit: 4.3; remuneration: 3.3
COM 2006	(a): 1; (b): 1; (c): 1	75[275]	0.75	5, Annex I
OECD 2004 1999	 0[276] 0[277]	 - -	 0 0	 VI.E.2, Annotations p. 65 V.E.1, Annotations pp. 24-25

[275] The Recommendation provides that "nomination, remuneration and audit committees should be created within the (supervisory) board" (Sec. 5). Annex I contains further recommendations regarding the remit and composition of the committees, including the recommendation that the committees shall be composed of a majority of independent non-executive directors. However, the Annex is not intended to be conclusive; rather, Sec. 5 stipulates that Member States shall take Annex I "into account" when implementing the Recommendation. Therefore, I apply an adjustment of 50% with regard to the composition of the committees with a majority of independent non-executive directors. The rule requiring the establishment of the committees as such is not adjusted, resulting in an overall adjustment of 75%.

[276] The principles merely provide that "[w]hen committees of the board are established, their mandate, composition and working procedures should be well defined and disclosed by the board" (VI.E.2). The annotations add that "[t]he board may … consider establishing specific committees to consider questions where there is a potential for conflict of interest. These committees may require a minimum number or be composed entirely of non-executive members" (p. 65). These formulations are too vague to warrant a coding other than zero.

[277] The annotations merely provide that "[b]oards may … consider establishing specific committees to consider questions where there is a potential for conflict of interest. These committees may require a minimum number or be composed entirely of non-executive members" (pp. 24-25). These formulations are too vague to warrant a coding other than zero.

Appendix C: Additional tables

Table C.1. Overview board structure

Code	EXD	NO_IND	DEF_IND	SEP	COOL	COM	Total
Austria							
2012		1	0.33		0.5	1	0.708
2009		1	0.33		0.5	1	0.708
2007		0	0.33		0.5	0.5	0.333
2006		0	0.33		0.5	0.5	0.333
2005		0.5	0.2		0	0.5	0.300
2002		0.5	0.2		0	0.5	0.300
Belgium							
2009	1	0.5	1	1	0	1	0.750
2004	1	0.5	0.9	1	0	1	0.733
1998E	0	0	0	0	0	0.08	0.013
1998C	1	0	0.3	0	0	0.5	0.300
Bulgaria							
2012	0	0	0.1	1	0	0	0.183
2007	0	0	0.1	1	0	0.33	0.238
Cyprus							
2012	0.75	1	0.64	0.75	0	0.83	0.662
2009	0.75	1	0.85	0.75	0	0.83	0.697
2006	0.5	1	0.3	0.75	0	0.83	0.563
2002	0.5	1	0.3	0.75	0	0.83	0.563
Denmark							
2011		1	1	1	0	1	0.800
2010		1	1	1	0	1	0.800
2008		1	0.6	0.5	0	0.5	0.520
2005		1	0.6	0.5	0	0.5	0.520
2003		1	0.4	0.5	0	0	0.380
2001		1	0.4	0.5	0	0	0.380
Finland							
2010	1	1	0.7	1	0	1	0.783
2008	1	1	0.7	1	0	1	0.783
2003	1	1	0.5	1	0	0.67	0.695
France							
2011	0.5	0.5	0.7	0.75	0	0.67	0.520
2010M	0.75	0.75	0.425	0	0	1	0.488
2010A	0.5	0.5	0.7	0.75	0	0.67	0.520
2008M	0.75	0.75	0.425	0	0	1	0.488
2008A	0.5	0.5	0.7	0.5	0	0.67	0.478
2004	0.5	0.5	0.7	0.5	0	0.67	0.478
2003	0.75	0.75	0.425	0	0	1	0.488
2002	0.75	0.75	0.425	0	0	0.83	0.459
1999	0.5	0.5	0.3	0	0	0.67	0.328
1998	0.5	0.5	0.45	0.5	0	0.67	0.437
1995	0.5	0.5	0.4			0.5	0.475
Germany							
2012		0	0.33		0.25	0.33	0.228
2010		0	0.33		0.25	0.33	0.228
2009		0	0.33		0.25	0.33	0.228
2008		0	0.33		0.5	0.33	0.290
2007		0	0.33		0.5	0.33	0.290
2006		0	0.33		0.5	0.17	0.250
2005		0	0.33		0.5	0.17	0.250

2003		0	0.33		0	0.17	0.125
2002		0	0.33		0	0.17	0.125
2000B		0	0		0	0.5	0.125
2000		0	0.33		0	0.25	0.145
Greece							
2011	0.75	1	0.8	0.25	0.25	0.83	0.647
2001	0	0	0.1	0	0	0.33	0.072
1999	1	0	0.3	0.5	0	0.25	0.342
Hungary							
2012					0.5	0.875	0.688
2008					0.5	0.875	0.688
2007					0.5	0.875	0.688
2004		1	0.3		0	1	0.575
Italy							
2011	0	0.5	0.4	0.75	0	0.75	0.400
2006	0	0	0.4	0.75	0	0.83	0.330
2002	0	0	0.3	0	0	0.58	0.147
1999	0	0	0.2	0	0	0.42	0.103
Luxemb.							
2009	0	0	0.3	1	0	0.5	0.300
2006	0	0	0.3	1	0	0.5	0.300
Malta							
2005	0.5	1	0.3	1	0	0.5	0.550
2001	0	0	0.3	0.75	0	0.46	0.252
Netherl.							
2008		1	0.7		1	1	0.925
2003		1	0.7		1	1	0.925
1997		0	0.3		0.5	0	0.200
Norway							
2012	1	1	0.7	1	0	1	0.783
2011	1	1	0.7	1	0	1	0.783
2010	1	1	0.7	1	0	1	0.783
2009	1	1	0.7	1	0	1	0.783
2007	1	1	0.7	1	0	0.83	0.755
2006	1	0.5	0.7	1	0	0.83	0.672
2005	1	0.5	0.7	1	0	0.83	0.672
2004	1	0.5	0.7	1	0	0.83	0.672
Poland							
2012		0.5	1		0	0	0.375
2010		0.5	1		0	0	0.375
2007		0.5	1		0	0.17	0.418
2004		0.5	0.5		0	0.33	0.333
2002G		0.5	0.3		0	0.08	0.220
2002C		0.5	0.3		0	0.17	0.243
Portugal							
2010	0.5	0.5	0.5	0.5	0	0.75	0.458
2007	0.5	0.5	0	0.5	0	0.5	0.333
2003	0	0.125	0.1	0	0	0.25	0.079
1999	0	0.125	0.1	0	0	0.25	0.079
Slovakia							
2008		0.5	0.425		0.5	1	0.606
2002		1	0.3		0	1	0.575
Slovenia							
2009		0.5	1		0.5	0.58	0.645
2007		1	0.67		1	0.58	0.813
2005		1	0.67		1	0.29	0.740
2004		1	0.33		0	0.29	0.405
Spain							
2006	1	0.5	0.9	0.25	0	0.67	0.553

2004	0.5	0.75	1	1	0	0.83	0.680
2003	1	0.5	0.3	0	0	0.5	0.383
1998	1	0	0	0	0	0.5	0.250
Sweden							
2010	1	1	0.64	1	0	1	0.773
2008	1	1		1	0	1	0.800
2005	1	1	0.95	1	0	0.83	0.797
2001	1	1	0	1	0.5	0.5	0.667
Switzerl.							
2007	1	0	0.3	0	0	0.75	0.342
2002	1	0	0.3	0	0	0.75	0.342
UK							
2012	0.75	1	0.75	1	1	1	0.917
2010	0.75	1	0.75	1	1	1	0.917
2008	0.75	1	0.75	1	1	1	0.917
2006	0.75	1	0.75	1	1	1	0.917
2003	0.75	1	0.75	1	1	1	0.917
1998	0.5	1	0.3	0.75	0	0.67	0.537
1992	0	1	0.3	0	0	0.33	0.272
COM							
2006	0	0	0.475	0.5	0	0.75	0.288
OECD							
2004	0	0	0.15	0.5	0	0	0.108
1999	0	0	0.15	0	0	0	0.025

Table C.2. Country dummies

The Table reports the allocation of countries to legal families and the coding of the legal and ownership dummy variables. “Unitary board” is 1 if the country’s company law provides for a unitary, one-tier board model; “Employee representation” is 1 if the country’s company law requires at least one employee representative at board level; “Concentrated ownership structure” is 1 if corporate ownership structure is characterised by large blockholders.

Country	Legal family	Unitary board	Employee representation	Concentrated ownership structure
Austria	German	0	1	1
Belgium	French	1	0	0
Bulgaria	French	1	0	1
Cyprus	Common law	1	0	1
Denmark	Scandinavian	1	1	0
Finland	Scandinavian	1	1	0
France	French	1	0	1
Germany	German	0	1	1
Greece	German	1	0	1
Hungary	German	0	1	0
Italy	French	1	0	1
Luxembourg	French	1	1	1
Malta	Common law	1	0	1
Netherlands	French	0	0	0
Norway	Scandinavian	1	1	0
Poland	German	0	0	0
Portugal	German	1	0	1
Slovakia	German	0	1	1
Slovenia	German	0	1	1
Spain	French	1	0	0
Sweden	Scandinavian	1	1	0
Switzerland	German	1	0	1
UK	Common law	1	0	0

Table C.3. Multivariate hazards model: innovation

The table reports estimation results of a Cox proportional hazards model, using Efron's approximation for ties. Event is a code amendment that results in a regulatory innovation, i.e. an increase in the value of the regulatory variable for 'Non-executive directors' (equations (1)-(3)), 'Number independent directors' (equations (4)-(6)), 'Definition of independence' (equations (7)-(9)), 'Separation chairman/CEO' (equations (10)-(12)), and 'Board committees' (equations (13)-(15)), compared to the previous code adopted by the same issuer. Standard errors are clustered on issuer level.

Predictors	Event: regulatory innovation														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Diffusion non-executive directors	1.071 (0.37)	1.250 (0.91)	0.874 (-0.65)												
Diffusion no. independent directors				1.894*** (2.88)	2.193*** (3.42)	1.725** (2.12)									
Diffusion definition of independence							1.372* (1.76)	1.460* (1.92)	1.332 (1.54)						
Diffusion separation chairman/CEO										1.847** (2.14)	1.861** (2.05)	1.642* (1.76)			
Diffusion committee structure													1.223*** (2.99)	1.270*** (3.10)	1.230*** (2.79)
Diffusion^2	0.981 (-1.06)	0.968 (-1.57)	0.995 (-0.26)	0.953*** (-2.65)	0.947*** (-3.22)	0.958** (-2.22)	0.934** (-2.28)	0.932** (-2.37)	0.936** (-2.29)	0.953** (-2.19)	0.953** (-2.29)	0.963* (-1.70)	0.984*** (-3.77)	0.982*** (-3.64)	0.983*** (-3.54)
Ownership		0.0676			0.183			0.844			0.293			0.904	

foreign		(-1.52)			(-1.50)			(-0.15)			(-0.90)			(-0.14)	
Ownership financial institutions		0.151 (-0.79)			7.689 (0.96)			1.638 (0.48)			0.250 (-0.64)			1.966 (0.68)	
Concentrated ownership structure		0.461 (-1.29)			0.420** (-2.00)			0.663** (-1.99)			0.743 (-1.22)			0.927 (-0.27)	
Legal origins German			1.338 (0.51)			0.467* (-1.78)			1.070 (0.22)			0.438 (-1.28)			0.670 (-1.51)
Legal origins French			0.653 (-0.73)			0.424* (-1.86)			0.925 (-0.32)			0.678 (-1.04)			1.004 (0.01)
Legal origins Scandinavian			4.529** (2.06)			1.855 (1.57)			1.414 (0.93)			1.172 (0.35)			1.630 (1.57)
-2LL	77.66	73.34	73.06	138.04	122.32	132.74	239.6	222.2	239	85.52	79.52	83.54	242	225.8	238
N obs.	145	142	145	200	195	200	270	264	270	136	133	136	241	236	241
N events	17	17	17	26	25	26	42	40	42	20	19	20	43	41	43

*** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent level.
The table reports hazard ratios, t-statistics are in parentheses.