

Corporate Governance Ratings in Europe: The Role of Country and Industry Factors

Pedro Verga Matos*

Ana Paula Serra**

January 2009

**Instituto Superior de Economia e Gestão, Universidade Técnica de Lisboa*

pvmatos@iseg.utl.pt

*** (corresponding author) Faculdade de Economia da Universidade do Porto and CEMPRE*

aserra@fep.up.pt

Abstract

This paper analyses the role of country and industry factors in firm-level governance ratings. We analyze country and industry corporate governance ratings for a sample of 300 European firms included in the FTSE Eurofirst 300 over the period 2000-2003 after removing the effects (and changes over time) of the industrial and geographical structure. Consistent with previous studies, we find that country factors drive firm-level governance ratings.

JEL classification: F30; G15; G34

Keywords: Corporate governance; Ratings; Financial globalization

1. Introduction

The governance rating of a particular company is driven by idiosyncratic features as well as common country-level effects associated with its home country corporate governance (CG) rating. Most studies find that the most important factors in individual firms' governance ratings are country-related. In other words, any company in a given country is somehow harmed or helped by the aspects of governance of the country to which it belongs, such as regulatory quality, government effectiveness, political stability or rule of law. Doidge, Karolyi and Stulz (2007) show that country characteristics, such as economic and financial development, are important determinants of firm-level governance ratings.¹ Bushman, Piotroski and Smith (2004) highlight the role of political and cultural factors while Stulz and Williamson (2003) mention state protection of investors' rights and accounting standards.

Yet, unlike credit ratings (such as Standard & Poor's, Moody's or Fitch IBCA ratings), individual company governance ratings can be well above the respective sovereign rating. Coffee (2002), for example, mentions that there are several actions that a company may take to overcome its home country CG rating. For example, a company may cross-list its shares in countries with strong corporate governance regimes, bonding itself to better investor protection and tighter requirements in terms of disclosure or accounting standards. By cross-listing, a company commits itself to adopting higher corporate governance rules than those prevailing in their home-country, or required by the regulatory bodies of the stock exchange where it has primarily listed its shares. To achieve higher CG scores a company can alternatively have its financial statements audited by international firms, appoint independent financial experts to its auditing committee, submit itself to the monitoring of an independent rating agency or make its officers liable for fraud.

¹ Further, after controlling for country dummies, the authors find that firm characteristics such as investment opportunities, asset size and ownership account for a very small fraction of the variance of governance ratings.

Financial globalization may as well reduce the importance of country determinants (Doige, Karolyi and Stulz, 2007). In fact, managers in global industries may have to path their own way to improve the firm's rating and overcome home country limitations. Firms in global industries may find it is too costly to keep their governance standards low, given that low transparency and weak minority shareholder protection hinders institutional (foreign) ownership, limits external financing and ultimately deter growth.² The need to implement *best practices* may be also dictated by general corporate efficiency arguments: enhanced corporate governance may impact a firm's competitive position in product and credit markets. Ultimately, a firm may establish higher CG standards to signal that it adds, or it has potential to add, shareholders' value (Mallin, 2004). In the end, whether a firm adopts or not stricter governance practices, reflects the balance between the benefits and costs of implementing those mechanisms (Maher and Andersson, 1999).³

One could also argue that spillover effects may arise across companies within a country. If listed companies, in particular, in industries such as *Financial Services* or *Utilities* voluntarily commit to better CG rules or follow the recommendations issued by stock exchanges and regulators, other companies may voluntarily follow them and encourage governance reform, and recommendations may become mandatory.⁴ Yet, while governance new rules can be an important step forward, legislation may be ineffective in changing the existing country governance real system that is closely tied to cultural, legal and economic and institutional historical aspects.

² Take, for example, the case of social responsible mutual funds that track indices such as FTSE4Good. To be an eligible constituent, a company has to meet a rating standard defined by the index provider. For example, DEMINOR Rating Standard "constitutes the most up-to-date market accepted best practice" (DEMINOR, 2003). A report by McKinsey (2002) refers that 15% of European institutional investors mention that they rate corporate governance aspects above financial aspects such as profitability or growth. Many institutional investors use ratings as a screening device to exclude companies that do not comply with good CG practices.

³ Doidge, Karolyi and Stulz (2007) construct a model where firms choose the CG mechanisms to implement for a given level of country of protection and transaction costs of raising funds. They show that, firms operating in a low-rated CG country, may find it useless to implement firm-level governance mechanisms if financial development is too low. Globalization affects financial development and allows firms to access more liable contracts, creating incentives for a firm to implement its own CG mechanisms on top of (limited) state-level governance practices.

⁴ Yet, as Cuevo (2002) refers, nominal compliance ("box ticking" approach to corporate governance) does not warrant good corporate governance practices.

If we proxy country governance using the average scores of the rated companies in a particular country, we may obtain a biased measure of that country underlying CG structure or practices. In fact, the majority of ratings are for large listed companies, and consequently, the average reflects merely those firms' practices. This phenomenon may be aggravated if a value-weighted average instead of an equally weighted average is used. Take, for example the case of a stock market index that is highly concentrated in a few large stocks that belong to the same industry or that are multinationals or cross-listed stocks. If we measure a country rating on the basis of the (value-weighted) average CG rating, our measure would be biased reflecting the average rating for a subset of companies in that country that may eventually have overtaken its home country (true) rating.⁵ One may argue that some or may be all of the underlying features of the stock exchange index structure (such as the weight of large firms) are endogenous, in the sense that their prevalence is related with the aspects of governance in that country.⁶ If that is the case, the fact that a country is primarily home for multinationals or global companies may be a direct or indirect consequence of the political, cultural and legal environment therein.

Thus international comparisons may yield different ranks depending on whether we proxy a country CG rating with the average of the constituents CG ratings of a particular country or we rely on, for example, country-level governance indicators of commercial risk rating agencies or business information providers. For example EIU – Economist Intelligence Unit - or PRS – Political Risk Services - base their assessments on experts with broad business experience in the country they are rating.⁷

⁵ Similarly, the average CG rating may reflect the bad rating of one of its main constituent firms.

⁶ The majority of the rating institutions concentrate solely on large listed firms represented in the leading stock market index. Especially in countries whose stock markets have recently emerged, the firms that make up the stock market index do not necessarily mirror the industrial structure of that country.

⁷ Several organizations compile information and publish country-level indicators of governance. World Bank Governance Ratings (WGI – Worldwide Governance Indicators) aggregate information on several hundred variables drawn from 33 separate data sources by 30 different organizations (survey institutes, think tanks, non-governmental organizations, and international organizations). WGI are available on an annual basis since 2002 and refer to six dimensions of governance: 1) Voice and Accountability; 2) Political Stability and Absence of Violence; 3) Government Effectiveness; 4) Regulatory Quality; 5) Rule of Law and 6) Control of Corruption. Please refer to Kaufmann, Kraay and Mastruzzi (2007) for more detailed information on these indicators.

A similar argument could be made in relation to industry affiliation: if we want to unveil international differences in CG practices across industries, we may get a distorted picture if we compare the averages of the CG ratings of its constituent companies. Further, on a global basis, individual firm scores computed relative to that proxy may be misleading. For example, FTSE ISS (Institutional Shareholder Services) computes a Corporate Governance Quotient (CGQ) that evaluates the governance structure and practices of a particular company in absolute and relative terms to the global industry where it belongs. The relative rating varies from 1 to 5 where 1 indicates that the company is included in the bottom quartile while 5 denotes a company that is among the top 20% companies. While the analysis at a country level is acceptable, if we turn to international indices, this kind of comparison or rank may be biased by the geographical structure of a particular industry. For example, if we take an industry such as *Financials* where large U.S. banks dominate, within industry CG rating averages may be contaminated by those large weights and reflect the CG rating in the US. Cross-industry comparisons could be thus misleading, and while some industries may truly have superior CG performance, the comparison of (within) industry (average) ratings will not reflect that.

Ultimately, whether the average of individual companies governance ratings is, or not, a good proxy for the governance of a country or an industry is an empirical issue. This paper contributes to the literature on corporate governance ratings by constructing more rigorous measures of country and industry-level ratings. To obtain the “pure” country and industry ratings we use the procedure suggested by Suits (1984) and Kennedy (1986). We perform the analysis using DEMINOR CG firm-level composite ratings and its 4 components, for a sample of 300 European firms over the period 2000-2003. Consistent with previous studies, we find that country factors drive corporate governance ratings.

This study is important because it provides further evidence on the importance of country characteristics on firm-level governance ratings based on a different dataset of

European corporate governance ratings. While the importance of country-level factors has been extensively studied and established, previous studies have not dealt explicitly with underlying effects of the industrial and geographical structure (and changes over time) respectively in country and industry CG ratings. We remove these effects and estimate new uncontaminated ratings that give us a more reliable picture of the differences in systems of corporate governance across countries or industries.

We find that country-specific effects are very significant and are the most important factors driving firm-level governance rating compared with industry-specific effects that have a much smaller magnitude and significance. As such, cross-country variation in ratings remains significant and rank positions are unaltered after accounting for the industrial affiliation of the constituents, while much of the cross-industry variation in raw industry ratings is explained by the differential geographical exposures of industry components.

The paper proceeds as follows. Section 2 describes the ratings and provides a brief overview of the methodology. In Section 3 we present the results and discuss our main findings. Section 4 concludes.

2. Data, Sample and Methodology

2.1 Ratings: Data Sources and Overview

Following the Enron's collapse in 2001, investors' confidence in public information such as audited financial statements or securities analysts was deeply undermined. Corporate governance ratings emerged as a way to meet the requirement for a different approach to assess a firm's trustworthiness and the need for non-financial information in particular on corporate governance standards.⁸ Unlike credit ratings, corporate governance ratings are unsolicited and do not involve any contractual relationship. Rating institutions may in theory conduct their evaluation independently. As such CG ratings may be perceived as

⁸ Corporate governance ratings can also be useful tools for governments promoting their countries for foreign investment compared to other countries in the region (Mallin, 2004).

reliable signals of the quality of the companies: not only they are associated with more information disclosure but they provide a certification of the trustworthiness of that information (Schäfer *et al.*, 2006).

Evaluating governance at a firm-level involves dealing with objective information on a firm's internal codes and guidelines as well as assessing how effectively a company respects the interests of its stakeholders. CG ratings are supposedly valid indicators of good or bad governance but it is well recognized that the complexity of information makes it very hard to produce a quantitative evaluation of firm-level governance (Dallas 2004a, Dallas and Patel, 2004).

Previous studies use several alternative firm-level ratings.⁹ These are from well-known corporate rating agencies such as Credit Lyonnais Securities Asia (CLSA), Standard & Poor's, FTSE ISS (Institutional Shareholdings Services), Governance Metrics International (GMI) and TLC- The Corporate Library, or are constructed by the authors themselves for the purpose of the research.^{10,11}

[INSERT TABLE 1 HERE]

Table 1 compares the main features of our dataset with the datasets used in Doidge *et al.*, 2007). Please refer to Doidge *et al.* (2007) and the references therein for a more detailed discussion and for the list of the papers that have used each of these datasets.

DEMINOR ratings are based on the analysis of over 300 items collected from publicly available information (corporate reports, general meetings records, regulatory filings, information published on websites or company-related news, analyst reports, etc.).

The relevant items are then summarized in 4 categories (or components):

⁹ Examples are Gompers, Ishii and Metrick (2003), Bauer, Günster and Otten (2003), Khanna, Kogan and Palepu (2006), and Doidge, Karolyi and Stulz (2007).

¹⁰ Some institutions specialize on CSR (Corporate Social Responsibility) or Sustainable Development ratings. These are Innovest, Kinder Lydenberg and Domini, Core Ratings and Sustainable Asset Management. These are the main sources used by the index providers to choose the constituents of the FTSE4Good, Dow Jones Sustainability and KLD Domini 400 Social indices. Schäfer, Beer, Zenker and Fernandes (2006) provide an extensive survey of the internationally established systems measuring Corporate Responsibility.

¹¹ Some of these ratings have been computed for a single date and were therefore discontinued. This is the case of CLSA ratings. Others, like S&P have changed the scope of their indices, focusing more on a particular set of countries (emerging/developed) or countries in a particular region (Eastern Europe).

- I) rights and duties of shareholders;
- II) range of takeover defenses;
- III) disclosure on corporate governance;
- IV) board structure and functioning.

DEMINOR provides ratings for each of these individual categories and computes as well a composite index by giving equal weights to the 4 categories. Scores for each category on the corporate governance ratings vary from 1 to 5. Accordingly, the composite rating varies from 4 to 20.

DEMINOR covers the 300 constituents stocks of FTSE Eurofirst 300. FTSE Eurofirst 300, computed by the FTSE Group, a joint venture between the Financial Times and London Stock Exchange, includes the largest 300 listed companies in Europe in terms of market capitalization.¹²

Over the period between 2000 and 2003, for the stocks that had information regarding the 4 individual rating categories, DEMINOR coverage varies between 252 and 283 stocks of 17 countries.¹³ While most countries are well represented in terms of constituents, other (Austria, Finland, Greece, Luxembourg, Norway and Portugal) have very few constituents (between 1 and 6 constituents).

Table 2 presents the descriptive statistics of the composite CG ratings. The figures are cross-sectional averages.

[INSERT TABLE 2 HERE]

Preliminary analysis shows that:

- in 2003, the grand mean (median) across countries was 13.45 (14.00) up from 11.44 (11.00) in 2000. Overall we observe thus an improvement in firm-level ratings. In

¹² “The constituents of the FTSE 200 are allocated to industry sub-sectors by a dedicated committee of practitioners. These sub-sectors combine to form industry sectors and economic groups. A company will be allocated to that sub-sector of the Industry Classification System whose definition most closely fits the source of profit. The Industry Classification Committee has discretion to classify companies on the basis of either the immediate end use of the product or the industrial process used” (DEMINOR, 2003).

¹³ These are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

effect, while in 2000, there were 97 stocks (37.5%) with a rating of less than 10, in 2003, only 49 stocks (17.3%) observed such rating levels. In 2003 there were 83 (29.3%) top-rated stocks (with a composite rating of more than 16) against 45 in 2000 (17.9%). In 2003 the standard deviation was 3.72 against 4.21 in 2000. When we look at the transition statistics, we observe that firm-level ratings are fairly constant over time: around one third of the companies kept their rating over the 4-year period and between 60% and 70% observed a change in their rating of only 1 score point (above or below);¹⁴

- country averages ranged between 7.25 (Portugal) and 18.00 (UK) in 2003 (between 4.00, for Luxembourg, and 18.25, for Ireland, in 2000). Cross-country standard deviation decreased over time (2.89 in 2003 against 3.87 in 2000). When we rank the countries according to their average CG ratings, there is not much time-variation in the ranks and the top two and bottom two rated countries are the same in 2000 and 2003 (respectively UK and Ireland, and Luxembourg and Portugal);

- on a country basis, there is a substantial variation in firm-level scores. In 2003 the standard deviation in ratings ranged between 0.84 in Ireland (0.96 in 2000) and 3.59 (2.81 in 2000) in Switzerland. Over time, the variation within country does not seem to monotonically decrease;

- the average rating for Anglo-Saxon countries (17.45 in 2003) is well above that observed for Continental stocks (11.61) and this difference has not changed much over the 4-year period (16.29 vs. 9.30 in 2000). Within-group variation in ratings is much lower in the first group of countries;

- overall, the described picture and trends are similar when we look at each of the 4 components of the ratings (please refer to table A1 in appendix). There are a few distinctive features. First, we observe that 82.3% of the countries perform badly in terms of *takeover defenses* (against only 37.5% of “bad” scores in terms of the composite rating);

¹⁴ These results are not tabulated here but are available upon request.

second, while the general trend over the 4-year period is an increase in ratings, the scores observed for *take-over defenses* deteriorate; third, in terms of ranks, unlike for the composite ranking, there is some time-variation in individual categories. In particular, some bottom-rated countries succeeded in improving their scores in terms of *information disclosure* and *board functioning*.¹⁵

While several authors have stressed the importance of legal origins in corporate governance practices (for example, La Porta, Lopez-De-Silanes and A. Shleifer, 1998), our focus in this paper is to examine the role of a wider array of country (including the legal system) and industry characteristics in explaining firm-level governance ratings.¹⁶

We use parametric (one-way Anova) and non-parametric (Kruskal-Wallis) tests to evaluate the significance of the annual differences in ratings across countries. We analyze the differences in ratings for the composite and the 4-individual rating categories. Our results show statistically significant differences (at the 1% level) in ratings across countries every year in sample and for any of the ratings analyzed. We run Games-Howell tests to evaluate the significance of differences in paired-means. Our results show that for either the UK or Ireland average ratings are consistently higher than those observed for the other European countries. To evaluate further this relation, we test the significance of differences in ratings between two-subgroups of countries: Anglo-Saxon and Continental countries (some times denominated as common law and civil law countries, on the basis of their broad legal origin), using difference *t*-tests. The differences between the two groups are

¹⁵ These preliminary results highlight that it is important to compare the differences in results between the composite and the subcomponent ratings and are in line with Doidge *et al.* (2007) that mention that “additional analysis of components of the ratings would be worthwhile”. More or less firm-level (and even time-series) variation for specific subcomponents ratings could be associated with the character of each CG feature (easy or hard to implement, chosen by firms or imposed by CG codes to all companies).

¹⁶ Doidge *et al.* (2007) evaluate the role of firm characteristics and country-level variables in explaining CG firm-level ratings. They find that country dummy variables explain 51.72% and 48.12% of the variance in firm-level ratings, respectively, in high and low economic development countries. When they evaluate the role of explicit country-level variables (investor protection – measured by an index of the legal system -, income - given by GDP per capita - and financial development – measured by stock market capitalization), any of these variables seems to be able to capture only a small fraction of the country characteristics and their economic and statistical significance depends on the sub-samples of firms analyzed. As for firm characteristics, these seem to matter more for firms from less-developed countries that have access to global markets.

statistically significant (at the 1% level) for every year, for the composite and the sub-categories ratings analyzed.

We plot the DEMINOR average corporate governance ratings, in 2000 and 2003, against the scores of EIU – Economist Intelligence Unit - and PRS – Political Risk Services - that are two commercial business information providers among the several organizations that feed the World Bank governance indicators.¹⁷ EIU and PRS scores reflect expert assessments of the business and political environment in a country. Experts are “correspondents with extended experience in countries they rate”.¹⁸ These organizations appraise several items of governance but for the purpose of comparison with DEMINOR corporate governance ratings, we elect the closer dimension to CG practices: *Rule of Law*.¹⁹

[INSERT FIGURE 1 HERE]

The plots in Figure 1 are inconclusive. While EIU and PRS scores are positively correlated (correlation coefficient of 0.79 and 0.83, respectively in 2000 and 2003), the correlation between these scores and DEMINOR average corporate governance ratings is not significant in 2000, and is positive but low in 2003 (correlation coefficient of 0.19 and 0.34 respectively with EIU and PRS scores). This preliminary analysis does not thus provide support to using DEMINOR average CG ratings as estimates of the general quality of governance in a country in aspects such as the *Rule of Law*.

2.2 Sample

¹⁷ Please refer to footnote 6.

¹⁸ Please refer to Kaufmann, Kraay and Mastruzzi (2007). EIU scores are from *Country Risk Services and Country Forecasts* quarterly information. In 2006 the coverage included more than 150 countries (120 in 2000). PRS scores are from *International Country Risk Guides*. These are monthly reports covering 140 countries since 1994.

¹⁹ *Rule of Law* is evaluated by EIU upon the assessment of conditions such as *Enforceability of Contracts*, *Speedness of Judicial Process*, *Confiscation /Expropriation* or *Private Property Protection*. PSR surveys conditions related with the strength and impartiality of the legal system.

Our sample includes a subset of the ratings described above. We kept those stocks for which there was an industry classification. Our sample comprises between 237 and 278 stocks of 17 countries and 8 industries.²⁰ Table 3 below presents the descriptive statistics of the composite ratings for the sample constituents. We show averages and ranks for each country and industry, as well as the variation in average ratings across countries and industries, over the period between 2000 and 2003. Table A.2 in appendix shows the same information for each of the 4 rating subcomponents.

[INSERT TABLE 3 HERE]

Table 3 panel A shows the averages ratings across countries. The statistics for the sample are in line with those reported in table 2 for the entire universe of ratings. The global average rating increased as well as all country averages (except for Ireland the top rated country that decrease slightly but kept the lead). Standard deviation between countries was 2.88 in 2003 against 3.90 in 2000. The top and bottom rated countries are the same in 200 and 2003 (respectively, Ireland and the UK, and Portugal and Luxembourg) and the most notorious upgrade (downgrade) was Switzerland (Germany) that jumped from the 12th to the 6th position (and vice-versa).

As for the subcomponent ratings (table A.2 in appendix), the top-rated countries are the same. As regards the bottom rated, Denmark is the laggard (together with Luxembourg and Portugal) for Rights and Duties of Shareholders and Takeover Defenses, and Austria and Greece (together with Portugal) have the lowest ratings for Disclosure and Board Structure and Functioning. Overall, ranks change over the 4-year period but the upgrades/downgrades are not consistent across the CG categories. While there is an overall positive correlation between the composite and any of the four CG subcategories, there does not seem to be a general move of convergence of these subcategory ratings over time.

²⁰ These are Oil, Gas & Basic Materials, Other Industrials Sectors, Consumer Goods & Services and Healthcare, Telecommunications, Utilities, Banks, Other Financials and Technology.

Table 3 panel b shows the averages ratings across industries. In 2003 (2000) industry average ratings ranged between 12.00 (9.80) in Telecommunications and 14.48 (12.83) in Consumer Goods, Services and Health. We observe an increase in average ratings for all countries and a slight decrease in the standard deviation between industries from 1.06 to 0.97. In 2003 within industries the standard deviation ranged between 3.49 (Other Industrial Sectors) and 4.14 (Utilities) (against a range between 3.92 in Banks and 4.73 in Technology). The industry ranks correlate positively between all categories except *Rights and Duties of Shareholders*.

In summary, these results show that, in fact, country effects are stronger than industry effects in ratings. In any case, for the composite index, there seems to be an upward convergence in ratings even if the best and worst ratings are the same in 2000 and 2003. Generally, the subcategories ratings are in line with these results but the country and industry average ratings do not monotonically increase and ranks vary in mid positions. Further, the results for *Rights and Duties of Shareholders* do not correlate with the other categories. Over time, there seems to be some divergence suggesting that within a country or industry firms may register improvements in some CG aspects but not in other.

Country and Industry Weights

Table 4 presents the breakdown of stocks by country and industry.

[INSERT TABLE 4 HERE]

The number and the relative weights of the different countries have hardly changed over time. In 2003, around 63% (66% in 2000) of the stocks belonged to only 4 out of 17 countries in sample (UK, France, Germany and Italy).

The picture in terms of industrial structure is similar. The weights are barely the same in 2000 and 2003 and 3 out of the 8 broad industries accounted for more than 60% of the

DEMINOR rating constituents. The most heavily weighted industries were *Other Industrial Sectors, Consumer Goods + Services + Healthcare* and *Banks*.

Industry Weights within each Country

Industrial structures are very different across countries (or relative to the European average) reflecting perhaps the differential economic structures, but essentially that DEMINOR country coverage is limited. As a result, particularly in countries that are represented by very few stocks, country sub-samples are concentrated in a few industries. This is the case of Finland or Norway (in either case with a total of 5 constituents in 2003), where, respectively, 49.2 and 53.3% of the constituents originate from *Oil, Gas and Basic Materials*. Yet, this concentration is also observed in countries that are well-represented in the sample such as France (40 constituents) or Germany (30 constituents), where respectively 40.1% and 47.6% of stocks belong to *Other Industrial Sectors*.

Country Weights within each Industry

When we examine the geographical structure of European industries, we also find some industries that are heavily concentrated in one particular country. This is the case for *Oil, Gas and Basic Materials* or *Utilities*, where, respectively, 50.6% and 43.8% of the constituents are UK stocks. For example, in 2003, *Utilities* includes 17 stocks, 6 of which are UK stocks. In fact, UK stocks have the highest relative weight in 5 out of the 8 industries.

2.3 Methodology

As described above, DEMINOR rates the corporate governance practices of the largest 300 listed companies in Europe (FTSE300 constituents). Yet, as we have shown above, some countries or industries are dominated by a particular industry or country. The industrial and geographical composition of each group may thus distort the true picture of

a country or an industry.²¹ In order to obtain “pure” country and “pure” industry ratings, we have to remove industry and country influences of country and industry average ratings. To decompose individual-firm corporate ratings into industry and country components we run cross-sectional regressions of individual ratings on industry and country dummies for each year, and obtain the estimated industry and country effects.

We define the following model:

$$RAT_{it} = \alpha_t + \beta_{jt} + \delta_{kt} + \xi_{it} \quad (1)$$

where RAT_{it} is the composite corporate rating for firm i in year t that belongs to industry j and country k . α_t is a base or global level rating in period t , β_{jt} is the industry effect, δ_{kt} the country effect and ξ_{it} is a firm-specific disturbance.²² A stock is assumed to have either zero or unit exposure on a set of dummy variables indicating country or industry affiliation. The cross-sectional regression, for each year, is stated as follows:

$$RAT_i = \alpha + \sum_{j=1}^J \beta_j I_{ij} + \sum_{k=1}^K \delta_k C_{ik} + \xi_i \quad (2)$$

where I_{ij} is a dummy variable that equals to one if the firm belongs to industry j or zero otherwise and C_{ik} the country dummy that equals to one if the firm belongs to country k or zero otherwise. J is the number of industry categories and K is the number of countries. Our sample firms are allocated to 8 industry sub-sectors and 17 countries.

To overcome multicollinearity between the regressors, the effects are measured relative to the average European firm in the sample, instead of measuring the effect of each country and industry. This procedure is equivalent to measuring industry and country effects relative to the portfolio of firms in the sample. For that, two restrictions have to be imposed:

²¹ Given that these are largest firms (by market capitalization) in Europe, our country and industry CG average scores are likely to be upward biased because larger firms are more likely (because they need more external finance and have larger resources) to adopt good governance practices. Thus absolute values may be meaningless to characterize the practices in a particular country or industry. The “pure” estimates we obtain below do not have this drawback because they are measured relative to the European average.

²² This formulation rules out any interaction between industry and country effects. This interaction could be important if countries are segmented and consequently industry ratings are determined by local conditions.

- the weighted sum of industry dummies coefficients equals to zero, i.e.,

$$\sum_{j=1}^J n_j \beta_j = 0 \quad (3)$$

where n_j is the number of firms in industry j ;

- the weighted sum of country coefficients equals zero, i.e.,

$$\sum_{k=1}^K m_k \delta_k = 0 \quad (4)$$

where m_k is the number of firms in country k . Please see Suits (1984) or Kennedy (1985) for more details.

The estimate of the intercept α gives the rating on the equally-weighted portfolio of firms in the sample. This portfolio has neither country nor industry-specific effects, in the way they were defined above.²³ The estimates of the coefficients of the country dummy variables, δ_k , show the extent to which the behavior in that country (averaged over all industries) is different from the average. The estimates of the coefficients of the industry dummy variables, β_j , show the extent to which the behavior in that industry (averaged over all countries) is different from the average.

The sum of the average estimates of α and β_j yields the rating on a portfolio of firms that is diversified geographically in industry j . This sum tells how industry j is rated in “pure” terms. Similarly, the sum of the average estimates of α and δ_k yields the rating on a portfolio that is diversified across industries in country k . It tells how country k is rated in “pure” terms.

This estimation procedure allows us thus to reinterpret the individual country/industry ratings corrected for industry/geographic composition. The equally-weighted rating for any country k can be stated as:

²³ This is an abstract concept that can be figured as a holding company with business units in all countries and industries.

$$RAT_k = \hat{\alpha} + \frac{1}{m_k} \sum_{i=1}^{m_k} \sum_{j=1}^J \hat{\beta}_j I_{ij} + \hat{\delta}_k \quad (5)$$

and similarly for the equally-weighted rating for any industry j :

$$RAT_j = \hat{\alpha} + \frac{1}{n_j} \sum_{i=1}^{n_j} \sum_{k=1}^K \hat{\delta}_k C_{ik} + \hat{\beta}_j . \quad (6)$$

3. Results

3.1 Composite Ratings

[INSERT TABLE 5 HERE]

[INSERT TABLE 6 HERE]

Cross-Sectional Estimates

Table 5 presents for each year cross-sectional estimates for the period between 2000 and 2003. Table 6 presents the “pure” ratings.

Country Factors

Overall the results in table 5, panel A. suggest as we expected that country factors are important: in 2003 the country factor estimates vary between -6.2 for Luxembourg (-7.8 in 2000) and + 4.1 for the UK (+4.3 for Ireland in 2000). Except from Finland, Norway and France (and Italy, in 2002), all δ estimates are statistically and economically significant at the 1% level. For the two former countries the lack of statistical significance may stem from the small number of constituents originating from these countries. As for the latter countries, the lack of significance may reflect that their industry structure is close to the European average.

Industry Factors

As for the industry effects, a slightly different picture emerges from table 5, panel B. In 2003 the industry factor estimates vary between -0.7 for Utilities (-1.9 in 2000) and + 0.7 for *Oil, Gas and Basic Materials* (+0.7 in 2000). Overall the β estimates are not statistically significant and their magnitude is much smaller than that observed for country factors estimates. Exceptions are *Oil, Gas and Basic Materials* (all years except in 2000), *Telecommunications* (in 2000 and 2001) and *Utilities* (all years except in 2003) that have statistically significant industry factor estimates at the 10% level.

While the results are statistically weak, the estimates seem to suggest that there are stronger positive effects in more global industries such as *Oil, Gas and Basic Materials* when compared with more locally protected (and in some cases including, totally or partially, state held companies (such as *Utilities* or *Telecommunications*)). In the most recent years though these industries seem to have fared much better and that may somehow reflect the transfer of state holdings to the private sector through public offerings, and tighter requirements by stock exchanges and regulators.

European Common Effects and Global Significance

Panel C of table 5 shows the estimates for the intercept in the cross-sectional regressions, and the fit statistics.

By construction, the intercept estimates capture the global level rating (for an average European firm using the countries covered by DEMINOR). Accordingly, the α estimates are statistically significant and completely in line with the magnitude and the trend of the average ratings across countries presented in table 3.

As a whole, country and industry factors play an important and statistically significant role in explaining firm-level ratings: the F -statistics are significant at the 1% level of significance.

“Pure” Ratings

[INSERT TABLE 6 HERE]

“Pure” Country Ratings

Table 6, panel A. shows the “pure” country ratings, obtained from the average country ratings (given by the equally-weighted averages of the respective constituent firms ratings) by removing the sum of the effects of the underlying industries.

In 2003, “pure” ratings vary between 7.2 in Portugal (3.9 in Luxembourg in 2000) and 17.5 in the UK (17.8 in Ireland in 2000) with a global average of 11.4 (9.6 in 2000).

For some countries, the difference between the “pure” country rating and the raw country average rating is non-trivial and there are consistent downward or upward biases. This is the case of Portugal or Spain, for which the country average rating is systematically below the country “pure” rating over the period from 2000 to 2003; or Finland or Ireland where the country average rating is systematically above the country “pure” rating. The average bias across countries is not statistically significant from zero reflecting that negative and positive biases across countries cancel out. Yet, when we take absolute values, we find that the average absolute bias is statistically different from zero.

The correlation between raw country averages and “pure” ratings is very high reflecting that the role for the sum of the effects of its constituent industries in governance practices is trivial. Accordingly, for each year, the ranks are the essentially the same.

Further, the convergence in ratings across countries, observed above, seems to be primarily driven by changes in “pure” ratings, and, to a smaller extent, to a decrease in the magnitude and variability across industry-specific factors. In other words, even if in reality there are differential industry structures across countries, there is no impact on country average CG ratings because all industries score very similarly.

Figure 2 plots the average “pure” country” ratings, in 2000 and 2003, against the scores of EIU – Economist Intelligence Unit - and PRS – Political Risk Services -. As

expected, given the almost perfect correlation between country average ratings and “pure” country ratings, these plots are very identical to those plotted in figure 1. Thus when we use uncontaminated ratings, at a country level, the correlation between corporate-based ratings and EIU and PRS *Rule of Law* scores are positive but remain low (respectively 0.17 and 0.32).

[INSERT FIGURE 2 HERE]

Thus while it seems that for some countries it may be incorrect to evaluate governance practices on the basis of the average of its constituents’ ratings, for most countries and specially in more recent years, this bias is small. Country effects are dominant and industry-specific effects are trivial. Yet, neither DEMINOR country average ratings nor pure ratings echoes country-level governance scores given by organizations such as EIU or PRS. There are country common effects but that could be particular to the subset of listed firms.

“Pure” Industry Ratings

Table 6, panel B. shows the “pure” industry ratings, obtained from the average industry ratings (given by the equally-weighted averages of the respective constituent firms’ ratings) by removing the sum of the effects of the underlying countries. The variability of “pure” ratings across industries (0.4) is now much smaller and less than half that of average industry ratings shown in table 3, panel B (0.97).

“Pure” industry ratings vary in a closer range than country ratings, from a minimum of 12.8 for *Utilities* (9.6 in 2000) to a maximum of 14.2 for *Oil, Gas and Basic Materials* (12.32 in 2000 for *Other Financials*) with a global average of 13.4 (11.3 in 2000).

For some industries, the difference between the “pure” industry rating and the raw industry average rating is non-trivial and there are consistent downward or upward biases. This is the case of *Telecommunication*, *Utilities* or *Technology*, for which the industry average

rating is systematically below the industry “pure” rating over the period from 2000 to 2003; or *Consumer Goods & Services & Healthcare* where the country average rating is systematically above the industry “pure” effect. Yet, the average bias across industries is not statistically significant.

The correlation between the raw industry averages and the pure effects is much lower than the observed above for countries reflecting that the role for the sum of the effects of the constituent countries in each industry governance practices is not trivial. Accordingly, for each year, the ranks are very different even if average ratings are very close to each other. For example, in 2003, the industry that ranked first in average rankings, *Consumer Goods & Services & Healthcare* is the second worst-rated industry in “pure rankings”. *Technology* that ranked 7th is now in the 3rd place. In other words, part of the cross-industry variability in ratings that we pinpointed above was essentially explained by the differential geographical exposures and by the magnitude of country-specific effects especially in 2002 and 2003.

3.2 Individual Rating Categories

[INSERT TABLE 7 HERE]

[INSERT TABLE 8 HERE]

Table 7 presents, the α , β s and δ s cross-sectional estimates from the four rating categories regressions. Table 8 presents the corresponding “pure” country and industry ratings.

I. Rights and Duties of Shareholders

Overall the regression is statistically significant at the 1% level. These estimates have some distinctive features when compared with the composite rating estimates discussed above.

First, country factors are important but this is not the case of industry-specific factors. Second, not all country dummies are significant. Only the more extreme (positively or negatively) rated countries, show statistically significant effects. The most significant (and that are consistent over time) estimates occur for the UK and Ireland (with positive effects), and Luxembourg and Portugal (with negative effects).

The figures are very close to those reported in table A.2., panel I.A. For a few countries, though, such as Portugal or Spain, country average ratings are systematically below the estimated country “pure” ratings.

Industry average ratings are very close to the estimated country “pure” ratings.

II. Takeover Defenses

The overall significance of the regression is lower but still statistically significant at the 1% level. Country-specific effects turn out to be significant for only a subset of countries (UK and Ireland with positive effects; Portugal, Spain or Belgium with negative effects). As for, industry factors these end up statistically significant for the case of *Utilities* (negative specific effects all over the sample period) and *Oil, Gas and Basic Materials* (positive specific effects in 2002 and 2003). The range in *Takeover Defenses* seems thus to partially explain the observed differences in governance composite ratings across industries.²⁴

In general, the difference between country and industry rating averages and “pure” ratings is trivial. The figures are very close to those reported in table A.2., panels II.A and II.B.

III. Disclosure

Overall regression estimates are statistically significant at the 1% level. Country-specific effects are statistically significant. The bottom-rated countries, as noticed above, managed

²⁴ The highest rank correlation between composite and subcomponent ratings across industries is for *Takeover Defenses* (with a 4-year period average of 0.85) followed by *Board Structure and Functioning* (0.72).

to improve their ratings. This effect is not spurious because after controlling for changes in industrial affiliation of its constituents, the improvement is effective. Finally, industry-specific effects are statistically significant for the case of *Utilities* (negative specific effects in 2000 and 2002) and *Oil, Gas and Basic Materials* (positive specific effects in 2001 and 2002).

The differences between “pure” ratings and the country average ratings reported in table A.2., panel III.A. are small and ranks are alike, and their magnitude and sign are related to different countries in different years.

The picture for industries is different. “Pure” industry ratings differ slightly from average industry ratings. Yet, in terms of ranks, there are relevant changes: for example, the top rated industry in 2003, *Consumer Goods & Services & Healthcare* switches position with the bottom-rated industry, *Telecommunication*. Thus not only the true ratings are different but the resulting ranks are misleading.

IV. Board Structure and Functioning

The regression estimates are statistically significant at the 1% level and the best fit is observed for this rating category.

In general, the difference between country rating averages and “pure” ratings is trivial. The variability in ratings reported in table A.2., panel IV.A, is confirmed meaning that this is effectively the category with the largest standard deviation across countries (after *Disclosure*). This result suggests thus that *Board Structure and Functioning* seems to account for a large part of the variation in ratings across countries.²⁵

As for, industry factors only *Oil, Gas and Basic Materials* and Banks show significant positive specific effects (respectively in 2000-2002 and 2002). The rank of “pure” industry ratings is similar to that of the average ratings shown in table A.2., panel IV.B.

²⁵ The highest rank correlation between composite and subcomponent ratings across countries is for *Board Structure and Functioning* (4-year period average of 0.83) followed by *Disclosure* (0.78).

3.3. Robustness Tests

Several meaningful features other than the geographical or industrial effects are worth controlling to obtain the “pure” country and industry ratings.

We split our sample of firms according to the legal origin as a proxy for investors’ rights. Doidge *et al* (2007) find that the legal system is positively and significantly associated with S&P firm-level CG ratings. Country and industry effects are not relevant for the subgroup of common law countries. For continental countries, on the contrary, there are important and significant country effects and the results are similar to those obtained with the entire sample.

[INSERT TABLE 9 HERE]

We also run the cross-sectional regressions with a subset of observations excluding those countries that had less than 5 constituents. We have excluded Austria, Denmark, Greece, Luxembourg and Portugal. Tables A.3 and A.4 show the results. Results are barely unchanged.

[INSERT TABLE 10 HERE]

4. Conclusions

This paper analyses the role of country and industry factors in firm-level governance ratings.

Country-specific effects are very significant and are the most important factors driving firm-level governance ratings. Industry-specific effects have a much smaller magnitude and significance. As such, the cross-country variation in ratings remains significant and rank positions are unaltered after accounting for the industrial affiliation of the constituents, while cross-industry variability in raw industry ratings is essentially

explained by the differential geographical exposures of industry components. Our results are consistent with Doidge *et al.* (2007) that find that firm characteristics other than country affiliation explain only a very small fraction of the variance of governance scores.

Consistent with previous studies, the results suggest that there are positive and consistent positive effects associated with common-law countries. In the most recent years, continental-law countries have substantially improved their ratings but within that subgroup there are important and significant country effects.

The analysis of the individual rating categories confirms broadly the results obtained for the composite ratings. Differences in ratings are primarily driven by differences in *Boarding Structure and Functioning*, across industries while the differences in ratings stem mainly from differential *Takeover Defenses*.

Doidge *et al.* (2007) find that, in more developed countries, common regularities such as firm characteristics (sales growth, ownership structure, leverage, etc.) play a very small role compared with country dummy variables, but they do not find as well a very strong and consistent relation between country characteristics and governance ratings. Further work is required to confirm Doidge *et al.* (2007) findings using different ratings data, and to shed light on the main determinants of country factors.

Finally, our econometric methodology did not account for a potential selection bias that may arise from the fact that we are using censored data. In fact, our sample firms are not randomly selected. FTSE300 constituents are the largest firms in Europe (by market capitalization) and, as such, are more likely, among other things, to better governed-firms and belong to larger countries with strong financial development. One approach to deal with this potential bias is to use the two-stage method proposed by Heckmann (1976). Collection of information of non-sample firms (constituents of FTSE Europe that are in countries covered by DEMINOR) is work in progress.

REFERENCES

- Bauer, R., N. Günster and R. Otten, 2003. Empirical Evidence on Corporate Governance in Europe - The Effect on Stock Return, Firm Value and Performance, *Journal of Asset Management*, Vol. 5, N. 2: 91-104.
- Bushman, R., J. Piotroski and A. Smith, 2004, What Determines Corporate Transparency?, *Journal of Accounting Research*, Vol. 42: 509-525.
- Coffee, J. C., 2002. Competition Among Securities Markets: A Path Dependent Perspective, *Columbia Law School, Center for Law and Economic Studies*, WP N. 192.
- Cuevo, A., 2002. Corporate Governance Mechanisms: A Plea for Good Governance and More Market Control, *Corporate Governance - an International Review*, Vol. 10, N.2: 97-107.
- Dallas, G., 2004b. Country Influences on Individual Company Governance, in G. S. Dallas (ed.), *Governance and Risk*, 138-63. McGraw-Hill.
- Dallas, G., 2004a. Methodological Overview: Perspective of an External Analyst, in G. S. Dallas (ed.), *Governance and Risk*, 20-38. McGraw-Hill.
- Dallas, G. and S. A. Patel, 2004. Corporate Governance as a Risk Factor, in G. S. Dallas (ed.), *Governance and Risk*, 2-19. McGraw-Hill.
- DEMINOR, 2003. *Methodology, Research and Rating Service*.
- Doidge, C., G. A. Karolyi and R. M. Stulz, 2004. Why are Foreign Firms Listed in the U.S. Worth More?, *Journal of Financial Economics*, Vol. 71, N.2: 205-38.
- Doidge, C., G. A. Karolyi and R. M. Stulz, 2007. Why do Countries Matter So Much for Corporate Governance, *Journal of Financial Economics*, Vol. 86, N. 1: 1-39.
- Gompers, P. A., J. L. Ishii and A. Metrick, 2003. Corporate Governance and Equity Prices, *Quarterly Journal of Economics*, Vol. 118, N. 1: 107-55.
- Heckmann, J., 1976. The Common Structure of Statistical Models of Truncation, Sample Selection and Limited Dependent Variables and a Simple Estimator for such Models, *Annals of Economic and Social Measurement*, Vol. 5, 475-92.
- Khanna, T., J. Kogan and K. Palepu, 2006. Globalization and Similarities in Corporate Governance: a Cross-Country Analysis, *Review of Economics and Statistics*, Vol. 88, N. 1: 69-90.
- Kaufmann, D., A. Kraay and M. Mastruzzi, 2007. Governance Matters VI: Governance Indicators for 1996-2006, *World Bank Policy Research*, June.
- Kennedy, P., 1986. Interpreting Dummy Variables, *Review of Economics and Statistics*, Vol. 68, N. 1: 174-75.
- La Porta, R., F. Lopez-De-Silanes and A. Shleifer, 1998. Law and Finance, *Journal of Political Economy*, Vol. 107, N. 6: 1113-55.

- Maher, M. and T. Andersson, 1999. Corporate Governance Effects on Firm Performance and Economic Growth, *OECD report*.
- Mallin, C. A., 2004. *Corporate Governance*, Oxford University Press.
- MCKINSEY & COMPANY, 2002. *Global Investor Opinion Survey: Key Findings*.
- Schäfer, H., Beer, J., Zenker, J. and Fernandes, P., 2006. Who is Who in Corporate Social Responsibility Rating?”, *Bertelsmann Foundation Survey*, June.
- Sheskin, D. J., 1997, *Handbook of Parametric and Nonparametric Statistical Procedures*, 719 p., Boston, CRC Press.
- Strenger, C., 2004. The Corporate Governance Scorecard: A Tool for the Implementation of Corporate Governance, *Corporate Governance - an International Review*, Vol. 12, N. 1: 11-15.
- Suits, D. B., 1984. Dummy Variables: Mechanics V. Interpretation, *Review of Economics and Statistics*, Vol. 66, N. 1: 177-80.
- Stulz, R. and R. Williamson, 2003, Culture, Openness and Finance, *Journal of Financial Economics*, Vol. 70, 313-349.

TABLE 1
Corporate Governance Ratings

Table 1 compares the main features of our dataset with the datasets used in Doidge *et al.* (2007).

	DEMINOR (this study)	CLSA	S&P	FTSE
Period	2002-2004	March 2001	2001	November 2003
# of Firms	300 (All European)	495 (17 European)	901 (272 European)	1701 (623 European)
#of Countries	17	25 (5 European)	40 (16 European)	22 (16 European)
Developed (D)/ Emerging (E)	D	E	D+E	D
# Categories (items)	#4 (300 items)	#7 (57 items)	#3 (98 items)	#8 (55 items)
Items	1) rights and duties of shareholders 2) range of takeover defenses 3) disclosure on corporate governance 4) board structure and functioning	1) management discipline 2) financial transparency 3) independence 4) accountability 5) responsibility 6) fairness 7) social responsibility	1) financial transparency and information disclosure 2) board and management structure 3)ownership structure and investor relations	1) board 2) audit 3) charter/bylaws 4)anti-takeover provisions 5) executive and director compensation 6) qualitative factors 7) ownership 8)director education
Methodology	Firm Reports and Regulatory Filings; Websites; Analyst Reports; Newspapers	Survey	Firm Reports and Regulatory Filings	Firm Reports and Regulatory Filings; Websites

TABLE 2
DEMINOR Corporate Governance Ratings

This table shows the composition of the DEMINOR corporate governance composite ratings for the period from 2000 to 2003. Ratings may vary from 4 to 20. *m* denotes the number of firms in each country. *Mean, Median and StDev* denote the average, median and standard deviation rating in a country in a particular year

Country	2000				2001				2002				2003			
	<i>m</i>	Mean	Median	StDev	<i>m</i>	Mean	Median	StDev	<i>m</i>	Mean	Median	StDev	<i>m</i>	Mean	Median	StDev
Austria									1	9.00	9.00		2	9.50	9.50	0.71
Belgium	9	9.56	10.00	1.51	10	9.20	9.50	1.40	10	10.40	10.50	2.17	9	11.00	10.00	3.20
Denmark	3	6.67	6.00	2.08	5	7.40	7.00	1.67	5	8.20	9.00	2.17	4	9.00	9.00	0.82
Finland	4	12.00	12.00	2.58	5	11.80	12.00	1.92	6	11.33	11.00	2.42	5	13.00	13.00	3.08
France	42	10.57	10.50	2.88	40	12.00	12.00	3.04	38	12.47	12.50	2.70	40	13.78	13.50	2.28
Germany	26	10.08	10.00	2.31	27	10.26	10.00	2.01	31	10.10	10.00	2.06	30	10.27	10.00	2.18
Greece						-			3	7.33	6.00	2.31	4	8.50	9.00	1.73
Ireland	4	18.25	18.50	0.96	3	17.00	17.00	1.00	5	17.20	18.00	1.30	5	17.20	17.00	0.84
Italy	25	10.48	10.00	1.98	23	11.74	12.00	1.94	22	11.59	12.00	1.92	22	11.41	11.00	1.76
Luxembourg	1	4.00	4.00		1	5.00	5.00		1	5.00	5.00		1	8.00	8.00	
Netherlands	21	7.43	7.00	2.18	19	8.63	8.00	2.91	21	9.33	9.00	2.59	19	11.63	11.00	2.79
Norway	1	10.00	10.00		3	8.67	9.00	1.53	5	9.00	9.00	2.12	5	11.20	11.00	2.28
Portugal	3	4.33	4.00	0.58		-			2	5.00	5.00	1.41	4	7.25	6.50	2.63
Spain	10	7.80	7.50	1.81	10	7.90	8.00	1.66	10	9.30	9.00	1.42	13	10.46	10.00	3.04
Sweden	15	9.67	9.00	2.64	18	9.67	10.00	2.77	17	10.24	10.00	2.49	18	12.22	12.50	2.65
Switzerland	15	6.73	5.00	2.81	15	6.60	5.00	3.31	17	9.00	8.00	3.76	18	12.17	12.00	3.59
United Kingdom	73	16.18	17.00	2.38	78	16.56	17.50	2.45	84	16.94	18.00	2.12	84	17.46	18.00	1.58
All	252	11.44	11.00	4.21	257	12.08	12.00	4.19	278	12.49	12.00	4.03	283	13.45	14.00	3.72
Anglo-Saxon	77	16.29	17.00	2.37	81	16.58	17.00	2.41	89	16.96	18.00	2.08	89	17.45	18.00	1.54
Continental	175	9.31	9.00	2.85	176	10.01	10.00	3.05	189	10.38	10.00	2.82	194	11.61	11.00	2.90

TABLE 3
Ratings – Descriptive Statistics

This table describes the DEMINOR (composite) corporate governance ratings of the firms in our sample for the period from 2000 to 2003. Panel A shows the average country ratings and the respective ranks. Panel B shows the average industry ratings and the respective ranks. Ratings may vary from 4 to 20.

Panel A. Country Ratings

Country	2000			2001			2002			2003			2003/2000
	<i>m</i>	Mean	#	<i>m</i>	Mean	#	<i>m</i>	Mean	#	<i>m</i>	Mean	#	Δ #
Austria				0			1	9.00	11	2	9.50	13	na
Belgium	8	9.63	9	10	9.20	8	10	10.40	6	9	11.00	10	↓1
Denmark	3	6.67	13	4	7.50	12	4	8.00	14	3	9.00	14	↓1
Finland	3	12.33	3	4	12.00	3	5	11.20	5	5	13.00	4	↓1
France	39	10.79	4	40	12.00	3	38	12.47	3	40	13.78	3	↑1
Germany	26	10.08	6	26	10.35	6	29	10.14	8	30	10.27	12	↓6
Greece							3	7.33	15	4	8.50	15	
Ireland	4	18.25	1	3	17.00	1	5	17.20	1	5	17.20	2	↓1
Italy	22	10.64	5	23	11.74	5	21	11.48	4	22	11.41	8	↓3
Luxembourg	1	4.00	15	1	5.00	14	1	5.00	16	1	8.00	16	↓1
Netherlands	18	7.61	11	17	8.65	10	19	9.53	9	18	11.72	7	↑4
Norway	1	10.00	7	3	8.67	9	5	9.00	11	5	11.20	9	↓2
Portugal	3	4.33	14				2	5.00	16	4	7.25	17	↓3
Spain	10	7.80	10	10	7.90	11	10	9.30	10	13	10.46	11	↓1
Sweden	15	9.67	8	18	9.67	7	17	10.24	7	17	12.18	5	↑3
Switzerland	15	6.73	12	15	6.60	13	17	9.00	11	18	12.17	6	↑6
United Kingdom	69	16.25	2	75	16.57	2	80	16.94	2	82	17.44	1	↑1
Average	237	11.53		249	12.10		267	12.49		278	13.44		
Standard Deviation Across Countries		3.90			3.45			3.40			2.88		

Panel B. Industry Ratings

Industry	2000			2001			2002			2003			2003/2000
	<i>m</i>	Mean	#	<i>m</i>	Mean	#	<i>m</i>	Mean	#	<i>m</i>	Mean	#	Δ #
Oil, Gas & Basic Materials	31	12.45	2	31	12.71	3	35	13.51	2	38	14.21	2	↔
Other Industrials Sectors	64	11.20	5	70	11.51	6	75	11.93	6	75	13.35	4	↑1
Consumer Goods, Services, Healthcare	40	12.83	1	41	13.37	1	45	13.84	1	46	14.48	1	↔
Telecommunications	15	9.80	8	14	10.57	8	18	11.22	8	18	12.00	8	↔
Utilities	14	10.50	6	16	12.25	4	15	11.27	7	17	12.53	6	↔
Banks	39	11.49	3	35	11.51	6	39	12.10	4	46	12.70	5	↓2
Other Financials	23	11.43	4	28	12.00	5	29	12.69	3	30	13.97	3	↑1
Technology	11	10.18	7	14	13.00	2	11	12.00	5	8	12.13	7	↔
Average	237	11.53		249	12.10		267	12.49		278	13.44		
Standard Deviation Across Industries		1.06			0.91			0.96			0.97		

TABLE 4

Sample Description - Country and Industry Weights

This table shows the country and industry weights of the sample constituents from 2000 to 2003. Panels A and B show, respectively, country and industry weights of the aggregate sample constituents over the period 2000-2003. Panels C and D show, respectively, industry and country (2000-2003 average) weights in country and industry sub-samples.

Panel A. Country Weights

Country	2000		2001		2002		2003	
	<i>m</i>	%	<i>m</i>	%	<i>m</i>	%	<i>m</i>	%
Austria	0	0%	0	0%	1	0.4%	2	0.7%
Belgium	8	3.4%	10	4.0%	10	3.7%	9	3.2%
Denmark	3	1.3%	4	1.6%	4	1.5%	3	1.1%
Finland	3	1.3%	4	1.6%	5	1.9%	5	1.8%
France	39	16.5%	40	16.1%	38	14.2%	40	14.4%
Germany	26	11.0%	26	10.4%	29	10.9%	30	10.8%
Greece	0	0%	0	0%	3	1.1%	4	1.4%
Ireland	4	1.7%	3	1.2%	5	1.9%	5	1.8%
Italy	22	9.3%	23	9.2%	21	7.9%	22	7.9%
Luxembourg	1	0.4%	1	0.4%	1	0.4%	1	0.4%
Netherlands	18	7.6%	17	6.8%	19	7.1%	18	6.5%
Norway	1	0.4%	3	1.2%	5	1.9%	5	1.8%
Portugal	3	1.3%	10	4.0%	2	0.7%	4	1.4%
Spain	10	4.2%	0	0%	10	3.7%	13	4.7%
Sweden	15	6.3%	18	7.2%	17	6.4%	17	6.1%
Switzerland	15	6.3%	15	6.0%	17	6.4%	18	6.5%
United Kingdom	69	29.1%	75	30.1%	80	30.0%	82	29.5%
Total	237	100.0%	249	100.0%	267	100.0%	278	100.0%

Panel B. Industry Weights

Industry	2000		2001		2002		2003	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Oil, Gas & Basic Materials	31	13.1%	31	12.4%	35	13.1%	38	13.7%
Other Industrials Sectors	64	27.0%	70	28.1%	75	28.1%	75	27.0%
Consumer Goods, Services, Healthcare	40	16.9%	41	16.5%	45	16.9%	46	16.5%
Telecommunications	15	6.3%	14	5.6%	18	6.7%	18	6.5%
Utilities	14	5.9%	16	6.4%	15	5.6%	17	6.1%
Banks	39	16.5%	35	14.1%	39	14.6%	46	16.5%
Other Financials	23	9.7%	28	11.2%	29	10.9%	30	10.8%
Technology	11	4.6%	14	5.6%	11	4.1%	8	2.9%
Total	237	100.0%	249	100.0%	267	100.0%	278	100.0%

Panel C. Industry Weights in Country Sub-Samples

Countries / Industries	Oil, Gas & Basic Materials	Other Industrials Sectors	Consumer Goods, Services, Healthcare	Telecoms	Utilities	Banks	Other Financials	Technology	Total
Austria*	0.0%	0.0%	0.0%	75.0%	0.0%	25.0%	0.0%	0.0%	100.0%
Belgium	10.9%	18.7%	5.0%	0.0%	10.9%	43.6%	10.9%	0.0%	100.0%
Denmark	0.0%	41.7%	0.0%	29.2%	0.0%	29.2%	0.0%	0.0%	100.0%
Finland	49.2%	0.0%	0.0%	0.0%	10.0%	0.0%	16.3%	24.6%	100.0%
France	17.2%	40.1%	19.1%	3.2%	1.9%	7.6%	5.1%	5.7%	100.0%
Germany	14.5%	47.6%	8.9%	3.6%	0.0%	8.2%	10.9%	6.3%	100.0%
Greece	0.0%	0.0%	0.0%	41.7%	12.5%	45.8%	0.0%	0.0%	100.0%
Ireland	24.6%	19.6%	10.0%	0.0%	0.0%	40.8%	5.0%	0.0%	100.0%
Italy	4.6%	13.7%	6.8%	9.2%	6.8%	32.8%	26.2%	0.0%	100.0%
Luxembourg*	25.0%	0.0%	75.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Netherlands	13.8%	23.6%	27.8%	1.4%	0.0%	16.7%	5.6%	11.1%	100.0%
Norway	53.3%	18.3%	0.0%	18.3%	0.0%	10.0%	0.0%	0.0%	100.0%
Portugal	0.0%	0.0%	0.0%	36.1%	36.1%	27.8%	0.0%	0.0%	100.0%
Spain	9.4%	9.4%	5.8%	9.4%	37.7%	20.8%	0.0%	7.5%	100.0%
Sweden	1.4%	38.8%	9.1%	10.3%	0.0%	22.3%	12.0%	6.0%	100.0%
Switzerland	21.4%	27.6%	4.5%	6.2%	0.0%	12.4%	27.9%	0.0%	100.0%
United Kingdom	11.8%	23.4%	28.4%	5.6%	8.9%	9.4%	9.4%	3.0%	100.0%
All Countries	13.1%	27.5%	16.7%	6.3%	6.0%	15.4%	10.7%	4.3%	100.0%

* Please note that, for the particular cases of Luxembourg and Austria, for which there are only one or two constituents over time, these average figures have little meaning.

Panel D. Country Weights in Industry Sub-Samples

Countries / Industries	Austria	Belgium	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Luxem.	Netherlands	Norway	Portugal	Spain	Sweden	Switzerland	UK	Total
Oil, Gas & Basic Materials	0.0%	3.0%	0.0%	6.0%	20.1%	11.9%	0.0%	3.0%	3.0%	0.7%	7.3%	4.4%	0.0%	3.0%	0.8%	10.3%	26.6%	100%
Other Industrials Sectors	0.0%	2.4%	2.1%	0.0%	22.3%	18.6%	0.0%	1.1%	4.2%	0.0%	6.0%	1.0%	0.0%	1.4%	9.2%	6.3%	25.3%	100%
Consumer Goods, Services, Healthcare	0.0%	1.2%	0.0%	0.0%	17.6%	5.8%	0.0%	1.1%	3.5%	1.8%	11.7%	0.0%	0.0%	1.6%	3.5%	1.7%	50.6%	100%
Telecoms	2.8%	0.0%	6.2%	0.0%	7.6%	6.2%	4.2%	0.0%	12.3%	0.0%	1.7%	4.6%	4.4%	6.2%	10.8%	6.2%	26.7%	100%
Utilities	0.0%	6.5%	0.0%	3.1%	4.7%	0.0%	1.5%	0.0%	9.5%	0.0%	0.0%	0.0%	4.9%	25.9%	0.0%	0.0%	43.8%	100%
Banks	0.5%	10.2%	2.5%	0.0%	7.6%	5.7%	1.8%	4.4%	18.4%	0.0%	7.6%	1.2%	1.7%	5.6%	9.5%	5.1%	18.1%	100%
Other Financials	0.0%	3.7%	0.0%	2.6%	7.4%	11.0%	0.0%	0.8%	21.0%	0.0%	3.7%	0.0%	0.0%	0.0%	7.4%	16.5%	26.1%	100%
Technology	0.0%	0.0%	0.0%	9.5%	21.2%	16.6%	0.0%	0.0%	0.0%	0.0%	18.9%	0.0%	0.0%	6.3%	9.5%	0.0%	18.0%	100%
All Industries	0.3%	3.6%	1.4%	1.6%	15.3%	10.8%	0.6%	1.6%	8.6%	0.4%	7.0%	1.3%	0.9%	4.2%	6.5%	6.3%	29.7%	100%

TABLE 5
Country and Industry Factors

This table shows the OLS estimates of equation (2) for the period from 2000 to 2003. N denotes the number of firms.

Panel A. Country Factor Estimates

	2000		2001		2002		2003	
	δ	p -value	δ	p -value	δ	p -value	δ	p -value
Austria					-3.448	0.155	-3.829	0.021
Belgium	-2.075	0.014	-3.005	0.000	-2.068	0.006	-2.491	0.001
Denmark	-4.668	0.001	-4.144	0.001	-4.354	0.000	-4.337	0.001
Finland	0.625	0.653	-0.799	0.527	-1.497	0.162	-0.690	0.508
France	-0.788	0.027	-0.076	0.835	-0.033	0.927	0.317	0.354
Germany	-1.572	0.000	-1.769	0.000	-2.372	0.000	-3.221	0.000
Greece					-5.277	0.000	-4.649	0.000
Ireland	6.328	0.000	4.587	0.002	4.543	0.000	3.602	0.001
Italy	-1.029	0.040	-0.448	0.385	-1.089	0.033	-2.075	0.000
Luxembourg	-7.587	0.002	-6.842	0.007	-7.332	0.002	-6.183	0.008
Netherlands	-3.964	0.000	-3.556	0.000	-3.061	0.000	-1.745	0.001
Norway	-2.178	0.360	-3.114	0.032	-3.826	0.000	-2.475	0.017
Portugal	-6.402	0.000			-6.694	0.000	-5.981	0.000
Spain	-2.946	0.000	-3.853	0.000	-2.691	0.001	-2.719	0.000
Sweden	-1.899	0.002	-2.331	0.000	-2.212	0.000	-1.210	0.027
Switzerland	-5.079	0.000	-5.695	0.000	-3.696	0.000	-1.500	0.005
United Kingdom	4.813	0.000	4.641	0.000	4.505	0.000	4.065	0.000

Panel B. Industry Factor Estimates

	2000		2001		2002		2003	
	β	p -value	β	p -value	β	p -value	β	p -value
Oil, Gas & Basic Materials	0.646	0.118	0.943	0.029	0.938	0.014	0.743	0.041
Other Industrials Sectors	-0.121	0.644	-0.333	0.204	-0.347	0.149	-0.088	0.711
Consumer Goods & Services and Healthcare	0.056	0.877	-0.217	0.563	-0.154	0.647	-0.413	0.200
Telecommunications	-0.988	0.102	-1.449	0.029	0.038	0.946	-0.275	0.621
Utilities	-1.918	0.004	-0.918	0.152	-1.546	0.016	-0.667	0.243
Banks	0.519	0.154	0.449	0.274	0.205	0.575	0.055	0.866
Other Financials	0.665	0.167	0.517	0.262	0.451	0.293	0.348	0.393
Technology	-0.763	0.284	0.553	0.400	0.269	0.704	0.085	0.918

Panel C. Intercept Estimates and Fit Statistics

	2000		2001		2002		2003	
	α	p -value	α	p -value	α	p -value	α	p -value
European Average Rating	11.531	0.000	12.059	0.000	12.487	0.000	13.439	0.000
N	237		249		267		278	
F -statistic (p -value)	26.27 (0.000)		23.87 (0.000)		23.34 (0.000)		20.63 (0.000)	

TABLE 6
Pure Country and Industry Effects

This table shows the estimates of equations (5) and (6) for the period from 2000 to 2003. Ratings may vary from 4 to 20.

Panel A. Country Pure Effects

	2000	#	2001	#	2002	#	2003	#	Δ #
Austria					9.039	11	9.610	13	na
Belgium	9.456	8	9.054	8	10.419	6	10.948	10	↑2
Denmark	6.863	12	7.915	12	8.133	13	9.102	14	↓2
Finland	12.156	3	11.260	5	10.990	5	12.749	4	↓1
France	10.743	4	11.983	4	12.454	3	13.756	3	↑1
Germany	9.959	6	10.290	6	10.115	8	10.218	12	↓6
Greece					7.210	15	8.790	15	na
Ireland	17.859	1	16.646	2	17.030	1	17.041	2	↓1
Italy	10.502	5	11.611	3	11.398	4	11.364	8	↓3
Luxembourg	3.944	15	5.217	14	5.155	17	7.256	17	↓2
Netherlands	7.567	11	8.503	10	9.426	10	11.694	7	↑4
Norway	9.353	9	8.945	9	8.661	13	10.964	9	↔
Portugal	5.129	14			5.793	16	7.458	16	↓2
Spain	8.585	10	8.206	11	9.796	9	10.720	11	↓1
Sweden	9.632	7	9.728	7	10.275	7	12.229	5	↑2
Switzerland	6.452	13	6.364	13	8.791	12	11.939	6	↑7
UK	16.344	2	16.700	1	16.992	2	17.504	1	↑1
Average	9.636		10.173		10.099		11.373		
Standard Deviation Across Countries	3.752		3.338		3.298		2.881		

Panel B. Industry Pure Effects

	2000	#	2001	#	2002	#	2003	#	Δ #
Oil, Gas & Basic Materials	12.177	2	13.002	1	13.425	1	14.182	1	↔
Other Industrials Sectors	11.410	7	11.726	6	12.140	7	13.351	5	↑2
Consumer Goods & Services and Healthcare	11.587	5	11.842	5	12.333	6	13.026	7	↓2
Telecommunications	10.543	6	10.610	7	12.525	5	13.164	6	↔
Utilities	9.613	8	11.141	8	10.941	8	12.772	8	↔
Banks	12.050	3	12.508	4	12.692	4	13.494	4	↓1
Other Financials	12.196	1	12.576	3	12.938	2	13.787	2	↔
Technology	10.768	4	12.612	2	12.756	3	13.524	3	↑1
Average	11.293		12.002		12.469		13.413		
Standard Deviation Across Industries	0.920		0.823		0.730		0.443		

TABLE 7

Country and Industry Factors – Individual Rating Categories

This table shows the estimates of equation (2) for the period from 2000 to 2003. Panels I to IV show the results for the 4 individual rating categories: I) rights and duties of shareholders; II) range of takeover defenses; III) disclosure on corporate governance; IV) board structure and functioning.

Panel I. Rights and Duties of Shareholders

Panel I.A. Country Factor Estimates

	2000		2001		2002		2003	
	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>
Austria					0.541	0.560	0.199	0.705
Belgium	0.315	0.354	0.167	0.568	0.175	0.538	-0.203	0.406
Denmark	-0.879	0.114	-0.034	0.942	-0.163	0.719	-1.273	0.003
Finland	0.050	0.929	-0.055	0.906	0.359	0.382	0.542	0.104
France	0.085	0.556	0.311	0.024	0.408	0.003	-0.173	0.113
Germany	0.749	0.000	0.820	0.000	0.683	0.000	0.094	0.468
Greece					0.176	0.741	0.187	0.621
Ireland	1.057	0.028	0.211	0.693	0.284	0.481	0.566	0.085
Italy	0.537	0.009	0.297	0.123	-0.211	0.280	-0.450	0.004
Luxembourg	-2.166	0.026	-2.103	0.025	-2.213	0.016	-1.393	0.061
Netherlands	-1.462	0.000	-1.339	0.000	-0.951	0.000	-0.939	0.000
Norway	1.010	0.297	0.961	0.076	0.385	0.343	0.479	0.145
Portugal	-1.716	0.003			-1.763	0.008	-1.228	0.001
Spain	-0.732	0.021	-1.346	0.000	-1.122	0.000	-0.605	0.004
Sweden	-0.556	0.022	-0.405	0.059	-0.408	0.059	0.245	0.160
Switzerland	-0.751	0.002	-1.207	0.000	-0.966	0.000	-0.288	0.091
United Kingdom	0.300	0.003	0.244	0.009	0.253	0.004	0.520	0.000

Panel I.B. Industry Factor Estimates

	2000		2001		2002		2003	
	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>
Oil, Gas & Basic Materials	-0.002	0.992	0.040	0.801	0.067	0.648	0.148	0.199
Other Industrials Sectors	-0.023	0.827	-0.103	0.291	-0.097	0.292	-0.027	0.722
Consumer Goods & Services and Healthcare	0.174	0.234	-0.030	0.828	0.022	0.864	-0.024	0.817
Telecommunications	-0.228	0.353	-0.219	0.375	0.268	0.226	0.226	0.203
Utilities	-0.513	0.058	-0.235	0.325	-0.124	0.614	-0.0641	0.726
Banks	-0.085	0.564	0.031	0.839	-0.184	0.189	-0.114	0.277
Other Financials	0.428	0.029	0.314	0.068	0.307	0.063	0.048	0.712
Technology	-0.123	0.672	0.296	0.227	-0.065	0.812	-0.213	0.419

Panel I.C. Intercept Estimates and Fit Statistics

	2000		2001		2002		2003	
	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>
European Average Rating	2.991	0.000	3.133	0.000	3.191	0.000	3.245	0.000
N	237		249		267		278	
F-statistic (<i>p-value</i>)	6.29 (0.000)		6.60 (0.000)		4.98 (0.000)		5.96 (0.000)	

Panel II. Takeover Defenses

Panel II.A. Country Factor Estimates

	2000		2001		2002		2003	
	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>
Austria					-1.108	0.381	-0.132	0.871
Belgium	-1.527	0.001	-1.412	0.001	-1.328	0.001	-1.189	0.002
Denmark	-0.716	0.333	-0.261	0.697	-0.315	0.609	-1.220	0.066
Finland	1.498	0.048	0.896	0.187	-0.119	0.831	-0.410	0.428
France	-0.572	0.003	-0.312	0.114	-0.303	0.107	-0.211	0.215
Germany	0.151	0.530	-0.096	0.704	-0.782	0.000	-0.871	0.000
Greece					-1.023	0.158	-0.766	0.192
Ireland	2.225	0.001	0.968	0.210	1.695	0.002	1.307	0.011
Italy	-0.636	0.019	-1.256	0.000	-1.081	0.000	-1.311	0.000
Luxembourg	-1.511	0.240	-1.630	0.227	-1.436	0.248	-1.882	0.103
Netherlands	-1.251	0.000	-1.020	0.001	-0.924	0.001	-0.800	0.003
Norway	-0.622	0.629	0.087	0.911	-0.702	0.204	-0.485	0.342
Portugal	-0.737	0.325			-0.898	0.316	-1.133	0.051
Spain	-0.826	0.049	-0.721	0.099	-0.851	0.036	-0.804	0.013
Sweden	0.397	0.217	0.166	0.590	0.293	0.319	0.349	0.199
Switzerland	-0.688	0.034	-0.531	0.123	-0.495	0.094	-0.436	0.100
United Kingdom	1.056	0.000	1.113	0.000	1.300	0.000	1.369	0.000

Panel II.B. Industry Factor Estimates

	2000		2001		2002		2003	
	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>
Oil, Gas & Basic Materials	0.137	0.540	0.350	0.130	0.354	0.077	0.483	0.008
Other Industrials Sectors	0.009	0.949	-0.074	0.598	-0.102	0.418	-0.002	0.987
Consumer Goods & Services and Healthcare	0.026	0.893	0.083	0.679	-0.002	0.991	-0.209	0.193
Telecommunications	-0.823	0.012	-1.175	0.001	-0.331	0.272	-0.501	0.071
Utilities	-0.927	0.010	-0.720	0.037	-0.749	0.026	-0.497	0.081
Banks	0.506	0.011	0.181	0.411	0.043	0.822	-0.033	0.839
Other Financials	0.094	0.717	0.365	0.140	.0331	0.140	0.258	0.203
Technology	-0.223	0.563	0.165	0.640	0.116	0.754	0.329	0.423

Panel II.C. Intercept Estimates and Fit Statistics

	2000		2001		2002		2003	
	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>
European Average Rating	2.486	0.000	2.547	0.000	2.438	0.000	2.399	0.000
N	237		249		267		278	
F-statistic (<i>p-value</i>)	6.58 (0.000)		5.98 (0.000)		7.8 (0.000)		9.86 (0.000)	

Panel III. Disclosure

Panel III.A. Country Factor Estimates

	2000		2001		2002		2003	
	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>
Austria					-1.682	0.023	-1.611	0.003
Belgium	-0.643	0.024	-1.447	0.000	-0.793	0.001	-0.943	0.000
Denmark	-1.234	0.008	-1.785	0.000	-2.066	0.000	-0.419	0.344
Finland	0.136	0.774	-0.911	0.015	-0.725	0.027	-0.244	0.481
France	-0.549	0.000	-0.309	0.005	-0.276	0.012	0.243	0.033
Germany	-0.939	0.000	-0.862	0.000	-0.611	0.000	-0.665	0.000
Greece					-2.274	0.000	-2.096	0.000
Ireland	1.272	0.002	1.595	0.000	1.234	0.000	0.765	0.025
Italy	-0.092	0.586	0.377	0.013	0.362	0.020	-0.035	0.827
Luxembourg	-2.108	0.009	-2.142	0.004	-2.442	0.001	-1.133	0.142
Netherlands	-0.387	0.035	-0.342	0.050	-0.444	0.006	0.209	0.237
Norway	-0.392	0.628	-2.016	0.000	-1.845	0.000	-1.504	0.000
Portugal	-2.065	0.000			-1.878	0.000	-1.077	0.006
Spain	-1.116	0.000	-1.462	0.000	-0.905	0.000	-0.718	0.001
Sweden	-1.057	0.000	-1.124	0.000	-1.240	0.000	-1.032	0.000
Switzerland	-1.789	0.000	-1.985	0.000	-1.230	0.000	-0.775	0.000
United Kingdom	1.750	0.000	1.669	0.000	1.471	0.000	0.973	0.000

Panel III.B. Industry Factor Estimates

	2000		2001		2002		2003	
	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>
Oil, Gas & Basic Materials	0.206	0.142	0.270	0.033	0.224	0.054	0.100	0.404
Other Industrials Sectors	0.109	0.222	-0.089	0.248	-0.011	0.882	0.001	0.988
Consumer Goods & Services and Healthcare	-0.078	0.525	-0.151	0.172	-0.075	0.468	-0.116	0.277
Telecommunications	0.109	0.596	-0.011	0.953	0.165	0.346	0.117	0.527
Utilities	-0.399	0.078	0.050	0.789	-0.443	0.024	-0.019	0.919
Banks	-0.072	0.559	0.155	0.200	0.052	0.638	0.041	0.709
Other Financials	0.029	0.861	-0.074	0.584	-0.136	0.297	-0.054	0.688
Technology	-0.377	0.120	0.005	0.979	0.173	0.423	-0.070	0.799

Panel III.C. Intercept Estimates and Fit Statistics

	2000		2001		2002		2003	
	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>
European Average Rating	3.186	0.000	3.293	0.000	3.517	0.000	4.032	0.000
N	237		249		267		278	
F-statistic (<i>p-value</i>)	25.90 (0.000)		37.12 (0.000)		28.12 (0.000)		13.21 (0.000)	

Panel IV. Board Structure and Functioning

Panel IV.A. Country Factor Estimates

	2000		2001		2002		2003	
	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>
Austria					-1.199	0.126	-2.285	0.000
Belgium	-0.220	0.419	-0.354	0.170	-0.122	0.610	-0.157	0.552
Denmark	-1.839	0.000	-2.105	0.000	-1.810	0.000	-1.424	0.002
Finland	-1.059	0.020	-0.769	0.065	-1.011	0.004	-0.577	0.109
France	0.248	0.032	0.193	0.112	0.138	0.236	0.460	0.000
Germany	-1.533	0.000	-1.672	0.000	-1.663	0.000	-1.780	0.000
Greece					-2.156	0.000	-1.973	0.000
Ireland	1.773	0.000	1.772	0.000	1.330	0.000	0.964	0.007
Italy	-0.838	0.000	0.093	0.583	-0.160	0.332	-0.278	0.098
Luxembourg	-1.802	0.020	-1.010	0.223	-1.241	0.107	-1.774	0.027
Netherlands	-0.864	0.000	-0.895	0.000	-0.742	0.000	-0.214	0.244
Norway	-2.174	0.005	-2.186	0.000	-1.661	0.000	-0.964	0.007
Portugal	-1.885	0.000			-2.155	0.000	-2.542	0.000
Spain	-0.272	0.280	-0.365	0.172	0.186	0.457	-0.592	0.008
Sweden	-0.684	0.000	-1.009	0.000	-0.857	0.000	-0.772	0.000
Switzerland	-1.852	0.000	-2.0123	0.000	-1.005	0.000	-0.001	0.997
United Kingdom	1.709	0.000	1.575	0.000	1.483	0.000	1.204	0.000

Panel IV.B. Industry Factor Estimates

	2000		2001		2002		2003	
	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>
Oil, Gas & Basic Materials	0.305	0.024	0.282	0.047	0.294	0.018	0.012	0.926
Other Industrials Sectors	-0.216	0.012	-0.067	0.437	-0.137	0.078	-0.060	0.462
Consumer Goods & Services and Healthcare	-0.067	0.566	-0.119	0.337	-0.100	0.360	-0.064	0.563
Telecommunications	-0.045	0.818	-0.043	0.844	-0.141	0.448	-0.117	0.541
Utilities	-0.079	0.716	-0.014	0.948	-0.229	0.269	-0.087	0.659
Banks	0.170	0.151	0.082	0.543	0.294	0.013	0.161	0.154
Other Financials	0.114	0.468	-0.088	0.564	-0.050	0.716	0.097	0.492
Technology	-0.041	0.861	0.087	0.688	0.046	0.843	0.040	0.890

Panel IV.C. Intercept Estimates and Fit Statistics

	2000		2001		2002		2003	
	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>
European Average Rating	2.869	0.000	3.129	0.000	3.341	0.000	3.763	0.000
N	237		249		267		278	
F-statistic (<i>p-value</i>)	32.62 (0.000)		29.71 (0.000)		27.73 (0.000)		21.66 (0.000)	

TABLE 8

Pure Country and Industry Effects – Individual Rating Categories

This table shows the estimates of equations (5) and (6) for the period from 2000 to 2003. Panels I to IV show the results for the 4 individual rating categories: I) rights and duties of shareholders; II) range of takeover defenses; III) disclosure on corporate governance; IV) board structure and functioning. Scores may vary from 1 to 5.

Panel I. Rights and Duties of Shareholders

Panel I.A. Country Pure Effects

	2000	#	2001	#	2002	#	2003	#	Δ #
Austria					3.732	2	3.444	6	na
Belgium	3.306	4	3.300	7	3.366	9	3.042	10	↓6
Denmark	2.112	12	3.099	8	3.028	10	1.972	16	↓4
Finland	3.041	8	3.078	9	3.550	5	3.787	2	↑6
France	3.076	7	3.444	3	3.599	3	3.072	9	↓2
Germany	3.740	3	3.953	2	3.874	1	3.339	8	↓5
Greece					3.367	8	3.432	7	na
Ireland	4.048	1	3.344	6	3.475	6	3.811	1	↔
Italy	3.528	5	3.430	4	2.980	11	2.795	12	↓7
Luxembourg	0.825	15	1.030	14	0.978	17	1.852	17	↓2
Netherlands	1.529	13	1.794	12	2.240	15	2.306	14	↓1
Norway	4.001	2	4.094	1	3.576	4	3.724	4	↓2
Portugal	1.275	14			1.428	16	2.017	15	↓1
Spain	2.259	10	1.787	13	2.069	14	2.640	13	↑3
Sweden	2.435	9	2.728	10	2.783	12	3.490	5	↑4
Switzerland	2.240	11	1.926	11	2.225	13	2.957	11	↔
UK	3.291	6	3.377	5	3.444	7	3.765	3	↑3
Average	2.714		2.885		2.924		3.026		
Standard Deviation	1.000		0.907		0.849		0.680		

Panel I.B Industry Pure Effects

	2000	#	2001	#	2002	#	2003	#	Δ #
Oil, Gas & Basic Materials	2.989	3	3.173	3	3.258	3	3.393	2	↑1
Other Industrials Sectors	2.968	4	3.030	6	3.094	6	3.218	4	↔
Consumer Goods & Services and Healthcare	3.165	2	3.103	5	3.213	4	3.221	5	↓3
Telecommunications	2.763	7	2.914	7	3.459	2	3.471	1	↑6
Utilities	2.478	8	2.898	8	3.067	7	3.181	7	↑1
Banks	2.906	5	3.164	4	3.007	8	3.131	6	↓1
Other Financials	3.419	1	3.447	1	3.498	1	3.293	3	↓2
Technology	2.868	6	3.429	2	3.126	2	3.032	8	↓2
Average	2.945		3.145		3.215		3.242		
Standard Deviation	0.276		0.208		0.181		0.141		

Panel II. Takeover Defenses
Panel II.A. Country Pure Effects

	2000	#	2001	#	2002	#	2003	#	Δ #
Austria					1.330	15	2.267	4	na
Belgium	0.959	15	1.135	13	1.110	16	1.210	14	↑1
Denmark	1.770	11	2.286	7	2.123	6	1.179	15	↓4
Finland	3.984	2	3.443	3	2.319	4	1.989	6	↓4
France	1.914	7	2.235	8	2.135	5	2.188	5	↑2
Germany	2.637	5	2.451	6	1.656	9	1.528	12	↓7
Greece					1.415	13	1.633	9	na
Ireland	4.711	1	3.515	2	4.133	1	3.706	2	↓1
Italy	1.850	8	1.291	12	1.357	14	1.088	16	↓8
Luxembourg	0.975	14	0.917	14	1.002	17	0.517	17	↓3
Netherlands	1.235	13	1.527	11	1.514	12	1.599	10	↑3
Norway	1.864	6	2.634	5	1.736	8	1.914	8	↓2
Portugal	1.749	10			1.540	11	1.266	13	↓3
Spain	1.660	12	1.826	10	1.587	10	1.595	11	↑1
Sweden	2.883	4	2.713	4	2.731	3	2.748	3	↑1
Switzerland	1.798	9	2.016	9	1.943	7	1.963	7	↑2
UK	3.542	3	3.660	1	3.738	2	3.768	1	↑2
Average	2.235		2.261		1.963		1.892		
Standard Deviation	1.104		0.882		0.879		0.891		

Panel II.B. Industry Pure Effects

	2000	#	2001	#	2002	#	2003	#	Δ #
Oil, Gas & Basic Materials	2.623	2	2.897	2	2.792	1	2.882	1	↑1
Other Industrials Sectors	2.495	5	2.473	6	2.336	6	2.397	4	↑1
Consumer Goods & Services and Healthcare	2.512	4	2.630	5	2.436	5	2.190	6	↑2
Telecommunications	1.663	7	1.372	8	2.107	7	1.898	8	↓1
Utilities	1.559	8	1.827	7	1.689	8	1.902	7	↑1
Banks	2.992	1	2.728	3	2.481	3	2.366	5	↓4
Other Financials	2.580	3	2.912	1	2.471	4	2.657	3	↔
Technology	2.263	6	2.712	4	2.554	2	2.728	2	↑4
Average	2.336		2.444		2.358		2.378		
Standard Deviation	0.491		0.553		0.332		0.368		

Panel III. Disclosure

Panel III.A. Country Pure Effects

	2000	#	2001	#	2002	#	2003	#	Δ #
Austria					1.835	12	2.421	16	na
Belgium	2.527	8	1.846	9	2.724	9	3.089	11	↓3
Denmark	1.984	12	1.508	11	1.451	15	3.613	7	↑5
Finland	3.301	3	2.382	7	2.792	8	3.788	6	↓3
France	2.621	7	2.984	5	3.241	5	4.275	3	↑4
Germany	2.234	9	2.431	6	2.906	7	3.367	8	↑1
Greece					1.243	16	1.936	17	na
Ireland	4.440	2	4.888	2	4.751	2	4.797	2	↔
Italy	3.097	4	3.670	3	3.879	3	3.997	5	↑1
Luxembourg	1.058	15	1.151	14	1.075	17	2.899	14	↑1
Netherlands	2.788	5	2.951	4	3.073	6	4.241	4	↑1
Norway	2.773	6	1.277	13	1.672	13	2.528	15	↓9
Portugal	1.156	14			1.639	14	2.955	12	↑2
Spain	2.068	11	1.831	10	3.427	4	3.314	9	↑2
Sweden	2.121	10	2.169	8	2.277	11	3.000	13	↓3
Switzerland	1.388	13	1.308	12	2.287	10	3.257	10	↑3
UK	4.926	1	4.962	1	4.988	1	5.005	1	↔
Average	2.561		2.526		2.662		3.440		
Standard Deviation	1.087		1.249		1.175		0.817		

Panel III.B. Industry Pure Effects

	2000	#	2001	#	2002	#	2003	#	Δ #
Oil, Gas & Basic Materials	3.395	1	3.563	1	3.741	1	4.132	2	↓1
Other Industrials Sectors	3.297	2	3.204	7	3.506	5	4.033	4	↓2
Consumer Goods & Services and Healthcare	3.110	6	3.142	8	3.442	6	3.916	8	↓2
Telecommunications	3.144	4	3.282	5	3.682	3	4.149	1	↑3
Utilities	2.782	8	3.343	3	3.074	8	4.013	5	↑3
Banks	3.111	6	3.448	2	3.569	4	4.073	3	↑2
Other Financials	3.214	3	3.219	6	3.381	7	3.978	6	↓3
Technology	2.812	7	3.298	4	3.690	2	3.962	7	↔
Average	3.108		3.312		3.511		4.032		
Standard Deviation	0.215		0.138		0.217		0.082		

Panel IV. Board Structure and Functioning
Panel IV.A. Country Pure Effects

	2000	#	2001	#	2002	#	2003	#	Δ #
Austria					2.142	11	1.478	16	na
Belgium	2.649	4	2.775	5	3.219	5	3.606	5	↓1
Denmark	1.030	12	1.024	13	1.531	15	2.339	12	↔
Finland	1.810	9	2.360	7	2.330	10	3.186	9	↔
France	3.117	3	3.322	3	3.479	4	4.223	3	↔
Germany	1.336	10	1.457	11	1.678	13	1.983	14	↓4
Greece					1.185	17	1.790	15	na
Ireland	4.642	1	4.901	1	4.671	2	4.727	2	↓1
Italy	2.031	7	3.222	4	3.181	6	3.485	7	↔
Luxembourg	1.067	11	2.119	10	2.100	12	1.989	13	↓2
Netherlands	2.005	8	2.234	8	2.599	8	3.549	6	↑2
Norway	0.695	15	0.943	14	1.680	14	2.799	11	↑3
Portugal	0.984	14			1.186	16	1.221	17	↓3
Spain	2.597	5	2.764	6	3.527	3	3.171	8	↓3
Sweden	2.185	6	2.120	9	2.484	7	2.991	10	↓4
Switzerland	1.017	13	1.117	12	2.336	9	3.762	4	↑9
UK	4.578	2	4.704	2	4.824	1	4.967	1	↑1
Average	2.116		2.504		2.597		3.016		
Standard Deviation	1.238		1.239		1.120		1.060		

Panel IV.B. Industry Pure Effects

	2000	#	2001	#	2002	#	2003	#	Δ #
Oil, Gas & Basic Materials	3.174	1	3.411	1	3.635	1	3.775	4	↓3
Other Industrials Sectors	2.653	8	3.062	6	3.204	6	3.703	5	↑3
Consumer Goods & Services and Healthcare	2.802	6	3.010	8	3.241	5	3.699	6	↔
Telecommunications	2.824	5	3.086	5	3.200	7	3.646	8	↓3
Utilities	2.790	7	3.115	4	3.112	8	3.676	7	↔
Banks	3.039	2	3.211	3	3.635	1	3.924	1	↑1
Other Financials	2.983	3	3.041	7	3.291	4	3.860	2	↑1
Technology	2.828	4	3.216	2	3.387	3	3.803	3	↑1
Average	2.887		3.144		3.338		3.761		
Standard Deviation	0.166		0.131		0.199		0.097		

TABLE 9

Country and Industry Factors: Anglo-Saxon vs. Continental Countries

This table shows the estimates of equation (2) for the period from 2000 to 2003. Panel 1 shows the estimates for the sub-group of Anglo-Saxon (common-law) countries. Panel 2 shows the estimates for the sub-group of Continental (civil-law) countries.

Panel 1. Anglo-Saxon Countries

Panel 1.A. Country Factor Estimates

	2000		2001		2002		2003	
	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>
Ireland	1.748	0.123	0.222	0.877	0.253	0.790	-0.345	0.626
United Kingdom	-0.101	0.123	-0.009	0.877	-0.016	0.790	0.021	0.626

Panel 1.B. Industry Factor Estimates

	2000		2001		2002		2003	
	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>
Oil, Gas & Basic Materials	0.160	0.804	0.390	0.635	0.675	1.130	0.496	0.265
Other Industrials Sectors	-0.245	0.612	-0.371	0.460	-0.251	-0.610	-0.018	0.953
Consumer Goods & Services and Healthcare	0.545	0.199	0.229	0.616	-0.073	-0.200	-0.139	0.610
Telecommunications	-1.505	0.161	-1.981	0.062	1.063	1.030	0.804	0.297
Utilities	-2.541	0.002	-0.956	0.242	-1.437	-1.720	-1.113	0.076
Banks	0.334	0.639	0.547	0.573	-0.191	-0.300	0.075	0.869
Other Financials	1.745	0.069	0.848	0.334	0.438	0.610	0.090	0.847
Technology	1.745	0.256	1.419	0.179	1.063	0.720		

Panel 1.C. Intercept Estimates and Fit Statistics

	2000		2001		2002		2003	
	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>
European Average								
Rating	16.356	0.000	16.590	0.000	16.953	0.000	17.425	0.000
N	73		79		85		87	
F-statistic	2.6		1.05		0.78		0.79	
(<i>p-value</i>)	0.0158		0.4063		0.6247		0.5992	

Panel 2. Continental Countries

Panel 2.A. Country Factor Estimates

	2000		2001		2002		2003	
	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>
Austria					-0.995	0.700	-1.831	0.327
Belgium	-0.086	0.920	-0.955	0.232	-0.026	0.974	-0.721	0.401
Denmark	-2.634	0.062	-2.218	0.085	-2.190	0.081	-2.386	0.114
Finland	2.827	0.052	1.270	0.330	0.587	0.607	1.000	0.396
France	1.492	0.000	2.011	0.000	2.063	0.000	2.184	0.000
Germany	0.629	0.158	0.285	0.545	-0.267	0.541	-1.374	0.003
Greece					-3.152	0.034	-2.724	0.044
Italy	1.093	0.032	1.607	0.002	1.023	0.056	-0.293	0.592
Luxembourg	-4.895	0.048	-4.379	0.094	-5.196	0.043	-4.480	0.089
Netherlands	-1.632	0.003	-1.363	0.026	-0.974	0.082	0.136	0.821
Norway	-0.250	0.919	-1.291	0.387	-1.736	0.122	-0.623	0.591
Portugal	-4.722	0.001			-4.383	0.019	-4.140	0.002
Spain	-1.221	0.152	-1.907	0.031	-0.552	0.518	-0.900	0.225
Sweden	0.373	0.534	-0.300	0.603	-0.086	0.884	0.681	0.263
Switzerland	-2.880	0.000	-3.705	0.000	-1.617	0.007	0.297	0.617

Panel 2.B. Industry Factor Estimates

	2000		2001		2002		2003	
	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>
Oil, Gas & Basic Materials	0.866	0.102	1.118	0.030	1.068	0.032	0.857	0.083
Other Industrials Sectors	-0.133	0.668	-0.331	0.285	-0.383	0.200	-0.127	0.691
Consumer Goods & Services and Healthcare	-0.489	0.368	-0.674	0.242	-0.206	0.705	-0.692	0.201
Telecommunications	-0.719	0.326	-1.073	0.213	-0.406	0.564	-0.625	0.386
Utilities	-0.870	0.410	-0.758	0.443	-1.630	0.082	-0.388	0.640
Banks	0.601	0.156	0.399	0.380	0.329	0.464	0.041	0.923
Other Financials	0.347	0.534	0.407	0.458	0.466	0.388	0.504	0.378
Technology	-1.364	0.093	0.066	0.938	0.088	0.915	0.055	0.952

Panel 2.C. Intercept Estimates and Fit Statistics

	2000		2001		2002		2003	
	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>
European Average Rating	9.384	0.000	10.053	0.000	10.401	0.000	11.623	0.000
<i>N</i>	164		171		182		191	
<i>F</i> -statistic	4.770		5.340		3.580		3.430	
(<i>p-value</i>)	0.000		0.000		0.000		0.000	

TABLE 10**Pure Country and Industry Effects: Anglo-Saxon vs. Continental Countries**

This table shows the estimates of equations (5) and (6) for the period from 2000 to 2003. Panel 1 shows the estimates for the sub-group of Anglo-Saxon (common-law) countries. Panel 2 shows the estimates for the sub-group of Continental (civil-law) countries. Ratings may vary from 4 to 20.

Panel 1. Anglo-Saxon Countries**Panel 1.A. Country Pure Effects**

	2000	2001	2002	2003
Ireland	18.104	16.811	17.206	17.081
United Kingdom	16.255	16.581	16.937	17.446

Panel 1.B. Industry Pure Effects

	2000	2001	2002	2003
Oil, Gas & Basic Materials	16.516	16.980	17.628	17.921
Other Industrials Sectors	16.111	16.218	16.702	17.408
Consumer Goods & Services and Healthcare	16.901	16.818	16.880	17.286
Telecommunications	14.851	14.609	18.016	18.229
Utilities	13.816	15.634	15.516	16.312
Banks	16.690	17.137	16.762	17.500
Other Financials	18.101	17.437	17.391	17.516
Technology	18.101	18.009	18.016	

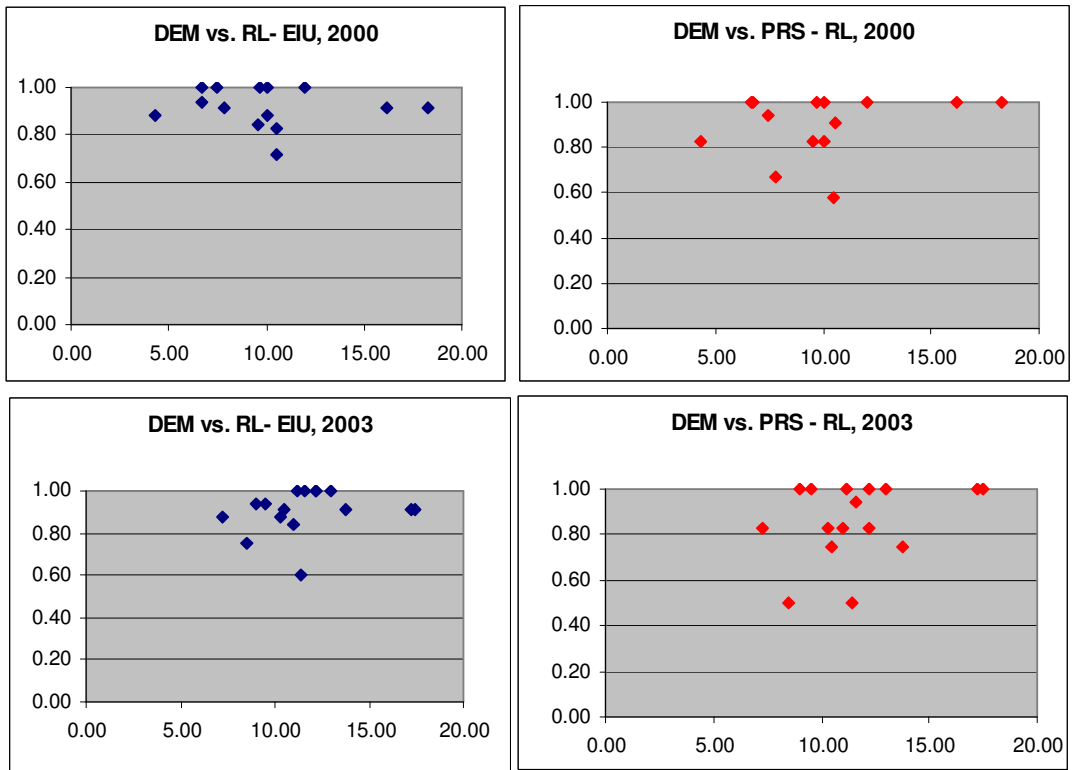
Panel 2. Continental Countries**Panel 2.A. Country Pure Effects**

	2000	2001	2002	2003
Austria	9.384	10.053	9.406	9.792
Belgium	9.298	9.097	10.375	10.902
Denmark	6.750	7.834	8.211	9.237
Finland	12.211	11.322	10.988	12.623
France	10.876	12.064	12.465	13.807
Germany	10.014	10.337	10.134	10.249
Greece	9.384	10.053	7.250	8.899
Italy	10.478	11.660	11.424	11.330
Luxembourg	4.489	5.674	5.206	7.143
Netherlands	7.752	8.690	9.427	11.759
Norway	9.134	8.762	8.665	11.000
Portugal	4.663	10.053	6.018	7.483
Spain	8.163	8.145	9.849	10.723
Sweden	9.758	9.753	10.316	12.304
Switzerland	6.504	6.347	8.785	11.921

Panel 2.B. Industry Pure Effects

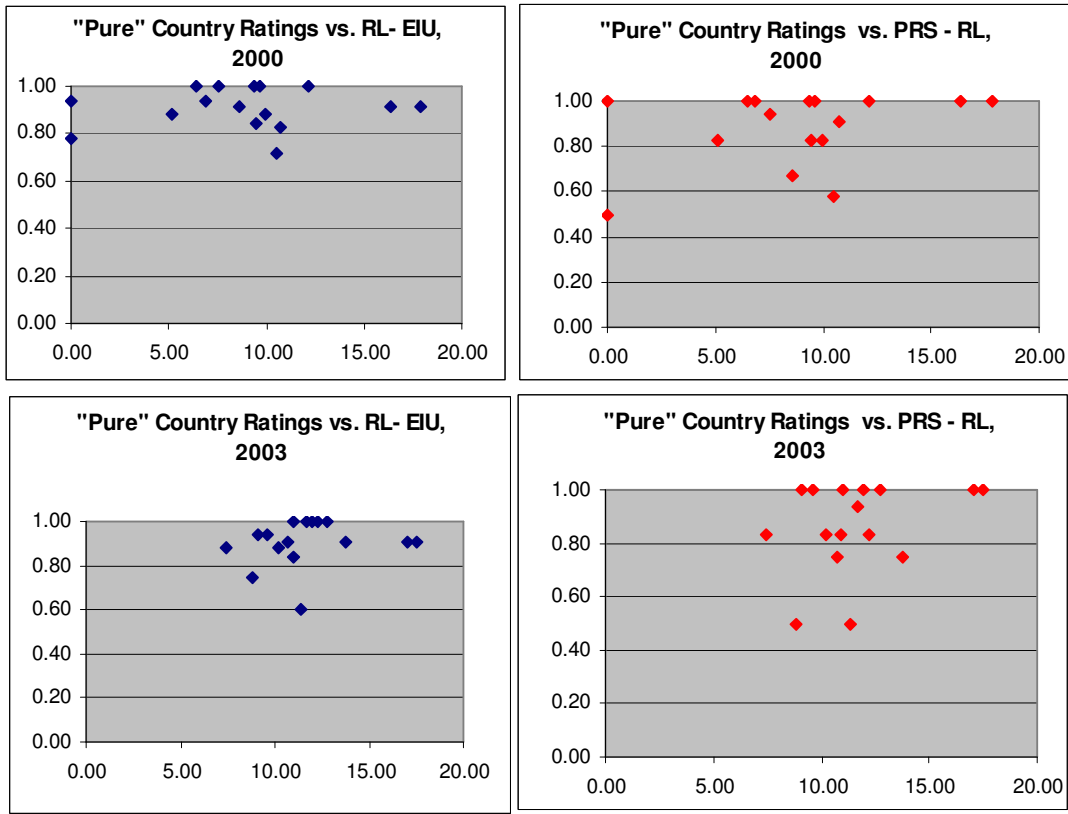
	2000	2001	2002	2003
Oil, Gas & Basic Materials	10.250	11.171	11.469	12.480
Other Industrials Sectors	9.251	9.721	10.018	11.496
Consumer Goods & Services and Healthcare	8.895	9.379	10.196	10.931
Telecommunications	8.665	8.980	9.995	10.998
Utilities	8.514	9.295	8.771	11.235
Banks	9.986	10.451	10.730	11.664
Other Financials	9.731	10.460	10.867	12.127
Technology	8.020	10.119	10.490	11.678

FIGURE 1



This figure shows the plot of the DEMINOR (DEM) average corporate governance (composite) ratings, in 2000 and 2003, against the governance scores (RL - Rule of Law) of EIU - Economist Intelligence Unit - and PRS - Political Risk Services - for the 17 countries in our sample.

FIGURE 2



This figure shows the plot of the “pure” country governance (composite) ratings, in 2000 and 2003, against the governance scores (RL: Rule of Law) of EIU – Economist Intelligence Unit - and PRS – Political Risk Services – for the 17 countries in our sample.

APPENDIX

TABLE A.1
DEMINOR Corporate Governance Ratings: Individual Categories

This table shows the DEMINOR corporate governance ratings for each of the 4 individual rating categories from 2000 to 2003. Panels I to V show, respectively (I) rights and duties of shareholders; II) range of takeover defenses; III) disclosure on corporate governance; IV) board structure and functioning. Scores may vary from 1 to 5. *n* denotes the number of firms in each country in a particular year. *Mean, Median and StDev* denotes, respectively the average, median and standard deviation rating in a country in a particular year.

Panel I. Rights and Duties of Shareholders

Country	2000			2001			2002			2003		
	Mean	Median	StDev	Mean	Median	StDev	Mean	Median	StDev	Mean	Median	StDev
Austria	.	.	.	.	.	.	4.00	4.00	.	3.50	3.50	0.71
Belgium	3.22	3.00	0.44	3.30	3.00	0.48	3.30	3.00	0.48	3.00	3.00	0.71
Denmark	2.00	1.00	1.73	3.20	4.00	1.10	3.20	4.00	1.10	2.50	2.50	1.29
Finland	3.25	4.00	1.50	3.40	4.00	0.89	3.67	4.00	0.82	3.80	4.00	0.45
France	3.12	3.00	0.94	3.43	4.00	0.84	3.58	4.00	0.68	3.08	3.00	0.83
Germany	3.77	4.00	0.71	3.96	4.00	0.44	3.87	4.00	0.56	3.33	3.00	0.76
Greece	.	.	.	.	.	.	3.33	3.00	0.58	3.50	4.00	1.00
Ireland	4.00	4.00	0.00	3.33	3.00	0.58	3.40	3.00	0.55	3.80	4.00	0.45
Italy	3.52	4.00	0.71	3.48	4.00	0.79	3.09	3.00	0.92	2.77	3.00	0.81
Luxembourg	1.00	1.00	.	1.00	1.00	.	1.00	1.00	.	2.00	2.00	.
Netherlands	1.62	1.00	0.92	1.89	1.00	1.15	2.24	2.00	1.22	2.21	2.00	0.92
Norway	4.00	4.00	.	4.00	4.00	0.00	3.60	4.00	0.89	3.80	4.00	0.45
Portugal	1.00	1.00	0.00	.	.	.	1.50	1.50	0.71	2.00	1.50	1.41
Spain	2.00	2.00	1.15	1.70	1.00	1.06	2.00	2.00	1.15	2.62	2.00	0.96
Sweden	2.47	2.00	0.92	2.72	2.50	0.96	2.76	3.00	0.97	3.44	3.50	0.62
Switzerland	2.33	2.00	1.35	2.00	1.00	1.25	2.29	2.00	1.26	3.00		0.91
United Kingdom	3.27	4.00	1.03	3.37	4.00	1.02	3.46	4.00	0.91	3.77	4.00	0.47
All	2.99	3.00	1.15	3.14	4.00	1.11	3.21	4.00	1.04	3.24	3.00	0.88
Anglo-Saxon	3.31	4.00	1.02	3.37	4.00	1.01	3.46	4.00	0.89	3.78	4.00	1.54
Continental	2.85	3.00	1.18	3.04	4.00	1.15	3.09	4.00	1.09	3.00	3.00	2.90

Panel II. Range of Takeover Defenses

Country	2000			2001			2002			2003		
	Mean	Median	StDev	Mean	Median	StDev	Mean	Median	StDev	Mean	Median	StDev
Austria	.	.	.	.	.	.	1.00	1.00	.	2.00	2.00	1.41
Belgium	1.11	1.00	0.33	1.20	1.00	0.63	1.10	1.00	0.32	1.22	1.00	0.67
Denmark	1.67	1.00	1.15	1.80	1.00	1.30	1.80	1.00	1.30	1.00	1.00	0.00
Finland	3.25	3.50	1.71	3.20	4.00	1.64	2.17	1.00	1.83	2.20	1.00	1.64
France	1.95	1.00	1.21	2.28	2.00	1.22	2.16	2.00	1.20	2.23	2.00	1.19
Germany	2.69	3.00	1.44	2.44	2.00	1.40	1.65	1.00	0.98	1.60	1.00	0.93
Greece	.	.	.	.	.	.	1.33	1.00	0.58	1.25	1.00	0.50
Ireland	5.00	5.00	0.00	3.67	4.00	0.58	4.20	4.00	0.45	3.80	4.00	0.84
Italy	1.84	1.00	1.11	1.35	1.00	0.83	1.36	1.00	0.73	1.09	1.00	0.29
Luxembourg	1.00	1.00	.	1.00	1.00	.	1.00	1.00	.	1.00	1.00	.
Netherlands	1.24	1.00	0.77	1.58	1.00	1.17	1.52	1.00	1.12	1.63	1.00	1.16
Norway	2.00	2.00	.	2.33	2.00	1.53	1.80	1.00	1.30	2.00	1.00	1.73
Portugal	1.33	1.00	0.58	.	.	.	1.00	1.00	0.00	1.00	1.00	0.00
Spain	1.30	1.00	0.48	1.50	1.00	0.71	1.30	1.00	0.48	1.38	1.00	0.77
Sweden	2.93	3.00	1.71	2.67	2.50	1.61	2.71	2.00	1.61	2.72	2.50	1.45
Switzerland	1.87	1.00	1.51	2.13	1.00	1.81	2.06	1.00	1.71	2.11	1.00	1.68
United Kingdom	3.44	4.00	1.50	3.60	4.00	1.55	3.73	4.00	1.35	3.75	4.00	1.21
All	2.44	2.00	1.55	2.53	2.00	1.58	2.42	2.00	1.55	2.41	2.00	1.50
Anglo-Saxon	3.52	4.00	1.50	3.6	4.00	1.52	3.75	4.00	1.32	3.75	4.00	1.19
Continental	1.97	1.00	1.31	2.03	1.00	1.34	1.79	1.00	1.22	1.79	1.00	1.20

Panel III. Disclosure on Corporate Governance

Country	2000			2001			2002			2003		
	Mean	Median	StDev	Mean	Median	StDev	Mean	Median	StDev	Mean	Median	StDev
Austria	.	.	.	.	.	.	2.00	2.00	.	2.50	2.50	0.71
Belgium	2.44	3.00	1.01	1.90	2.00	0.57	2.70	2.50	1.06	3.11	3.00	1.36
Denmark	2.00	2.00	1.00	1.40	1.00	0.55	1.60	2.00	0.55	3.25	3.00	1.50
Finland	3.50	3.50	0.58	2.60	3.00	0.55	3.00	3.00	1.10	3.80	3.00	1.10
France	2.55	3.00	1.06	2.98	3.00	1.07	3.26	3.00	0.98	4.28	5.00	0.88
Germany	2.31	2.00	0.84	2.41	2.00	0.75	2.94	3.00	0.85	3.37	3.00	0.81
Greece	.	.	.	.	.	.	1.33	1.00	0.58	2.00	2.00	0.00
Ireland	4.50	4.50	0.58	5.00	5.00	0.00	4.80	5.00	0.45	4.80	5.00	0.45
Italy	3.00	3.00	1.04	3.70	3.00	1.02	3.91	4.00	0.87	4.00	4.00	0.87
Luxembourg	1.00	1.00	.	1.00	1.00	.	1.00	1.00	.	3.00	3.00	.
Netherlands	2.62	3.00	1.24	2.95	3.00	0.91	3.10	3.00	0.89	4.26	4.00	0.81
Norway	3.00	3.00	.	1.33	1.00	0.58	1.80	2.00	0.84	2.60	2.00	0.89
Portugal	1.00	1.00	0.00	.	.	.	1.50	1.50	0.71	3.00	3.00	0.82
Spain	1.90	2.00	0.88	1.90	2.00	0.57	2.50	2.50	0.85	3.31	3.00	1.03
Sweden	2.13	2.00	0.92	2.17	2.00	0.79	2.29	2.00	0.59	3.06	3.00	1.00
Switzerland	1.47	1.00	0.52	1.33	1.00	0.62	2.29	2.00	0.77	3.28	3.00	0.83
United Kingdom	4.90	5.00	0.30	4.92	5.00	0.27	4.96	5.00	0.19	4.99	5.00	0.11
All	3.15	3.00	1.46	3.29	3.00	1.44	3.53	3.00	1.31	4.04	4.00	1.08
Anglo-Saxon	4.88	5.00	0.32	4.93	5.00	0.26	4.96	5.00	0.21	4.98	5.00	0.15
Continental	2.39	3.00	1.06	2.54	2.50	1.09	2.86	3.00	1.04	3.60	4.00	1.05

Panel IV. Board Structure and Functioning

Country	2000			2001			2002			2003		
	Mean	Median	StDev	Mean	Median	StDev	Mean	Median	StDev	Mean	Median	StDev
Austria	.	.	.	.	.	.	2.00	2.00	.	1.50	1.50	0.71
Belgium	2.78	3.00	0.67	2.80	3.00	0.92	3.30	3.50	1.16	3.67	4.00	1.41
Denmark	1.00	1.00	0.00	1.00	1.00	0.00	1.60	2.00	0.55	2.25	2.00	0.50
Finland	2.00	2.00	0.00	2.60	3.00	0.55	2.50	2.50	0.55	3.20	3.00	1.30
France	2.95	3.00	1.38	3.33	3.00	1.25	3.47	3.50	1.18	4.20	4.00	0.82
Germany	1.31	1.00	0.47	1.44	1.00	0.58	1.65	2.00	0.61	1.97	2.00	0.72
Greece	.	.	.	.	.	.	1.33	1.00	0.58	1.75	2.00	0.50
Ireland	4.75	5.00	0.50	5.00	5.00	0.00	4.80	5.00	0.45	4.80	5.00	0.45
Italy	2.12	2.00	0.67	3.22	3.00	1.09	3.23	3.00	0.92	3.55	4.00	0.86
Luxembourg	1.00	1.00	.	2.00	2.00	.	2.00	2.00	.	2.00	2.00	.
Netherlands	1.95	2.00	0.74	2.21	2.00	0.71	2.48	3.00	0.87	3.53	3.00	1.02
Norway	1.00	1.00	.	1.00	1.00	0.00	1.80	2.00	0.45	2.80	3.00	0.45
Portugal	1.00	1.00	0.00	.	.	.	1.00	1.00	0.00	1.25	1.00	0.50
Spain	2.60	2.50	0.97	2.80	3.00	1.23	3.50	3.50	0.85	3.15	3.00	1.28
Sweden	2.13	2.00	0.35	2.11	2.00	0.58	2.47	2.00	0.51	3.00	3.00	0.69
Switzerland	1.07	1.00	0.26	1.13	1.00	0.35	2.35	2.00	1.06	3.78	4.00	1.26
United Kingdom	4.56	5.00	0.58	4.67	5.00	0.55	4.79	5.00	0.44	4.95	5.00	0.21
All	2.85	2.00	1.48	3.12	3.00	1.49	3.32	3.00	1.39	3.76	2.85	2.00
Anglo-Saxon	4.57	5.00	0.57	4.68	5.00	0.54	4.79	5.00	0.44	4.94	5	0.23
Continental	2.10	2.00	1.07	2.4	2.00	1.21	2.63	3.00	1.13	3.22	3	1.23

TABLE A.2
Ratings – Descriptive Statistics: Individual Categories

This table describes the DEMINOR (individual categories) corporate governance ratings of the firms in our sample for the period from 2000 to 2003. Panels I to IV show, respectively, the I) rights and duties of shareholders; II) range of takeover defenses; III) disclosure on corporate governance; IV) board structure and functioning. Panel A shows the average country scores and the respective ranks. Panel B shows the average industry scores and the respective ranks. Scores may vary from 1 to 5.

Panel I. Rights and Duties of Shareholders

I.A. Country Ratings

Country	2000	#	2001	#	2002	#	2003	#	Δ #
Austria					4.00	1	3.50	5	na
Belgium	3.25	6	3.30	7	3.30	9	3.00	10	↓4
Denmark	2.00	11	3.00	9	3.00	11	2.00	15	↓4
Finland	3.00	8	3.25	8	3.60	3	3.80	1	↑7
France	3.10	7	3.43	4	3.58	5	3.08	9	↓2
Germany	3.77	3	3.96	2	3.86	2	3.33	8	↓5
Greece					3.33	8	3.50	5	
Ireland	4.00	1	3.33	6	3.40	7	3.80	1	↔
Italy	3.55	4	3.48	3	3.05	10	2.77	12	↓8
Luxembourg	1.00	14	1.00	14	1.00	17	2.00	15	↓1
Netherlands	1.56	13	1.82	12	2.21	14	2.28	14	↓1
Norway	4.00	1	4.00	1	3.60	3	3.80	1	↔
Portugal	1.00	14			1.50	16	2.00	15	↓1
Spain	2.00	11	1.70	13	2.00	15	2.62	13	↓2
Sweden	2.47	9	2.72	10	2.76	12	3.47	7	↑2
Switzerland	2.33	10	2.00	11	2.29	13	3.00	10	↔
United Kingdom	3.29	5	3.36	5	3.45	6	3.77	4	↑1
Average	2.99		3.13		3.19		3.24		
Standard Deviation	1.06		1.04		0.90		0.75		

Panel I.B. Industry Ratings

Industry	2000	#	2001	#	2002	#	2003	#	Δ #
Oil, Gas & Basic Materials	3.10	3	3.19	3	3.34	2	3.39	2	↑1
Other Industrials Sectors	3.03	4	3.13	4	3.19	5	3.25	5	↓1
Consumer Goods, Services, Healthcare	3.10	2	3.12	5	3.27	4	3.33	4	↓2
Telecommunications	2.60	7	2.93	7	3.33	3	3.44	1	↑6
Utilities	2.36	8	2.75	8	2.80	8	3.12	6	↑2
Banks	2.92	5	3.06	6	2.92	7	3.00	7	↓2
Other Financials	3.48	1	3.39	1	3.41	1	3.33	3	↓2
Technology	2.64	6	3.36	2	3.09	6	2.88	8	↓2
Average	2.99		3.13		3.19		3.24		
Standard Deviation	0.36		0.21		0.22		0.20		

Panel II. Takeover Defenses

II.A. Country Ratings

Country	2000	#	2001	#	2002	#	2003	#	Δ #
Austria					1.00	15	2.00	7	na
Belgium	1.13	14	1.20	13	1.10	14	1.22	13	↑1
Denmark	1.67	10	2.00	9	2.00	7	1.00	15	↓5
Finland	4.00	2	3.75	1	2.40	4	2.20	5	↓3
France	1.95	7	2.28	7	2.16	5	2.23	4	↑3
Germany	2.69	5	2.50	5	1.69	9	1.60	10	↓5
Greece					1.33	12	1.25	12	
Ireland	5.00	1	3.67	2	4.20	1	3.80	1	↔
Italy	1.91	8	1.35	12	1.38	11	1.09	14	↓6
Luxembourg	1.00	15	1.00	14	1.00	15	1.00	15	↔
Netherlands	1.28	13	1.65	10	1.58	10	1.67	9	↑4
Norway	2.00	6	2.33	6	1.80	8	2.00	7	↓1
Portugal	1.33	11			1.00	15	1.00	15	↓4
Spain	1.30	12	1.50	11	1.30	13	1.38	11	↑1
Sweden	2.93	4	2.67	4	2.71	3	2.71	3	↑1
Switzerland	1.87	9	2.13	8	2.06	6	2.11	6	↑3
United Kingdom	3.48	3	3.60	3	3.73	2	3.73	2	↑1
Average	2.49		2.55		2.44		2.40		
Standard Deviation	0.88		0.86		0.93		0.92		

Panel II.B. Industry Ratings

Industry	2000	#	2001	#	2002	#	2003	#	Δ #
Oil, Gas & Basic Materials	2.74	2	2.94	1	2.80	2	2.84	1	↑1
Other Industrials Sectors	2.50	4	2.49	5	2.31	6	2.40	4	↔
Consumer Goods, Services, Healthcare	2.73	3	2.88	3	2.82	1	2.65	2	↑1
Telecommunications	1.53	8	1.57	8	1.89	7	1.78	8	↔
Utilities	1.64	7	1.94	7	1.73	8	1.82	7	↔
Banks	2.79	1	2.29	6	2.31	5	2.11	6	↓5
Other Financials	2.43	5	2.75	4	2.66	3	2.63	3	↑2
Technology	2.18	6	2.93	2	2.36	4	2.25	5	↑1
Average	2.49		2.55		2.44		2.40		
Standard Deviation	0.49		0.51		0.40		0.39		

Panel III. Disclosure
III.A. Country Ratings

Country	2000	#	2001	#	2002	#	2003	#	Δ #
Austria					2.00	12	2.50	16	na
Belgium	2.50	8	1.90	9	2.70	8	3.11	11	↓3
Denmark	2.00	11	1.50	11	1.50	14	3.67	7	↑4
Finland	3.33	3	2.50	6	2.80	7	3.80	6	↓3
France	2.67	7	2.98	4	3.26	4	4.28	3	↑4
Germany	2.31	9	2.42	7	2.93	6	3.37	8	↑1
Greece					1.33	16	2.00	17	
Ireland	4.50	2	5.00	1	4.80	2	4.80	2	↔
Italy	3.09	4	3.70	3	3.86	3	4.00	5	↓1
Luxembourg	1.00	14	1.00	14	1.00	17	3.00	12	↑2
Netherlands	2.78	6	2.94	5	3.11	5	4.22	4	↑2
Norway	3.00	5	1.33	12	1.80	13	2.60	15	↓10
Portugal	1.00	14			1.50	14	3.00	12	↑2
Spain	1.90	12	1.90	9	2.50	9	3.31	9	↑3
Sweden	2.13	10	2.17	8	2.29	10	3.00	12	↓2
Switzerland	1.47	13	1.33	12	2.29	10	3.28	10	↑3
United Kingdom	4.91	1	4.93	2	4.96	1	4.99	1	↔
Average	3.19		3.29		3.52		4.03		
Standard Deviation	1.30		1.36		1.21		0.79		

Panel III.B. Industry Ratings

Industry	2000	#	2001	#	2002	#	2003	#	Δ #
Oil, Gas & Basic Materials	3.45	2	3.35	4	3.74	2	4.13	2	↔
Other Industrials Sectors	3.13	5	3.04	8	3.40	5	4.04	3	↑2
Consumer Goods, Services, Healthcare	3.63	1	3.76	1	3.98	1	4.33	1	↔
Telecommunications	3.13	4	3.14	6	3.22	7	3.67	8	↓4
Utilities	3.14	3	3.75	2	3.20	8	3.94	5	↓2
Banks	2.95	7	3.17	5	3.36	6	3.87	6	↑1
Other Financials	2.96	6	3.07	7	3.41	4	4.03	4	↑2
Technology	2.64	8	3.43	3	3.45	3	3.75	7	↑1
Average	3.19		3.29		3.52		4.03		
Standard Deviation	0.31		0.29		0.26		0.21		

Panel IV. Board Structure and Functioning
IV.A. Country Ratings

Country	2000	#	2001	#	2002	#	2003	#	Δ #
Austria					2.00	11	1.50	16	na
Belgium	2.75	4	2.80	5	3.30	5	3.67	5	↓1
Denmark	1.00	12	1.00	13	1.50	15	2.33	12	↔
Finland	2.00	8	2.50	7	2.40	9	3.20	8	↔
France	3.08	3	3.33	3	3.47	4	4.20	3	↔
Germany	1.31	9	1.46	10	1.66	14	1.97	14	↓5
Greece					1.33	16	1.75	15	
Ireland	4.75	1	5.00	1	4.80	1	4.80	2	↓1
Italy	2.09	7	3.22	4	3.19	6	3.55	7	↔
Luxembourg	1.00	12	2.00	10	2.00	11	2.00	13	↓1
Netherlands	2.00	8	2.24	8	2.63	7	3.56	6	↑2
Norway	1.00	12	1.00	13	1.80	13	2.80	11	↑1
Portugal	1.00	12			1.00	17	1.25	17	↓5
Spain	2.60	5	2.80	5	3.50	3	3.15	9	↓4
Sweden	2.13	6	2.11	9	2.47	8	3.00	10	↓4
Switzerland	1.07	11	1.13	12	2.35	10	3.78	4	↑7
United Kingdom	4.57	2	4.68	2	4.80	2	4.95	1	↑1
Average	2.87		3.13		3.34		3.76		
Standard Deviation	1.24		1.23		1.15		1.12		

Panel IV.B. Industry Ratings

Industry	2000	#	2001	#	2002	#	2003	#	Δ #
Oil, Gas & Basic Materials	3.16	3	3.23	4	3.63	2	3.84	3	↔
Other Industrials Sectors	2.55	7	2.86	7	3.04	7	3.65	5	↑2
Consumer Goods, Services, Healthcare	3.38	1	3.61	2	3.78	1	4.17	1	↔
Telecommunications	2.53	8	2.93	6	2.78	8	3.11	8	↔
Utilities	3.36	2	3.81	1	3.53	3	3.65	6	↓4
Banks	2.82	4	3.00	5	3.51	4	3.72	4	↔
Other Financials	2.57	6	2.79	8	3.21	5	3.97	2	↑4
Technology	2.73	5	3.29	3	3.09	6	3.25	7	↓2
Average	2.87		3.13		3.34		3.76		
Standard Deviation	0.36		0.37		0.34		0.35		

TABLE A.3

Country and Industry Factors: Countries with 5 constituents or more

This table shows the estimates of equation (2) for the period from 2000 to 2003.

Panel A. Country Factor Estimates

	2000		2001		2002		2003	
	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>	δ	<i>p-value</i>
Belgium					-2.316	0.002	-2.775	0.000
Finland	-2.137	0.012	-3.147	0.000	-1.726	0.107	-0.979	0.351
France	-0.859	0.016	-0.205	0.581	-0.252	0.481	0.064	0.851
Germany	-1.659	0.000	-1.900	0.000	-2.588	0.000	-3.472	0.000
Ireland					4.299	0.000	3.332	0.001
Italy	-1.104	0.029	-0.612	0.241	-1.317	0.010	-2.350	0.000
Netherlands	-4.012	0.000	-3.673	0.000	-3.290	0.000	-2.006	0.000
Norway					-4.044	0.000	-2.712	0.009
Spain	-2.965	0.000	-3.980	0.000	-2.928	0.000	-3.019	0.000
Sweden	-1.955	0.001	-2.468	0.000	-2.434	0.000	-1.456	0.009
Switzerland	-5.183	0.000	-5.873	0.000	-3.917	0.000	-1.752	0.001
United Kingdom	4.739	0.000	4.505	0.000	4.282	0.000	3.801	0.000

Panel B. Industry Factor Estimates

	2000		2001		2002		2003	
	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>	β	<i>p-value</i>
Oil, Gas & Basic Materials	0.764	0.077	0.981	0.034	0.930	0.015	0.735	0.043
Other Industrials Sectors	-0.096	0.718	-0.358	0.187	-0.376	0.120	-0.113	0.635
Consumer Goods & Services and Healthcare	0.055	0.878	-0.216	0.567	-0.162	0.629	-0.419	0.192
Telecommunications	-0.912	0.157	-1.361	0.058	-0.117	0.851	-0.410	0.517
Utilities	-1.994	0.004	-0.914	0.158	-1.531	0.020	-0.531	0.384
Banks	0.481	0.211	0.443	0.299	0.261	0.489	0.069	0.842
Other Financials	0.671	0.163	0.636	0.179	0.443	0.300	0.342	0.401
Technology			0.383	0.577	0.262	0.712	0.074	0.929

Panel C. Intercept Estimates and Fit Statistics

	2000		2001		2002		2003	
	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>	α	<i>p-value</i>
European Average Rating	11.604	0.000	12.192	0.000	12.719	0.000	13.708	0.000
N	237		222		234		256	
F-statistic	24.530		30.780		28.400		26.220	
(<i>p-value</i>)	0.000		0.000		0.000		0.000	

TABLE A.4**Pure Country and Industry Effects: Countries with 5 constituents or more**

This table shows the estimates of equations (5) and (6) for the period from 2000 to 2003.

Panel A. Country Pure Effects

	2000	2001	2002	2003
Belgium	11.604	12.192	10.403	10.933
Finland	9.466	9.046	10.993	12.729
France	10.744	11.988	12.466	13.773
Germany	9.945	10.293	10.130	10.237
Ireland	11.604	12.192	17.017	17.041
Italy	10.500	11.581	11.402	11.358
Netherlands	7.591	8.519	9.429	11.702
Norway	11.604	12.192	8.674	10.997
Spain	8.639	8.213	9.790	10.689
Sweden	9.648	9.724	10.285	12.253
Switzerland	6.420	6.319	8.802	11.956
United Kingdom	16.342	16.697	17.001	17.509

Panel B. Industry Pure Effects

	2000	2001	2002	2003
Oil, Gas & Basic Materials	12.368	13.173	13.649	14.443
Other Industrials Sectors	11.508	11.834	12.342	13.596
Consumer Goods & Services and Healthcare	11.658	11.976	12.557	13.289
Telecommunications	10.692	10.832	12.601	13.299
Utilities	9.610	11.278	11.188	13.177
Banks	12.085	12.635	12.980	13.778
Other Financials	12.275	12.828	13.162	14.051
Technology	11.604	12.575	12.980	13.783