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Corporate Governance: Thinking Fast and Slow

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Corporate Governance is important to investors, but it is more complex than first appearances would have you believe. With contemporary CG measures running the risk of oversimplifying a topic that is too complex to be captured in a single number, we introduce an indicators-based perspective of CG.

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Daniel Kahneman's book "***Thinking Fast and Slow***" is essential reading for anyone who invests. It shows, by breaking down the thinking behind decision making, where we are prone to mistakes in our judgement. Most of our everyday thinking is based on System 1, which comprises our intuition, gut-reactions based on first impressions, and easy to access information.

System 2 is the more analytical critical thinking used for reflection, problem-solving, and analysis. This is the thinking that should kick in when System 1 does not offer answers, where we observe things outside our expectations, or where we are making mistakes.

If we survey the corporate governance (CG) landscape today we can see plenty examples of System 1 thinking: long lists of governance boxes to tick, codes to comply with and "quick" governance scores. Yet we also see plenty of evidence that this approach does not work, from the returns generated by technology companies with unconventional governance structures to the failure of companies such as Toshiba, which had all the right committees and 25% independent directors, a model of governance in Japan.

Governance is important to investors, but it is more complex than first appearances would have you believe. For example the number of governance inputs that are easily observable is high. Current practice then focuses on these, working under the assumption the most important aspect of governance is constructing the right framework. This System 1 approach suffers from assuming that correlation is the same as causation. However good governance should not be seen as an end in itself, but rather as something that if well executed, leads to the best possible result of long-term sustainable returns. We have turned our focus to identifying indicators of strong governance practice that deliver these kinds of financial results; an activity that we would argue needs System 2 thinking.

With contemporary CG measures running the risk of oversimplifying a topic that is too complex to be captured in a single number, we introduce an indicators-based perspective of CG and examine how it relates to financial performance. We started by identifying what desirable indicators of good CG would look like. Appendix 1 on page 11 provides a brief summary of the process. We find that taking distinct perspectives of CG in the form of business oversight, strategic oversight and shareholder alignment appear to be more meaningful compared to an approach that simplifies these perspectives into a single dimension. However, our analysis suggests that CG is dependent on context and a singular plug-and-play approach when implementing CG into investment decisions should be handled with caution. While it is hardly possible to fully capture all facets of CG in such a systematic approach, our model serves as an empirical framework providing a starting point for company-specific analyses in a more meaningful fashion than the typical fast thinking System 1 perspective.

Corporate governance: considered by many, but thought about by few

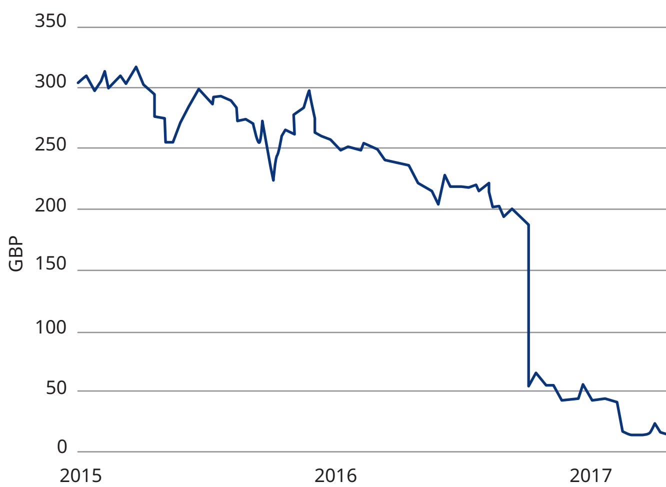
It is a universally acknowledged truth that good governance matters. The OECD has guidelines on it; the World Bank monitors it; policymakers from Tokyo to London encourage it. Even those most sceptical of the benefits of environmental, social and governance (ESG) analysis will concede on the importance of good governance. Indeed, our own ESG journey at Schroders began with the analysis of corporate governance following requests by fund managers to understand it better, although a focus on the E and the S followed quickly after.

This importance means that the corporate governance eco-system continues to grow. Increasingly, countries are introducing and revising local governance codes to improve company level practice. Stewardship codes have gone global encouraging asset owners and managers to push for better practice.

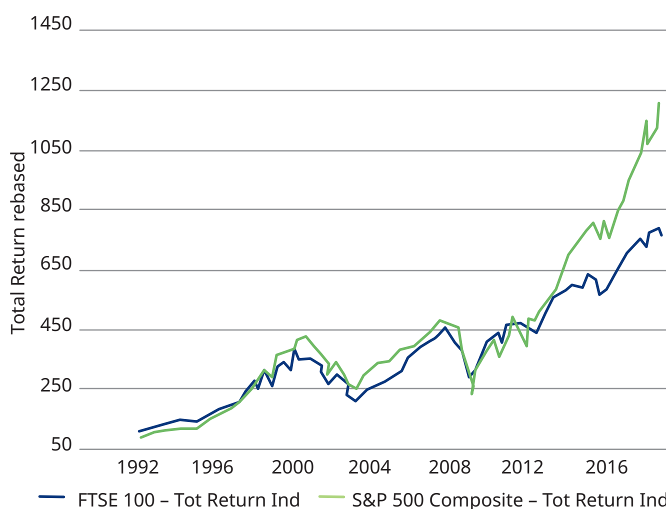
Yet for something so important, there is little agreement on what "*good*" is. For example, the UK is often seen as a leader in corporate governance and has recently celebrated the 25th anniversary of its Corporate Governance Code – the first in the world. However, that did not stop Carillion, a major listed company, going into liquidation in 2017 following some serious corporate governance failures. Similarly, it has not meant that the UK has outperformed other developed markets; indeed it has lagged the US whose corporate governance code is conspicuous by its absence (Figure 1).

This led us to the fundamental question of what good governance looks like, and what we should look for when we assess companies and countries on the issue of governance.

Figure 1: Carillion share price



Performance of FTSE 100 vs S&P 500



System 1 thinking

From an academic perspective, CG is the most researched of E, S, and G, which might lead some to think that an easy answer can be found. While studies showing higher risk-adjusted returns stemming from ESG integration tend to attract more attention, the wider consensus is less clear, indicating that ESG integration can carry benefits, yet far less often than we're made to believe (cf. Duuren et al., 2016; Core et al., 2006).

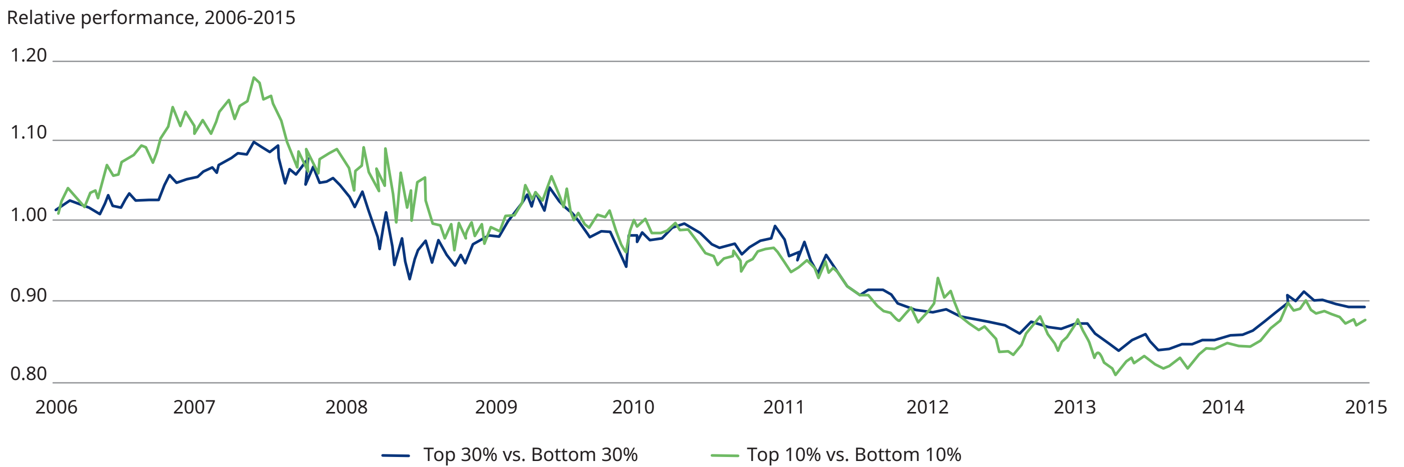
Generally, there are several ways in which academics argue that corporate governance can affect company performance. From an operational perspective, it is argued that firms with weak corporate governance can be less efficient, have lower labour productivity, and suffer from higher input costs. This is in line with studies providing evidence that companies with strong CG experience lower cost of capital. In similar fashion, Core, Wayner & Rusticus (2006) find that "*firms with weak shareholder rights exhibit significant operating underperformance*". However, the final results do not support the hypothesis that weak governance causes poor stock returns.

At the same time, the backdrops against which CG practices are implemented vary widely and it appears only logical that different circumstances favour different CG practices on a company level. The OECD corporate governance factbook outlines the significant differences in CG frameworks on a country-by-country level. Consequently, copying a successful CG structure of a company in one country and implementing it in another might lead to very different results. On the example of ownership structures, the OECD says: "*although it may be true that more direct shareholder monitoring, fewer restrictions for large shareholders, and more ownership concentration improves performance in the US and UK, this may not be the case in countries where ownership concentration is already relatively high*".

Another part of the literature points to performance decay, and the need for a new approach. It argues that after time, markets simply start to price in the performance relevance of what is perceived as strong corporate governance from a top-down perspective, and hence alpha disappeared (or even reverted).[1] Research by Credit Suisse reaches a similar conclusion, arguing that "*through time it is hard to find a consistently positive relationship between the quality of governance and investment returns. There are periods, often long ones, where companies with lower governance rankings can outperform those with quality governance rankings. Since detailed data on corporate governance indicators first became widely available about 25 years ago, evidence has emerged that simple top-down strategies favouring well-run companies could yield outperformance. However, probably because this effect became known to many investors, that relatively simple approach seems to be no longer effective*".

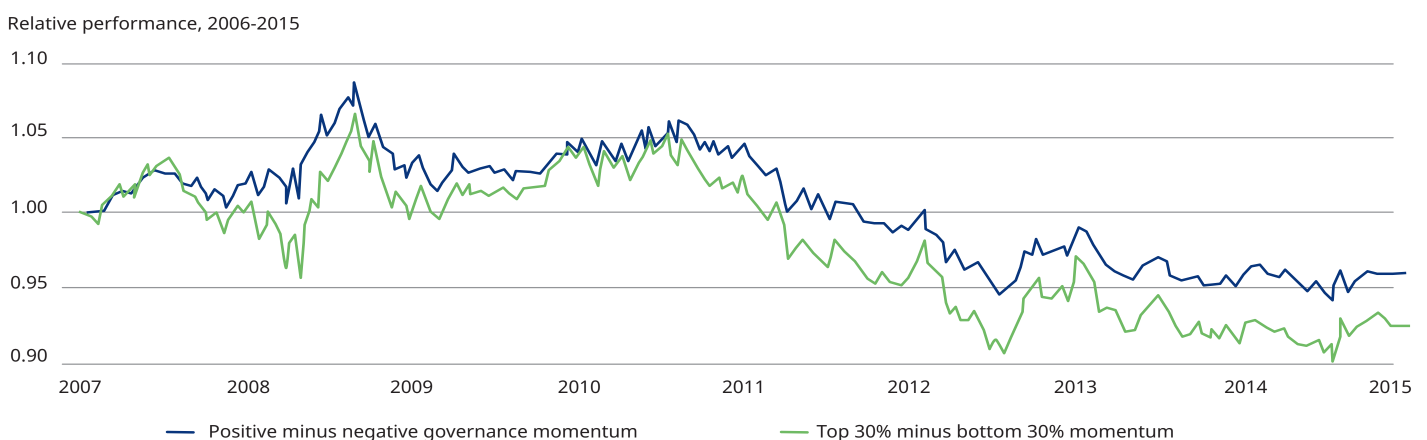
1 *Learning and The Disappearing Association Between Governance and Returns,"* Lucian A. Bebchuk, Alma Cohen, and Charles C. Y. Wang, Harvard Discussion Paper No. 667, 04/2010, Last revised 08/2012.

Figure 2: Relative equity returns in USD by bands of governance rating



Source: Datastream, MSCI, Credit Suisse

Figure 3: Long-short portfolios across all sectors using changes in governance scores of individual companies



Source: Datastream, MSCI, Credit Suisse

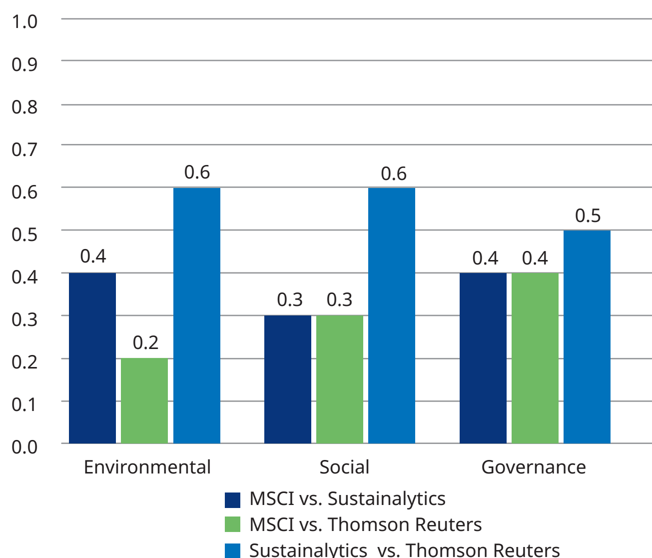
Similarly, Cremers and Ferrell (2009) show that abnormal returns from strong corporate governance decrease over time. Consequently, research suggests that "*…the different commercial indices do not generate consistent or robust results when used in studies investigating the link between the quality of CG and firm performance or valuation. Indeed, most of these ratings do a rather poor job in predicting future performance*" (Daines et al. 2010).

Figures 2 and 3 indicate that there are significant periods during which plug-and-play approaches to CG integration appear to have yielded considerably worse performance when compared with non-CG approaches. One possible explanation for the underperformance of the CG index could be that high CG scores do not accurately identify the companies with best CG, hence limiting investors to a universe of suboptimal companies. Another explanation might be the push for conformity turning good corporate governance into a box-ticking exercise, leading to little room for distinction among companies when not considered thoughtfully.

A practitioner's view

We have also reviewed governance scores with the help of our quantitative and advanced beta teams. Examining a number of governance scoring systems, we noted that the correlation between governance scores across rating providers is similar to what it is for environmental or social scores; indicating that while CG is arguably the most researched one of the trio, it is not necessarily better understood than E and S when it comes to assessing it systematically.

Figure 4: Correlation between scores



Context dependencies play a critical role when assessing CG, including organisational, regional and temporal dimensions. For example, many CG scores have adopted a definition of good that has been heavily influenced by the first Corporate Governance Code in the UK, such as separation of chairs and CEOs, unitary boards and independence levels. As a UK asset manager with over 200 years of history we have naturally studied the evolution of these norms closely and support their implementation. However translating them into other jurisdictions who have their own history, for example to Germany who has a long history of supervisory boards and worker representation, is not always appropriate. The result is that governance ranking on any global scale runs the risk of introducing little more than regional factor exposure.

This can be overcome with country relative rankings. However, such rankings are likely to introduce an additional factor bias, since large internationally facing companies are more likely to have adopted these norms, encouraged by their global investor base.

The second concern that arose was conceptual, namely that these scores focus on inputs of CG, rather than desired outcomes and indicators thereof. The starting base for the methodology of most governance scores is a local corporate governance code or an international norms-based structure, which are used to assesses companies against this measuring stick.

Given the scope of possible context configurations, company particularities, and the resulting complexity thereof, it seems hard to believe that taking a one-dimensional approach to corporate governance could be the answer. However, this has been a widely used approach when studying the relevance of CG for financial performance. With ESG data providers supplying an increasing amount of CG data, investors can be tempted to turn CG into a box-ticking exercise, rather than focusing on CG characteristics that actually matter.

If we turn towards the OECD Principles of Corporate Governance, we see a number of things that can be measured easily and hence subject themselves to a “tick box” assessment, but still more things that cannot:

Model for Identifying Successful Corporate Governance

Easily observable Fast thinking	Difficult to observe Slow thinking
Align key executive and board remuneration (pay) with the longer-term interests of the company and its shareholders.	Board members should be informed and act ethically and in good faith, with due diligence and care, in the best interest of the company and the shareholders.
Where committees of the board are established, their mandate, composition and working procedures should be well-defined and disclosed.	Ensure the integrity of the corporations accounting and financial reporting systems, including their independent audit.
Ensure a formal and transparent board member nomination and election process.	Review and guide corporate strategy, objective setting, major plans of action, risk policy, capital plans, and annual budgets.
	Ensure appropriate systems of internal control are established.
	Select, compensate, monitor and replace key executives and oversee succession planning.
	Oversee major acquisitions and divestitures.
	Oversee the process of disclosure and communications.

Source: Schroders

In summary, academic and professional results on what manifests as good CG are mixed at best and often much too context-specific to provide a general understanding. They rely on a tick-box approach that identifies the right policies, but are inadequate when assessing the quality of less easily observable issues. Policymakers do not always help the debate by promoting endless rounds of new and improved Codes, which imply that the CG is all about getting the correct formula. While Codes evolve, the core issue that they are solving for remains the same, i.e. how to build sustainable and successful companies.

As fundamental investors, we firmly believe assessing governance is worthwhile and can generate alpha. However determining a framework to assess this in an evidence-based and relevant manner is more complex than conventional scores and codes would have you believe. The time has come for some slower thinking.

Are governance codes a measure of good governance?

Many corporate governance codes are written and revised in response to crises. The grandfather of them all – the Cadbury Code – was the direct result of the failure of UK travel company Polly Peck; the latest revision has been influenced by the failed BHS and Carillon. A number of countries adopted them in the aftermath of the financial crisis. The reactive nature and context of their creation will undoubtedly influence their content and structure; with the risk that they are more focused on the prevention of failure rather than the creation of success. For businesses to really be sustainable in the long term, governance structures need to focus on both aspects.

When we went back and evaluated corporate governance failures to establish lessons learnt, there were a number where the adherence to the corporate governance inputs looked solid, for example with Toshiba and Olympus. Indeed both of these companies received strong scores from some third party rating providers on ESG – of which governance is a major component – ahead of and up to their controversies. Meanwhile, technology companies like Facebook and Google have generated huge amounts of shareholder value with less conventional governance structures. Closer to home, the UK is often recognised as having some of the toughest governance standards globally, but as we commented before, the total return of the market has, over the medium term, lagged other developed markets where governance is not as strong, most notably the US.

At the same time, despite the rise of a global corporate governance hegemony, we are also seeing the expansion of more companies with "concentrated ownership" structures. The recent increase in initial public offerings (IPOs) in non-OECD markets, typically of minority stakes, has contributed to the growing dominance of concentrated ownership structures in global equity markets. Looking at new entries to equity markets, the share of equity raised through IPOs by non-OECD corporations in non-OECD markets increased significantly in the last two decades, from 13% (average between 1995 and 2003) to 55% (average between 2008 and 2012). Considering that family controlling ownership is common in non-OECD corporations and non-OECD markets require lower free floats, this has contributed to concentrated ownership structures becoming more dominant in global equity markets.

These examples have not gone unnoticed by policymakers. Witness the recent decision by both Hong Kong and Singapore to allow companies with different voting classes of shares to list on their exchanges. We have written elsewhere about the declining numbers of listed companies; some observers comment that the governance requirements are too onerous, which could be a cause of this.

We can understand the importance of Codes in encouraging the adherence to strong standards. We recognise that Codes have been built up over time based on experience. There is much to be said for a common sense approach. Independent audit and remuneration committees, a senior independent director, through which stakeholders can escalate concerns, are all things that we are full supporters of.

However, we would argue that Codes alone are not enough to guarantee good governance outcomes. The very fact that Codes evolve over time, with new innovations like board evaluation, diversity and stakeholder focus coming in during the most recent rounds, demonstrates that governance is sometimes difficult to codify. Indeed many Codes are built around the principle of Comply or Explain, but the message that many companies take away is comply or die, especially as corporate governance indices rise. There is a risk that in assessing CG solely on inputs only encourages boards to turn their focus to window dressing rather than the business of good governance.

Many Codes of today are tackling the same issues that the first joint stock companies faced 400 years ago: agency costs. In 1609, the first corporate governance complaint was recorded when a petition was filed that alleged that the Dutch East India Company's (VOC) board of directors (the Heeren XVII) sought to "*retain another's money for longer or use it in ways other than the latter wishes*." The case also demonstrates that activism is not new; liquidation was petitioned for! Concerns quickly moved onto another that commands as much debate and scrutiny today as it did 400 years ago: audit. In 1622, VOC shareholders demanded a "reeckeninge," a proper financial audit.

System 2 corporate governance

All of the above supports the idea that "*...the problem is a fundamental one of defining and measuring 'good' governance, rather than a problem that can be solved 'downstream', i.e. at the stage of data analysis*" (Larcker et al. 2007). Hence, starting with a blank sheet of how good CG is conceptualised appears to provide the best chance of obtaining a better idea of "good" CG from an investor's perspective.

Upstream improvements carry more potential	
"Upstream", i.e. the stage of conceptualising CG	**"Downstream", i.e. the stage of statistical analysis**

Theories on CG are rich and mainly fall into one or more of three categories: principal-agent theory, stakeholder theory, or stewardship theory. However, given the conundrum outlined above and the way that previous work has failed to deliver, a theory-agnostic approach based on first principles appeared most promising, particularly given the vast range of findings on the topic when using a theory-driven approach.

As we have discussed, past analyses tended to focus on "the things that are done" or inputs, rather than on objective and systematic indicators of what good corporate governance intends to deliver, and measuring their success against what investors receive, i.e. investment returns. By shifting perspective to these desirable indicators and their relation to a company's performance, it becomes possible to generate more thoughtful insights. Ultimately, it is these indicators of desirable outcomes that provide the basis of what good CG should generate. From them we can identify the measures (inputs) in companies' control leading to the desired indicators. Tying together a versatile set of desirable indicators with underlying inputs provides a better basis for the evaluation of good CG than following a linear box-ticking exercise.

Starting from first principles, we identified indicators we would expect to find as a result of good CG. In doing this we have sought to combine our understanding and knowledge of governance and its history with our practical experience and observances as investors. It is this that has led us to distil good governance into three core groups of indicators which we feel are essential for the creation of long-term shareholder value.

These indicators can be split into three categories:

(i) business oversight,

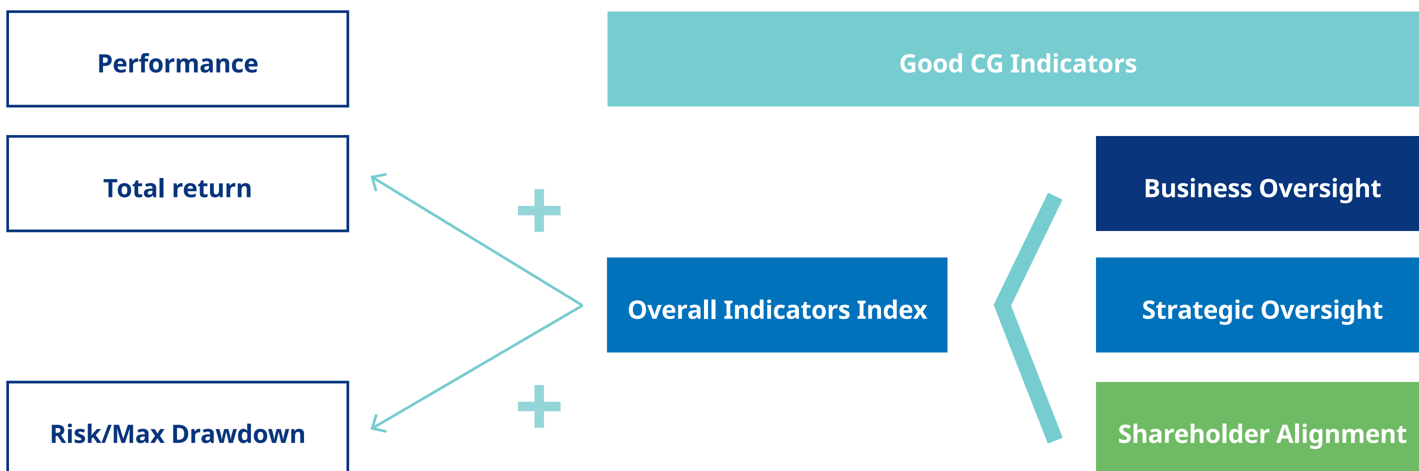
(ii) strategic oversight,

(iii) shareholder alignment.

Good business oversight is expected to manifest itself in financial transparency and quality, and avoidance of failures of control and accounting or ethics-related shortcomings. Good strategic oversight enables efficient longer-term capital allocation and a sustainable balance sheet. Lastly, shareholder alignment guarantees fair treatment of shareholders, effective board structures and alignment of stakeholder interests. Indicators within these three categories are only included if they show evidence of leading to an improved upside or reduced downside in a company's financial performance. We are not focusing on good governance as an end in itself, but something that leads to enhanced long-term investment returns.

Conceptually, this leads to a structure that first identifies indicators that are expected as a result of good corporate governance and filtering them based on their relation to financial performance and risk characteristics. (Figure 5)

Figure 5:



Some slow thinking

In deciding what to test for we sought to identify indicators that are explicitly beyond the traditional company disclosures on governance and that have not been captured by conventional approaches or governance rankings. We drew on our fundamental investment experience in compiling a long list of what would be most useful to assess.

The rise of unconventional data has assisted with this. For example, we have long placed value on knowing the boards and management teams of the companies that we invest in. Quite often, we successfully follow strong managers and directors from company to company, and vice versa. Our investment teams have access to BoardEx, which helps us to assess directors' backgrounds and relationships. The help of our Data Insights Unit has been instrumental in enabling us to use this data source to measure if the level of board connections is a helpful indicator.

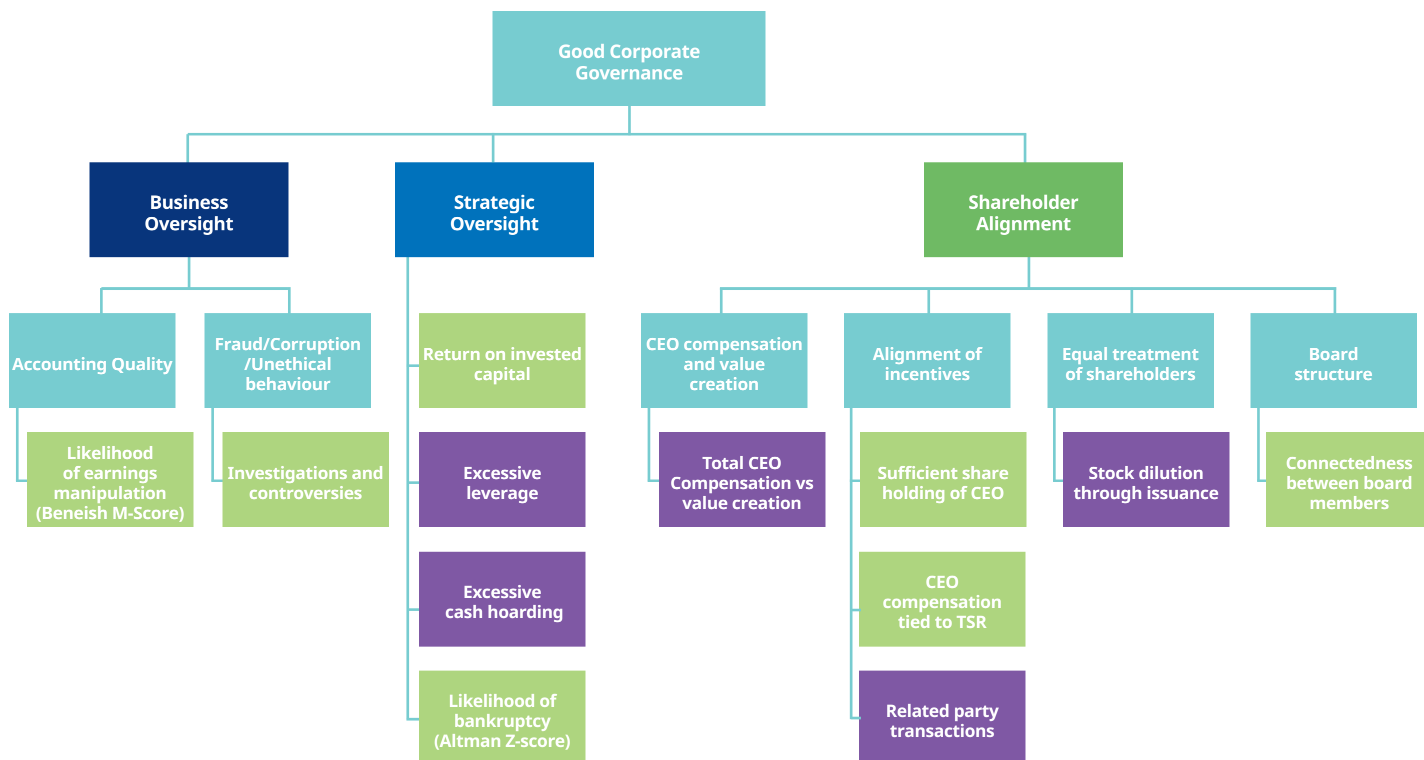
Assessing the quality of accounts is an essential part of our investment processes, both fundamental and quantitative. It is for this reason that we examine both the likelihood of earnings manipulations (Beneish M) and bankruptcy (Altman Z) by using predefined scores as important components. We always recognise that capital allocation is a delicate balance. We are looking for companies that have a resilient balance sheet but also do not hoard cash. Hence we explored both leverage and cash hoarding.

As part of finding the right indicators, we deliberately tried to avoid many of the input factors, such as separation of chair and CEO, that dominate so many of the conventional CG rankings. Our intention was to later tie these traditional inputs together with the identified indicators, ultimately working backwards towards what good CG looks like on a traditional inputs level.

Based on the three categories outlined above, we assigned each a set of desirable indicators and tested their effects on average returns (measured as total return) and average downside risk (measured as maximum drawdown) for roughly 1,500 companies over the last five years.

Figure 6 below displays the three categories and the respective indicators within them. Indicators marked in green ended up being used in the model, indicators in red were discarded. This does not mean that they don't matter from a performance perspective, but merely that we couldn't find a meaningful relationship for the specific time frame and dataset used.

Figure 6: Indicators of Good Corporate Governance

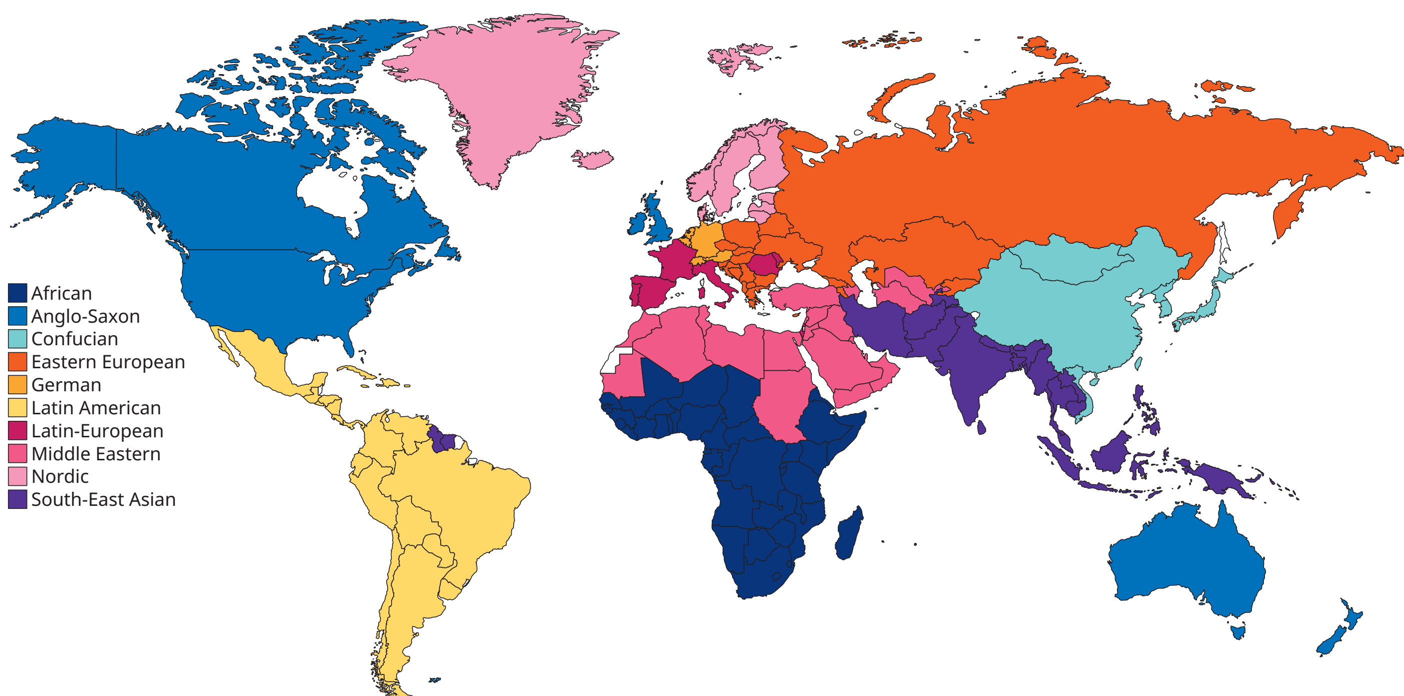


Source: Schroders

Given the diverse set of corporate governance and stewardship codes employed on a country level, we accounted for regional biases when testing for these effects. Since national codes affect company level corporate governance structures, we assessed companies relative to their peers, rather than in absolute terms. Since there is no "governance code proximity score", we proxied the likeness of governance codes via proximity of norms amongst cultures. More specifically, research by Mensah and Chen (2012) provided a foundation for grouping countries into ten different cultural clusters. Through this classification, we aimed at accounting for societal norms affecting corporate governance in the covered regions by using a company's distance to the median of its respective culture cluster, rather than its absolute value.

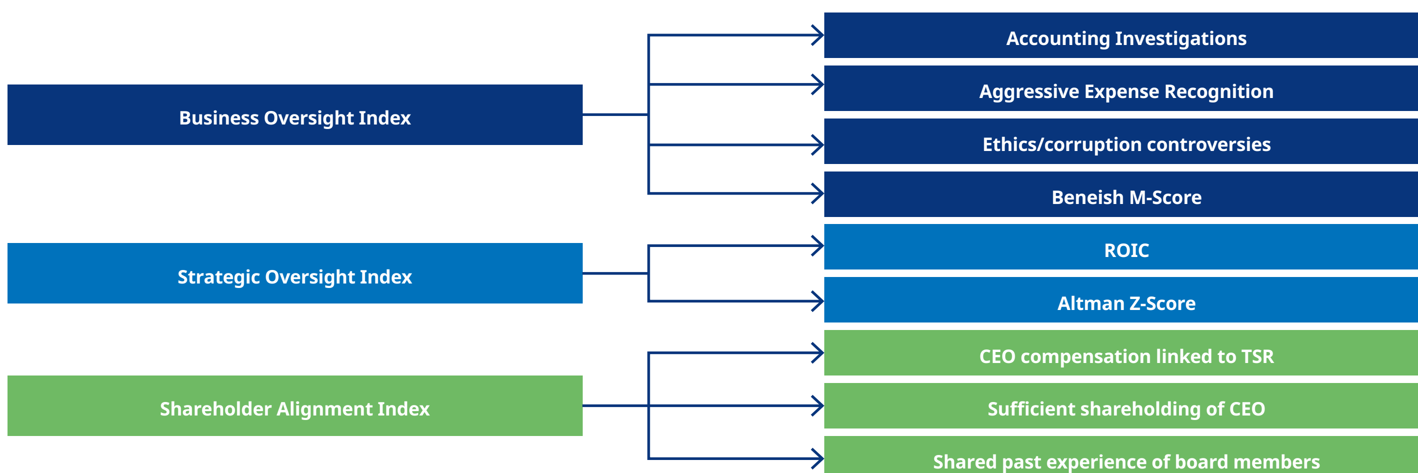
For example, having a CEO's compensation tied to total shareholder return (TSR) would be considered a relatively better indicator in a region with a generally low median for this criterion compared to a region with a higher median. By doing so, it becomes possible to capture the effect of a feature relative to peers. The ten culture clusters included are African, Anglo-Saxon, Confucian, Eastern European, German, Latin American, Latin European, Middle Eastern, Nordic, and South-east Asian. Japan was initially included in the Confucian cluster, yet its results were too significantly different from its peers so we assigned Japan its own region. Figure 7 displays a map of the country groupings. A full list of countries and their regions can be found in Mensah and Chen (2012).

Figure 7: Country groupings



Source: Mensah and Chen, Global Clustering of Countries by Culture – An Extension of the GLOBE Study, 2012

Figure 8: Indicators with the most significant effects on risk and return



The indicators that had the most significant effects on risk and return are displayed in Figure 8. While some indicators appeared to be relevant for both upside and downside (e.g. CEO compensation linked to TSR), others only correlated with either of upside or downside (e.g. longer shared past experience of board members tended to be the case amongst less risky stocks, yet did not have correlation with total return of a company). Further, some of the indicators are intuitively expected to have an effect on risk and return (e.g. return-on-invested capital – ROIC – on total return), yet others that would be expected to provide insight, but appeared insignificant, had to be dropped (e.g. excessive leverage and a measure of CEO compensation vs value creation). Overall, Figure 8 summarises the final sets of indicators used going forward.

Some results remain puzzling. That leverage seems to have relatively little impact feels counterintuitive. However, in the context of the credit cycle of the recent past there are reasonable grounds to assume that this has not really been tested. Nor has the other side of the coin (i.e. cash hoarding) been influential. This is frequently an area that many activists target, and in some countries, such as Japan, policymakers are even encouraging the adoption of more efficient balance sheet structures. Again, this may be attributed to the stock market leadership that we have seen from many technology names over the period. Equally, the fact that dilutive stock issuance has not been included in the model will not see us stepping away from our strongly held views on non pre-emptive rights issuance.

Few governance debates have consumed as much energy, time and controversy as that on pay. With the exception of Australia, we have long been proponents of linking executive pay to total shareholder return. While we acknowledge that this has its shortcomings, in particular the risk that it can lift all boats in a rising tide and the share price is not totally in management's control, we like its simplicity and the alignment with shareholders that it creates. Our analysis provides an evidence base to support this over other structures such as net asset value (NAV) and dividend growth.

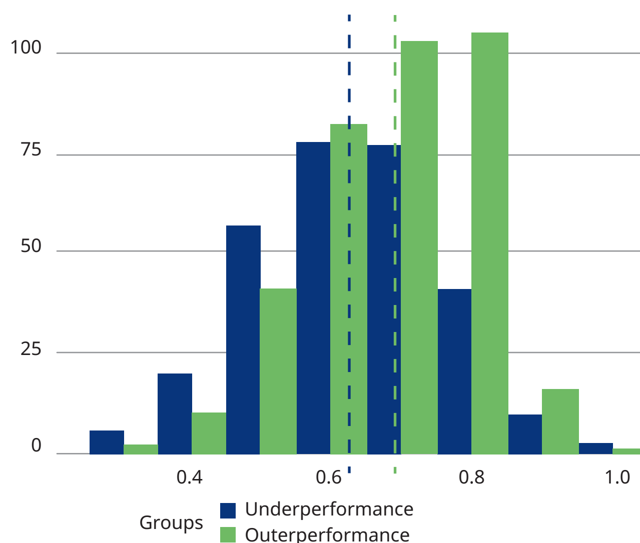
The proof statement

With these indicators defined and tested, it became possible to build index scores for each of the three categories of indicators on a company level. We tested each company's three index scores (one per business oversight, strategic oversight, and shareholder alignment) against risk and return over the last five years. Keeping in mind the tested effects of the underlying indicators, the indices unsurprisingly showed the expected effects. With the exception of business oversight against total return, each index showed statistically significant explanatory power on both risk and return[2]. Finally, combining the three category indices to one overall CG index enables us to measure CG considered to be 'good' from an investor's perspective based on desirable indicators.

We created this overall index by equally weighting all three of the underlying category indices. The overall CG indicators index shows a significant and positive effect on risk and returns. A distribution plot splitting the companies into top quartile (green) and bottom quartile (blue) performers shows that top quartile performers have statistically significant higher mean scores (dashed line) after adjusting returns for sector and region (Figure 9). The same applies to the risk dimension, leading to the conclusion that the selected indicators provide insights into recent financial performance.

2 Business oversight was statistically significant at a 13% level when used in a logistic regression explaining total return

Figure 9: Performance of the Corporate Governance Indicators



Source: Schroders

Where can we think fast?

Kahneman is clear about the vital role that fast thinking can play in everyday life. We were keen to ensure that we did not totally ignore some of the CG inputs that could still be helpful.

Having established indices of desired indicators of good CG, we correlated company characteristics traditionally considered to be related to CG with the indicator indices to identify which inputs are better at signalling the presence of the desired CG indicators. While we may feel that conventional governance inputs are less effective as an investment tool, their presence cannot be ignored. In addition, against ever-lengthening CG requirements and codes, we felt that this exercise would be useful in helping us establish which, if any, we should focus our engagement efforts on if we wanted to improve CG.

We selected 42 features of ASSET4's corporate governance data inputs and tested them against the indicators for business oversight, strategic oversight, and shareholder alignment. The list of input features that correlated the most with each of the categories and a definition of all input features can be found in the tables below. Examples of input features include:

– Presence of committees and their independence (e.g. audit, nomination, and remuneration committees)

– Policies put in place (e.g. board size, adequate board experience, and diversity)

– Voting rights (e.g. voting caps and minimum amount of shares required to vote)

Overall, 13 inputs had significant correlation, six across more than one indicator.

Figure 10: Correlation of CG inputs with CG indicators

Business Oversight Input Index	Direction
Compensation improvement tools	Positive
Compensation committee	Positive
Corporate governance committee	Positive
Balanced board structure: independence policy	Positive
Balanced board structure: gender policy	Positive
Compensation policy: executive retention policy	Positive
Board structure type: mixed	Negative

Strategic Oversight Input Index	Direction
Board structure type: unitary	Positive
Compensation committee	Positive
Compensation improvement tools	Positive
Balanced board structure: gender policy	Positive
Compensation policy: executive retention policy	Positive
Compensation committee independence	Positive
Board size	Negative
Board structure type: mixed	Negative

Shareholder Alignment Input Index	Direction
Corporate governance committee	Positive
Confidential voting policy	Positive
Nomination committee independence	Positive
Supermajority or qualified majority vote requirements	Negative

Source: Schroders

Encouragingly, independent, diverse, unitary, and smaller boards are associated with better business and strategic oversight. We have long been advocates of all of the things as our ESG policy shows.

At times, we can get frustrated by the way remuneration debates dominate governance engagements. But boards that are focusing on compensation via a separate independent committee appear to be more desirable, as is focusing on having the right type of incentives, which features twice.

Once again, there are some surprises. Neither the presence of an audit committee nor its independence features on our list. We consider audit oversight as an important governance function. Equally we have concerns that the current audit framework, coupled with the amount of judgement that is allowed under international accounting standards, makes the role of the audit committee a difficult one to effectively discharge. Term limits on directors, which we are supportive of, do not make the cut. We will still argue for regular board refreshment as good practice. Traditional black marks like dual class shares and poison pills also do not correlate, not even for shareholder alignment. Perhaps of greater importance is how the board actually treats minority shareholders, regardless of the tools that it has at its disposal.

Thinking fast and slow going forward

This work was designed to create a new slower way of assessing an important part of investment: governance. It was borne out of a recognition that the current governance evaluations based on fast thinking were inadequate for the problem.

Consequently, the application of the framework takes several forms. First, we will provide investment desks with access to our model, data and integrate it into CONTEXT, our proprietary ESG integration tool, for the teams to use throughout their investment processes. In particular, the three category indices will be used to provide insight into event risk (business oversight), profitability (strategic oversight), and investment risk (shareholder alignment) but equally important will be the access to the underlying data.

The tool will also help with our engagement work. There is no such thing as a perfectly governed company. We have built a tool that can be used to determine a final score but is perhaps most powerful at demonstrating relative areas of strength and weakness across a number of areas not captured by current governance frameworks. We are looking forward to concentrating our engagement efforts on areas which, based on this work, should encourage long-term value creation by companies. Finally, we will use the framework and future iterations thereof for our ongoing policy work.

Growing regulation and widespread assessment increases the need for a better understanding of CG, particularly given the global rise of Codes. While the global spread of Codes creates more awareness, many aspects appear to standardise structures rather than consider their actual relevance. As outlined initially, simply ticking all boxes will most likely not be the answer to a better implementation of good CG. Rather, a thoughtful selection of relevant characteristics based on well-defined indicators is more likely to carry the desired effects. This is not to say Codes don't have a role to play, especially since they've often been built on practical experience, or that we encourage unconventional approaches to CG for their own sake. While CG codes are helpful for creating an effective market, our work shows that they should not be the sole measuring stick that investors use in assessing governance.

Conclusion

With contemporary CG measures running the risk of oversimplifying a topic that is too complex to be captured in a single number, we introduce an outcomes-based perspective of CG and how it relates to financial performance. We started by identifying what desirable indicators of good CG would look like before tying them back to company-level CG input characteristics that have been considered conventionally. Appendix 1 provides a brief summary of the process. We find that taking distinct perspectives of CG in the form of business oversight, strategic oversight and shareholder alignment appear to be more meaningful compared to an approach that simplifies these perspectives into a single dimension. However, our analysis suggests that CG is dependent on context and a singular plug-and-play approach when implementing CG into investment decisions should be handled with caution. While it is hardly possible to fully capture all facets of CG in such a systematic approach, our model serves as an empirical framework providing a starting point for company-specific analyses in a more meaningful fashion than a one-dimensional view could.

Lastly as both a plc. and an asset manager, it is always challenging writing a paper on corporate governance. We are both a subject to, and an enforcer of, local Codes. The starting point of our analysis was a desire to build a better assessment framework for our investors to analyse governance across borders. In building this tool we hope to augment our investment processes and our ability to deliver returns for our clients. Our desire is to provide an evidence base for a debate that too often relies on intuition and blunt analysis, and should be viewed in this context.

Appendix 1: Step-by-step process summary

1. – **Define bundles of CG indicators**
   i.e. business oversight, strategic oversight, shareholder alignment
2. – **Fill bundles with quantifiable metrics**
   Beneish M, ROIC, CEO pay linked to TSR etc.
3. – **Test if chosen metrics are relevant for recent financial performance**
   – **Keep only metrics that appear relevant**
4. – **Compute CG indicator scores**
5. – **Backtest the CG indicator score to see if it is a relevant performance indicator**
6. – **Rank companies historically based on input characteristics**
   – **Correlate indicator group scores with traditional CG input data**
   e.g. committee independence, board structure, voting policies etc.

Appendix 2: Overview of all CG inputs

Code	Definition
Audit committee independence	Percentage of independent board members on the audit committee as stipulated by the company.
Audit committee non-executive member	Percentage of non-executive board members on the audit committee as stipulated by the company.
Balanced board structure: experience policy	Does the company have a policy regarding the adequate experience on its board?
Balanced board structure: gender policy	Does the company have a policy regarding the gender diversity of its board?
Balanced board structure: independence policy	Does the company have a policy regarding the independence of its board?
Balanced board structure: size policy	Does the company have a policy regarding the size of its board?
Board member membership limits	The maximum number of years a board member can be on the board as stipulated by the company.

Code	Definition
Board size	The total number of board members at the end of the fiscal year.
Board structure type: mixed	The company has a mixed two-tiered board structure with a board of directors and a supervisory board instead of a unitary board structure or a classical two-tier board structure with a supervisory board.
Board structure type: two tier	The company has a classical two-tier board structure with a supervisory board instead of a unitary board structure or a mixed two-tiered board structure with a board of directors and a supervisory board.
Board structure type: unitary	The company has a unitary board structure, instead of a classical two-tier board structure with a supervisory board or a mixed two-tiered board structure with a board of directors and a supervisory board.
CEO board member	The CEO is a board member.
Chairman ex-CEO	Has the chairman held the CEO position in the company prior to becoming chairman?
Compensation committee	Does the company have a compensation committee?
Compensation committee independence	Percentage of independent board members on the compensation committee as stipulated by the company.
Compensation committee non-executive member	Percentage of non-executive board members on the compensation committee as stipulated by the company.
Compensation improvement tools	Does the company have the necessary internal improvement and information tools for the board members to develop appropriate compensation/remuneration to attract and retain key executives?
Compensation policy: executive retention	Does the company have a general, all-purpose policy regarding compensation to attract and retain executives?
Compensation policy: extra financial performance-oriented	Does the company have an extra-financial performance oriented compensation policy?
Compensation policy: performance-oriented	Does the company have a performance oriented compensation policy?
Confidential voting policy	Does the company have a confidential voting policy (i.e., management cannot view the results of shareholder votes)?
Corporate governance committee	Does the company have a corporate governance committee?
CSR sustainability committee	Does the company have a CSR committee or team?
Dual class stock	Does the company have dual-class stocks (class A/B, registered/ bearer shares)?
Global compact	Has the company signed the UN Global Compact?
Limitations on removal of directors	Are these limitations on the shareholders' right to remove board members (i.e., only for cause, supermajority vote required, etc.)?
Majority requirements for the election of directors	Are the company's board members generally elected with a majority vote?
Minimum number of shares to vote	Has the company set requirements for a minimum number of shares to vote?
Nomination committee	Does the company have a nomination committee?
Nomination committee independence	Percentage of independent board members on the nomination committee as stipulated by the company.

Code	Definition
Nomination committee non-executive member	Percentage of non-executive board members on the nomination committee as stipulated by the company.
Other anti-takeover devices	Does the company have some other form of anti-takeover device (limitation of director liability, people pill, customer refund programme, etc.)?
Preemptive rights	Does the company grant pre-emptive rights to existing shareholders?
Shareholder rights policy: equal voting right	Does the company have a policy to apply the one-share, one-vote principle?
Shareholder rights policy: shareholder engagement	Does the company have a policy to facilitate shareholder engagement, resolutions or proposals?
Shareholders approval of stock option programme	Do the company's statutes or bylaws require that stock options are only granted with a majority vote at a shareholder meeting?
Shareholders vote on executive pay	Do the company's shareholders have the right to vote on executive compensation?
Staggered board structure	Does the company have a staggered board structure?
Supermajority or qualified majority vote requirements	Does the company have a supermajority vote requirement or qualified majority (for amendments of charters and bylaws or lock-in provisions)?
Veto power or golden share	Does the biggest owner (by voting power) hold the veto power or own golden shares?
Voting cap	Does the company have shares with a voting cap (ceilings) clause, ownership ceilings or control share acquisition provision?
Voting cap percentage	The percentage of maximum voting rights allowed or ownership rights.

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