

January 2016

CREDIT SUISSE 

Research Institute

Thought leadership from Credit Suisse Research
and the world's foremost experts



How Corporate
Governance
Matters

Introduction

Dear reader,

Corporate governance defines the rights and responsibilities of key stakeholder groups within an organization and thus sets the foundation not only for its business performance, but also for the confidence of markets and private investors. In the financial sector, for example, corporate governance is considered a significant contributing factor to the safety and soundness of the global banking system. Throughout 2015, we saw major regulatory efforts to establish sound corporate governance principles across industries, driven mainly by the OECD and the Basel Committee on Banking Supervision.

The following report by the Credit Suisse Research Institute explores several important aspects of the connection between sound governance and improved business performance. It provides new data to support the growing investor interest in governance-related rules and practices and introduces innovative ways to assess corporate performance, such as the HOLT governance scorecard, to support more effective governance-oriented decision making. Moreover, our experts identify specific company types and sectors, in which governance can serve as a particularly robust investment strategy instrument. Corporate governance is further likely to contribute to investment decisions in emerging economies, for instance when firm-level structures actively compensate for the possible absence of country-level governance provisions.

Among the most interesting conclusions of our research is that a governance-oriented investment strategy works best in distinct sectors and periods of time. For instance, businesses in finance and telecommunications clearly outperform the market when their corporate governance is well established. This correlation maintains its intensity independently of cyclical or one-off events and becomes particularly evident across sectors at times of increased market uncertainty, such as in the aftermath of environmental or regulatory incidents.

With improving data clarity around corporate governance as an investment factor, it is set to become a vital component of what we refer to as the “intangible assets” of an organization. This report aims to contribute to this debate, and we hope the outcome of the work of our expert teams is both intriguing and applicable to a broad reader audience.

Urs Rohner
Chairman of the Board of Directors
Credit Suisse Group

For more information, please contact

Richard Kersley
Head of Global Thematic and ESG Research
Global Markets, Credit Suisse
richard.kersley@credit-suisse.com

Michael O’Sullivan
Chief Investment Officer
International Wealth Management, Credit Suisse
michael.o’sullivan@credit-suisse.com



4



12



28



44



02 Introduction

04 Overview

08 Snapshots of corporate governance

12 Building investment strategies based on good corporate governance

18 When does corporate governance matter – a quant view

20 The role of regulators

22 The role of CEOs, boards, pay and other key factors in governance: Key literature

26 Applying corporate governance to investors

28 The HOLT governance scorecard

36 Corporate governance and capital allocation

44 Analyzing the supply chain: What company are you keeping?

50 Appendix: The MSCI corporate governance database

55 Imprint/Disclaimer

Overview

Corporate governance is not acknowledged enough when it works well, though it is frequently assailed when it fails dramatically. Corporate governance (defined as “the system by which companies are directed and controlled” by the Cadbury Committee, 1992) differs in philosophy and application across regions, and in recent years it has been changed by the post-global financial crisis debate and the many new corporate and financial trends that have emerged as a result. In this outline we highlight the constant pillars in the debate on corporate governance, assess how emerging forces are reshaping corporate governance and point to some future challenges.

Michael O’Sullivan

The generally accepted framing of what corporate governance entails (in the Anglo-Saxon world at least) comes from the 1932 paper ‘The Modern Corporation and Private Property’ by Adolf Berle and Gardiner Means. They set out the concept of the separation of ownership and control of the firm and discuss the role of factors, such as the Board of Directors and the structure of executive compensation to align management and shareholders. This concept was later elaborated on by Jensen and Meckling (1976) who analyzed the ‘monitoring’ and ‘bonding’ costs involved in the firm’s agency problem.

In other countries with different legal systems and governance legacies, there is often a different and sometimes less clear-cut view of corporate governance. In Japan and Korea, for example, boards have often not had the explicit monitoring role that companies such as those in the UK have, while the presence of corporate cross-holdings has very often obscured the alignment of investor and management interests. In continental Europe, the financial and governance backdrop has been referred to as ‘Rheinish Capital,’ where bank lending plays a greater role than equity financing, with implications for who monitors management. Merger activity is also less prevalent and historically executive pay has not been as generous as in the USA.

The UK stands out as one of the few countries to instigate a clear code of conduct for corporate governance, building on the 1992 Cadbury Report (see Bob Parker’s discussion of this on page 20), the code is now overseen by the Financial Reporting Council. The approach adopted in the UK has been broadened to other countries, notably by the OECD,¹ which now produces the ‘Principles of Corporate Governance,’ which is being adopted at G20 level.

Does it matter?

For the majority of companies and most national legal jurisdictions these principles are an important guide as to how the governance of corporations should be overseen and investors’ capital stewarded. From time to time, specific and often colorful breaches of the principles occur, notably in 2015 at Volkswagen. To this end, many observers and investors will demand whether and when governance matters.

The academic literature (see Krithika Subramanian’s synopsis on page 22) on governance has sharpened its focus as data sources have improved, though much of the empirical literature remains focused on the Anglo-Saxon world. While there are plenty of studies that analyze the link between corporate performance and specific governance measures (e.g. the link between pay and performance) the tendency amongst academics now is to analyze the impact of a combination or system of governance factors on corporate performance.

In studies that take this approach, causality between the variables is an issue and in many cases weak governance factors tend to offset stronger ones, so that the overall impact on performance is often not significant. A further issue that researchers face in trying to analyze governance from an analytical point of view, is that it is challenging to codify qualitative variables from a quantitative perspective. For example, the internal workings of a board, the intentions and abilities of board members and the quality of their interactions with the CEO, are difficult to capture by those outside the firm. Having said that, there is more quality data being gathered on governance-related issues, in areas such as shareholder voting participation, non-executive board activism and executive pay.

¹ OECD (2015), G20/OECD Principles of Corporate Governance, OECD Publishing, Paris.



How should investors regard corporate governance?

From an investor perspective, our own work has established several findings. The first and perhaps disappointing one is 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 favoring 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. Nonetheless, we do identify some ways in which investors can still adopt strategies that may be able to take advantage of corporate governance indicators.

From a top-down quantitative point of view, we find that governance matters most as a 'style' when stock dispersion is elevated (page 18). These findings seem to capture the sense of the thought from JK Galbraith that 'recessions capture what auditors miss.' At a more detailed sector level, Giles Keating and Antonios Koutsoukis also analyze returns from hundreds of companies over many years of data, showing that outperformance may be possible using strategies focused on those sectors where governance matters most, and by emphasizing particular aspects of governance rather than broad-brush indicators.

Outwardly it seems that a great deal of the governance literature concerns itself with mechanisms, such as shareholder voice and the actions of the Board of Directors. Relatively little attention is given to the process by which management invests the firm's capital, possibly because there is little freely available data on this most essential activity. In this respect, two contributions of this paper are to first outline the principles and shortcomings of the capital allocation process, and then secondly, where we use Credit Suisse's proprietary HOLT® governance scorecard, to interrogate the outcomes of capital-allocation decisions across thousands of firms.

In this respect the philosophy (efficient capital allocation) and the quality of the data in our HOLT framework come into their own. On page 28, Michel Lerner and Tom Hillman use the HOLT framework to highlight how corporate incentive schemes often dictate behavior, sometimes leading to questionable capital-allocation decisions for the sake of maximizing earnings per share rather than shareholder interests.

Underpinning this work, on page 36, Michael Mauboussin and Dan Callahan explore the extent to which executives conceptualize and practice capital allocation in a systematic way, and they then set out a very helpful 'Principles of Capital Allocation.' Indeed, the recent corporate governance initiative in



Japan has capital allocation as its core rationale as return on equity has been very low, and the imperative is for corporate management to return capital to shareholders (albeit slowly), a process that should eventually involve the dissolution of long-held corporate cross-holdings. Conversely, in the USA the incentives that management have (through the impact on earnings per share) to engage in stock buybacks, some of which are fueled by debt issuance, create their own governance issues.

Good governance is not limited to those working within a specific firm, but is also reflected in the company that the firm keeps, or rather in its supply chain. On page 44, Julia Dawson and Richard Kersey employ the CS PEER's database (a web-based supply chain analysis tool covering 3,200 companies with 91,000 relevant business relationships that allows analysts and investors to view concentration risks) to examine whether companies in the same supply chain have similar governance characteristics. In general they find that in companies where we see governance being valued and prioritized, so too do we see these companies surrounding themselves with other good governance practitioners as the main way to limit business risk.

Challenges

One rather significant complication in the field of corporate governance is the way in which the nature of capital providers has changed so much in recent years. There are several new trends, perhaps chief amongst them is the arrival of what are generally known as 'activist' funds. Our interpretation of this is to continue to categorize these funds as being 'active investors' rather than outright governance-oriented investors, though many activist funds cloak themselves in the jargon of corporate governance.² Activist funds are con-

2 One amusing example of an activist fund's engagement with a company comes in the form of a letter from Third Point to the management of Sotheby's 'Typical of the egregious examples was a story we heard of a recent offsite meeting consisting of an extravagant lunch and dinner at a famous 'farm-to-table' New



centrated in the USA, where the absence of a governance code has perhaps led to their rise. In some instances, the desires of activist funds can run counter to the aims of longer-term shareholders, thereby introducing a new governance angle.

At the same time that activist funds are on the rise, we also witness a more passive approach by other investors. The rise of computerized trading, passive mutual funds and exchange traded funds (ETFs) means that, in many quarters, there are fewer shareholders who would classify themselves as active monitors. An additional complication in the market place has been the now numerous quantitative easing (QE) programs launched by the world's major central banks. In most cases, early rounds of QE had positive market and economic effects, though at the same time they have arguably produced less discriminate investment strategies where investors are induced to, for example, buy higher-yielding equities and, in some cases, the incentive to distinguish between good versus bad governance companies has diminished.

On the other side of the corporate fence, the nature of the corporation has also changed in the past ten years. In general, debt levels have fallen (placing a greater emphasis on monitoring by equity holders) though they have risen sharply in recent years, largely owing to increasing issuance in the debt markets. By and large companies are less conglomerate-oriented and the rapid rise of young, large companies with very short product cycles creates its own governance issues – notably in terms of how shareholders and board members are equipped to understand and monitor investment projects proposed by management. Consistent with longstanding debates on corporate governance, the issue of CEO pay is a prominent subject of debate.

An important contribution of this report is to delineate the conditions under which corporate governance matters and, in this respect we identify the following market conditions – stock dispersion is high, the credit cycle advanced, interest rates are rising and profit growth has peaked – as those under which investors need to pay even more attention to corporate governance.

We are also keen to note that the area encompassed by corporate governance is growing, in particular to embrace what is known as ESG (environmental, social and governance) criteria. In this respect, we flag our recent publications on the role of women on boards and in corporate life ('The CS Gender 3000' in 2014 and 'Gender diversity and corporate performance' in 2012), and on family businesses which represent a rather unique and profitable governance model ('The Family Business Model' in 2014).

As we look through 2016, the macroeconomic and financial environment looks likely to be conducive to an investment climate where corporate governance needs to be much more of a priority for investors as an investment style. In emerging markets, with growth slowing, governance may well be the decisive factor within equity and credit portfolios in 2016, while in developed markets we caution that many of the trends that have driven markets in recent years (search for yield, heavy debt issuance, focus on earnings per share) will need to be thoroughly examined for governance risks.

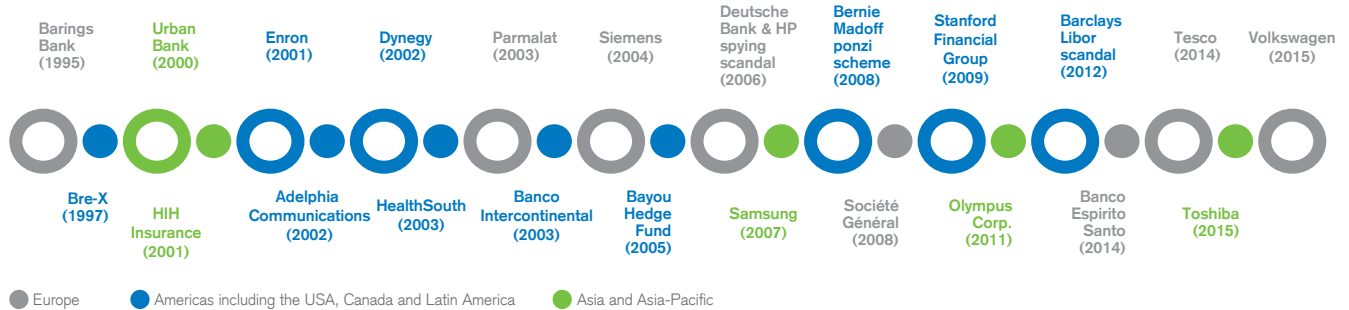
Finally, we also expect that corporate governance will come to encompass new areas, with technology at the heart of it. For instance, the impressively large size of technology budgets across most industries makes them a critical part of the capital budgeting process. Moreover, cybersecurity is becoming a pre-eminent concern and unfortunately this area has the capacity to be profoundly disruptive from a governance and a business point of view.

York area restaurant where Sotheby's senior management feasted on organic delicacies and imbibed vintage wines at a cost to shareholders of multiple hundreds of thousands of dollars. We acknowledge that Sotheby's is a luxury brand, but there appears to be some confusion – this does not entitle senior management to live a life of luxury at the expense of shareholders.'

Snapshots of corporate governance

Figure 1

Corporate governance crisis timeline

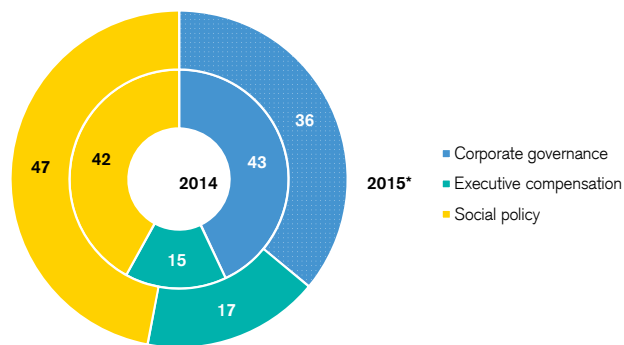


Source: Credit Suisse

Figure 2

Shareholder proposals by type – Fortune 250 companies

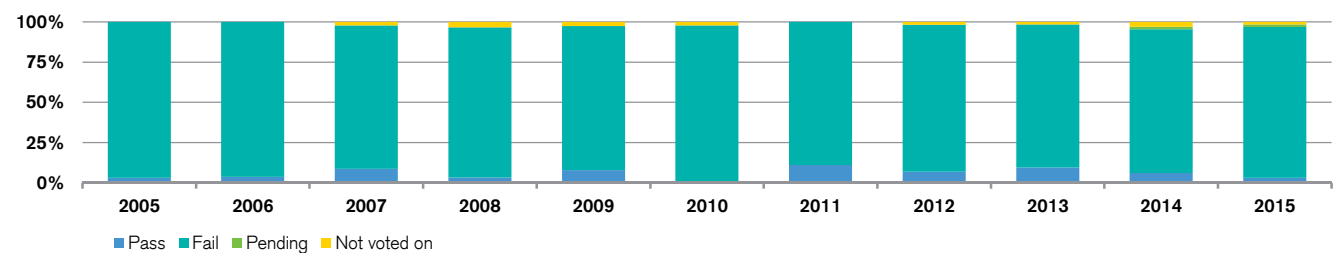
Percent share of total



* For 2015, based on 235 companies filing proxy statements by August 31. Source: ProxyMonitor.org, Credit Suisse

Figure 3

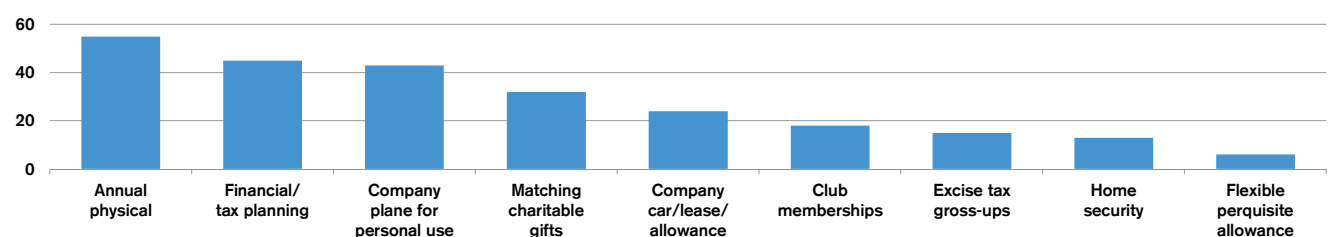
Shareholder proposals to separate Chairman and CEO positions generally fail



Source: SharkRepellent, Credit Suisse

Figure 4

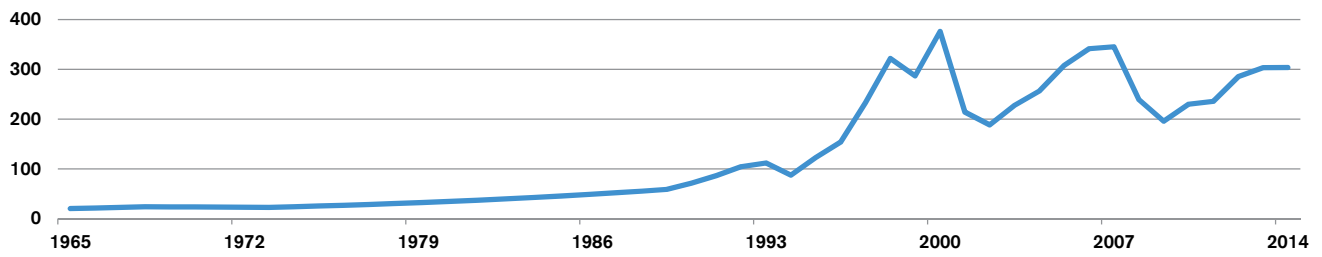
Most common perquisites for CEOs



Source: Meridian Compensation Partners, Credit Suisse

Figure 5

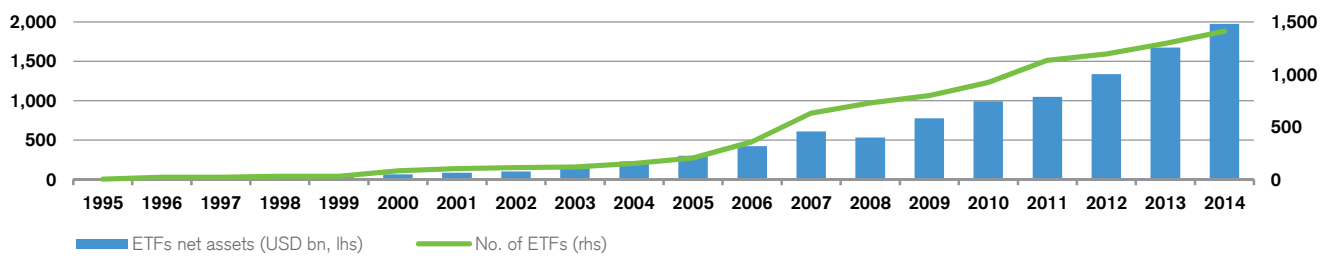
CEO-to-worker compensation ratio



Source: Economic Policy Institute, Credit Suisse

Figure 6

The rise of exchange traded funds

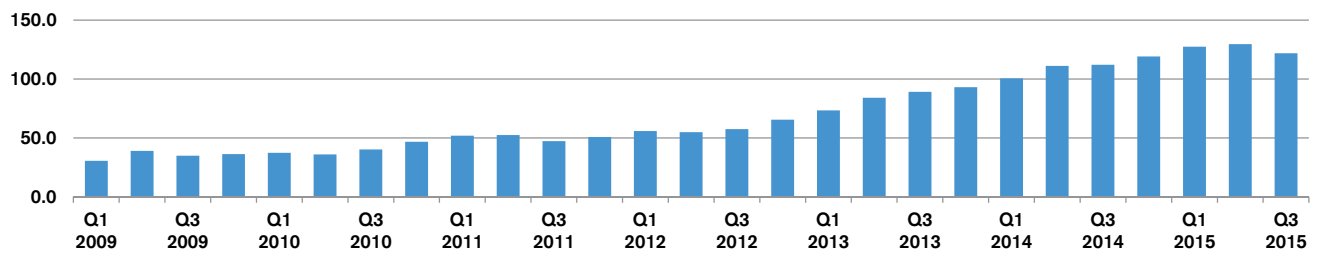


Source: Investment Company Factbook, 2015, Credit Suisse

Figure 7

Activist hedge funds assets under management

(AUM, USD billions)

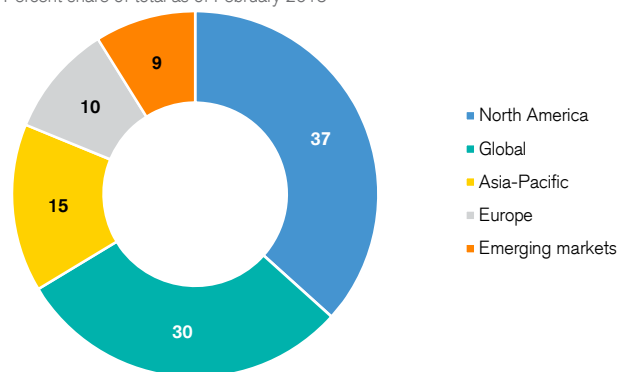


Source: Hedge Fund Research, Credit Suisse

Figure 8

Activist hedge funds by regional focus

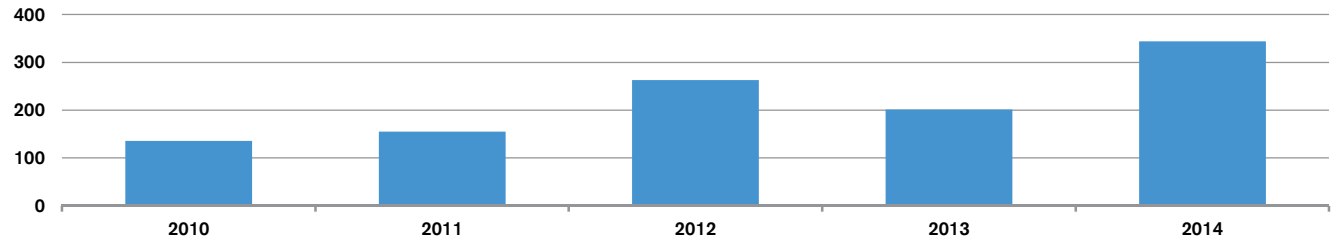
Percent share of total as of February 2015



Source: Preqin Hedge Fund Analyst, Credit Suisse

Figure 9

Growing number of companies subjected to activist demands

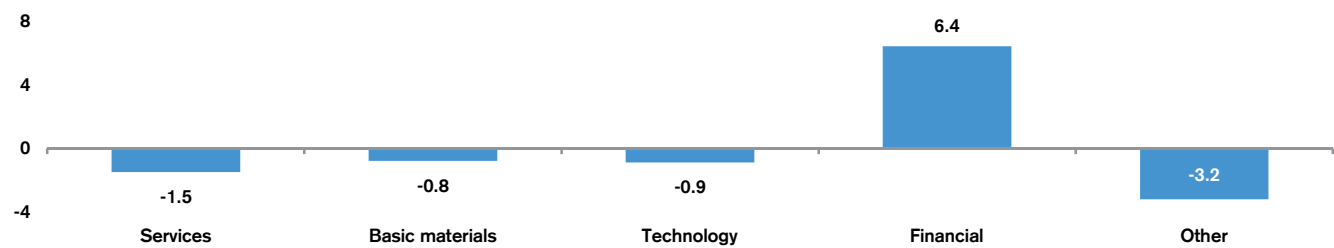


Source: Activist Insight, Credit Suisse

Figure 10

Activism in financial stocks has risen

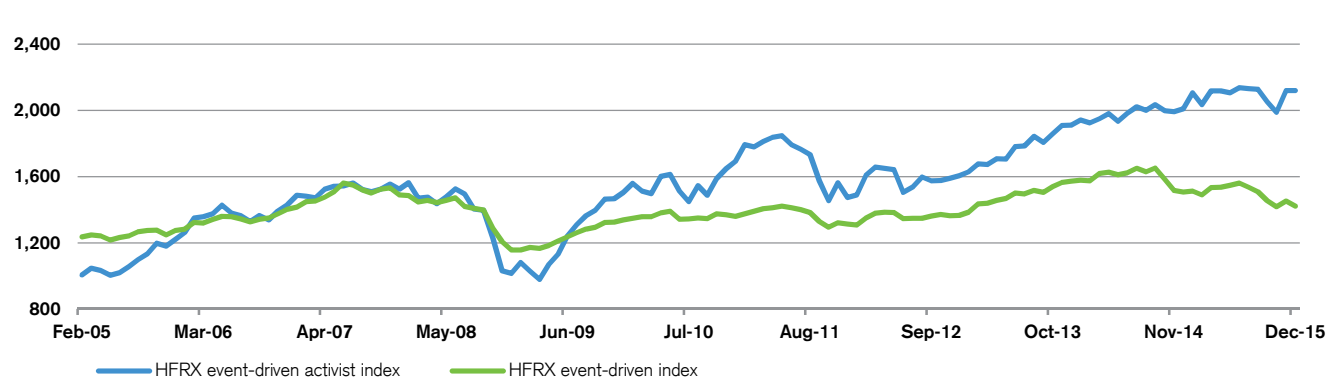
Percent change in target sector (2015 versus 2014) of companies publicly subjected to activist demands as a proportion of all activism



Source: Activist Insight, Credit Suisse

Figure 11

Activist hedge funds have outperformed their peers

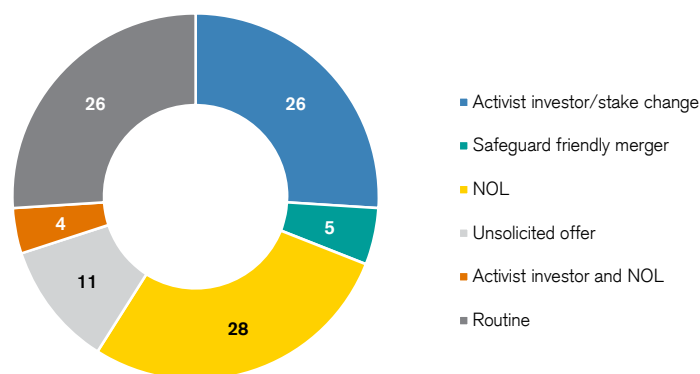


Source: SharkRepellent, Credit Suisse

Figure 12

The use of poison pills

Percent share 2014. In 2014, 57 poison pills were adopted by 54 distinct US incorporated companies



NOL= net operating loss carryforwards.

Routine adoption – those adopted before any publicly disclosed threat has emerged or for the specific purpose of protecting tax assets

Source: SharkRepellent, Credit Suisse



Building investment strategies based on good corporate governance

- We believe that governance indicators can be used to design investment strategies that may outperform the market, but simple broad-based approaches that seemed to work in the past appear to be no longer valid.
- We think that more refined strategies, focused on better-governed companies only within those sectors where governance matters most, still have the potential for outperformance.
- We also believe that strategies based on detailed aspects of governance, in particular good versus bad accounting, are potentially able to outperform.

Giles Keating and Antonios Koutsoukis

Introduction and summary

Governance metrics can be used to develop investment strategies with the potential to outperform the market, in our view, but it is necessary to work a bit harder than before and dig a bit deeper into the data. Strategies that apparently worked in the past don't seem to be valid anymore. Back in the 1990s, investors who used simple metrics to select the best-governed companies across the broad stock market were rewarded with outperformance, but since then the benefit first faded and over the last decade has gone into reverse, according to a recent study by Harvard academics.¹ One possible explanation is that an increasing focus on governance by a small number of activist investors and by some fund managers means that well-governed companies nowadays tend to trade on higher valuations, in other words the good news is in the price.

Although it no longer seems to be a good strategy to lump all aspects of governance into one single indicator and buy companies with the highest scores in the broad market, we have identified two approaches that do still have the potential for outperformance. One is to focus on those sectors where governance seems to matter most, and choose well-governed companies within those sectors. The other approach is to delve down into the details of governance, identifying the factors that are most important, in particular accounting and a few other areas, such as European CEO incentive structures, and to focus on companies where there are significant changes for better or worse in these specific areas.

Both these strategies might be expected to work over a relatively short space of time, but for patient investors prepared to take a much longer view, we think there is a third possible approach. The corollary of the high valuations enjoyed by well-run companies is that their cost of capital is less.² In the long term, for a company in an expanding area that needs to raise external equity capital, this should be an advantage that can improve shareholder returns, and help to offset the lower running yield implied by a high valuation. We have not been able to identify this effect in the data, and while that may be because it takes a long time to become apparent and would only apply to some growth companies, the lack of evidence means that we mention this much more tentatively than the other two areas.

We now review the evidence and explain the potential investment strategies. After showing the limitations of a simple broad-based approach, we look at our two preferred types of strategy: those based on a sector approach, and those that focus on detailed aspects of governance. We have used the MSCI database of ESG (environmental, social and governance) factors, which we believe is among the best available. For the broad market and sector analysis, we use data on some 900 global companies for which the MSCI provides governance data going back to 2006, while for the detailed governance data we focus on 300 European companies.³

1 See for example "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.

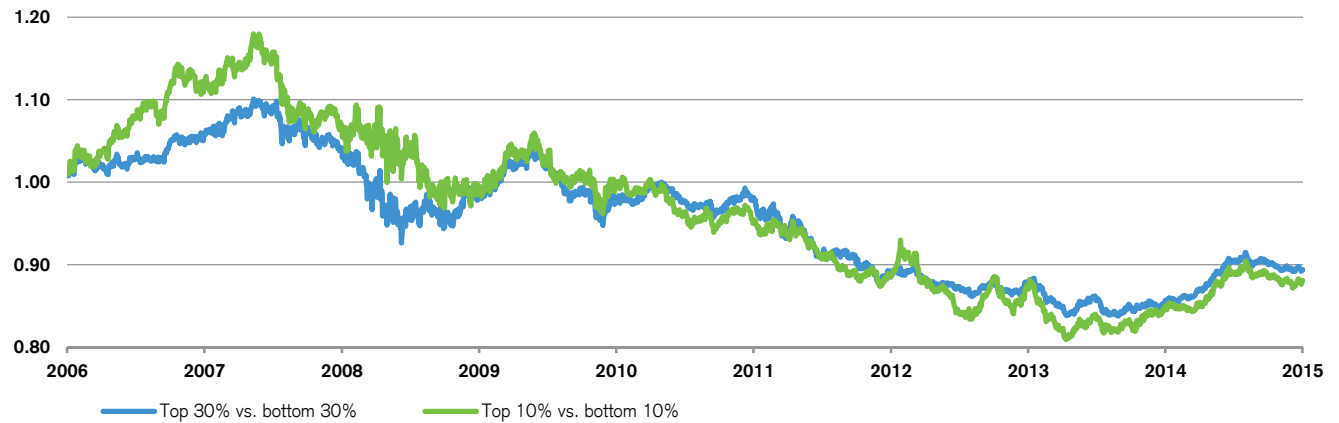
2 See for example "What Matters in Corporate Governance?" Lucian Bebchuk, Alma Cohen, and Allen Ferrell, Harvard Discussion Paper No. 49109/2004

3 The MSCI ESG database now covers some 7000 to 8000 companies, but to have a reasonable timespan we are restricted to those companies within the S&P 1200 for which we have consistent data since 2006, which gives about 900 companies. Note that there have been definitional changes over this period. See also Appendix.



Figure 13
Relative equity returns in USD by bands of governance rating

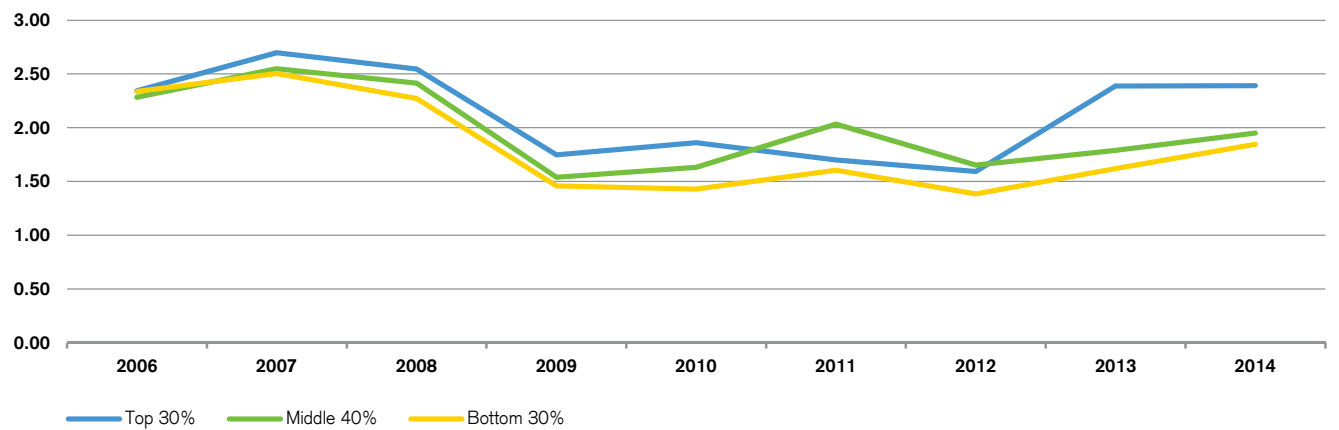
Relative performance, 2006-2015



Source: Datastream, MSCI, Credit Suisse

Figure 14
Price-to-book ratio by bands of governance rating

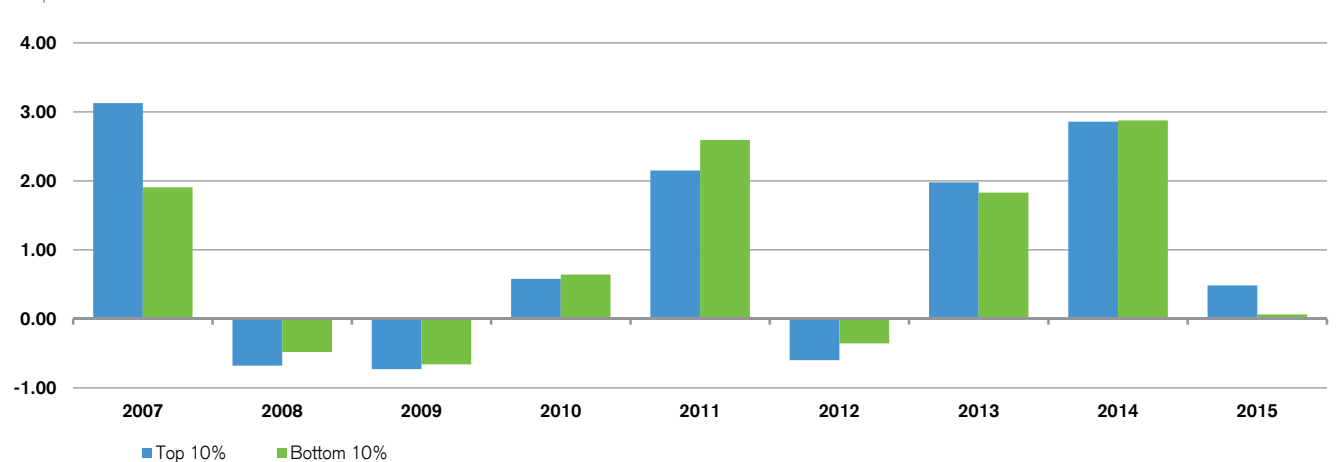
Price-to-book ratio



Source: Datastream, MSCI, Credit Suisse

Figure 15
Risk-adjusted return for well-governed and badly-governed companies

Sharpe ratio

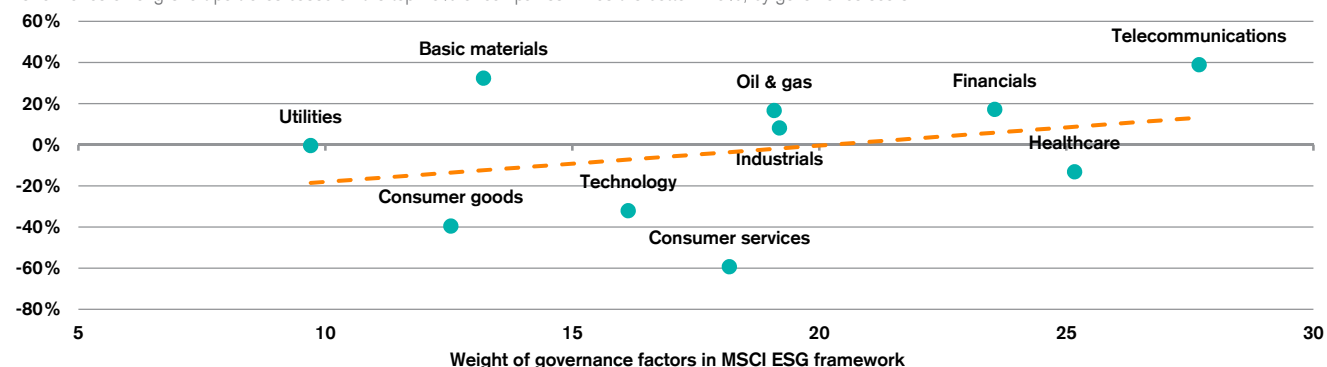


Source: Datastream, MSCI, Credit Suisse

Figure 16

Performance of long-short portfolios based on governance, by sector

Performance of long-short portfolios based on the top 10% of companies minus the bottom 10%, by governance score



Source: Datastream, MSCI, Credit Suisse

The need to go beyond simple governance metrics based on the broad market

Twenty-five years ago, an investment strategy focused on simple measures of governance in the broad stock market delivered worthwhile outperformance, and this effect seemed to persist throughout most of the 1990s. However, it subsequently began to fade and over the last ten years, it seems if anything to have gone into reverse (see the Harvard study cited above). Our own analysis, using the MSCI data, supports this conclusion; with a strategy of being long on the best-governed companies and short on the worst-governed showing underperformance for the overall period since 2006, as shown in Figure 13.

How should these results be interpreted? One possibility is that they might be distorted by style tilts, but we tested for this by measuring the alpha of a long-short governance portfolio using a four-factor model (adjusting for market, size, valuation and beta over rolling 100-day periods) and found no evidence of such a distortion.

Another explanation, often mentioned by researchers,⁴ is that badly-governed companies are riskier and therefore outperform due to a risk premium (similar to small caps or value companies). Consistent with this, poorly-governed companies do tend to trade at lower price-book valuations (see Figure 14). Indeed, as measured by the Sharpe ratio (see Figure 15), we find that badly-governed companies actually have a higher risk-adjusted return in six out of the nine years studied. This could be interpreted as suggesting it is best to invest in such firms, although it does use standard deviation as a measure of risk, which in effect measures mainly continuous background volatility, giving relatively little weight to infrequent catastrophic price collapses, such as that which hit Volkswagen recently due to the emissions incident. A risk-adjusted returns measure that properly allowed for such occasional risks might show well-governed

companies outperforming, but we can't test that given the limited number of such events in our short data sample.

Whatever the underlying reason, it seems that it is no longer attractive to apply investment strategies based on the broad market rather than sectors, or that use a single composite governance measure that does not distinguish areas such as accounting, from others such as ownership or management incentives. So we now turn to investment strategies that delve down into sectors and into different types of governance.

Investment strategies focused on companies in sectors where governance matters more

Although corporate governance is important in all sectors, it does seem to matter more in some than others. This suggests that an investment strategy may outperform, which focuses on well-governed companies within those sectors where governance is particularly important.

In the MSCI ESG framework, the relative importance of the three factors (environmental, social and governance) differs from one sector to another, and is revised on an annual basis.⁵ MSCI determines the weight by assessing the level of impact of gover-

⁵ Pillar weights: according to MSCI, weights are set at the GICS sub-industry level (8-digit) based on each industry's relative impact and the time horizon associated with each risk, while weights are reviewed at the end of each calendar year. ESG key issues are selected based on the extent to which the business activities of the companies in each industry generate large environmental, social, or governance-related externalities. For each GICS sub-industry, MSCI map the various business segments of the companies in that industry to the appropriate standard industrial classification (SIC) Codes. Then, each SIC code is associated with a different level of externality for each ESG key issue. Each company's overall business segment exposure score is the weighted average of the individual segment risk scores, weighted by the percentage of sales, percentage of assets, or percentage of operations. This constitutes the company's ESG business segment risk exposure score. The 156 GICS sub-industries are ranked on each key issue based on the average ESG business segment risk exposure score of the underlying companies.

⁴ See Jeroen Derwall and Patrick Verwijmeren (2007).



nance, and the timeframe over which it operates, relative to environmental and social factors. As a default, governance is seen as high-impact (tending to increase its weight) but long-term (going the other way), but this varies in some sectors. Furthermore, the weight can be affected by other factors. For example in healthcare distribution, governance has a weight of 29% but this drops to just 15% in healthcare services, not because governance is deemed less relevant but because other factors are more important, notably data security and labor issues.

One might expect that well-governed companies from sectors with high governance weightings would be more likely to outperform than well-governed companies from other sectors.

To examine this, we calculate the performance of long-short portfolios based on the top 10% of companies versus the bottom 10%, by governance score, within each individual sector. We find that in financials and telecoms, two of the three sectors where governance matters most, these long-short portfolios produce a clear outperformance. In other sectors, there is a mixture of outperformance and underperformance, but overall we find a positive correlation across sectors between portfolio performance and the importance of governance (see Figure 16).

We also tested this using a more formal statistical approach, a panel data test across ten broad sectors in both the USA and Europe, as well as nineteen sectors using data on companies from all round the world.⁶ The results (details available on request) confirm that the relative performance of well-governed companies versus their poorly-governed peers is linked to the importance of governance for that industry. These results are interesting since they suggest potential for outperformance of portfolios based on the best-governed companies within sectors where governance matters most.

⁶ We carried out panel data analysis. As a dependent variable we use the annual relative performance of companies with the top 30% governance scores within each industry versus those with the bottom 30% scores. As explanatory variables we include for each sector the average weight of the governance score, the average company size, their average valuation score and the relative valuation and size scores of the high-scoring companies versus the low-scoring companies in that industry. We look at US and European companies across 10 broad sectors (ICB definitions), treating the two regions as different (thus generating 20 sectors), and we also use the more detailed ICB 19-sector level, adding in Asian and other global companies. To avoid hindsight bias, explanatory variables are measured in May of each year and the subsequent performance of portfolios is measured from the beginning of July to the end of June of the following year. The coefficient of the governance weight variable is positive and significant at the 5% level under the ICB 10-industry specifications, and positive but not significant for the 19-supersector. Other explanatory variables are not statistically significant under most specifications. When we replace the level of the governance by its rate of change, its coefficient is significant in all models, including the ICB 19-supersector model.

As a further step, we examine what happens when the importance of governance, as measured by MSCI, changes from one year to the next. The results suggest that when governance issues become more relevant for an industry, well-governed companies tend to subsequently outperform. This could form the basis of an investment strategy – for example, when there is a regulatory or environmental incident, there is likely to be more focus on governance in the affected sector, making it more important to hold well-governed companies within that sector.

Drilling down into the details of corporate governance

Of course, corporate governance has many aspects, ranging from board structure and incentives, through accounting practices and transparency, to shareholder voting rights. In this section, we analyze the relative importance of over 100 different aspects of corporate governance, using data provided by MSCI for over 300 companies in Europe. The MSCI corporate governance model is built on 96 key factors, which are in turn organized into four key themes: the board, executive pay, ownership and control, and accounting. Companies are scored on a 0-10 scale and then ranked globally and within their home market.

Our method is a series of cross-sectional regressions, with price-to-book valuation as a dependent variable, on each of these governance variables and on five control variables (such as interest cover, return on invested capital and payout ratio). We also run a second set of regressions with the average volatility over the last twelve months as a dependent variable. As we run separate regressions for each aspect of governance separately, there is some risk of false positives but nevertheless we believe the results provide a good initial guide to the properties of the data.

We find⁷ that better accounting practices are associated with both higher valuations and lower price volatility, the only aspect of governance where this is the case. Of course, this means that conversely, poor accounting is penalized by lower valuations and higher volatility. The MSCI measures for accounting evaluate corporate transparency and the reliability of reported financials, and include five event-triggered metrics, including accounting investigations, qualified auditor opinion, internal controls, restatements or special charges and late filings.

Turning to board composition and incentives, we find that where any member serves on the board of two or more additional public companies, this has an adverse impact on valuation, though not on volatility. The same applies where the CEO's annual incentives are not linked to company performance. The more board members are aged over 70, the more volatile the company share price tends to be, although valuation is not impacted. Interestingly, factors often

regarded as important, such as the number of directors that must be independent, are found not to affect either valuation or volatility. This exercise also found no link between board gender diversity and valuation, although our separate study of this issue based on the CS 3000, using different methodology across a longer time period, did find a positive link to valuation.

As for shareholder rights, the higher the percentage of holdings required to approve a merger, or to change the articles/constitution, the lower the volatility, although valuation is not impacted. Limits (often imposed by statute or stock market codes) on shareholdings before a formal takeover must be declared, and on a company's ability to engage with such shareholders after a failed takeover attempt, also tend to reduce volatility. The existence of a golden share (typically held by governments) is not found to affect valuation or volatility.

Once factors such as good accounting practices are in the price, they can no longer be used in an investment strategy to improve performance. Even so, we believe that when changes in governance are announced, our results can help investors to perform by distinguishing changes in governance that contain useful signals about company performance, versus those which are in effect merely noise.

Based on the results reported here, good accounting practices are clearly crucial and companies that, for example, have a poor record in this area and then undertake genuine reforms, could be expected to see significant valuation outperformance. The opposite effect would also apply if a company's accounting practices worsen for some reason.

Conclusion

Although it no longer seems possible to generate outperforming investment strategies by simply focusing on simple metrics of governance in the broad markets, we believe there are still governance-based strategies with the potential to outperform. First, we think investors should focus on well-governed companies in sectors where governance has moved from being relatively unimportant to being more in focus, perhaps because of regulatory or similar incidents. Second, we believe that strategies based on granular changes in governance, with particular emphasis on improving (or worsening) accounting, or changes in European CEO incentives, can be associated with outperformance in valuation.

⁷ Taking only those results significant at our highest test level (1%)

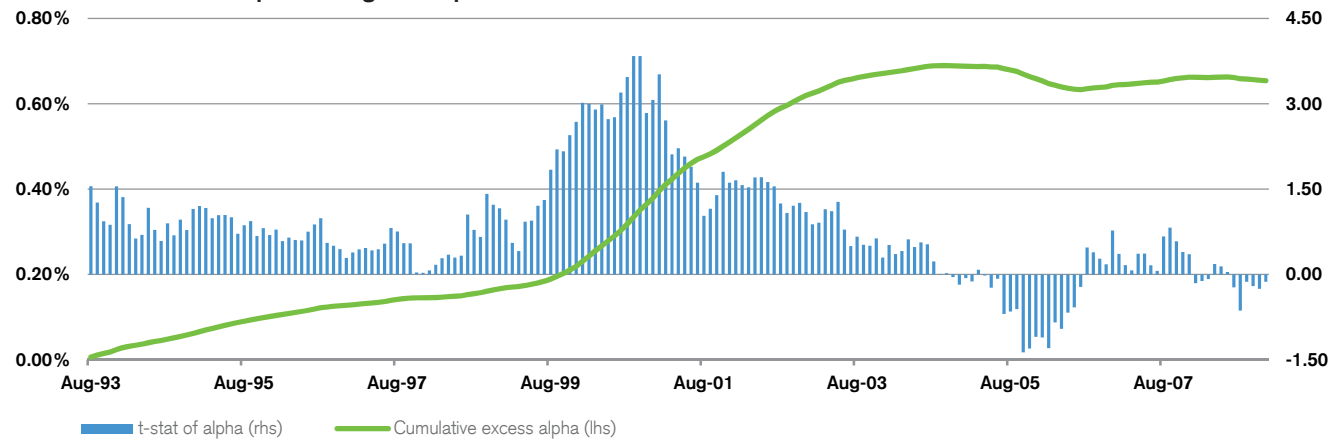
When does corporate governance matter – a quant view

We complement the work of Antonios Koutsoukis and Giles Keating on page 12 with a quantitative analysis of when governance matters. One of the leading academic papers on the subject (Paul A. Gompers, Joy L. Ishii and Andrew Metrick, 2003) developed a governance index (G-Index) which comprises 24 governance provisions each measuring a level of shareholders' rights.¹ We employ their index to determine whether the dispersion in stock performance is driven by governance factors, and if a market strategy that uses corporate governance as a factor for stock selection can generate alpha.

Ankit Agrawal

Figure 17

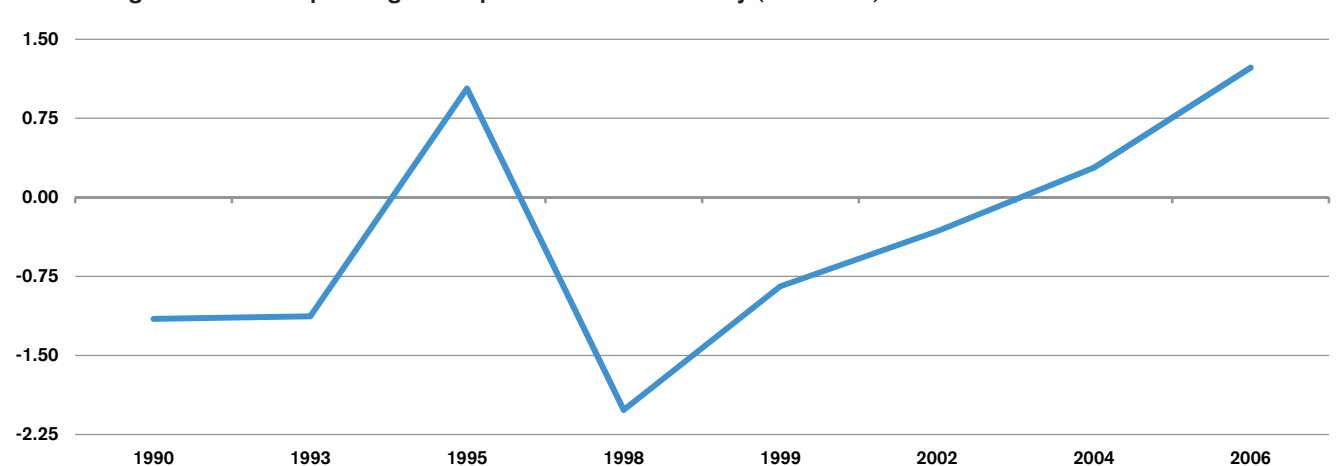
Cumulative excess alpha – long-short portfolio based on G-Index



Source: Andrew Metrick, Yale School of Management, Datastream, Credit Suisse

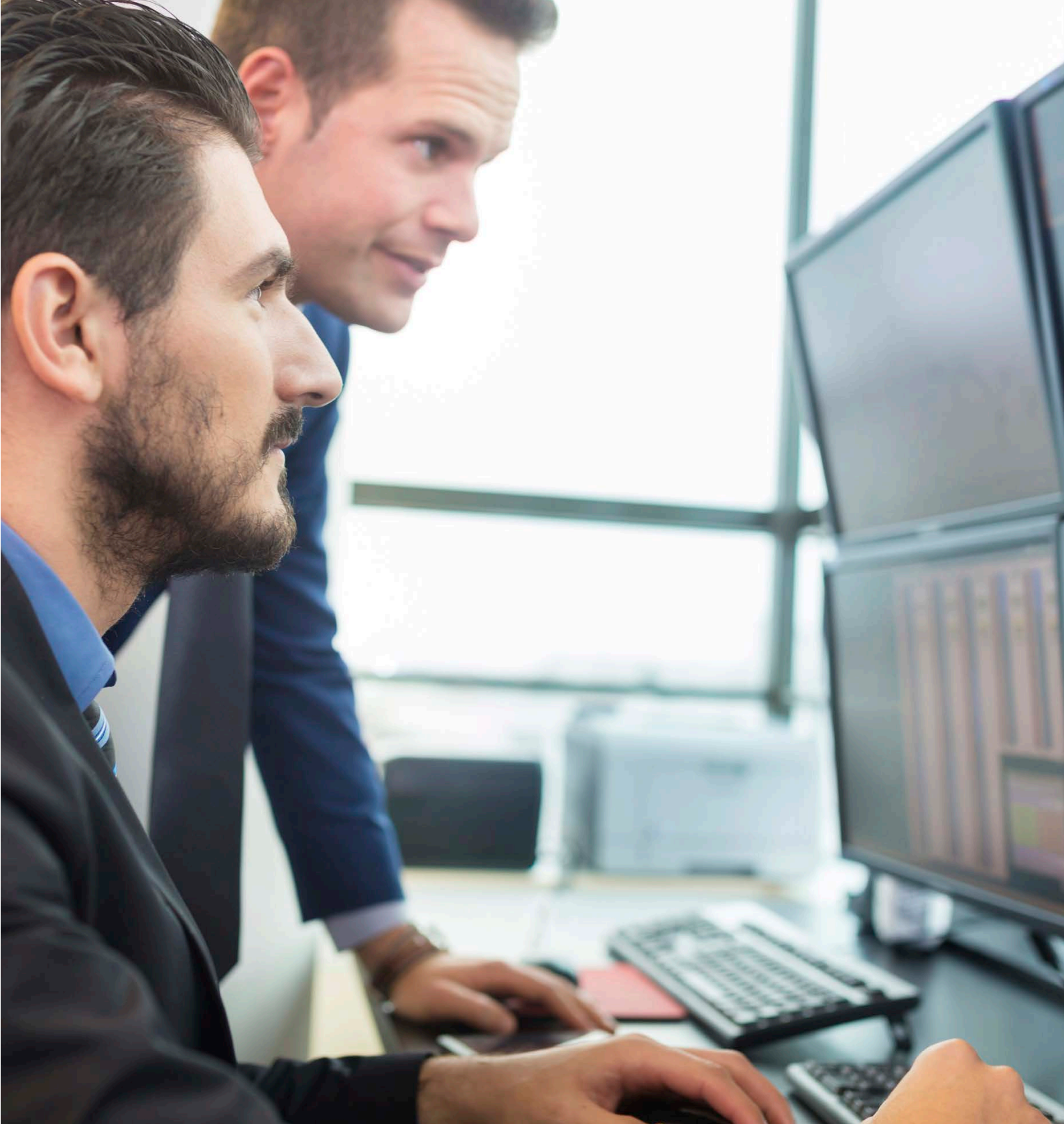
Figure 18

G-Index significance in explaining stock performance variability (t-statistic)



Source: Datastream, Credit Suisse

¹ Gompers, P. A., Ishii, J.L., Metrick, A., 2003, "Corporate governance and equity prices," Quarterly Journal of Economics



We find that the last period in which governance really mattered, at least in terms of generating alpha, was in the run-up to and aftermath of the dot.com bubble (Figure 17). Oddly, in the period 2005-2006 companies with weaker governance credentials performed better than those with better governance credentials. Figure 18 shows the results of an econometric exercise, where we studied how significant governance is as a factor in explaining dispersion in stock performance (adjusting for factors like company size and valuation). Consistent with Figure 17, we find that the role of governance as an explanatory factor was

strong in the late 1990s and around 2005, though the unfortunate lesson here was that investors made money by favoring those companies with weaker governance criteria in the latter period.

The role of regulators

There is now a clear trend, at least in OECD countries,¹ to adopt either the UK Stewardship Code or at a minimum, a variant of the code. The UK code is the responsibility of the Financial Reporting Council (FRC). The rationale of the code is to enhance the engagement between the asset management industry and publicly-quoted companies to improve longer-term, risk-adjusted, returns to shareholders. The code was introduced in July 2010 and then updated in September 2012. Since December 2010, all asset managers authorized in the UK have been required by the primary regulator, the FCA, to either state their commitment to the code or alternatively explain why it is not appropriate to their business and set out alternative plans for addressing governance issues (the concept of ‘comply or explain’).

Bob Parker

The FRC approach has largely been adopted by other countries with large publicly-traded equity markets. This is based on the work that the FRC initiated, the general acceptance that legislating corporate governance is difficult to implement and an increasing recognition that well-managed corporate governance practices will add value for both shareholders and companies.

There are seven basic principles to the Stewardship Code:

1. Institutional asset managers must publicly disclose their policies on how they manage their Stewardship Code responsibilities.
2. They must have a strong publicly-disclosed policy in addressing any conflicts of interest they may have on stewardship.
3. They must provide evidence of their monitoring of the companies they invest in.
4. They must have clear guidelines on when and how they escalate their stewardship activities.
5. They can and must be willing, when appropriate, to act jointly with other investors.
6. They must have a clear policy on voting at company meetings and making public their voting records.
7. The asset managers have to provide all interested parties, and notably their clients and the companies they invest in, with a periodic report on their stewardship activities, policies and voting records.

Stewardship activities include engaging with companies on their strategy, performance, risk management systems, capital and leverage and on their own internal corporate governance, focusing on corporate culture and remuneration. Engagement is not limited to just voting at company meetings but also can or should include an ongoing dialogue with corporate management. The code sets out guidelines on how institutional investors should monitor companies, to follow and keep abreast of the company's performance.

- Focus on internal and external developments that affect the company's value and the risks to that value.
- Review/monitor the performance of the company's leadership and management.
- Ensure that, at least in the UK, the company adheres to the UK Corporate Governance Code.
- Review the quality and accuracy of the company's reporting.
- Attend company meetings where practicable.

It is, however, recognized that in publicly-listed companies, stewardship responsibilities are shared, i.e. that the primary responsibility for the successful management of the company lies with the Board of Directors but that investors have a crucial role to play in holding boards to account for their actions (or lack thereof). Investors who are asset owners as opposed to asset managers, will want to take into account, in awarding mandates to managers and assessing the effectiveness of the managers in carrying out their stewardship responsibilities, and investors are encouraged to award mandates accordingly. Consequently, there is significant pressure to comply with the code or run the risk of losing actual or new business. It is emphasized that compliance with the code is not expected to directly interfere with the management of companies, nor does it preclude any decision to buy or sell holdings to generate investment performance for clients.

¹ <http://www.oecd.org/corporate/principles-corporate-governance.html>.

One complication is whether institutional investors wish to be made insiders to market and price-sensitive company events. Being an insider has the disadvantage of restricting purchase or sell orders in the company's equity or debt, but has the advantage of potentially being able to influence company strategy more effectively. The code does not exclude investors from being insiders but states that the reasons for doing so have to be declared, as do the mechanisms for managing the insider role. Clearly changing back and forth from being an insider is strongly discouraged.

Code principle 4 on escalation is important. Here, institutional investors have to set out the circumstances in which they feel they have to intervene in a company, irrespective of whether they are a passive or active investor. Apart from concerns over a company's strategy or performance, intervention can be triggered by social and environmental issues. Intervention is assumed to initially be confidential but in the event that companies do not respond satisfactorily, then investors can escalate their concerns by holding additional meetings with management, engaging with the company's advisors, holding meetings with the Chairman and board members, intervening jointly with other investors, making public statements, submitting resolutions and speaking at company meetings and, in extremis, demanding general company meetings and board changes. Investors have a responsibility to demonstrate that their actions are aimed at adding value to shareholders. In addition, asset owners are encouraged to have their steward policy statements independently verified/audited, while the roles of proxy voting agencies have to be clearly explained.

The FRC works closely with other supranational or national regulatory bodies to ensure that corporate governance principles and their implementation are reasonably consistent across different jurisdictions. Notably the FRC chairs the European Corporate Governance Codes Network and has been assisting the World Bank in completing its report on the 'Observance of Standards and Codes - Corporate Governance.' Work is also being carried out with the OECD on their corporate governance principles. The FRC has working relationships with international bodies on corporate reporting (e.g. the International Forum of Accounting Standard Setters), on audit matters (e.g. the International Forum of Independent Audit Regulators) and on actuarial issues. One debate, which appears to have been finally resolved amongst international regulators is whether to pursue the 'comply or explain' philosophy or whether to enforce governance through legislation. It is generally agreed that legislative action in the field could lead to a raft of unintended consequences and a policy of motivating asset owners and asset managers to act to improve governance is preferable.

Although there has been solid progress in developing standards of corporate governance globally and there is evidence of improved value to shareholders, it is recognized that firstly there is scope for improvement, secondly there may be areas of codes which vary from country to country, thirdly that the differing roles of asset owners versus asset managers can sometimes lack clarity, while finally some regulators have expressed concern that asset managers may be declaring their intent to comply but that their implementation is inadequate. In addition, there are concerns as to how the codes should apply to privately-owned companies and companies which are changing between public and private ownership. In conclusion, it is clear that regulators, asset managers and companies will increasingly work together to ensure optimal corporate performance.

The role of CEOs, boards, pay and other key factors in governance: Key literature

Corporate governance is a widely-researched topic. The large and growing body of academic work, regulation and governance practice reflects the increasing relevance of, and interest in, this area. Still, there are competing definitions as to what constitutes corporate governance. For instance, Becht, Bolton, and Röell (2005), describe corporate governance as being “concerned with the resolution of collective action problems among dispersed investors and the reconciliation of conflicts of interest between various corporate claimholders.”

Krithika Subramanian

From the perspective of investors, Shleifer and Vishny (1997) have researched the concentration of ownership and the legal protection of shareholders and hence define corporate governance as a means by which “suppliers of finance assure themselves a return on investment.” Gompers, Metrick and Ishii (2003) construct a ‘governance index’ to measure shareholder rights. They argue that an investment strategy which bought firms with the strongest shareholder rights and sold firms with the weakest rights, would earn abnormal returns during the sample period of their study in the 1990s. Moreover, Cremers and Ferrell (2013) touched upon different dimensions of corporate governance including shareholder rights and firm valuation and anti-takeover measures. They identify the development of anti-takeover defenses as perhaps the key shock to the importance of shareholder rights post-1985.

In this section, we delve into the academic literature on critical areas¹ of corporate governance;

including shareholder rights, the role of the Board of Directors, executives and compensation, shareholder activism and hostile takeovers, and the impact of legal origins and politics in corporate governance.

Shareholders and investor rights

The debate on shareholder rights is central to any discussion on corporate governance. Gompers, Metrick and Ishii (2003) in a rather compelling study establish that firms with better shareholder rights (quantified by their governance (G) index) boasted of better fundamentals (in terms of higher firm value, profits, sales growth, lower capex and fewer corporate acquisitions). The research based on the G-index highlights the inverse relationship between shareholder rights and managerial power, which partly reflects earlier work, such as that of McConnell and Servaes (1990) who estimate a non-linear relationship between Tobin's q and insider ownership.²

Resolving the collective action problem

Shareholders in a firm are quintessentially dispersed and their participation in the firm's decision-making process is commonly ineffective at an individual level, owing to the free-rider problem. However, shareholders collectively have the incentive to monitor the firm and maximize the value of their financial investments. As an alternative, Becht et al. (2005) suggest that the problem of collective action may be resolved by having a partially-concentrated ownership structure with at least one large shareholder or blockholder. This blockholder would have a direct interest in monitoring the management while also having the power to effect managerial changes. The blockholder arrangement is rare in the USA and the UK, owing to

1 References

- La Porta, R., Lopez, F., Shleifer, A., & Vishny, R.W. (1999), “Investor protection and corporate valuation,” *Journal of Finance*
- Shleifer, A., & Vishny, R.W. (1997), “A survey of corporate governance,” *Journal of Finance*
- Bebchuk, L.A., Weisbach M.S. (2009), “The state of corporate governance research,” NBER working paper
- Denis, D.K., McConnell, J.J. (2003), “International Corporate Governance,” *Journal of Financial and Quantitative Analysis*
- Weisbach, M.S., Hermalin, B.E., Adams, R.R. (2010), “The Role of Boards of Directors in Corporate Governance: a Conceptual Framework and Survey,” *Journal of Economic Literature*
- Roell, A., Becht, M., Bolton, P., (2005), “Corporate governance and control,” European Corporate Governance Institute
- Becht, M., Franks, J., Mayer, C., Rossi, S., (2007), “Returns to shareholder activism: evidence from a clinical study of the Hermes UK Focus Fund,” European Corporate Governance Institute.
- Gompers, P. A., Ishii, J.L., Metrick, A., 2003, “Corporate governance and equity prices,” *Quarterly Journal of Economics*
- Gillette, A.B., Noe, T.H., Rebello, M.J. (2008), “Board structures around the world: an experimental investigation”
- Roe, M. J., (2006), “Legal origins, politics and modern stock markets,” *Harvard Law Review*
- Cremers, M., Ferrell, A., (2013), “Thirty years of shareholder rights and firm valuation,” forthcoming *Journal of Finance*

- 2 Tobin's q is the ratio of the firm's market value of common stock plus preferred stock plus debt, divided by the estimated replacement cost of the firm's physical assets. Inside ownership is the sum of shares owned by the officers and directors.



regulatory restrictions and concerns over hostile takeovers. However, Becht et al. (2005) find that some forms of concentrated ownership are dominant corporate governance models in continental Europe and other OECD countries.

Shareholders and the Board of Directors

In a typically more democratic governance framework that emphasizes investor rights, shareholders elect the firm's Board of Directors, which acts as a creator and protector of shareholder value. This again helps in circumventing the collective action issue for dispersed shareholders. However, it also gives rise to the infamous agency problem – i.e. when contracts are incomplete and not effectively enforceable, how do you ensure that the Board of Directors or top executives of the firm act in the interests of shareholders? The shareholders' voting capabilities enable the firm to better align the interests of the board, top executives and investors. Interestingly, Shleifer and Vishny (1996), also introduce the concept of reputation building here. They argue that, although intangible, reputation is a pervasive force for modern firms with large and recurrent financing – and

hence, its managers are compelled to act responsibly, as they have to regularly return to the markets to raise funds.

Board structure and decision making

Yet, in the aftermath of the implementation of the game-changing Sarbanes-Oxley Act (2002), board sizes have become larger and more uniform with a greater representation of outside/independent directors. Empirical work by Adams, Hermalin and Weisbach (2010) establishes that structural differences in boards impact decision-making behavior. Earlier work by Hermalin and Weisbach shows that board size is negatively related to both general firm performance and quality of decision making. They also state that independent or non-management directors behave differently from inside management directors. Further empirical evidence shows that two-tiered boards (comprising a managing board and a supervisory board) tend to be overly conservative in their choices; whereas outsider-controlled boards tend to bring more efficient payoffs (Gillette, Noe and Rebello, 2008).

The role of the CEO

The dynamic between the CEO and the Board of Directors is also a crucial determinant of the firm's performance. Conventionally speaking, top executives such as the CEO are responsible for directing the overall operations of the firm in the desired strategic direction as ordained by the Board of Directors. However, Weisbach et al. (2010) show that when the CEO has greater bargaining power (backed by his exceptional performance and skills) the board's independence declines. Extending this analysis further, Ryan and Wiggins (2004) find that the CEO's pay becomes less linked to equity performance as his control over the board increases.

A very plausible scenario where the CEO becomes more powerful is when the board is comprised of very busy directors who are on the boards of multiple firms. Busy directors are generally in greater demand for their skill, insights and strategy. For instance, evidence from Japan shows that individuals previously employed by banks or other financial institutions are appointed as outside directors to the boards of Japanese firms, generally following poor stock performance and earnings losses (Kaplan and Miton, 1994). They further find that this trend is more likely in firms with significant bank borrowings, concentrated shareholders and membership of corporate groups. However, it may be cautioned that the presence of too many such busy directors could result in looser control and managerial oversight.

Executive compensation

The challenge here is to set up an ideal board structure and supportive top management that protects and enhances shareholder value. Executive compensation, incentives and board configuration can effectively help in aligning the objectives of the firm's decision makers and shareholders. Performance-linked pay structures work effectively not only because they directly impact the salary of the executive or board, but also because they impact future career opportunities (Becht, et al., 2005). However, as flagged by the authors, we must be mindful of a major weakness exposed during the accounting incidents, such as those of Enron and WorldCom, that earnings and stock prices can be manipulated.

Women in senior management

We also highlight some of the statistical findings from our September 2014 CSRI publication titled 'The CS Gender 3000: Women in Senior Management' which concludes that diversity coincides with better corporate financial performance and higher stock market valuations (although causality remains a tough question to answer). One of the key facts discussed in the publication is that since 2005, companies with more than one woman on the board returned a compound 3.7% a year over those that had no women on the board. Companies that have higher female representation at board level or in top management exhibit higher returns on equity, higher valuations and higher payout ratios.

Hostile takeovers

Hostile takeovers are generally perceived as disruptive and expensive and they are particularly undesirable if the main purpose is the expropriation of employees or minority shareholders (Becht et al., 2002). Often takeovers are viewed as having a more disciplinary effect on the management of the firm. To that extent, firms with lower value are more prone to hostile takeovers. Such firms are also the most likely to incorporate defensive strategies or anti-takeover measures, such as the poison pill or golden parachute,³ in anticipation of unsolicited takeover bids over the life of the firm.

Anti-takeover measures

Poison pills effectively became the key element in blocking hostile takeovers in the aftermath of the Delaware Supreme Court's Moran vs. Household decision in 1985. Cremers and Ferrell (2013) found in an extensive case study that this event was an exogenous shock to the importance of shareholder rights. In their post-household study they find a particularly negative and statistically significant relationship between the poison pill and firm valuation. Another common takeover defense is the golden parachute – which is a severance agreement that compensates senior executives upon termination, demotion or resignation following a change in control, without the approval of shareholders. This provision could perceptibly increase the takeover cost for the raider and hence delay or deter the hostile takeover. Gompers et al. (2003) find that golden parachutes are highly correlated with other takeover defenses and, to that extent, restrictive of shareholder rights.

3 While poison pills are triggers that render the target firm financially unattractive to the corporate raider, the golden parachute is a severance agreement that provides benefits (cash or non-cash compensations) to senior executives/board members in the event of termination, demotions or resignations following a change in control.

Bondholder activism

Corporate governance is not just equity focused, bondholders are also increasingly engaging in aggressive activism. Çelik et al (2015) argue – in one of the OECD corporate governance working papers – that institutional bondholders have traditionally been involved in monitoring risk, managing loss recovery and participating in restructuring. However, more recently bondholder activism has come to revolve around breaches/defaults on bond covenants in pursuit of windfall gains. Just as in the case of stocks, bonds are equipped with poison puts that give the bondholder the option to sell their bonds at a premium upon a change in control. Çelik et al (2015) find evidence that non-investment grade bond indentures almost always incorporate provisions for poison puts.

Activism and performance

A number of empirical studies have shown that there is little or no link between activism and performance in US markets. On the contrary, the case study of the Hermes U.K. Focus Fund shows that returns to activism are economically large and statistically significant (Becht, Mayer, et al., 2007). This exception arises from the fundamental difference between US and UK laws. UK shareholders are entitled to change the basic contract, including the ability to remove directors by vote; this however, is not permissible in the USA, which limits returns from activism. Contrary to the long-held conviction that shareholder activism is disruptive and negative, Bebchuk and Weisbach (2009) show that hedge fund activists do not always just seek to secure value by acquiring the firm but also create value by inducing small operational changes. This may be achieved by the introduction of better governance practices, such as having women on the Board of Directors or ensuring a fairer representation for minority shareholders as well as by providing efficient monitoring services.

The impact of legal origins and politics

Shareholder rights are not only determined by the provisions of the firm, but also by the legal framework of the country in which said firm operates. By and large, investors are generally attracted to those financial markets where both their rights and investments are legally protected. When the law limits expropriation, the price of securities tends to rise, further promoting cross-border transactions (La Porta et al., 2000). This in turn is observed to aid further development of financial markets.

Legal origins and differences in governance practices

Indeed, differences in legal origins have come to systematically impact the implementation and interpretation of corporate governance. Interestingly, La Porta, et al. (2002) find that countries whose legal systems have historically originated from common law are keener on protecting the rights of investors/shareholders, when compared to countries that follow civil law. This is likely to be because civil law is more hard-coded, with little or no room for interpretation compared with common law. As a corollary, it has also been found that in countries where the investor protection framework is poor, firms with higher cashflow (or equity) ownership by controlling shareholders are seen to ensure better valuation.

In general, academics have found that better shareholder protection is empirically associated with the higher valuation of corporate assets. In the absence of adequate protection of shareholder rights, a more closely-held shareholding and managerial control pattern appears to deliver greater value.

Politics and rent seeking

Roe (2006) finds that politics is more important than legal origins. Politics and rent seeking by staunch interest groups often tend to adversely impact the legal protection of investors. Bebchuk and Weisbach (2009) argue that an administrative set-up where corporate insiders have the ability to influence politicians with the use of corporate assets, tends to undermine the legal efficiency of investor protection measures.

Applying corporate governance to investors

The role of the asset management industry in corporate governance.

Bob Parker

Asset managers have a range of fiduciary duties to carry out for their clients, whether those clients be institutions or retail clients. Arguably, the most important duty is the generation of investment performance over an agreed time period and within transparent and clearly stated risk budgets. Performance can be derived from a number of different sources, such as global asset allocation, sector selection and individual security selection, etc., but one source of performance is to engage with companies to ensure their corporate strategies maximize returns to shareholders. Increasingly, pension funds, insurance companies, some sovereign wealth funds and asset managers are including their corporate governance policies in their annual reports and, in certain cases, reports and case studies on their activities. This trend of increased disclosure is likely to accelerate, thereby making it easier to quantify the positive impact of good corporate governance.

However, the asset management industry is diverse, representing a range of clients from individuals to family offices to insurance companies and pension funds. Typically these invest across very different asset classes from money markets to fixed income, equities and illiquid assets, and execute many different strategies from long-only to hedge funds, from using top-down macro models to research-based quantitative techniques, etc. Different parts of the industry will have their own specific approaches to corporate governance.

Illiquid asset classes are one area where asset management engagement is essential. Whether these classes cover real estate, infrastructure or private equity, two sources of performance will be management and corporate structural improvement and price/earnings multiple expansion. By definition, investing in illiquid assets is a longer-term exercise typically in excess of five years and engagement with management is arguably only successful over a period of time. In many cases, illiquid asset owners will have representatives on company boards and therefore have full access to company information and are directly part of the decision-making process in enhancing shareholder value.

It is difficult to generalize about the behavior of fixed income managers. Where global fixed income managers are generating their performance from macro positions in foreign exchange, duration management and high-quality investment grade credit decisions, their involvement with corporate governance is minimal. However, dedicated fixed income managers deriving performance purely from the credit markets, whether in investment grade sectors or high yield or distressed debt will inevitably be engaged in trying to improve the credit viability of companies and their credit ratings.

Arguably an improvement in ratings should directly lead to added investment performance. The contentious issue is that the interests of fixed income managers may not be directly correlated with those of equity managers; a reduction in the leverage of a company leading to a credit improvement may not necessarily lead to improved equity shareholder returns.

Within the equity sector of asset management, there has been a well-documented trend towards indexed or passive management. Indexed managers, almost by definition, do not have potential alpha returns since stock selection decisions are not made but many investors and particularly insurance companies have carried out active corporate governance programs to ensure improved corporate profitability as a source of improved index performance.

For active equity investors and traditional long-only investors, behaviors will be different from those of the hedge fund industry. A simplistic definition of a hedge fund is an investment process taking leverage and long/short positions. Where a hedge fund is shorting a company, they are taking a negative view of the company's strategy and potential outcomes and therefore have no interest in corporate governance to improve the company; the hedge fund sector focused on dedicated shorts is motivated towards negative returns and, inter alia, poor corporate governance.

One important distinction is that between long-only equity managers who are engaging with companies and activist investors. Activists campaign to change management, business strategies and financial strategies, such as dividend payments and share buyback policies, with a view to generating a shorter-term improvement in the companies' share price. Examples of activist behavior may be where companies are running high levels of corporate excess liquidity and activists lobby for increased dividends; alternatively activists can lobby for companies to be broken up where there is perceived greater value in the different parts of a company rather than in the aggregate. One aspect of activism may be to orchestrate a takeover of a company by a third party to enhance returns through a premium from an acquirer. Activism can generate significant debate and controversy but the evidence suggests that it is growing in the asset management industry.

A key initiative in governance has been the FRC Stewardship Code, which is being broadly adopted by other OECD countries. This code is described in greater detail in the section on the approach of regulators, but one important aspect of the Stewardship Code is the pressure on asset managers to comply or explain, as opposed to regulators forcing asset managers to carry out governance responsibilities, which

could lead to a range of unintended consequences. One example of forced governance or legal responsibilities to carry out governance could be investors being discouraged from outright share/equity investment with funds being channeled into structured products or hybrid investment vehicles where there are no governance responsibilities.

The Kay report on governance and long-term investing was helpful in that it succinctly made the case for firstly holding investment positions for the long term and simultaneously engaging with companies to maximize shareholder returns as opposed to short-term or trading investor behavior. The only problems with this approach are that companies and investors will have to adjust to external events which may not be foreseeable, e.g. increasingly disruptive competitive technologies or takeover approaches. The case for long-term investment is sound, particularly in illiquid assets, but adaptability is required to account for any shorter-term externalities.

The seven prime areas for corporate governance activity are:

- Ensuring equality of shareholder rights and protecting the interests of minority shareholders. This responsibility is acute where companies may have different share classes with different voting rights.
- Avoiding over leverage, although the appropriate levels of leverage will vary from sector to sector and will be partly driven by different economic and company lifecycles, in many cases corporate problems and/or defaults have been driven by excessive leverage. The problems of the corporate sector from 1999 to 2002 were examples of where excessive leverage in an economic down cycle can diminish investor returns. An extreme example is where companies are leveraged to fund short-term payouts to shareholders, in many cases damaging the longer-term prospects of companies.
- Associated with this point is governance over the correct level of dividends and share buy backs versus real investment, the latter generating improved longer-term cash flows.
- Ensuring that companies have the correct risk management systems in place and high levels of legal compliance. This factor has been acute in the financial services and banking industries.
- Making sure that companies have clearly stated longer-term business strategies and that they are implemented relative to longer-term benchmarks. Two observations are that: a strategy is better than no strategy, and that a strategy which is just going through the motions is worse than no strategy.
- Reviewing the level and structure of management compensation. Key metrics are executive compensation relative to profitability, both

short and long term, the reconciliation of shareholder and management interests and the transparency of compensation schemes. Structures which motivate management to maximize short-term profits are discouraged.

- Ensuring that non-executive directors and the role of the Chairman are effective. Although in the USA it is normal practice for the CEO and the Chairman to be the same individual, in Europe this practice is discouraged and in a number of countries governance is enhanced by the separation between a management board and a supervisory board. It is evident that where individuals have an excessive number of non-executive directorships, their effectiveness is diminished.

More qualitative areas of governance are:

- Environmental issues: it is contentious as to whether shareholders should directly engage with companies to persuade them to follow overtly green policies, but shareholders have a clear motivation and responsibility to ensure that companies have clear environmental policies to avoid pollution problems (e.g. BP/Gulf of Mexico and more recently BHP Billiton/Brazil) and have health and safety policies to avoid industrial accidents. The example of Volkswagen not complying with environmental emission standards is an example of shareholder value being reduced due to poor corporate compliance.
- Diversity: there is a major debate over quota systems for the number of women on company boards and the number of minority groups; however, there are well-rehearsed and powerful arguments that companies with clear and well-implemented diversity policies outperform.
- Sustainability/social issues: there is a raft of issues in this category of governance and many add to the social good, which has an economic value. However, more work needs to be carried out linking these issues with improved shareholder value.

In conclusion, it is clear that asset managers and investors are becoming increasingly intolerant of poor standards of governance and will increasingly vote against management where poor or underperforming behavior is evident. In the final analysis, investors will react by selling their positions in a company, leading to a period of price underperformance or corporate decline. It is likewise clear that institutional investors, such as sovereign wealth funds, insurance companies and pension funds will not employ long-only equity asset managers who do not have a policy of corporate engagement and who are not transparent in reporting their governance activities. Finally, company performance and shareholder returns are becoming increasingly correlated with the implementation of positive governance.

The HOLT governance scorecard

How pay aligns with performance and spotting how it can go wrong.

Michel Lerner and Tom Hillman

There is a rising call to battle in the investment community to hold companies to higher standards when it comes to corporate governance — witness Blackrock's CEO Larry Fink's letter¹ to all S&P 500 companies and large global companies earlier in the year, demanding that they shift their focus away from short-term gains and more towards earning long-term sustainable returns.

The evidence does suggest that not all is right in that regard. Although corporate profitability is at all-time highs, aggregate European and US reinvestment rates remain well below levels observed in the 1980s as a percentage of sales. Paradoxically, central bank liquidity infusions and interest rates at historic lows have not helped. Rather, a growing number of corporates, in the USA especially where quantitative easing (QE) has been in play for longer than in Europe, have geared up their balance sheets (see Figures 19 and 20).

Where is this cash going instead? Dividends and buybacks largely (see Figure 21).

An overwhelming focus on earnings-based performance measures

One reason that may explain such disincentives to invest (see the article on capital allocation, page 36) lies in the financial criteria that determine CEO compensation levels. Overwhelmingly, CEO pay is based on reaching net income-based financial targets (earnings per share in particular) and overwhelmingly corporate remuneration plans are skewed towards hitting short-term targets.

Credit Suisse HOLT, a proprietary corporate performance and valuation framework covering 20,000 stocks, has extended its offering to looking at how CEO compensation aligns with wealth-creating principles. Looking at the financial criteria used at 1,721 US firms between 1998 and 2013, the data shows that income-based targets are favored by corporates significantly more than any alternative (see Figure 22).

The benefit of using earnings per share (EPS) to set financial targets is that the ratio is simple to understand, but it is also one of the easiest figures to massage through accounting choices — share buybacks, pro-forma earnings regularly stripping out items, underinvesting are just some of the ways to boost EPS, even if the true underlying economic picture may in fact be quite different.

A fixation on hitting EPS targets can even jeopardize sound stewardship because of the conflict of interest between management's goal of maximizing EPS and the potential reinvestment needs of a business to secure future cash flows. A study (see Graham, Harvey, Rajgopal "Value destruction and financial reporting decisions," 2011) showed that nearly half of the 400 CFOs surveyed would forfeit a positive NPV project if it were to have a large impact on their quarterly earnings (see Figure 23).

And if there was ever any doubt that short-termism is the norm, HOLT data shows that less than 10% of firms use financial-based performance targets for CEO pay with a measurement period exceeding three years. In contrast, the median payback period on an investment for European and US companies (ex. financials and utilities) is just below eight years. Note that we distinguish between actual performance measurement periods and potentially long vesting periods, where time-in-seat ensures that payments crystallize, rather than actual long-term wealth creation.

If incentives therefore appear to dictate behavior, the challenge for investors is that it can be difficult to properly assess whether or not the financial criteria that determine CEO compensation levels are indeed the right ones to maximize their focus on prioritizing long-term wealth creation. The array of criteria used to determine pay is wide, the hurdle rates are not always clear, and the weightings applied to particular objectives are not always intuitive. At the extremes, looking through the 2014 annual reports of 1,000 US and 300 European large cap companies, HOLT found that 5% of European and US firms provide no disclosure at all on their remuneration arrangements, while 13% of US firms and one in two European firms provide no explicit financial targets.

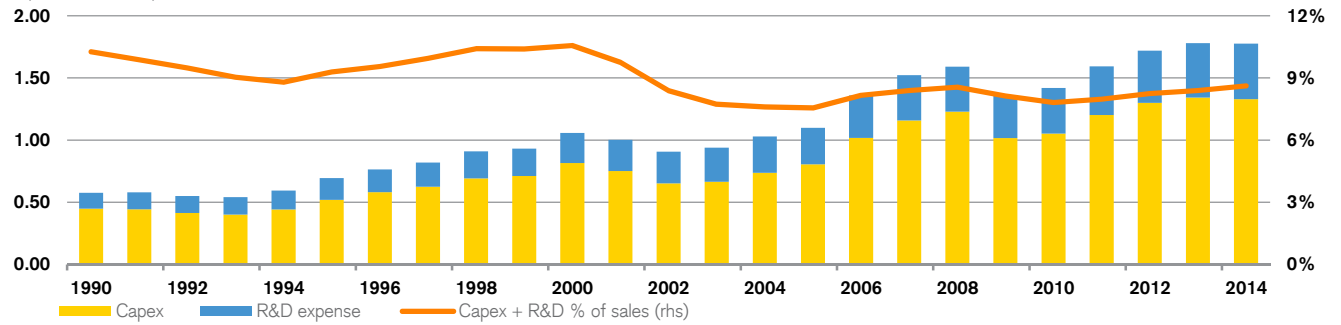
¹ <http://www.nytimes.com/2015/04/14/business/dealbook/blackrocks-chief-laurence-fink-urges-other-ceos-to-stop-being-so-nice-to-investors.html>.



Figure 19

US and European capital deployment trends

Capex and R&D expense in USD trillions

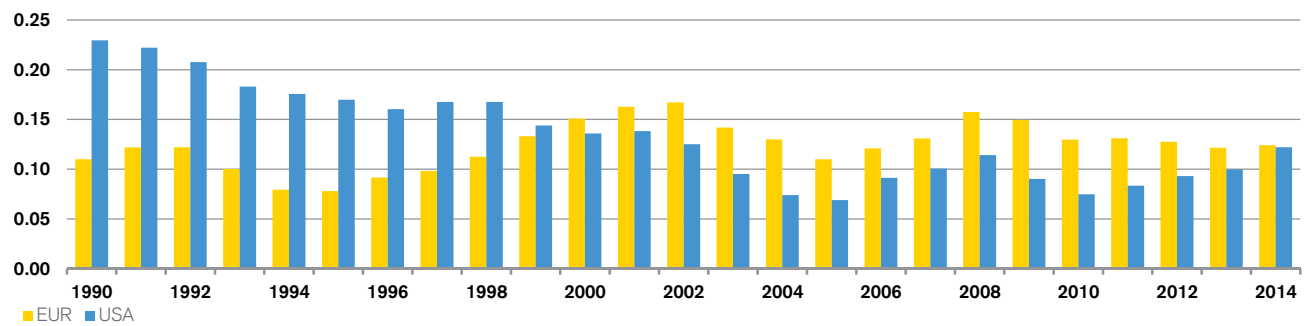


Source: Credit Suisse HOLT

Figure 20

Median debt to inflation adjusted net assets

USD trillions

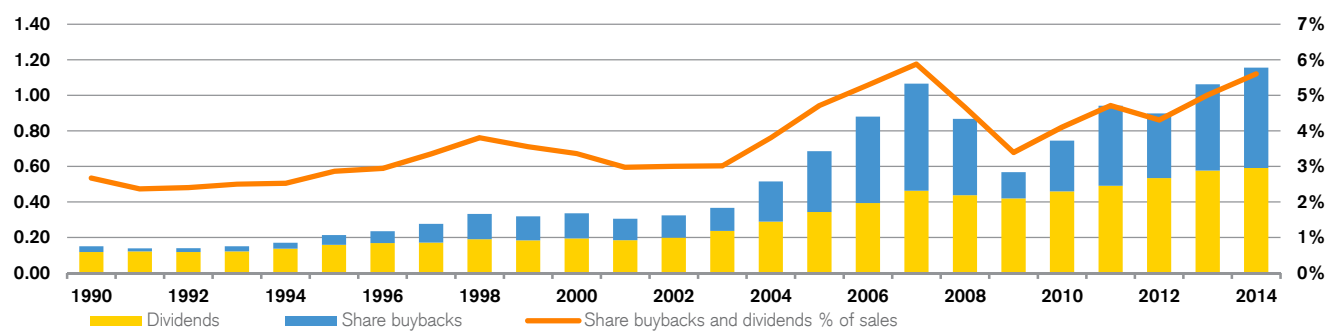


Source: Credit Suisse HOLT

Figure 21

Buybacks and dividends

Dividends and share buybacks in USD trillions

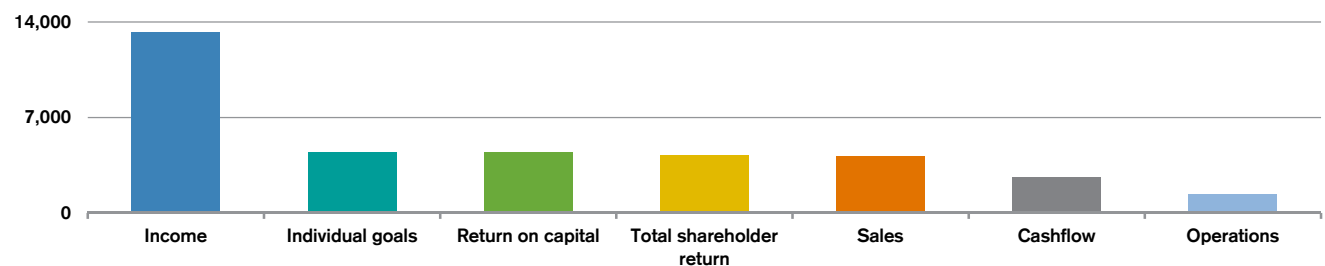


Source: Credit Suisse HOLT

Figure 22

Usage of incentive metric

Count of US firms between 1998 and 2013



Source: Credit Suisse HOLT Governance Database, ISS, 1,721 US companies

Sifting through the noise

It is with that in mind that HOLT has developed its governance scorecard to systematically rank US and European corporations on how well CEO remuneration criteria align with wealth-creating principles. Looking across 13 criteria, they score companies on the level of transparency and disclosure of corporate pay plans, the extent to which pay criteria incorporate return-based financial targets (rather than just income statement objectives) and the balance between short and long-term performance measurement. The resulting scores range from -8 (worst) to +7 (best).

With such a framework, it becomes possible to rapidly gain scale to: systematically assess governance risks to spot outliers across firms; identify changes in performance incentives that may be earlier indicators of a change in operational focus; and highlight engagement targets and areas of focus for AGM voting.

The test case of Darden Restaurants in the USA, in that regard, is instructive, not least because it has recently been the target of activist investor Starboard. From a corporate performance standpoint, Darden's CFROI^{®2} until 2015 had been under significant pressure, dropping from a peak of 12.2% in 2007 to a 15-year low of 7.6% in 2014.

From 2011 onwards we note that the HOLT governance score deteriorated (see Table 1). Digging a little deeper, it becomes clear that the first signs of a possible misalignment of incentives with wealth-creation principles were apparent from 2009 with the return on investment capital (a theoretically robust measure of performance thanks to its focus on income statement and balance sheet efficiency) taking on an ever lower weighting in determining annual bonuses. By 2011, the alignment of pay with performance drivers had deteriorated further with the total removal of the long-term performance plan. From 2012 onwards, EPS and sales growth became the only financial criteria retained for remuneration purposes (see Figures 24 and 25).

The concomitant deterioration in both asset efficiency (sales/invested capital) and operating margin is evident (see Figures 26 and 27).

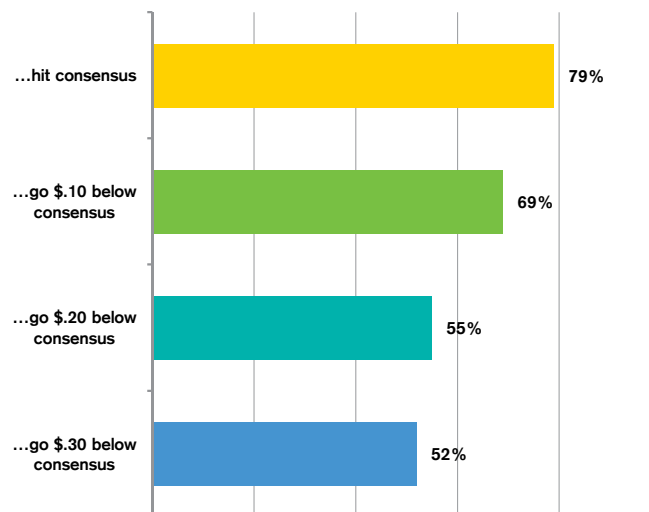
Beyond this particular example, the overall state of the land across a universe of 1,350 American and European companies covered in this manner shows that, broadly, corporate remuneration plans are in fact improving (see Figure 28).

In particular, we note a significant increase in the inclusion of return on capital measures as part of corporate remuneration plans in recent years in both the USA (see Figure 29) and in Europe.

Figure 23

Survey of 400 CFOs

What is the probability that your company invests in an NPV Positive Project if, as a result, quarterly EPS...



Source: Graham, Harvey, Rajgopal "Value destruction and financial reporting decisions," 2011

Spotting questionable governance to make better investment decisions

As the implementation of sound governance principles may break down in practice, it is unsurprising that HOLT back-tests show little correlation between a high HOLT governance score and stock price performance. However, over the last 12 years, the market has rewarded high-quality stocks over low quality. Figure 30 shows the significant outperformance of US companies (market cap > USD 1 bn, monthly rebalancing, equal weighting applied) that can combine improving returns and asset growth versus companies where growth is in a context of declining returns (source: Graziano, "Accounting and Tax Insights," August 2015) or not growing at all.

For more engaged investors focused on sound stewardship, there is also evidence to suggest that more active proxy voting leads to CFROI improvements in the long run that are rewarded by share outperformance. This is evidenced in the proxy voting results of the State Board of Administration of Florida. A HOLT study of their voting record found when a slate of dissident directors won, corporate profitability improved, but when the status quo prevailed with existing directors being reappointed, corporate profitability continued to decline (source: McCauley, Williams, Stewart and Brown, "2015 Annual Governance Summary," State Board of Administration Florida, November 2015) (see Table 2).

In a world of some 20,000 stocks to choose from, the HOLT governance score therefore serves as one of several factors that can function as a useful indicator to either gain a higher conviction on the quality of a business or to move onto the next investment opportunity with fewer question marks. To quote Warren Buffett: "It's when the tide goes out that you see who's swimming naked."

2 Cash flow return on investment, or CFROI[®] is a registered trademark in the United States and other countries (excluding the United Kingdom) of Credit Suisse Group AG or its affiliates.

Table 1

Are management incentives aligned with shareholder value creation principles?

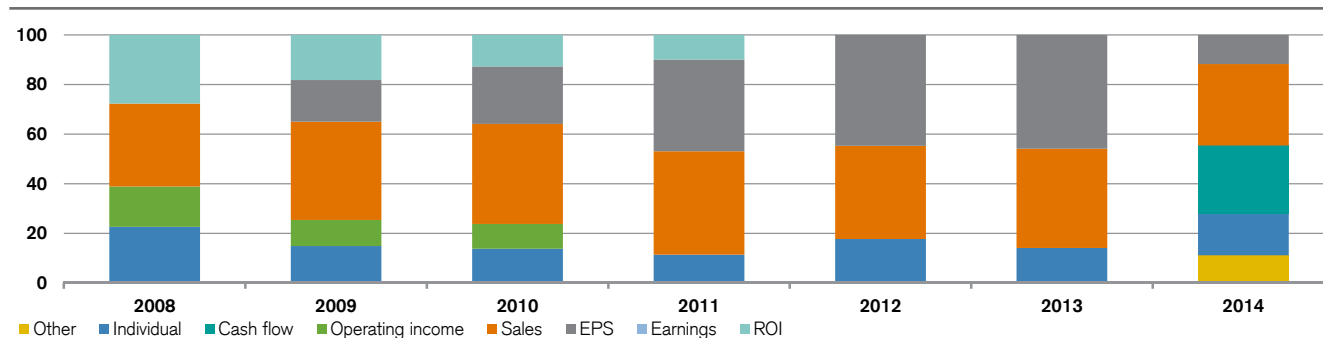
	2008	2009	2010	2011	2012	2013	2014
Darden Restaurants (-8 to 7)	6	6	6	3	1	1	0
Industry median	0	0	1	1	1	1	1

Source: Credit Suisse HOLT

Figure 24

Short-term management goals

Darden Restaurants

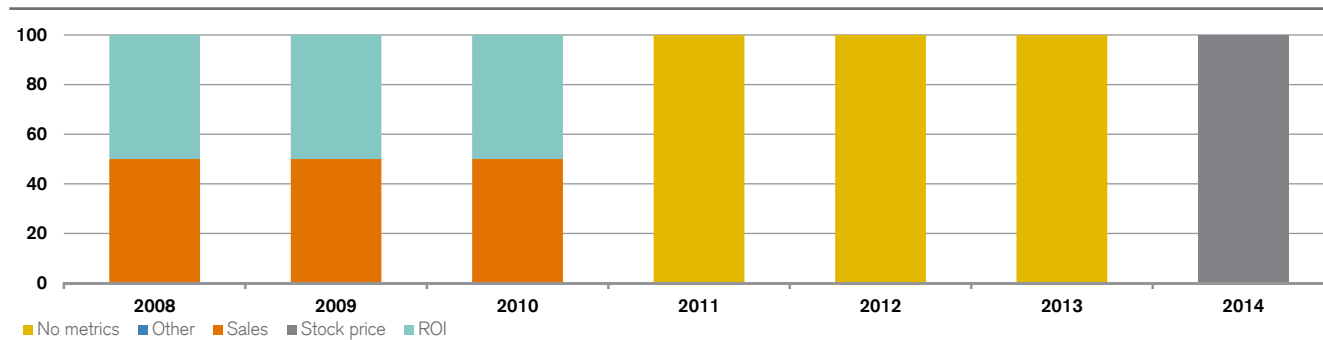


Source: Credit Suisse HOLT

Figure 25

Long-term management goals

Darden Restaurants

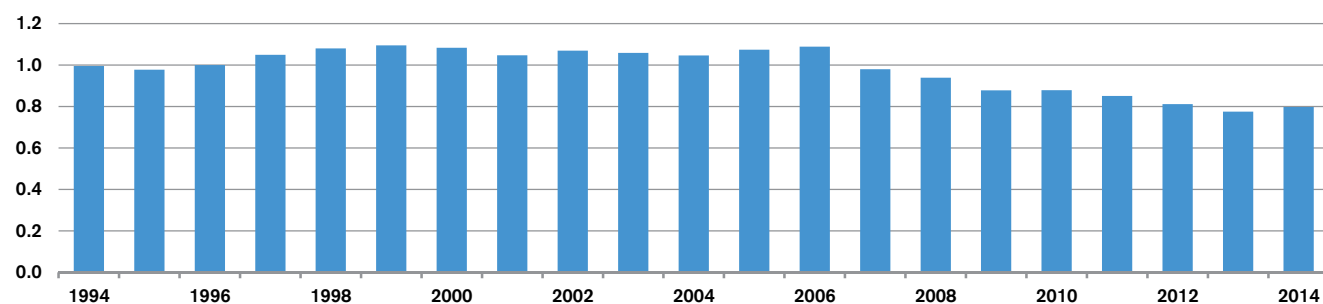


Source: Credit Suisse HOLT

Figure 26

Asset turns

Sales/invested capital, Darden Restaurants

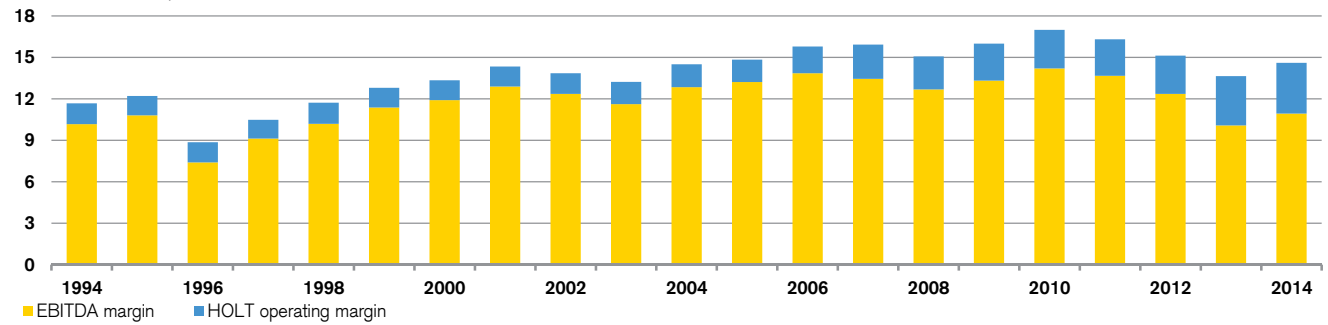


Source: Credit Suisse HOLT

Figure 27

Adjusted operating margins

Darden Restaurants, percent

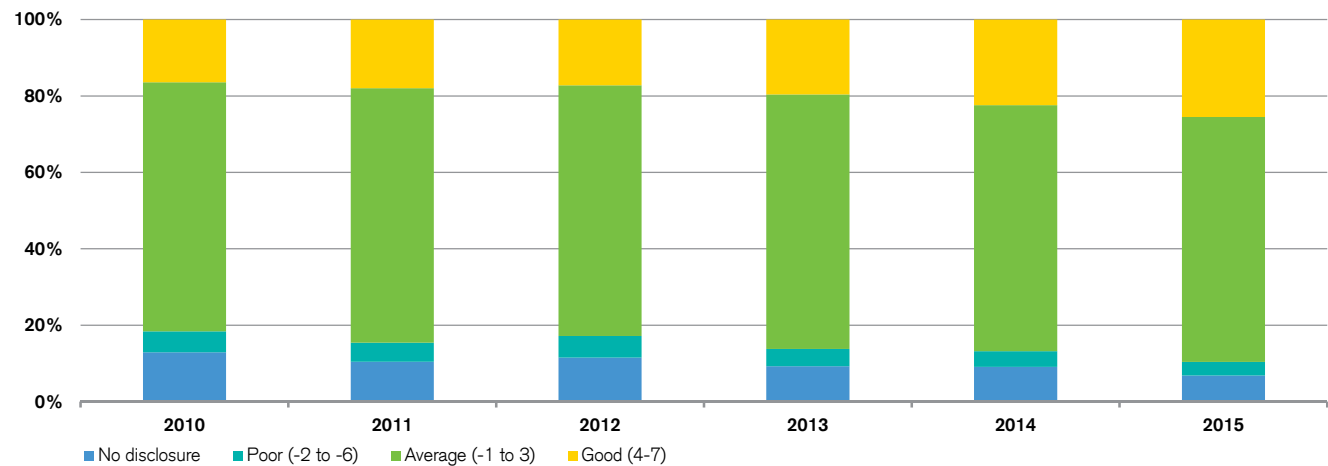


Source: Credit Suisse HOLT

Figure 28

Disclosure of corporate remuneration plans

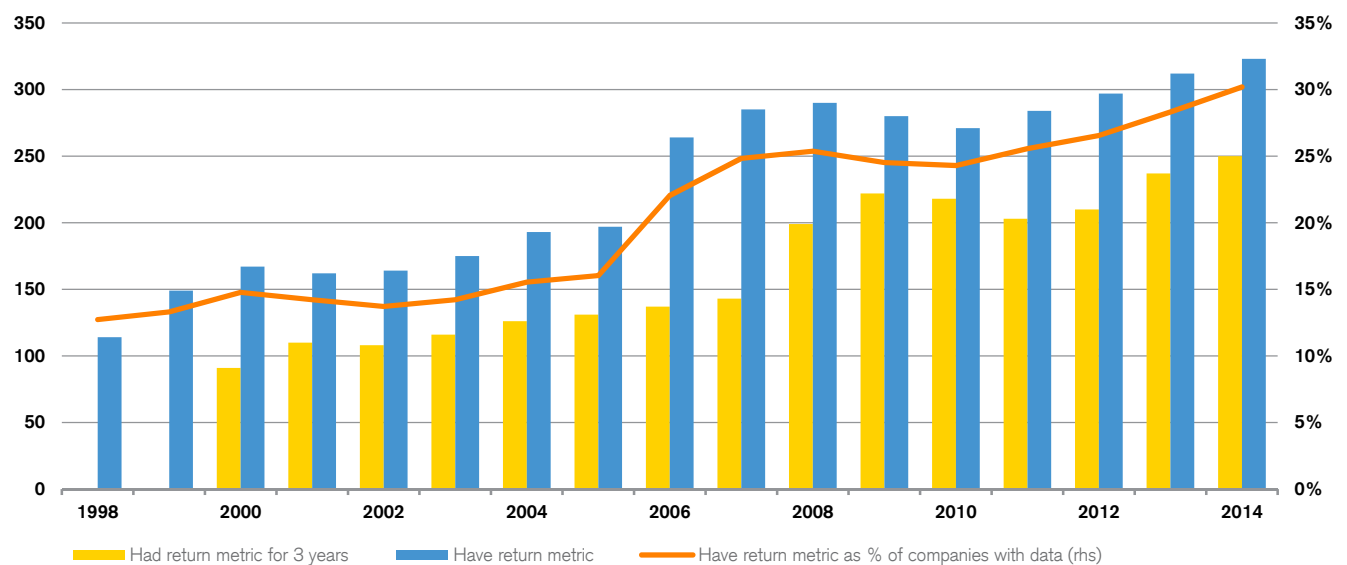
Count by total score



Source: Credit Suisse HOLT Governance Database, US & European firms

Figure 29

Proportion of US companies using return-based metrics in their executive remuneration plans



Source: Credit Suisse HOLT

What is HOLT?

HOLT is a team within Credit Suisse that helps investors make better decisions by using an objective framework for comparing and valuing stocks. This return on capital framework is proprietary to Credit Suisse.

HOLT's flexible platform provides an objective view of over 20,000 companies worldwide. HOLT's rigorous methodology examines accounting information, converts it to cash and then values that cash.

What makes HOLT different?

Corporate financial statements can be misleading. Companies typically employ highly subjective accounting methods, such as depreciation and off-balance sheet items which distort the true profitability of the firm and make traditional accounting ratios suspect.

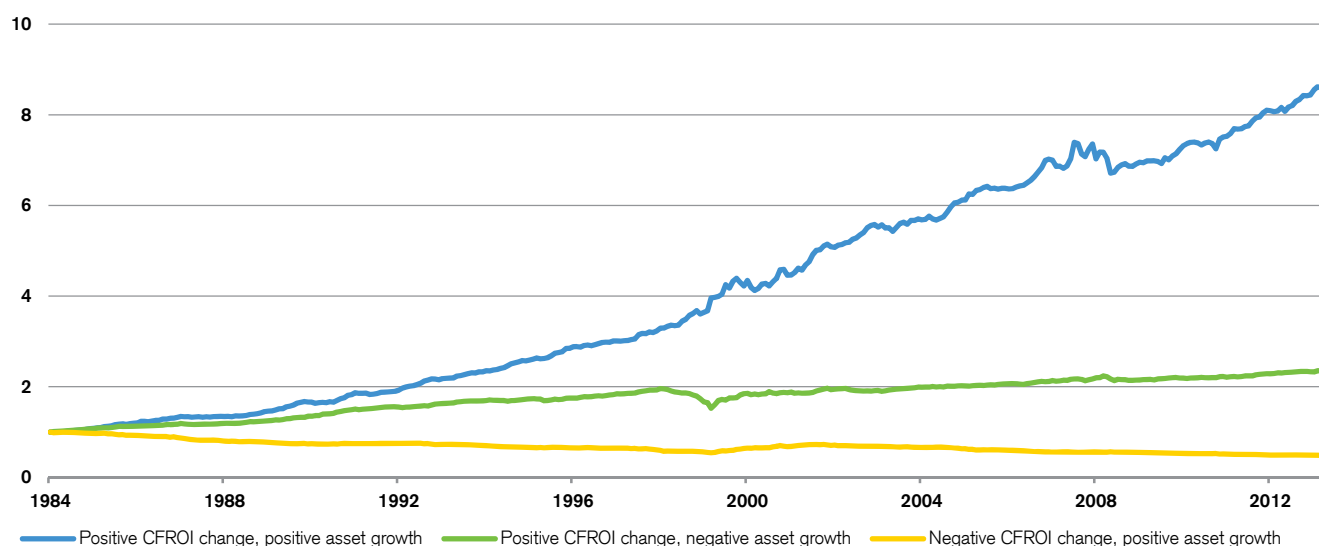
The proprietary HOLT methodology eliminates subjectivity by converting income statement and balance sheet information into a CFROI[®] return, a measure that more closely approximates a company's underlying economics. The resulting returns are objectively based and can be viewed to assess the firm's historical ability to create or destroy wealth over time.

Summary

As much as corporate governance is higher up the agenda of many investors, the ability to properly scrutinize and hold corporations properly accountable for pay for performance is challenging, given the lack of consistency of corporate incentive schemes and varying degrees of transparency. Nor do investors properly have the time to sift through all annual reports to assess the robustness of schemes ahead of AGM votes. By providing a systematic framework to assess companies, the HOLT governance scorecard provides a filter through which to identify the most extreme examples of potential misalignments of pay with shareholder interests, at a minimum to dig into the pay schemes further, and at the extreme, to avoid and/or hold management accountable where there is a breakdown.

Figure 30

Outperformance of US companies that combine improving returns and asset growth



Source: Graziano, Accounting and Tax Insights, August 2015

Table 2

CFROI trends after proxy vote

Proxy event scenario	Sample size	Change in CFROI 3 years after proxy vote* (median)	Sample size	Change in CFROI 5 years after proxy vote* (median)
Management wins	25	-1.37%	13	-0.67%
Dissident wins	26	0.32%	15	1.10%

Source: Credit Suisse HOLT, McCauley, Williams, Stewart and Brown, "2015 Annual Governance Summary," State Board of Administration Florida, November 2015

* Spread between a firm's specific CFROI (FY0) and CFROI (FY3 or FY5), presented the median of group.



Corporate governance and capital allocation

The governing objective, corporate governance and the two camps.

Michael Mauboussin and Dan Callahan

Properly conceived, corporate governance is a system of checks and balances that a company designs in order to serve its governing objective. A governing objective is a clear statement of what a company is trying to achieve, which ultimately shapes the firm's culture, communications and choices about how it allocates capital (Mauboussin and Rappaport, 2015). In this section, we examine the link between corporate governance and capital allocation.

Since the world of business is dynamic, companies must constantly assess trade-offs and make difficult decisions. A clear governing objective provides executives with a basis to mediate trade-offs in the firm. It also provides the stakeholders, including employees, customers, suppliers, debtors, and shareholders, with information they need to assess a company's prospects and to evaluate its performance.

Few companies explicitly state a governing objective, but we can broadly define two camps: maximizing shareholder value and balancing the interests of stakeholders. As a general rule, countries that operate under common law have the strongest protection of shareholders and hence lean towards the shareholder value camp. These countries include the United States, the United Kingdom, and most of the countries that were formerly part of the British Empire (e.g. Australia, Canada and India). Markets for capital and labor play a central role for companies in the shareholder value camp.

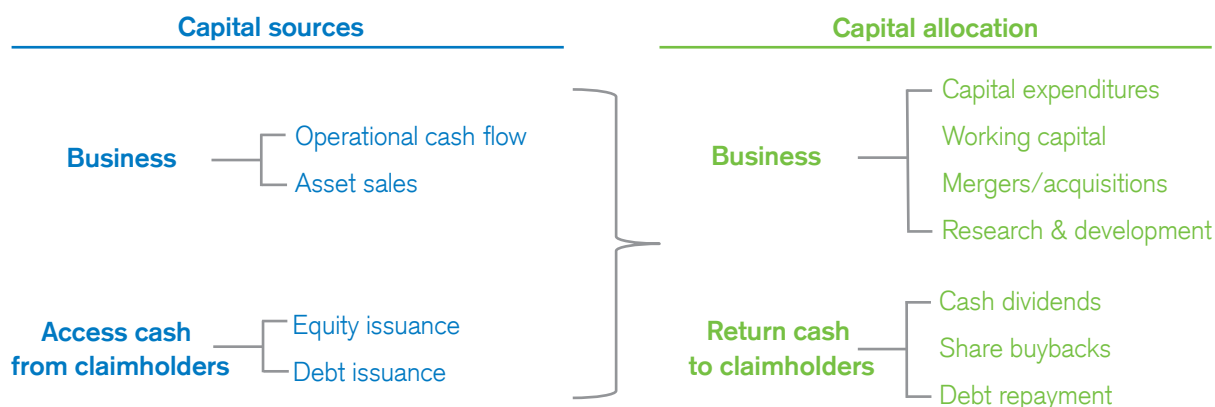
Countries that operate under civil law have weaker protection for shareholders and stronger protection for creditors. They tend towards the camp that seeks to balance the interests of stakeholders. These countries include France, Germany and Japan as well as most Scandinavian countries (La Porta and Lopez-Silanes, Shleifer, Vishny, 2001). Formal and informal rules about the interaction between constituencies are vital for stakeholder-centered companies.

Naturally, the mindsets of these camps lead to different structures of corporate governance and choices about how a company invests and finances itself. For example, academics who study shareholder and stakeholder-oriented governing objectives have found that firms that are shareholder-centric have a higher proportion of incentive pay for executives in the form of equity, more externally verifiable control mechanisms, more debt as a percentage of total capital, and higher rates of labor turnover than firms that are stakeholder-centric (García-Castro, Ariño, Rodríguez, and Ayuso, 2008).

Some scholars charge that balancing stakeholder interests cannot serve as a company's singular governing objective because it is impossible to simultaneously maximize the interests of all stakeholders (Jensen, 2002). As a result, executives have discretion to make decisions as they see fit. The problem is that investors and other stakeholders have no reliable basis to evaluate a company's strategy as well as the operating and financing choices its managers make.

Figure 31

Sources and uses of financial capital



Source: Credit Suisse

The fundamental role of capital allocation

Capital allocation is the most fundamental responsibility of a public corporation's senior management team. Successful capital allocation means converting inputs, including money, ideas and people, into something more valuable than they would be otherwise. The net present value test is a simple, appropriate and classic way to determine whether management is living up to this responsibility. A company passes the test when the present value of the long-term cash flow from an investment exceeds the initial cost.

There are two reasons value should determine whether a management team is living up to its responsibility. The first is that companies must compete. A company that is allocating its resources wisely will ultimately prevail over a competitor that is allocating its resources foolishly. This reason is particularly important for firms that compete in global markets. The second is that inputs have an opportunity cost, or the value of the next best alternative. Unless an input is going to its best and highest use, it is underperforming relative to its opportunity cost.

Figure 31 (and in more depth, Figures 32 to 39) shows the sources of capital and the ways that a company can allocate capital. The primary source of capital is cash flow from operations. Companies can also access capital by selling businesses or raising funds through the issuance of debt or equity. Companies can invest in the business through capital expenditures, increases in working capital, research and development, and mergers. Firms can also return capital to claimholders by repaying debt, issuing dividends and repurchasing shares. While a comprehensive consideration of capital allocation also takes into account human capital, we restrict our discussion here to financial capital.

Over time, a company's results will reflect a combination of the opportunities it has and how the executives allocate capital. Industries and companies generally have a lifecycle where a start-up period is followed by a phase of growth, a fade in return on investment, and ultimately a state of maturity (Madden, 1999). Investment in the business is strongest in the early part of the lifecycle and the proclivity to return capital to claimholders is higher towards the end.

Capital allocation is a dynamic process, so the correct answer to most questions is: "It depends." Sometimes acquiring makes sense and other times divesting is the better alternative. There are times to issue equity and times to retire it. As the components that determine price and value are changing constantly, so too must the assessments that a chief executive officer (CEO) makes. As Warren Buffett, CEO of Berkshire Hathaway says: "The first law of capital allocation — whether the money is slated for acquisitions or share repurchases — is that what is smart at one price is dumb at another" (Buffett, 2011).

A basic equation in finance says that a company's sustainable earnings growth rate is a function of its return on investment and the amount it pays out to shareholders. Companies with high returns on investment can sustain more rapid growth than companies with low returns, holding constant the payout ratio.

As a result, companies in a country with a high return on investment can generally fund a greater percentage of their investments with internally-generated cash than companies in a country with a low return. Figure 40 shows this correlation, using cash flow return on investment (CFROI) as a measure of return on investment. The data reflect the average of the ten years up to 2014.

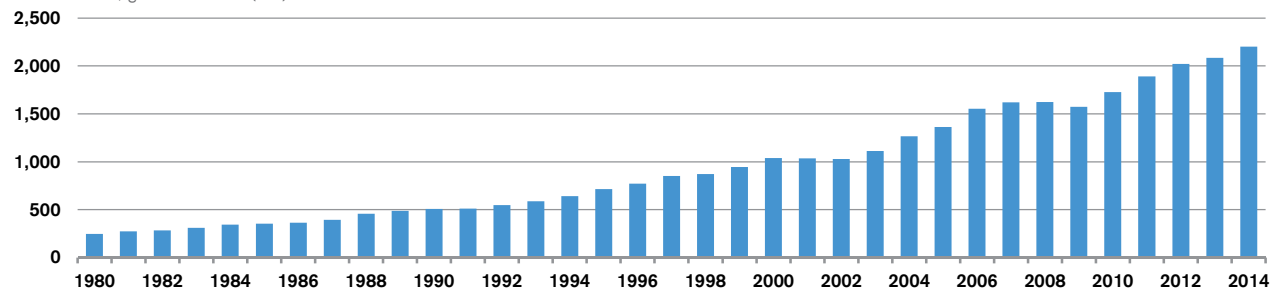
Tying this idea back to corporate governance, countries with a bias towards shareholder value also generate higher CFROI than those that lean towards the balanced stakeholder approach. Specifically, the five largest markets under common law (USA, UK, Hong Kong, Australia, and Canada) have realized an average CFROI of 8.0% since 1994, while representative countries under civil law (Japan, Germany, France, Switzerland, and Sweden) had an average of 6.4%. So for the same rate of growth, common-law countries can afford a higher payout ratio than civil-law countries.

Maximizing long-term value creation per share is the result of making investments that earn in excess of the cost of capital, including the repurchase of shares. A company's governing objective and the corporate governance structures that support it have a profound influence on how the firm allocates capital. We now examine how capital has been allocated across different regions of the globe.

Figure 32

Capital sources: Business operational cash flow

USD in billions, gross cash flow (real)



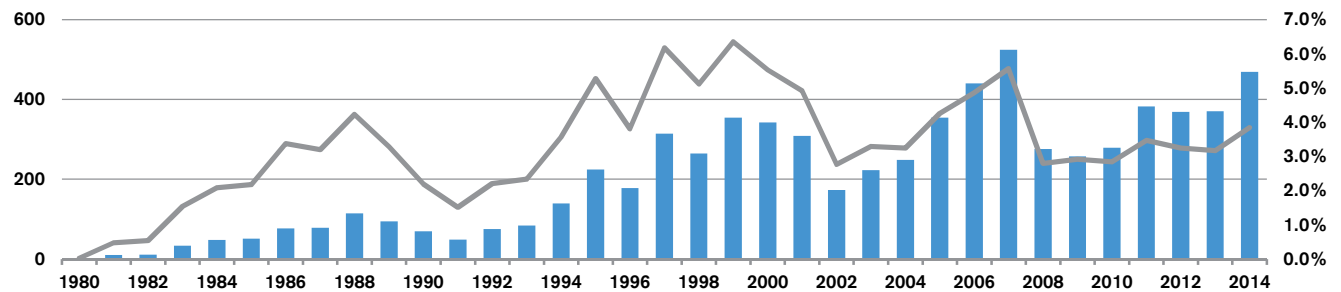
Source: Thomson Reuters DataStream, Credit Suisse HOLT, Credit Suisse

Note: dollar amounts are not inflated. Data includes top 1,500 US industrial firms, excludes financial companies and regulated utilities.

Figure 33

Capital sources: Business asset sales (divestitures)

USD in billions, line (right axis) represents percentage of net sales

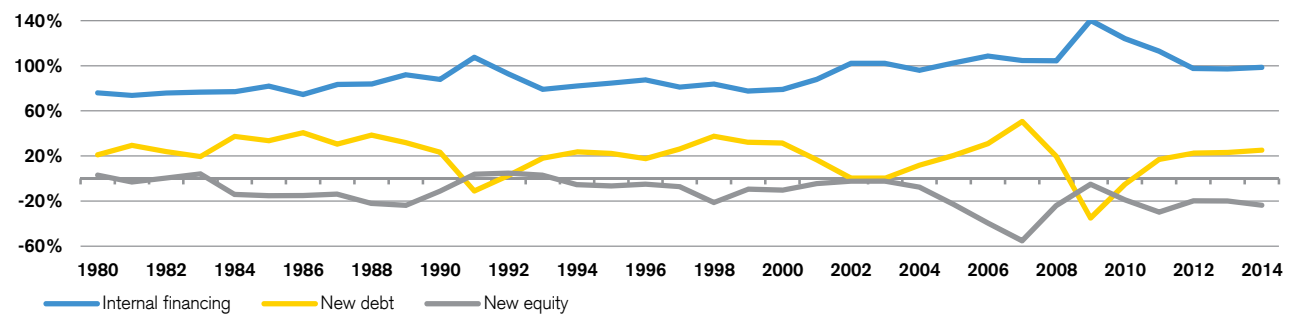


Source: Thomson Reuters DataStream, Credit Suisse HOLT, Credit Suisse

Note: dollar amounts are not inflated. Data includes all industries; excludes debt tender offers, equity carve-outs, exchange offers, loan modifications, and open market repurchases.

Figure 34

Capital sources: Equity and debt issuance

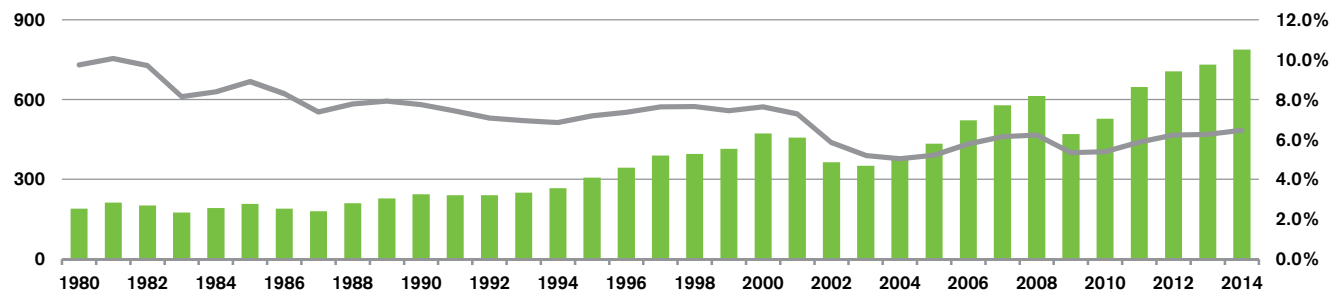


Source: Board of Governors of the Federal Reserve System, Division of Research and Statistics, Flow of Funds Accounts Table F.103.

Figure 35

Capital allocation: Business capital expenditures

USD in billions, line (right axis) represents percentage of net sales



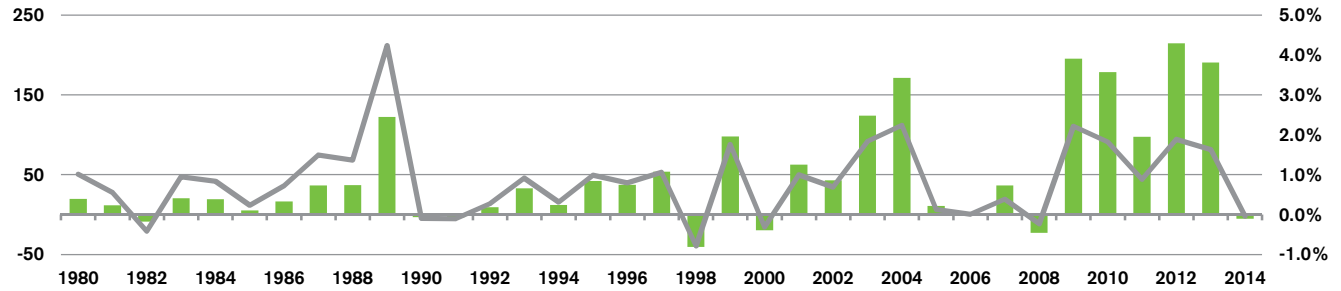
Source: Thomson Reuters DataStream, Credit Suisse HOLT, Credit Suisse

Note: dollar amounts are not inflated. Data includes top 1,500 US industrial firms, excludes financial companies and regulated utilities.

Figure 36

Capital allocation: Change in net working capital

USD in billions, line (right axis) represents percentage of net sales



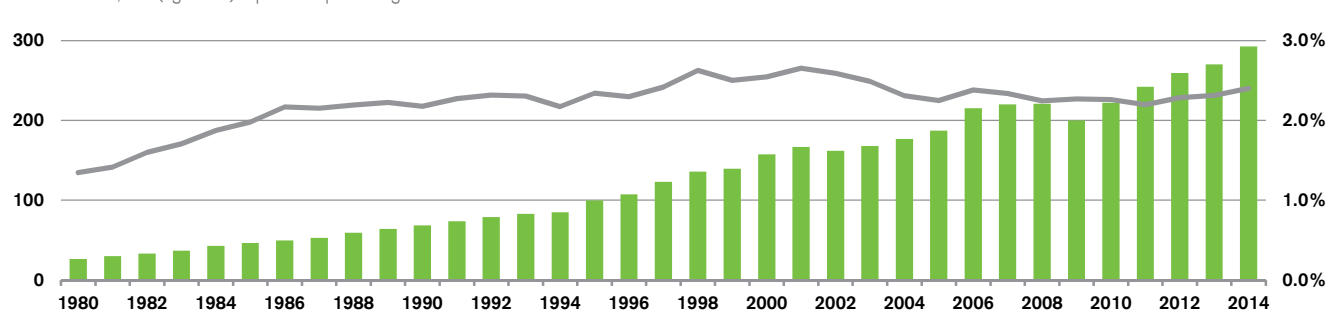
Source: Thomson Reuters DataStream, Credit Suisse HOLT, Credit Suisse

Note: dollar amounts are not inflated. Data includes top 1,500 US industrial firms, excludes financial companies and regulated utilities.

Figure 37

Capital allocation: Business research & development

USD in billions, line (right axis) represents percentage of net sales



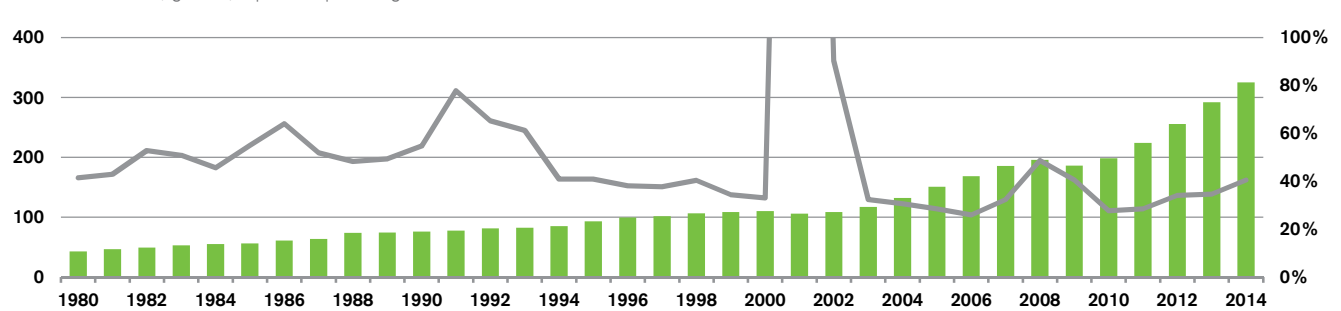
Source: Thomson Reuters DataStream, Credit Suisse HOLT, Credit Suisse

Note: dollar amounts are not inflated. Data includes top 1,500 US industrial firms, excludes financial companies and regulated utilities.

Figure 38

Capital allocation: Cash dividends

USD in billions, line (right axis) represents percentage of net sales



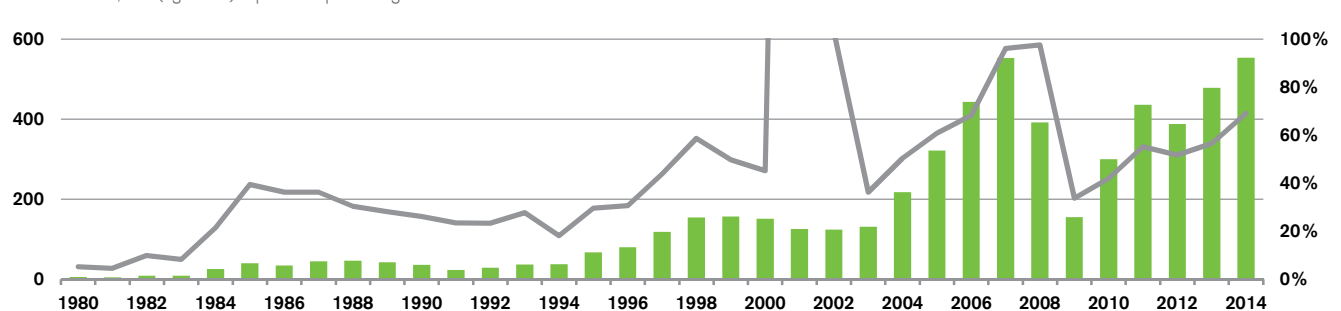
Source: Credit Suisse HOLT

Note: Dollar amounts are not inflated. Data includes top 1,500 US industrial firms, excludes financial companies and regulated utilities.

Figure 39

Capital allocation: Gross share buybacks

USD in billions, line (right axis) represents percentage of net sales



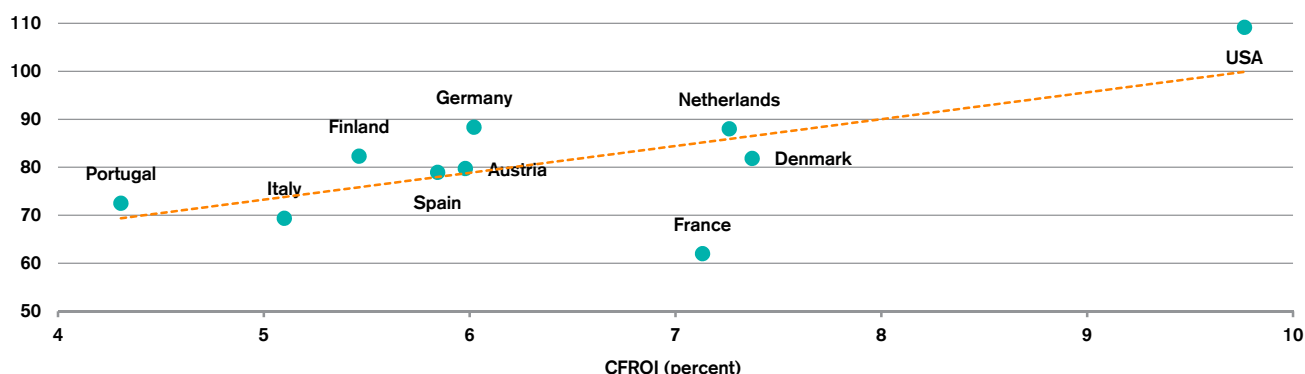
Source: Credit Suisse HOLT

Note: dollar amounts are not inflated. Data includes top 1,500 US industrial firms, excludes financial companies and regulated utilities.

Figure 40

Relationship between CFROI and internal financing capability (2005-2014 average)

Internal financing (percentage of total)



Source: Europe: Eurostat European Sector accounts; U.S.: Board of Governors of the Federal Reserve System, Division of Research and Statistics, Flow of Funds Accounts Table F.102; Credit Suisse.

Table 3

Capital deployment by region

Historical averages for USA, Japan, Europe, APEJ, and GEM

	Uses of capital (as a percentage of sales)							Economic returns and growth	
	M&A	Capex	R&D expense	Net working capital	Gross buybacks	Divestitures	Dividends	CFROI	Real asset growth rate
USA	10.4%	7.1%	2.2%	0.8%	2.1%	3.3%	2.2%	8.5%	5.6%
Japan	1.2%	4.6%	2.1%	1.2%	0.2%	0.4%	0.6%	3.0%	3.3%
Europe	9.7%	7.0%	2.0%	1.5%	0.6%	5.1%	2.2%	6.7%	3.9%
APEJ	10.2%	10.5%	0.8%	2.8%	0.4%	5.1%	2.6%	6.4%	9.8%
GEM	15.8%	12.1%	0.3%	3.7%	0.5%	6.5%	3.2%	6.3%	9.3%

Source: Credit Suisse HOLT.

Note: for uses of capital, historical averages are based on the following years: USA (1980-2013), Japan (1985-2013), Europe (1985-2013), APEJ (1992-2013), GEM (1992-2013), For CFROI® and real asset growth rates, historical averages are based on the years 1993-2013 for all regions.

The history of capital deployment

Table 3 shows capital allocation in recent decades by region, including the United States, Japan, Europe, Asia Pacific ex-Japan (APEJ) and global emerging markets (GEM). The exhibit also shows CFROI and asset growth, adjusted for inflation, over the last 20 years.

The main observations on spending in recent decades include the following:

- M&A is the largest use of capital in the USA, Europe and GEM, the second largest use in APEJ, and the fourth largest use in Japan. The rarity of M&A in Japan is of particular note.
- Capital expenditures are the largest use of capital in Japan and APEJ and the second largest use in the USA, Europe and GEM.
- R&D is the second largest use of capital in Japan, the third largest in the USA and Europe, and the fourth largest in APEJ and GEM. Developed markets spend substantially more on R&D than developing markets.

- Divestitures play a significant role in each of the regions, constituting roughly one-third to one-half the level of total M&A. They are also larger than dividends and share buybacks in all regions but Japan.
- Dividends substantially exceed share buybacks in all regions except the USA, where they have been roughly equivalent on average. Buybacks are modest in Europe and fairly insignificant in Japan, APEJ and GEM.
- Share buybacks have been meaningful in common-law countries and inconsequential in nearly all other regions. This pattern reflects cultural and regulatory constraints.

A country's legal tradition appears to lead to implicit assumptions about what the governing objective should be as well as the society's rules and regulations.



Incentives and capital allocation

One of the enduring lessons of economics is that incentives matter. It is also the case that incentives designed to achieve one objective can lead to unintended consequences. The goal of this section is to consider whether the incentives a company has in place encourage judicious capital allocation. Most of these incentives address compensation.

Agency theory is the classic way to explain why the managers of a company may not act in the interests of the shareholders (Jensen and Meckling, 1976). The idea is that conflicts can arise when there is a separation between a firm's ownership (principal) and control (agent). There are three areas where these conflicts tend to arise (Lambert and Larcker, 1991).

The first is that while it is clear that shareholders want management to maximize the value of their holdings, management may derive benefits from controlling resources that don't enrich shareholders. For example, if remuneration is roughly correlated with the size of the firm, management may seek value-destroying M&A deals to grow.

The second area of conflict is with risk tolerance. Since shareholders tend to hold stocks as part of a diversified portfolio, whereas managers are disproportionately exposed to their own company, managers may seek less risk than shareholders would deem appropriate.

The final conflict is with time horizon. To the degree that compensation plans have a shorter time horizon than the period shareholders use to assess the merit of an investment, there can be a mismatch. So managers may dwell on short-term boosts in

earnings. Indeed, research shows that a large majority of managers are willing to forego value-creating investments to deliver near-term earnings (Graham, Harvey and Rajgopal, 2006).

The principal-agent problem arises in capital allocation choices. For example, some companies repurchase stock to offset the dilution of equity issuance to employees (Kahle, 2002) or boost earnings per share (Hribar, Jenkins, Johnson, 2006) without consideration of the economic merits of such repurchases. Further, research shows that companies with strong anti-takeover provisions, which are less subject to market pressures, are more likely to pursue acquisitions that build an empire and destroy shareholder value than companies with fewer such provisions (Masulis, Wang and Xie, 2007).

There is also a link between compensation and capital allocation. Recent research suggests that overall CEO compensation and the use of compensation based on equity have a positive correlation to institutional ownership and board independence, variables that academics commonly use as proxies for quality and governance. Further, convergence in ownership structure and the globalization of capital markets have led to a narrowing of the dispersion between US and non-US CEO pay (Murphy, 2013).

The main point is that compensation practices should be consistent with a firm's governing objective. The goal is to encourage executives to allocate capital so as to maximize their long-term remuneration. While the structure of incentives depends on the governing objective a firm selects, the main task is to ensure that remuneration is congruent with those objectives.

Five principles of capital allocation

Here are five principles that investors can use as a sound benchmark to measure management's mindset regarding capital allocation (McTaggart, Kontes and Mankins, 1994).

1. **Zero-based capital allocation:** Companies generally think about capital allocation on an incremental basis. For example, a study of more than 1,600 US companies by McKinsey found that there was a 0.92 correlation between how much capital a business unit received in one year and the next. For one-third of the companies, that correlation was 0.99. In other words, inertia appears to play a large role in capital allocation (Hall, Lovallo, Musters, 2012).

The proper approach is zero-based, which simply asks: "What is the right amount of capital (and the right number of people) to have in this business to support the strategy that will create the most wealth?" There is no reference to how much the company has already invested in the business, only how much should be invested. Research by McKinsey suggests that those companies that showed a zero-based allocation mindset, and hence were the most proactive in reallocating resources, delivered higher total shareholder returns than the companies that took more of an incremental approach.

2. **Fund strategies, not projects:** The idea here is that capital allocation is not about assessing and approving projects, but rather assessing and approving strategies and determining the projects that support the strategies. Practitioners and academics sometimes fail to make this vital distinction. The key to this principle is recognizing that a business strategy is a bundle of projects and that the value of the bundle is what matters. The CEO and board must evaluate alternative strategies and consider the financial prospects of each.
3. **No capital rationing:** The attitude at many companies, which the results of surveys support, is that capital is scarce but free. The sense is that the business generates a limited amount of capital, which makes it scarce, but since it comes from within it is free.

A better mindset is that capital is plentiful but expensive. There are two sources of capital that companies can tap beyond the cash generated internally. The first is redeploying capital from businesses that do not earn sufficient returns. Management can execute this inside the company or sell the underperforming businesses and redeploy the proceeds. The second is the capital markets. When executives have value-creating strategies that need capital, the markets are there to fund them in all but the most challenging environments.

4. **Zero tolerance for bad growth:** Companies that wish to grow will inevitably make investments that do not pay off. The failure rate of new businesses and new products is high. Seeing an investment flop is no sin; indeed it is essential to the process of creating value. What is a sin is remaining committed to a strategy that has no prospect of creating value, hence draining human and financial resources.

5. **Know the value of assets, and be ready to take action to create value:** Intelligent capital allocation is similar to managing a portfolio of stocks in that it is very useful to have a sense of the difference, if any, between the value and price of each asset. This includes the value of the company and its stock price. Naturally, such analysis must incorporate considerations including taxes.

With a ready sense of value and price, management should be prepared to take action to create value. Sometimes that means acquiring, other times that means divesting, and frequently there are no clear gaps between value and price. As we have seen, managers tend to prefer to buy than to sell, even though the empirical record shows quite clearly that sellers fare better than buyers on average.

Summary

A governing objective is what a company says, capital allocation is what a company does, and corporate governance is the mechanism to make sure companies do what they say. Most companies around the world don't articulate a clear governing objective, but countries under common law tend to favor shareholders, and those under civil law tend to favor other stakeholders.

Over time, capital allocation determines a company's growth, cash flows, and viability. It is the most important responsibility of management. Thoughtful investors need to understand the history of a company's capital allocation and critically assess its actions in light of its goals (Mauboussin and Callahan, 2015).

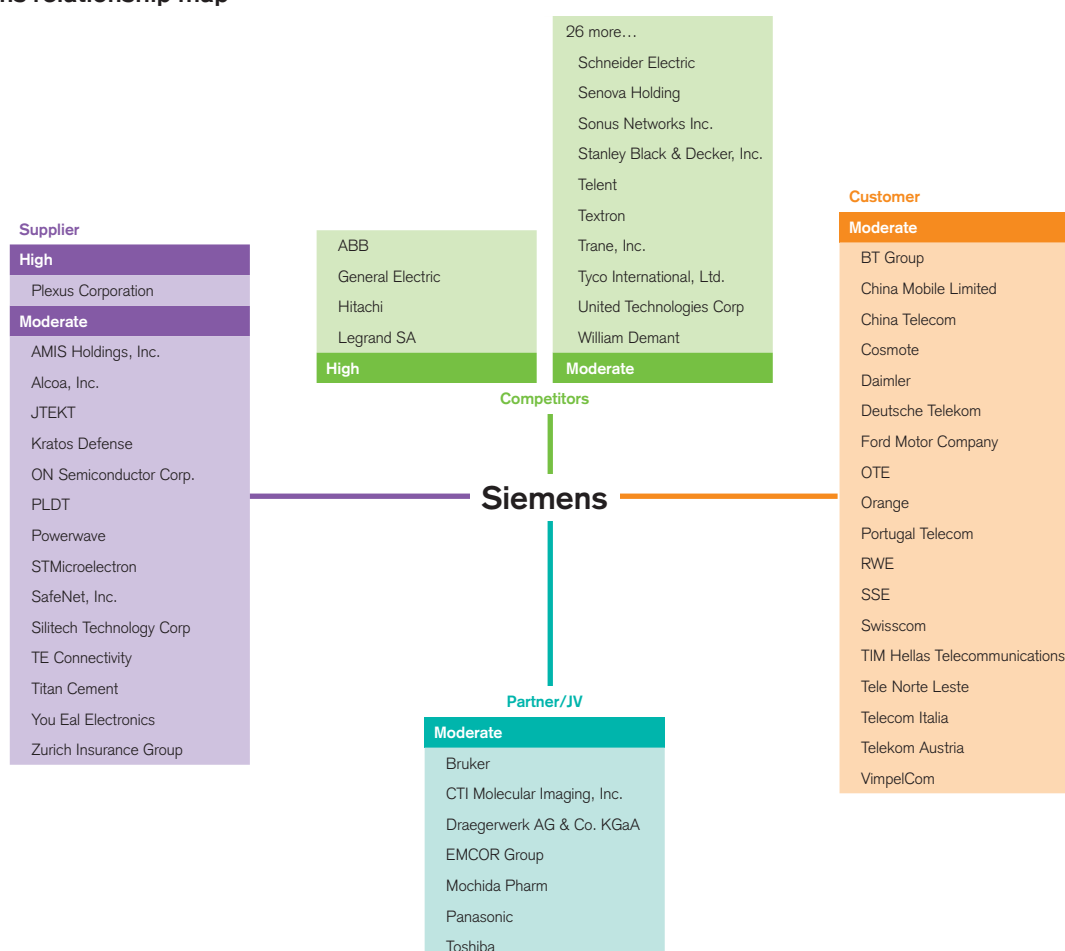


Analyzing the supply chain: What company are you keeping?

Corporate mission statements typically highlight a company's commitment to corporate governance excellence, not only in its own day-to-day internal operations but also in the stewardship of and responsibility for its entire supply chain. Numerous supply chain disasters, the Rana Plaza collapse in Bangladesh in 2013, or the Port of Tianjin chemical warehouse explosion for example, all entail reputational damage, profit erosion and production disruptions for their customers and require that companies do more than just present well-selected phrases and words about the importance they attach to corporate governance, both internally and beyond. By using Credit Suisse's proprietary corporate relationship database, PEERs, we can assess the extent to which companies' good practice is mirrored in the characteristics of their suppliers and other key business relationships.

Julia Dawson and Richard Kersley

Figure 41
Siemens relationship map



Source: Credit Suisse PEERs

Credit Suisse PEERs is a web-based supply chain analysis tool covering 3,200 companies with 91,000 relevant business relationships that allows analysts and investors to view concentration risks. It covers customers, suppliers, competitors, joint ventures, and partners as well as equity investments, and measures the strength and relevance of each relationship. Each company and relationship relevance is regularly updated by Credit Suisse's equity research team of over 300 analysts globally. We show the PEERs relationship maps of Siemens and Under Armour Inc (UA) as examples below.

As we see from the relationship map for Siemens, PEERs records 40 competitors, 15 suppliers, 18 customers, and seven partner/JV relationships. PEERs also records the importance of these relationships, dividing each category into high, moderate and low. Here we see that Siemens has four 'high' competitors and 36 'moderate' competitors. All of the 18 customers are rated as 'moderate.'

To measure each company's corporate governance score, we have used the governance rankings provided in the MSCI ESG database (for a more detailed description of the MSCI ESG framework and database, please refer to the chapter 'Building investment strategies based on good corporate governance' (Giles Keating, Antonios Koutsoukis)). The governance ranking considers such factors as anti-competitive practices, business ethics and fraud, corporate governance, corruption and instability as well as the instability of the financial system. We have divided the companies into quintiles according to their ranking and analyzed the top quintile companies to assess whether or not they can either influence or choose to operate in an eco-system of other companies that practice good corporate governance. We find interesting clusters of companies selecting other corporates with above-average governance, a self-selecting eco-system of best practice.

In Table 4, we show the MSCI ESG governance ratings for Siemens and the relationship companies that are also in the MSCI ESG universe and thus have their own governance score.

Our analysis shows that European companies with good governance ratings tend to work and partner with other companies that also have higher governance ratings compared to benchmark levels measured by the MSCI Europe Index. The ninety top quintile companies have an average governance score of 8.2 on the MSCI ESG rating scale from 0 to 10 with a range running from 7.6 to 9.4. The average score for their suppliers is 6.4, comfortably above the average for the MSCI Europe Index of 4.6. Selecting practitioners with better governance indicates that good governance is viewed and understood as a potentially material risk to a company's own business proposition and valuation (see Table 5).

Table 4

Governance rankings for companies with relationships to Siemens

Ranking scale is from 0 to 10

	Ranking
Siemens	5.8
Suppliers	
Alcoa Inc	5.0
JTEKT	4.8
Kratos Defense	3.9
ON Semiconductor Corp	5.1
PLDT	4.7
STMicroelectron	6.7
TE Connectivity	5.1
Customers	
BT Group	6.6
China Mobile	4.2
China Telecom	3.8
Daimler	5.1
Deutsche Telekom	4.3
Ford	4.4
Orange	5.6
RWE	4.9
SSE	7.2
Swisscom	6.2
Telecom Italia	4.5
Telekom Austria	4.9
Partner & joint ventures	
Draegerwerk AG	6.1
Panasonic	4.7
Toshiba	4.2
Competitors	
ABB	6.0
General Electric	5.6
Hitachi	4.7
Legrand	6.5
3M	6.7
Alcatel-Lucent	5.0
Alstom	5.0
Bombardier	4.3
Ciena Corp	5.0
Dassault Systemes	5.1
Fanuc	3.9
GN Store Nord	5.3
Honeywell	4.8
Indra	5.3
Kawasaki Heavy Industries	6.1
Metso	6.1
Mitsubishi Heavy Industries	5.2
Nokia	4.9
Omron	5.5
Rockwell Automation	5.9
Samsung Electronics	6.1
Schneider Electronics	7.7
Sonova Holding	4.8
Stanley Black & Decker	5.3
Textron	4.0
Tyco Intl	6.4
United Technologies	4.9
William Demant	4.8

Source: Credit Suisse PEERs, MSCI ESG database

Table 5

Governance score for European companies

	Governance score
Top quintile MSCI ESG governance companies in Europe	8.2
Average MSCI ESG governance score for their suppliers	6.4
MSCI Europe average governance score	4.6

Source: MSCI ESG database, Credit Suisse research

Table 6

Governance score for US companies

	Governance score
Top quintile MSCI ESG governance companies in USA	6.5
Average MSCI ESG governance score for their suppliers	6.4
S&P 500 average governance score	4.7

Source: MSCI ESG database, Credit Suisse research

Table 7

Top 10 European companies by governance ranking

	Ranking
Intl Personal Finance	9.4
Admiral	9.4
Drax	9.3
Provident Financial	9.3
Outokumpu	9.1
FBD Holdings	9.1
National Grid	9.0
Ahold	9.0
Kloeckner & Co.	9.0
SIG	8.9

Source: MSCI ESG database, Credit Suisse research

Table 8

Top 10 US companies in PEERs by governance ranking

	Ranking
KEMET	10.0
A. M. Castle	10.0
Perry Ellis	8.5
Microsoft Corporation	8.1
Bunge Limited	7.9
Bristow Group Inc.	7.6
Tractor Supply Company	7.6
Brinker Intl	7.6
Red Hat, Inc.	7.5
Rockwell Automation	7.4

Source: MSCI ESG database, Credit Suisse research

In the USA, we find a similar pattern with corporates selecting suppliers that have far higher than average governance ratings. While top quintile US companies have a significantly lower rating than their European counterparts, 6.5 compared to 8.2, they too select suppliers with an average rating of 6.4, in line with European peers. It appears that companies seek to have suppliers that uphold good governance standards and this would make intuitive business sense (see Table 6).

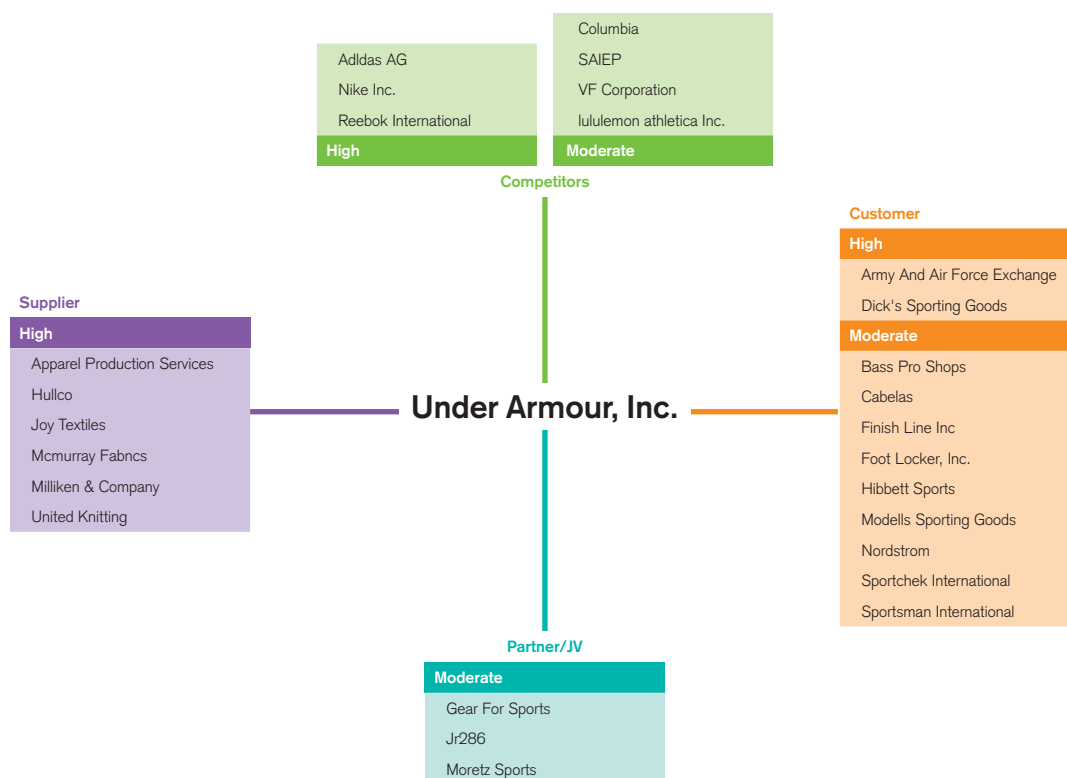
It is interesting to see that while marginally higher on average, corporate governance rankings in the USA lie in a far narrower range compared to Europe. The top quintile rating of 6.5 is a 40% premium relative to the average governance score whereas in Europe, the top quintile rating of 8.2 reflects an 80% premium compared to the average level. Governance should be a sector-neutral proposition and we believe that a longer European tradition of active shareholder engagement and high-profile Scandinavian sovereign wealth fund involvement with initiatives that focus on non-financial priorities may help to explain the higher ratings for the top-performing corporate-governance-focused companies in Europe (see Tables 7 and 8).

Corporates of course may have no choice in suppliers if they are sourcing niche or patented products or inputs that need to be sourced locally for cost. Using Credit Suisse PEERs, we can measure the relative governance rankings of partners and joint ventures, areas where companies have a greater choice perhaps, at least in deciding to formalize their commercial relationship. Here we see a marked regional difference with European companies picking commercial partners with above-average governance practices and US corporates appearing not to take this into account. All companies accept noticeably lower standards compared to their own governance framework.

Some companies do ensure good corporate governance behavior from their commercial partners. SSE, the FTSE 100 utility, is a good example with an annual corporate governance statement setting out their approach to governance in detail. The company was the first FTSE 100 company to be awarded a Fair Tax Mark with its full disclosure of activities and taxes paid in all jurisdictions. SSE has a governance rating of 8.6 according to MSCI ESG, as do its suppliers which have an average rating of 7.3, while its partners and joint ventures rank at 8.6. At the opposite end of the scale, L Brands Inc. which has a bottom quintile MSCI ESG governance rating of 2.5 for US companies, sources from suppliers with an average governance rating of just 3.5.

Figure 42

Under Armour relationship map



Source: Credit Suisse PEERs

As Credit Suisse PEERs defines the differing commercial relationships as being of high, moderate or low importance, we are able to capture if there is any emphasis placed on the governance integrity of suppliers considered of high importance. Similarly, if we assume that companies seek to source from suppliers with higher commercial integrity if they are of greater importance in the supply chain compared to those where the relationship is of low importance, and that governance marks a good proxy measure for this, we can evaluate the difference in the various groupings.

Looking at European companies with top quintile governance rankings, we see a clear differentiation in their suppliers' governance scores that reflects their level of importance. As we see in Table 11, suppliers with high importance have an average rating of 6.5, those of moderate importance 6.3 and those of low importance 6.1. In the USA, the findings are not as unequivocal. While suppliers of greatest importance have this highest average governance rating at 4.7, suppliers of low importance have a higher governance rating than suppliers of moderate importance, implying that attention in this area may only be paid to critical business relationships.

Table 9

Governance score for European companies

	Governance score
Top quintile MSCI ESG governance companies in Europe	8.2
Average MSCI ESG governance score for their partners & joint ventures	5.9
MSCI Europe average governance score	4.6

Source: MSCI ESG database, Credit Suisse research

Table 10

Governance score for US companies

	Governance score
Top quintile MSCI ESG governance companies in USA	6.5
Average MSCI ESG governance score for their partners & joint ventures	4.5
S&P 500 average governance score	4.7

Source: MSCI ESG database, Credit Suisse research

Table 11

Governance scores of suppliers to companies with top quintile governance ratings

	Europe	US
High importance	6.5	4.7
Moderate importance	6.3	4.3
Low importance	6.1	4.5

Source: MSCI ESG database, Credit Suisse research

Table 12

Social scores for European companies

	Social score
MSCI ESG social score of top quintile governance companies in Europe	4.5
Average MSCI ESG social score for their suppliers	3.8
Average MSCI ESG social score for their partners & joint ventures	4.9
MSCI Europe average social score	4.9

Source: MSCI ESG database, Credit Suisse research

Table 13

Social scores for US companies

	Social score
MSCI ESG social score of top quintile governance companies in USA	4.2
Average MSCI ESG social score for their suppliers	4.2
Average MSCI ESG social score for their partners & joint ventures	4.2
S&P 500 average social score	4.1

Source: MSCI ESG database, Credit Suisse research

Table 14

Environmental scores for European companies

	Environmental score
MSCI ESG environmental score of top quintile governance companies in Europe	5.6
Average MSCI ESG environmental score for their suppliers	5.5
Average MSCI ESG environmental score for their partners & joint ventures	6.2
MSCI Europe average environmental score	6.4

Source: MSCI ESG database, Credit Suisse research

Table 15

Environmental scores for US companies

	Environmental score
MSCI ESG environmental score of top quintile governance companies in USA	5.0
Average MSCI ESG environmental score for their suppliers	5.8
Average MSCI ESG environmental score for their partners & joint ventures	6.3
S&P 500 average environmental score	5.7

Source: MSCI ESG database, Credit Suisse research



So if we assume that governance is a cultural behavior that may be difficult to influence from outside, do we see companies with good governance sourcing or working with companies that are more focused on social or environmental criteria instead? As mentioned earlier, health and safety failures such as the 1,100 deaths at Rana Plaza, the use of child labor, the number of suicides reported at FoxConn all carry considerable reputational risks for their customers and purchasers. For a further discussion on incorporating ESG criteria into the investment decision process and engagement to exclude such factors as child labor, please refer to [Responsible Investing: Does it pay to be bad? Credit Suisse Global Investment Returns Yearbook 2015](#).

Even though companies stress that they ensure fair practice in their supply chain, a survey of procurement managers and buyers in the UK by Achilles, a leading provider of integrated supplier management, found that nearly 20% of companies had no information about their suppliers' suppliers. Indeed, the top quintile companies on governance rank lower than average on social factors in Europe. What we can see clearly from our PEERs analysis is that European companies are prepared to accept a lower level of social standards and care at their suppliers and limited visibility below that, implying that while they talk about good practice and the need for transparency, costs appear to be the key factor when deciding from where to source. In the USA, there is a very limited difference in social scores in the supply chain (see Tables 12 and 13).



So does a corporate sense of stewardship focus more on environmental issues, factors that are perhaps more visible externally, more measurable by third parties and easier to hold to account? Sectors clearly have an impact when it comes to environmental considerations. The lower environmental score of the top quintile of European companies compared to the MSCI Europe average reflects the higher weighting of less environmentally-friendly sectors (energy, industrials, materials and utilities) which comprise 37.4% of the market cap of our PEERs companies in Europe compared to a combined weight of 27.9% in the MSCI Europe index (see Table 14).

In the USA, however, these four sectors have double the weight in the PEERs universe compared to the S&P 500 Index, so we are surprised to see how closely the top quintile governance companies score in terms of their environmental activities relative to the S&P 500 mean. This may reflect more of an appreciation of the risks posed by environmental disasters, particularly in the aftermath of BP's Deepwater Horizon drilling catastrophe (see Table 15).

So while we see governance being valued and prioritized so that we see companies surrounding themselves with other good governance practitioners as the main way to limit business risk, we see no evidence that supply chain management is a similar priority in general. While our PEERs analysis provides a snapshot for 4Q15, we will look to update the ratings so that any improvement in the social focus and conditions of suppliers over time can be captured. There is no evidence in our analysis that corporate

engagement and collaboration to embed sustainable sourcing practices as outlined in many corporate presentations is yet having any traction.

It is therefore important that shareholders continue to highlight to companies and engage with them on the need to drive best practice through the entire supply chain and business cycle. While corporates stress their own efforts in presentations and strategies, it is evident that this is having limited impact, particularly in terms of social and environmental parameters, on the behavior of others. We can see in our PEERs analysis that good governance practitioners choose to work with one another and create clusters of best practice – largely to provide a reliable business environment of their own. Yet corporate governance has to embrace broader corporate responsibility with regards to social and environmental criteria. Only in reaction to shareholder pressure do we expect to see company directors incentivized to make further progress.

Appendix:

The MSCI corporate governance database

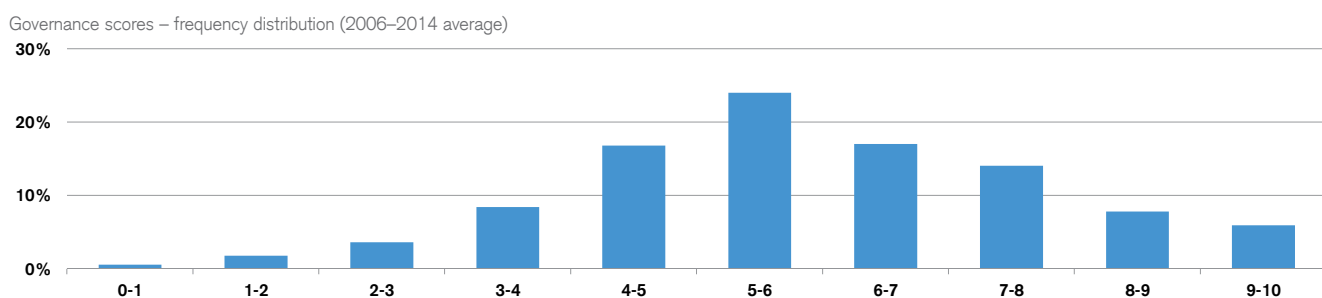
The MSCI ESG database covered more than 8,000 issuers as of December 2014. However, our universe consists of MSCI ESG-rated companies within the S&P 1200 global constituents. The index captures around 70% of global equity capitalization and consists of companies from both developed and emerging markets. Furthermore, the advantage of the index is that we have its historical constituents, which helps us avoid pitfalls such as survivorship bias.

A company's governance score measures its governance risks and opportunities. Scores range between 0 and 10 and are sub-divided into two themes: corporate governance and corporate behavior. Corporate governance captures some issues, such as board, pay, ownership and accounting, while corporate behavior consists of business ethics, anti-competitive practices, corruption and instability and financial system instability. While governance scores for S&P 1200 constituents have historically been following a bell-shape distribution (with relatively few companies having ratings less than 1 or greater than 9), over the last few years high scores have become more commonplace. Governance momentum (the change in a company's governance rating from one review to the next) also follows a bell curve, although the number of observations in the distribution tails have increased markedly in the last few years.

Governance score characteristics: the sectors with the lowest average governance scores between 2006 and 2014 are oil & gas, financials and telecoms (using market cap weights for scores). Conversely, the best scoring sectors are technology and utilities, while basic materials companies also score relatively well. Furthermore, emerging market companies tend to have lower governance scores, while the opposite is true for companies from northern Europe. US companies, which are also the most numerous in our sample, tend to have below- average ratings.

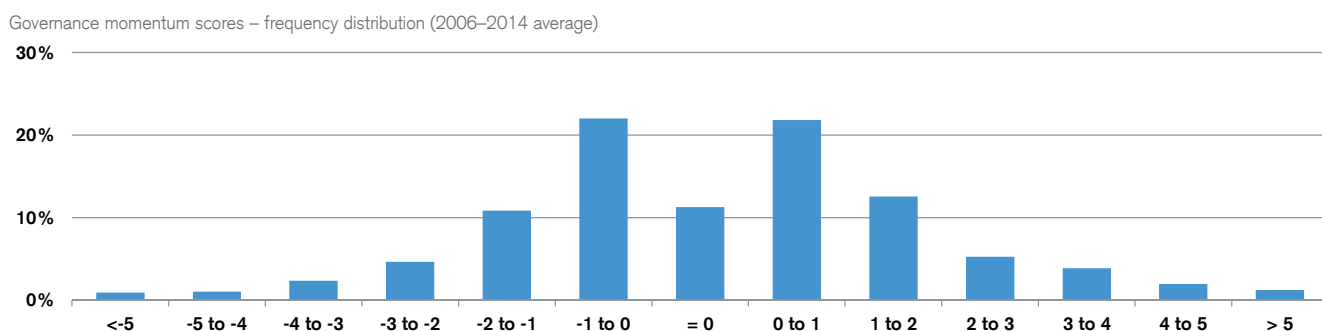
Companies with high governance metrics do not show consistent factor tilts over time. For example, companies with strong governance scores tended to be large caps before 2011, but this has reversed since then. They traded at a premium for the entire period (measured by their price-to-book ratio), but

Figure 43
MSCI governance scores frequency distribution



Source: Datastream, MSCI, Credit Suisse

Figure 44
MSCI governance scores momentum frequency distribution



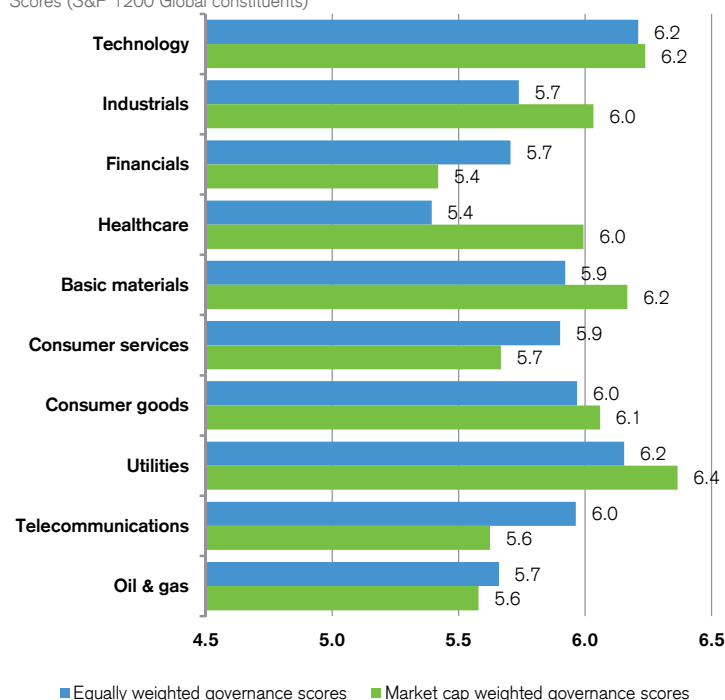
Source: Datastream, MSCI, Credit Suisse



Figure 45

MSCI governance scores by sector

Scores (S&P 1200 Global constituents)



Source: Datastream, MSCI, Credit Suisse

when measured by price earnings they traded discounts before 2010 (on a market-value-weighted basis). On an equally-weighted basis these results do not change significantly. Furthermore, if we normalize the governance score by industry, these results are largely the same.

First, we drill down to the level of individual sectors. Here, we find evidence for outperformance of portfolios favoring well-governed companies within those sectors where governance is relatively important compared to the other main non-monetary factors (environmental and social). Second, we look at over 100 different sub-measures of corporate governance, ranging from accounting issues through board composition to voting rights. Here we find evidence that

most of these sub-measures have small or perverse effects, but good accounting practices, performance-linked pay and a small number of other factors have a significant effect in boosting price-to-book ratios, thus lowering the cost of capital to a company. Of course, once this is in the price it can no longer be used to boost portfolio performance, but we believe that when changes in governance are announced, our results can help investors to perform by distinguishing changes in governance that contain useful signals about company performance, versus those which are in effect merely noise. Indeed, we find that portfolios that ignore such granular information and choose companies simply on the basis of changes in generic governance measures, tend if anything to underperform.

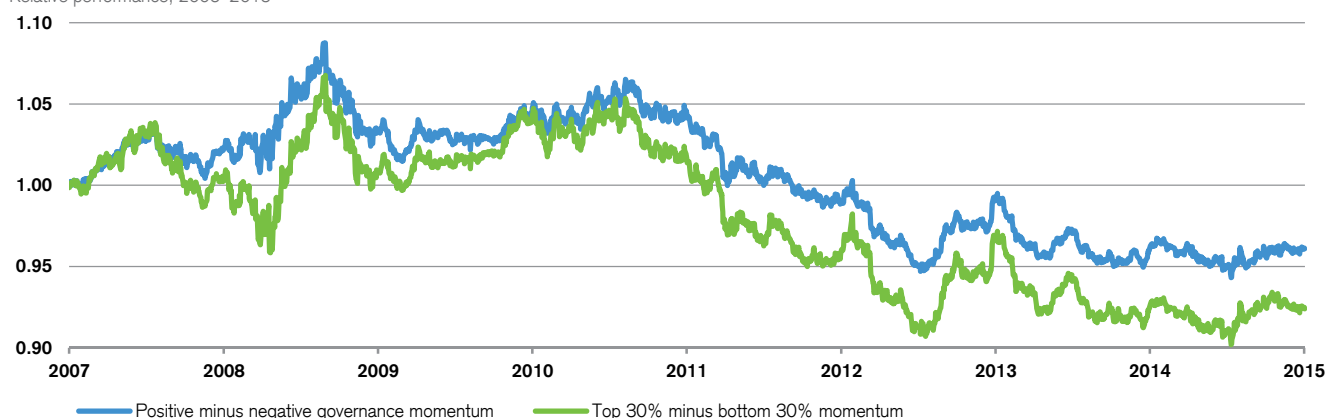
We also create portfolios based on governance rating momentum. As in the case of the absolute governance score, we create long-only portfolios, consisting of companies that have shown the highest improvement in their corporate governance score in their last review, and compare the performance against a portfolio of companies with deteriorating scores. To our surprise, here too we find that companies with worsening corporate governance scores do better than the companies showing improvement in their corporate governance score, although this is not statistically significant when we control for factor tilts.

Note that the crucial signal is when governance becomes more important for a sector. By contrast, it does not seem possible to base an investment strategy around changes in the governance rating of individual companies. Doing this at the aggregate level across all sectors, we find the perverse result that companies with worsening corporate governance do better than companies showing improvement.

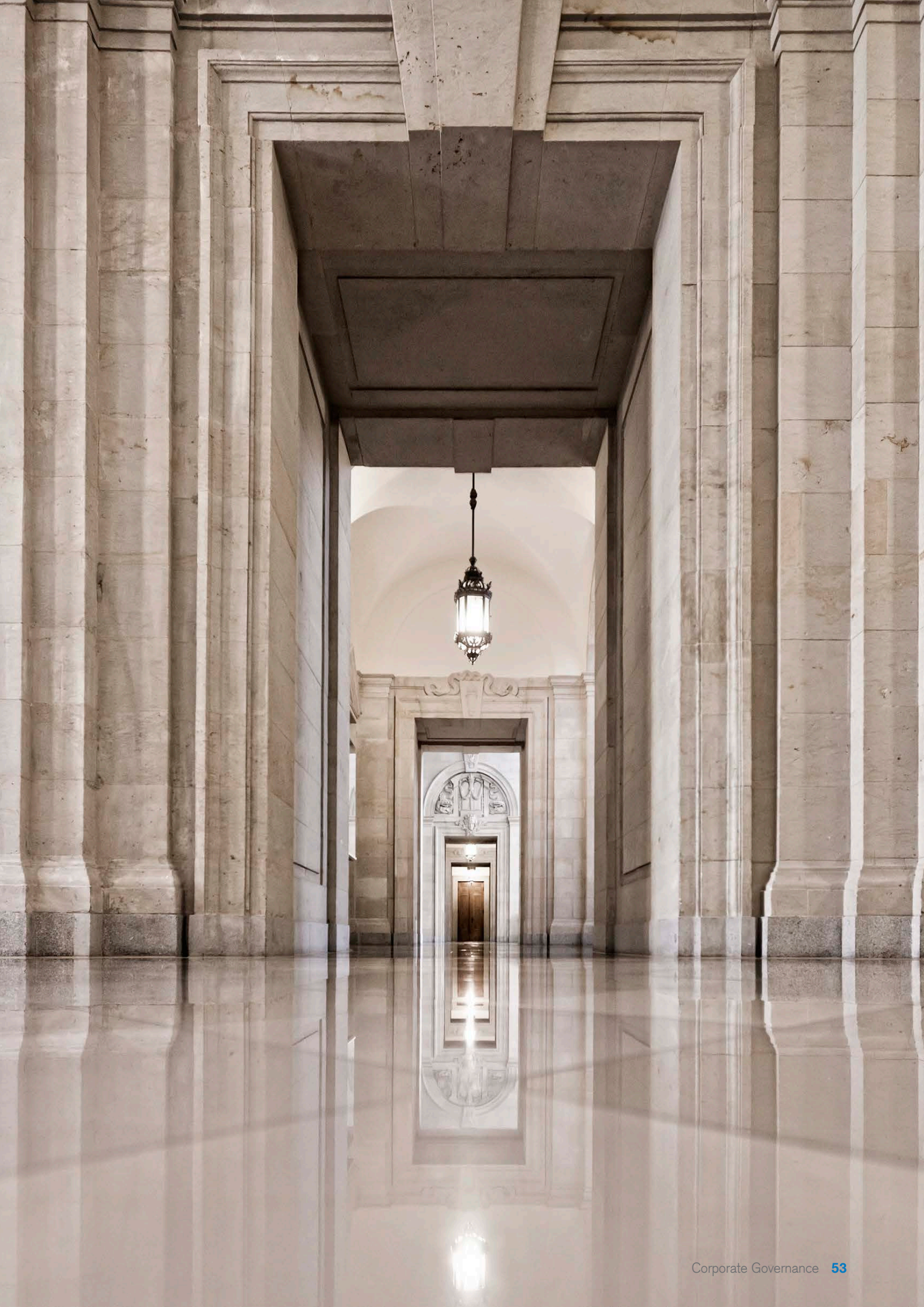
Figure 46

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

Relative performance, 2006–2015



Source: Datastream, MSCI, Credit Suisse



References and further reading

- Buffett, Warren E., "Letter to Shareholders," Berkshire Hathaway Annual Report, 2011. See www.berkshirehathaway.com/letters/2011ltr.pdf.
- García-Castro, Roberto, Miguel A. Ariño, Miguel A. Rodríguez, and Silvia Ayuso, "A Cross-National Study of Corporate Governance and Employment Contracts," *Business Ethics: A European Review*, Vol. 17, No. 3, July 2008, 259-284.
- Graham, John R., Campbell R. Harvey, and Shiva Rajgopal, "Value Destruction and Financial Reporting Decisions," *Financial Analysts Journal*, Vol. 62, No. 6, November/December 2006, 27-39.
- Hall, Stephen, Dan Lovallo, and Reiner Musters, "How to Put Your Money Where Your Strategy Is," *McKinsey Quarterly*, March 2012.
- Jensen, Michael C., "Value Maximization, Stakeholder Theory, and the Corporate Objective Function," *Business Ethics Quarterly*, Vol. 12, No. 2, April 2002, 235-256.
- Jensen, Michael C., and William H. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure," *Journal of Financial Economics*, Vol. 3, No. 4, October 1976, 305-360.
- Lambert, Richard A., and David F. Larcker, "Executive Compensation, Corporate Decision Making, and Shareholder Wealth: A Review of the Evidence," in Fred K. Foulkes, ed., *Executive Compensation: A Strategic Guide for the 1990s* (Boston, MA: Harvard Business School Press, 1991), 98-125.
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, "Investor Protection and Corporate Governance," *Journal of Financial Economics*, Vol. 58, No. 1-2, June 2001, 3-27.
- Madden, Bartley J., "CFROI Valuation: A Total System Approach to Valuing the Firm" (Oxford: Butterworth-Heinemann, 1999).
- Mauboussin, Michael J., and Alfred Rappaport, "Transparent Corporate Objectives— A Win-Win for Investors and the Companies They Invest In," *Journal of Applied Corporate Finance*, Vol. 27, No. 2, Spring 2015, 28-33.
- Mauboussin, Michael J., and Dan Callahan, "Capital Allocation—Updated: Evidence, Analytical Methods, and Assessment Guidance," *Credit Suisse Global Financial Strategies*, June 2, 2015.
- McTaggart, James M., Peter W. Kontes, and Michael C. Mankins, "The Value Imperative: Managing for Superior Shareholder Returns" (New York: Free Press, 1994).
- Murphy, Kevin, "Executive Compensation: Where We Are, and How We Got There," Chapter 4 in George Constantinides, Milton Harris, and René Stulz, eds., *Handbook of the Economics of Finance*, Volume 2A (Amsterdam: Elsevier, 2013), 211-356.
- Zweig, Jason, "Peter's Uncertainty Principle," *Money Magazine*, November 1994, 143-149.

Imprint

PUBLISHER

CREDIT SUISSE AG

Research Institute
Paradeplatz 8
CH-8070 Zurich
Switzerland

PRODUCTION MANAGEMENT

INVESTMENT STRATEGY & RESEARCH

AUTHORS

Ankit Agrawal
Dan Callahan
Julia Dawson
Tom Hillman
Giles Keating
Richard Kersley
Antonios Koutsoukis
Michel Lerner
Michael Mauboussin
Prateek Nigudkar
Michael O'Sullivan
Bob Parker
Krithika Subramanian

EDITORIAL DEADLINE

January 6, 2016

General disclaimer / Important information

This document was produced by and the opinions expressed are those of Credit Suisse as of the date of writing and are subject to change. It has been prepared solely for information purposes and for the use of the recipient. It does not constitute an offer or an invitation by or on behalf of Credit Suisse to any person to buy or sell any security. Nothing in this material constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. The price and value of investments mentioned and any income that might accrue may fluctuate and may fall or rise. Any reference to past performance is not a guide to the future.

The information and analysis contained in this publication have been compiled or arrived at from sources believed to be reliable but Credit Suisse does not make any representation as to their accuracy or completeness and does not accept liability for any loss arising from the use hereof. A Credit Suisse Group company may have acted upon the information and analysis contained in this publication before being made available to clients of Credit Suisse. Investments in emerging markets are speculative and considerably more volatile than investments in established markets. Some of the main risks are political risks, economic risks, credit risks, currency risks and market risks. Investments in foreign currencies are subject to exchange rate fluctuations. Any questions about topics raised in this piece or your investments should be made directly to your local relationship manager or other advisers. Before entering into any transaction, you should consider the suitability of the transaction to your particular circumstances and independently review (with your professional advisers as necessary) the specific financial risks as well as legal, regulatory, credit, tax and accounting consequences. This document is issued and distributed in the United States by Credit Suisse Securities (USA) LLC, a U.S. registered broker-dealer; in Canada by Credit Suisse Securities (Canada), Inc.; and in Brazil by Banco de Investimentos Credit Suisse (Brasil) S.A.

This document is distributed in Switzerland by Credit Suisse AG, a Swiss bank. Credit Suisse is authorized and regulated by the Swiss Financial Market Supervisory Authority (FINMA). This document is issued and distributed in Europe (except Switzerland) by Credit Suisse (UK) Limited and Credit Suisse Securities (Europe) Limited. Credit Suisse Securities (Europe) Limited and Credit Suisse (UK) Limited, both authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, are associated but independent legal entities within Credit Suisse. The protections made available by the Financial Conduct Authority and/or the Prudential Regulation Authority for retail clients do not apply to investments or services provided by a person outside the UK, nor will the Financial Services Compensation Scheme be available if the issuer of the investment fails to meet its obligations.

This document is distributed in Guernsey by Credit Suisse (Channel Islands) Limited, an independent legal entity registered in Guernsey under 15197, with its registered address at Helvetia Court, Les Echelons, South Esplanade, St Peter Port, Guernsey. Credit Suisse (Channel Islands) Limited is wholly owned by Credit Suisse AG and is regulated by the Guernsey Financial Services Commission. Copies of the latest audited accounts are available on request. This document is distributed in Jersey by Credit Suisse (Channel Islands) Limited, Jersey Branch, which is regulated by the Jersey Financial Services Commission for the conduct of investment business. The address of Credit Suisse (Channel Islands) Limited, Jersey Branch, in Jersey is: TradeWind House, 22 Esplanade, St Helier, Jersey JE4 5WU. This document has been issued in Asia-Pacific by whichever of the following is the appropriately authorized entity of the relevant jurisdiction: in Hong Kong by Credit Suisse (Hong Kong) Limited, a corporation licensed with the Hong Kong Securities and Futures Commission or Credit Suisse Hong Kong branch, an Authorized Institution regulated by the Hong Kong Monetary Authority and a Registered Institution regulated by the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong); in Japan by Credit Suisse Securities (Japan) Limited; this document has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (each as defined under the Financial Advisers Regulations) only, and is also distributed by Credit Suisse AG, Singapore Branch to overseas investors (as defined under the Financial Advisers Regulations). Credit Suisse AG, Singapore Branch may distribute reports produced by its foreign entities or affiliates pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Singapore recipients should contact Credit Suisse AG, Singapore Branch at +65-6212-2000 for matters arising from, or in connection with, this report. By virtue of your status as an institutional investor, accredited investor, expert investor or overseas investor, Credit Suisse AG, Singapore Branch is exempted from complying with certain compliance requirements under the Financial Advisers Act, Chapter 110 of Singapore (the "FAA"), the Financial Advisers Regulations and the relevant Notices and Guidelines issued thereunder, in respect of any financial advisory service which Credit Suisse AG, Singapore branch may provide to you. ; elsewhere in Asia/Pacific by whichever of the following is the appropriately authorized entity in the relevant jurisdiction: Credit Suisse Equities (Australia) Limited, Credit Suisse Securities (Thailand) Limited, Credit Suisse Securities (Malaysia) Sdn Bhd, Credit Suisse AG, Singapore Branch, and elsewhere in the world by the relevant authorized affiliate of the above. This document may not be reproduced either in whole, or in part, without the written permission of the authors and Credit Suisse. © 2016 Credit Suisse Group AG and/or its affiliates. All rights reserved

Also published by the Research Institute



The shale revolution
December 2012



Sugar Consumption at a crossroads
September 2013



Latin America: The long road
February 2014



Emerging Consumer Survey 2014
February 2014



Emerging capital markets: The road to 2030
July 2014



The Success of Small Countries
July 2014



The CS Gender 3000: Women in Senior Management
September 2014



Global Wealth Report 2014
October 2014



Emerging Consumer Survey 2015
January 2015



Global Investment Returns Yearbook 2015
February 2015



The Success of Small Countries and Markets
April 2015



The Family Business Model
July 2015



Fat: The New Health Paradigm
September 2015



The End of Globalization or a more Multipolar World?
September 2015



The Global Wealth Report 2015
October 2015

CREDIT SUISSE AG

Research Institute
Paradeplatz 8
CH-8070 Zurich
Switzerland
cs.researchinstitute@credit-suisse.com
www.credit-suisse.com/researchinstitute