Deutsche Bank

1 April 2004

Beyond the Numbers

Corporate Governance is a significant component of equity risk. As such, it must be measured and taken into consideration by investors. In our research we identify some of the potential implications of corporate governance to the investment process.

Corporate Governance: Implication for Investors

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Corporate Governance is a significant component of equity risk. As such, it must be measured and taken into consideration by investors. In our research we identify some of the potential implications of corporate governance to the investment process.

Corporate governance standards vary widely
We have analyzed corporate governance in different markets, from emerging to developed, and have found that standards vary widely among companies of the same country. None of the analyzed companies, including those in the US and UK markets, were found to have perfect governance and some companies remain far from perfect.

Governance impacts risk, profitability, and price performance
In our research, we have found a clear link between our corporate governance assessment and share price volatility, corporate profitability, and share price performance. Through these relationships, we conclude that the assessment of corporate governance standards is a valid measure of equity risk.

Investors are struggling to anticipate governance problems
Concerning equity valuations among companies in the US and the UK, we have identified a time and information gap, causing most investors to react to bad corporate governance news rather than anticipate potential problems. We also found that investors in emerging market companies tend to be more aware of governance risk, allowing them to discount that risk through equity valuations within the same market.

We believe that as investors improve their ability to measure and integrate corporate governance risk into their investment decision making process in a more systematic way, corporate governance standards will likely play an increasing role in a company's valuations.

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Global Corporate Governance Research

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Background for report

The Asset Management Working Group (AMWG) of the United Nations Environment Program Finance Initiative (UNEP FI) has extended us an invitation to submit a report summarizing our research on corporate governance. There are 12 UNEP FI member firms, representing US$1.6 trillion in assets under management (see list below), working together on three AMWG projects for 2004:

1. Understanding the Materiality of Key Environmental and Social Criteria for equities pricing and stock pricing, especially whether sell side analysis is attentive enough in this regard.

2. Engagement with pension funds on incorporating extra-financial criteria.

3. Can extra financial analysis and engagement on governance environmental and social criteria be applied as a risk mitigation tool in Emerging Markets?

Figure 1: Asset management firms supporting the AMWG

Acuity Investment Management	Canada
BNP Paribas Asset Management	France
Calvert Group Ltd	USA
Citigroup Asset Management	USA
Groupama Asset Management	France
Morley Fund Management	United Kingdom
Nikko Asset Management	Japan
Old Mutual Asset Management	South Africa
San Paolo IMI S.P.A.	Italy
Sotorebrand Investments	Norway
ABN AMRO Bank N.V.	Brazil
HSBC Asset Management	Europe

Source: UNEP FI Asset Management Working Group

Further information about UNEP FI and the Asset Management Working Group projects can be obtained from the secretariat or on its website: www.unepfi.net/am

Introduction

In this report we summarize some of the main conclusions of our research on the importance of corporate governance to shareholders in the United States, the United Kingdom and several emerging markets over the past few years. The analysis is based on a bottom-up approach to governance risk assessment. Note that the conclusions shown in this report are those presented in previous corporate governance reports.

The focus of our research has been to explore the implications of corporate governance for portfolio management. We identify the facts and behavioral differences impacting a company's governance standards and explore ways to integrate them into the investment process in a systematic way. We quantify and measure corporate governance standards and explore the relationships between corporate governance and risk (e.g. volatility) and their implications for profitability, stock price performance and equity valuation. With these links we can start to evaluate companies and equity portfolios by comparing their inherent corporate governance risks.

As shown in the analysis below, corporate governance standards vary dramatically from one company to the next, even within the same country. The difference in governance practices is even greater among companies in different countries. Although some of these differences are based on legal and regulatory structures, we contend that the legal and regulatory framework in which a company operates offers the minimum standards to be followed. However, it is ultimately the company itself that decides what levels of transparency and rights it provides to shareholders. This is particularly the case for companies willing to attract global investors into their shareholder base. The corporate governance problems of the past few years, which took place in some of the most sophisticated and transparent markets in the world, exemplify that corporate governance abuses can take place in every market.

The conclusions from our work show that corporate governance standards are an important component of equity risk. As such, it must be measured and monitored. We believe that as investors improve their ability to measure and integrate corporate governance risk into their investment decision making process in a more systematic way, corporate governance standards will likely play an increasing role in a company's valuation.

Defining corporate governance

Corporate governance is the means by which investors assure themselves of an equitable and adequate return on their investment

A reasonably concise definition of corporate governance is the system by which corporations are directed and controlled. Companies typically interpret this as the promotion of corporate fairness, transparency and accountability. For equity investors, corporate governance is the means by which they assure themselves of an equitable and adequate return on their investment.

Components of corporate governance can be divided into structural and behavioral issues. Structural governance issues include whether the roles of Chairman and CEO are separated, the chairman meets accepted independence requirements, and whether the company has multiple share classes. Behavioral factors include any repricing of options without prior shareholder approval, directors missing too many meetings, the paying of high non-audit fees to the external auditor, etc. While the structural facts of a company's governance have a strong impact on its corporate governance behavior, both categories must be included for any comprehensive assessment.

Four pillars of corporate governance

We divide corporate governance into four main pillars

When analyzing a company's corporate governance structure, we divide the corporate governance factors into four main groups or pillars (see below). Note that the issues under each pillar have varied depending on the country analyzed.

Board independence
This section addresses the board's ability to act independently from management in the best interest of all shareholders. Issues falling into this category include the board structure, composition and overall capabilities.

Shareholder treatment
Under this category we address questions related to the treatment of minority shareholders. We also consider issues such as the company's capital structure and its impact on shareholder rights.

Information disclosure
This pillar focuses on the quality, extent and timeliness of information provided by companies to analysts and investors. It also deals with the structure of company information (accounting standards and auditing relations) and internal verification mechanisms.

Corporate compensation
This section draws from the other three pillars but is so important as a guide to the quality of governance decision making that is worthy of individual analysis. We address both director and executive compensation, inquiring into the setting, monitoring and measurement of compensation. Issues in this category include the level of base salary and the various layers of bonuses, performance related compensation and the setting and disclosure of CEO performance targets.

Varying standards of governance

Assessing governance standards

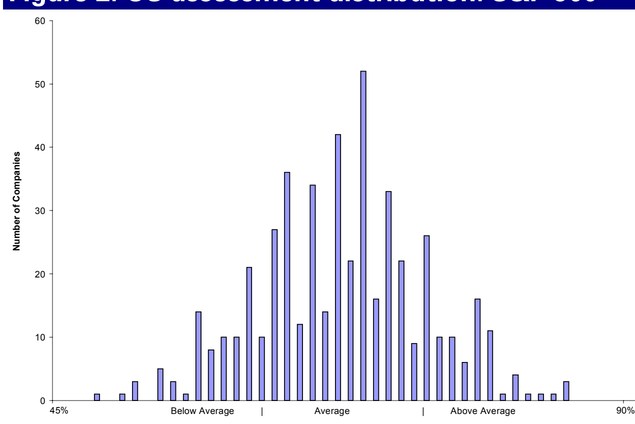
Governance standards vary considerably even in developed markets

Corporate governance is difficult to measure. However, if an overall view of a company's governance can be quantified, it can serve as a powerful risk assessment tool. Our governance assessment weighs the characteristics of governance structures and behavior based on primary, secondary and tertiary issues of governance best practices, resulting in an overall score for each company. Note that due to differences in country issues (such as levels of transparency and disclosure) the underlying issues of our four governance pillars vary by country.

Below we show the results for companies in the S&P 500 index of the US and the FTSE 350 index in the UK. Public available information was used for the assessment of these companies' governance standards.

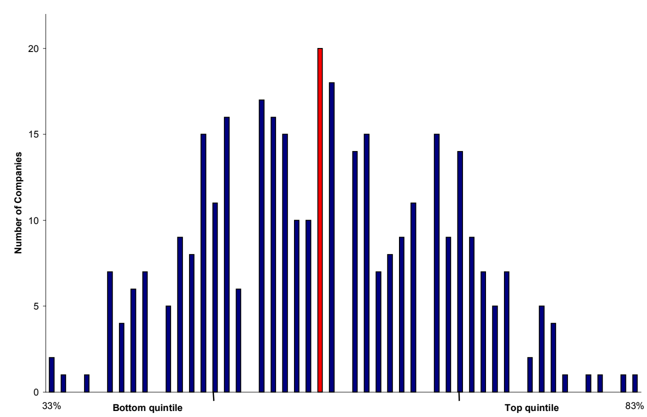
Our analysis finds that standards of governance vary widely even among companies in the most developed markets. No company was found to have perfect corporate governance and some are far from perfect.

Figure 2: US assessment distribution: S&P 500



Source: Deutsche Bank estimates and company data

Figure 3: UK assessment distribution: FTSE 350



Source: Deutsche Bank estimates and company data

It is in investors' best interest to understand what they are buying

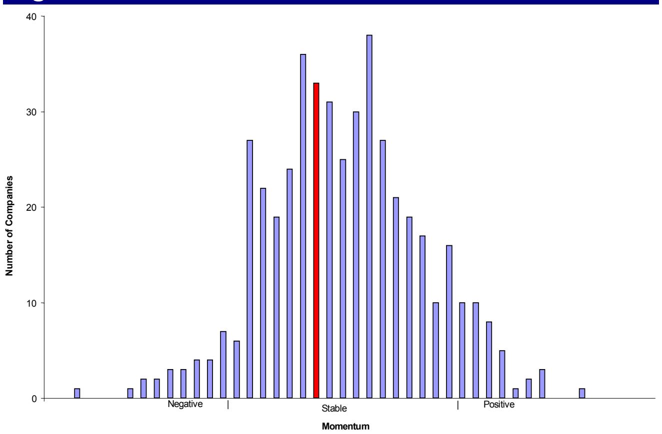
Given the recent increased awareness of fiduciary duties by regulators, shareholders, board of director members and stakeholders, we would expect to see a great deal of change towards more disclosure and a sounder corporate governance structure in the coming years. Given the relevance of the S&P 500 and FTSE 350 companies and their important investor base, we would expect them to be among the leading group of companies in terms of corporate governance principles. Nevertheless, it is in investors' best interest to understand what they are buying and be able to easily differentiate between companies' corporate governance structures.

Momentum Analysis

Who is making an effort to improve?

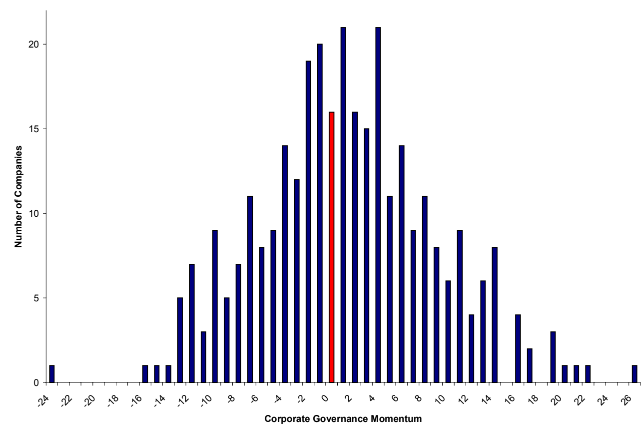
In addition to assessing a company's current governance standards, we measure the changes in its principles in recent years with our Momentum Analysis. Our analysis of Momentum compares each company's underlying current governance data to its own available historical data, resulting in an overall momentum score. As with our current assessment, we identify a marked difference in the resolve of companies to adapt to new standards of best practice.

Figure 4: US Momentum distribution: S&P 500



Source: Deutsche Bank estimates and company data

Figure 5: UK Momentum distribution: FTSE 350



Source: Deutsche Bank estimates and company data

In the graphs above, we show the distribution of Momentum among S&P 500 and FTSE 350 companies. There are three principal conclusions from the charts above:

- Companies are changing their corporate governance standards;
- Aggregate momentum is positive suggesting overall standards of governance are improving;
- Despite all the scandals, there are companies demonstrating deteriorating standards of governance.

Corporate governance's impact on performance

Performance differences – it pays to own the "good"

Corporate governance impacts stock price performance

While all corporations should strive to have stellar governance standards and comply with applicable legal and regulatory requirements, how does this behavior directly impact investors? Other than avoiding the rare scandalous bankruptcy, why do investors need to consider governance in their investment decision making process?

Our answer is that investments in companies with the highest quality of governance structures and behavior have significantly outperformed those with the weakest governance.

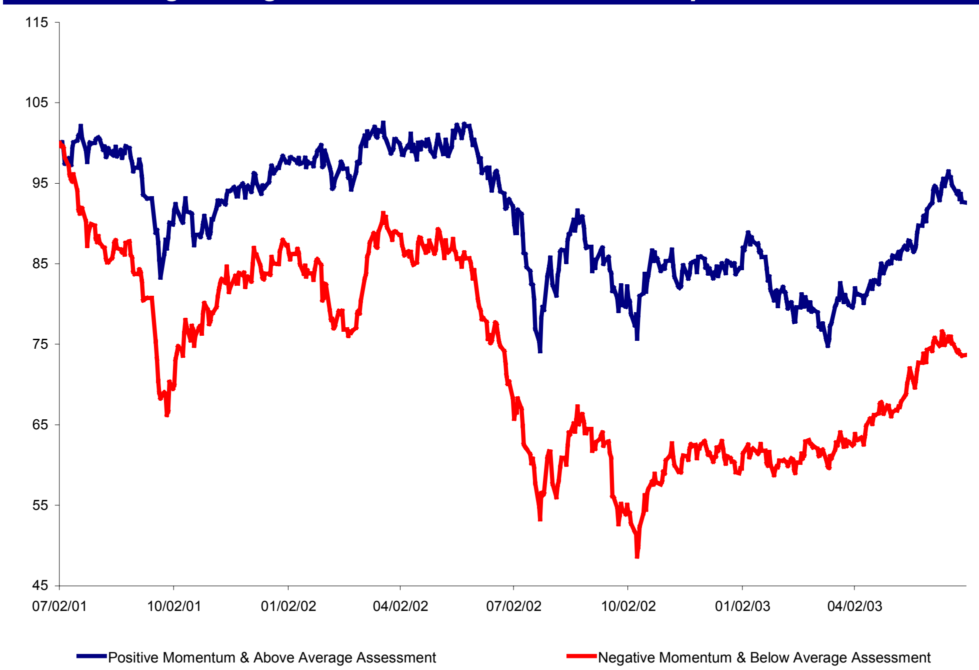
Below, we confirm our expectations for the US market using two portfolios of S&P 500 securities that were selected based only on corporate governance criteria:

- Above average assessment & positive momentum
- Below average assessment & negative momentum

Companies with above average assessment & positive momentum outperformed those with below average assessment & negative momentum

Spread (% diff.): 18.9%

Figure 6: S&P 500 – Above average assessment & positive momentum vs. below average & negative momentum (indexed, two years)



Source: Deutsche Bank Securities Inc. estimates and company information

These portfolios are equally weighted to avoid giving extra prominence to larger companies. The graph shows price performance over a two-year period, with a performance differential spread between the portfolios of 18.9% (through June 30, 2003).

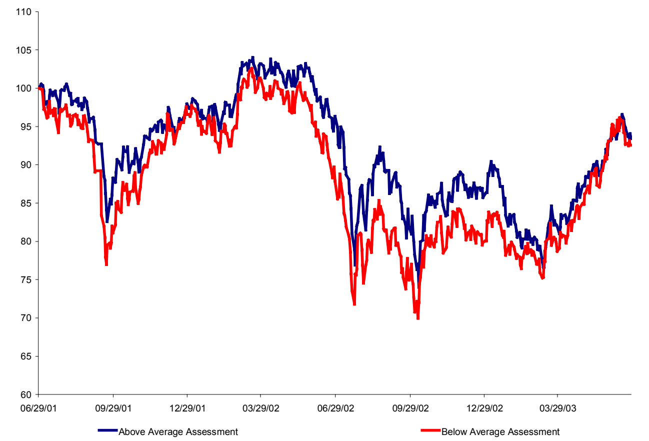
Continuing our review of the relationship between stock price performance and corporate governance, we use the following two portfolio comparisons:

- Above average versus below average corporate governance assessment
- Positive versus negative corporate governance momentum

Investors have recognized corporate governance change

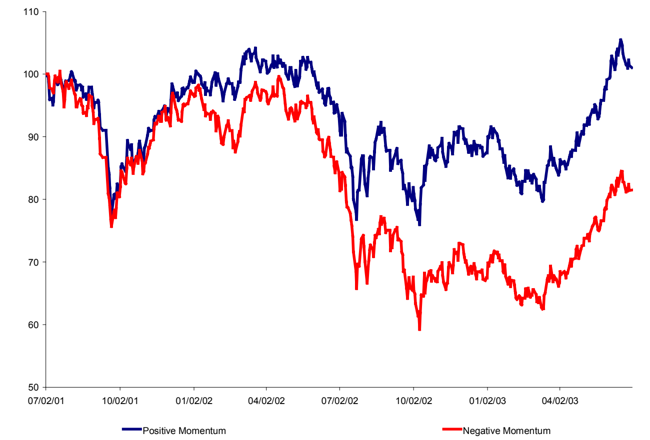
We conclude that companies that have taken action to improve their governance standards have outperformed those that have taken negative actions over the past two years, and that this change in governance standards actually has a stronger impact on performance than differences in current governance standards.

Figure 7: Performance of above/below average CG assessment companies (indexed, two years)



Source: Deutsche Bank Securities Inc. estimates and company information

Figure 8: Performance of positive/negative momentum companies (indexed, two years)



Source: Deutsche Bank Securities Inc. estimates and company information

Figure 9: Performance of different securities portfolios, selected based on corporate governance standards (through 30 June 2003)

Assessment	**2 year**
Above Average Assessment	-6.6%
Below Average Assessment	-7.5%
Outperformance	0.9%
Momentum	
Positive Momentum	1.1%
Negative Momentum	-18.5%
Outperformance	19.6%
Momentum + Assessment	
Positive Momentum & Above Average Assessment	-7.4%
Negative Momentum & Below Average Assessment	-26.4%
Outperformance	18.9%

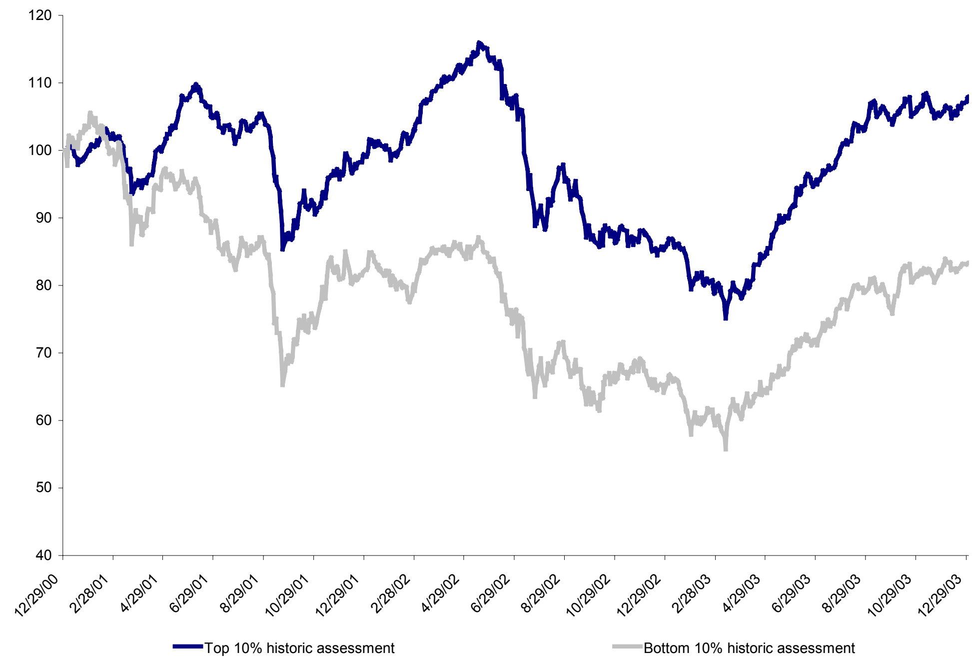
Source: Deutsche Bank Securities Inc. estimates and company information

Below we detail similar findings for the UK market. We illustrate our answer using two portfolios of companies within the FTSE 350 index that were selected only on corporate governance criteria.

Companies with Top 10% vs. Bottom 10% historic corporate governance assessment

Spread (% diff.): 25%

Figure 10: FTSE 350 ex-investment trusts – Top/bottom 10% historic CG assessment companies (indexed, three years, 2000-2003)

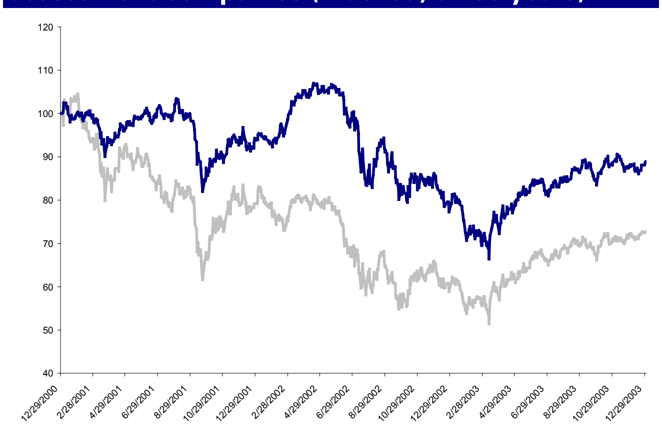


Source: Bloomberg, Deutsche Bank Securities Inc. estimates and company information

The portfolios are equally weighted to avoid giving undue prominence to larger companies. The graph shows price performance over the three years ending 31 December 2003, with a performance differential of 25%.

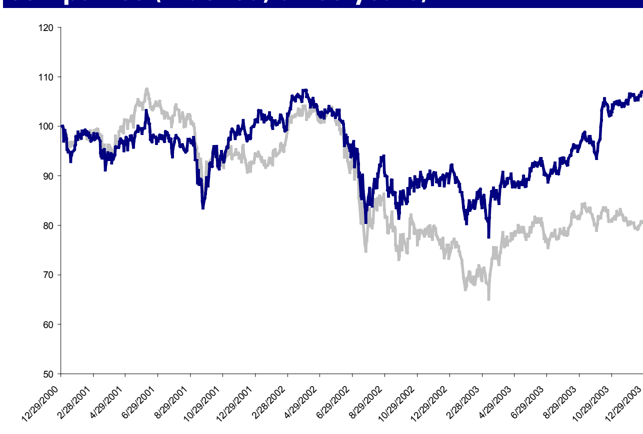
We found this same general relationship between performance and governance among the FTSE 100, using both our historic assessment and momentum analysis.

Figure 11: FTSE 100 - top/bottom 10% historic assessment companies (indexed, three years)



Source: Deutsche Bank Securities Inc. estimates and company information

Figure 12: FSTE 100 – top/bottom 10% momentum companies (indexed, three years)



Source: Deutsche Bank Securities Inc. estimates and company information

Each of the charts above indicates a significant performance differential between the top and bottom companies as measured by their approach to corporate governance.

In each case the best-governed companies outperform the poorest. The performance differential is given in the table

Figure 13: Stock price performance spreads (three years)

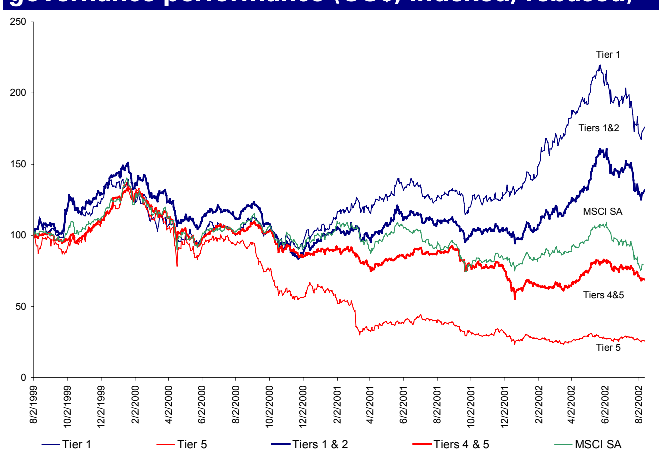
	FTSE 100	FTSE 100 ex-Invest. Trusts
Current Assessment		
Top 10% vs. Bottom 10%	10.6%	12.4%
Top 20% vs. Bottom 20%	7.5%	8.5%
Historic Assessment		
Top 10% vs. Bottom 10%	16.2%	16.2%
Top 20% vs. Bottom 20%	3.3%	3.3%
Momentum		
Top 10% vs. Bottom 10%	25.8%	25.8%
Top 20% vs. Bottom 20%	4.9%	4.9%

Source: Bloomberg, Deutsche Bank estimates and company data

The positive spread for Momentum tells us that governance events are price sensitive

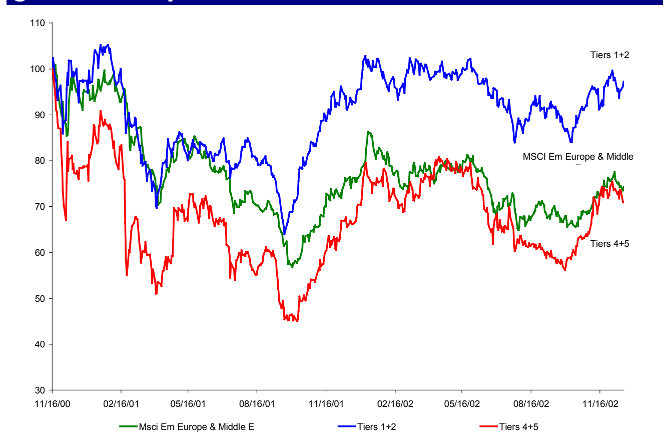
In the graphs below we show some of the results of our analysis in South Africa and Eastern Europe and the Middle East (EEME). Note that the performance differential favors those companies with stronger corporate governance standards. This result is not surprising, given the fact that investors tend to be more aware of governance risk in companies within the emerging markets.

Figure 14: South Africa: top vs. bottom corporate governance performance (US$, indexed, rebased)



Source: Deutsche Bank

Figure 15: EEME: top vs. bottom tiers corporate governance performance (US$, indexed, rebased)



Source: Deutsche Bank

Corporate governance impacts profitability

At the aggregate level – the UK example (FTSE 350)

Now that we have seen that corporate governance has an impact on share price performance, we would like to better understand the underlying factors supporting the performance. The most closely linked factor should be corporate profitability. As such, we would like to understand the relationship between our corporate governance assessment and profitability.

We hypothesize that a company's corporate governance standards impact the way a company is run

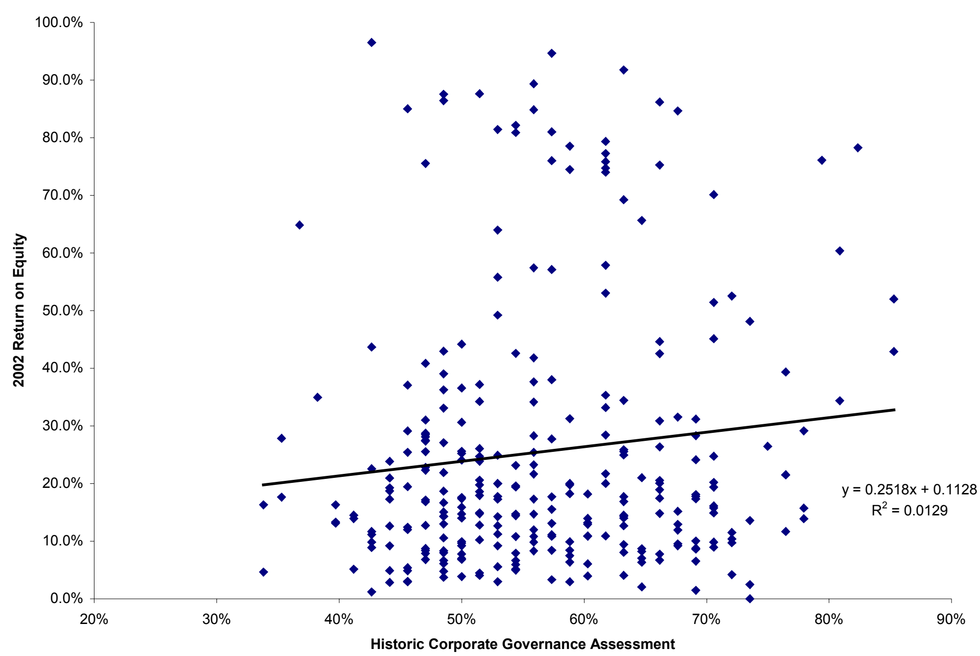
We hypothesize that corporate governance standards affect the way a company is run and, consequently, its profitability. It is logical to predict that companies and boards that are focused on maximizing shareholder value tend to be better run and have better returns.

Our review incorporates three measures of profitability: Return on Equity, Return on Assets and EBITDA Margin. When analyzing profitability in the UK, we have used our historic corporate governance assessment to establish a measurement of governance standards for the current FTSE 350 companies as of three years ago. This historic measurement is particularly useful when considering profitability as it allows for a better matching of the standards in place during the periods in which profitability is being measured.

The chart below presents the initial results of our comparison of corporate governance standards to profitability using ROE.

Companies with a top 20% score on governance were more profitable than those in the bottom 20%

Figure 16: FTSE 350: Corporate governance and Return on Equity

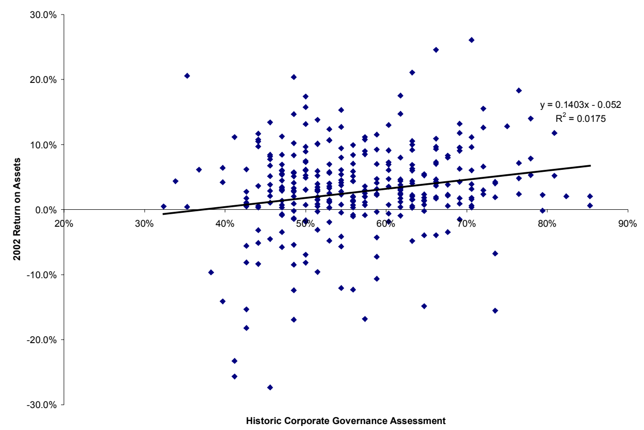


Source: Deutsche Bank estimates and company data

In addition to the positive relationship between our historic corporate governance assessment and ROE across the entire FTSE 350, we found that companies with the top 20% of governance scores were more profitable than those within the bottom 20%. While the bottom 20% had an average 2002 ROE of 1.5%, the top 20% had an average 2002 ROE of 15.9%.

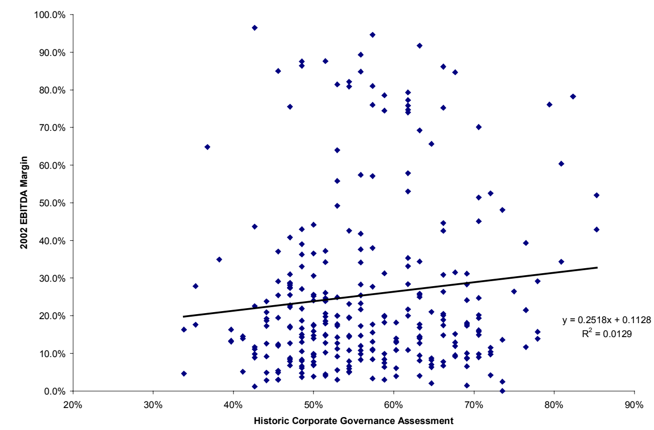
Below, we found similarly positive relationships between governance standards and Return on Assets and EBITDA Margin.

Figure 17: FTSE350: Governance and Return on Assets



Source: Deutsche Bank estimates and company data

Figure 18: FTSE350: Governance and EBITDA Margin



Source: Deutsche Bank estimates and company data

As with ROE, we found that companies in the top 20% corporate governance scores were more profitable than those in the bottom 20%, using both ROA and EBITDA Margin. While the bottom 20% had an average 2002 ROA of -0.3% and EBITDA Margin of 20.7%, the top 20% had an average 2002 ROA of 4.4% and EBITDA Margin of 27.5%.

At a sector level – the US example (S&P 500)

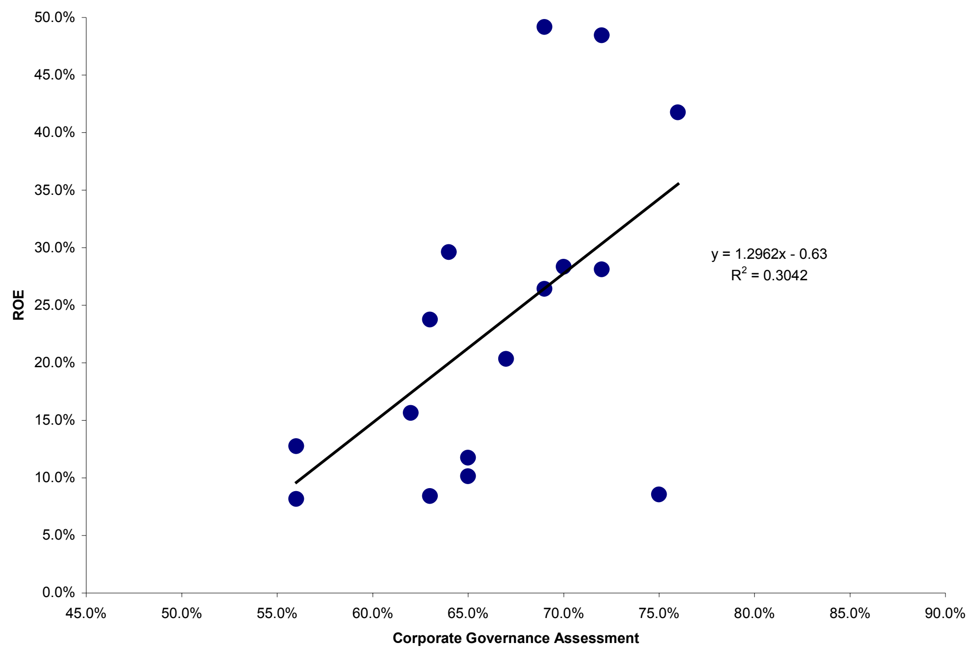
Understanding that governance structures and behavior are certainly not the only factors determining profitability, and that sector-specific issues can often have a greater impact, we have analyzed the relationship between governance and profitability at the sector level for companies in the S&P 500 index.

Our review incorporates three measures of profitability: Return on Equity, CROCI (Cash Return on Capital Invested) excluding goodwill and EBITDA margin. For each of these profitability measures we analyzed the relationship with our corporate governance assessment to determine a positive, neutral, or negative impact.

The US Pharmaceuticals & Biotechnology sector showed a particularly strong correlation between our governance assessment and ROE.

Corporate governance's impact on profitability is clear at the sector level

Figure 19: S&P 500: Pharmaceuticals & Biotechnology – Corporate governance vs. ROE



Source: Deutsche Bank Securities Inc. estimates and company information

We review 16 S&P 500 sectors for the relationship between governance and profitability

Of the S&P 500's 21 sectors (Banks, Diversified Financials and Insurance sectors were excluded due to a lack of financial data), we have selected the 16 largest for review. Of the 16 US sectors reviewed, we note that 10 demonstrate a positive correlation (three negative) between our governance assessment and ROE and nine have a positive (two negative) correlation between governance and CROCI, excluding goodwill. Concerning the relationship between our governance assessment and EBITDA Margin, only four sectors demonstrate a positive correlation, with three negatives. The table below presents a summary of our findings.

A clear positive relationship exists between governance and ROE and CROCI…

…EBITDA Margin is inconclusive

Figure 20: Governance impact on profitability, by S&P 500 sector

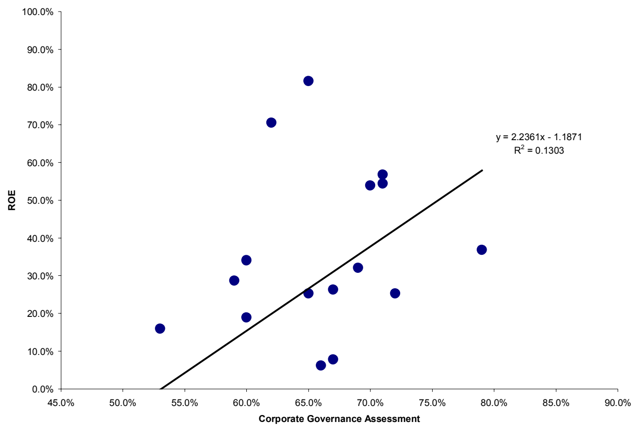
	ROE	CROCI ex Goodwill	EBITDA Margin
Commercial Services & Supplies	Positive	Positive	Positive
Food Beverage & Tobacco	Positive	Positive	Positive
Pharmaceuticals & Biotechnology	Positive	Positive	Negative
Capital Goods	Positive	Negative	Positive
Consumer Durable & Apparel	Positive	Positive	neutral
Food & Staples Retailing	Positive	Positive	neutral
Technology Hardware & Equipment	Positive	Positive	neutral
Energy	Positive	neutral	Negative
Retailing	Positive	Positive	neutral
Utilities	Positive	neutral	neutral
Health Care Equipment & Services	neutral	Negative	neutral
Media	neutral	Positive	neutral
Semiconductors & Semiconductor Equipment	neutral	neutral	Positive
Software & Services	Negative	neutral	neutral
Materials	Negative	neutral	neutral
Telecommunication Services	Negative	Positive	Negative

Source: Deutsche Bank Securities Inc. estimates and company information

Better corporate governance leads to greater returns on equity

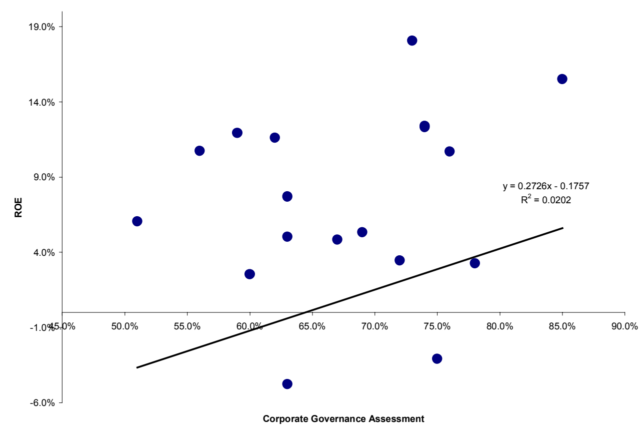
The graphs below show some of the detailed findings from our review of the relationship between our governance assessment and Return on Equity. The Food, Beverage & Tobacco and Energy sectors also showed strong correlations between our governance assessment and ROE.

Figure 21: S&P500: Food, Beverage & Tobacco – Corporate governance vs. Return on Equity



Source: Deutsche Bank estimates and company data

Figure 22: S&P500: Energy – Corporate governance vs. Return on Equity

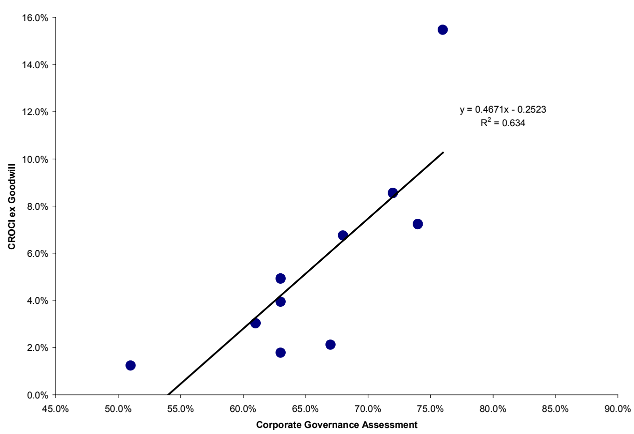


Source: Deutsche Bank estimates and company data

Governance also has a positive impact on CROCI excluding goodwill

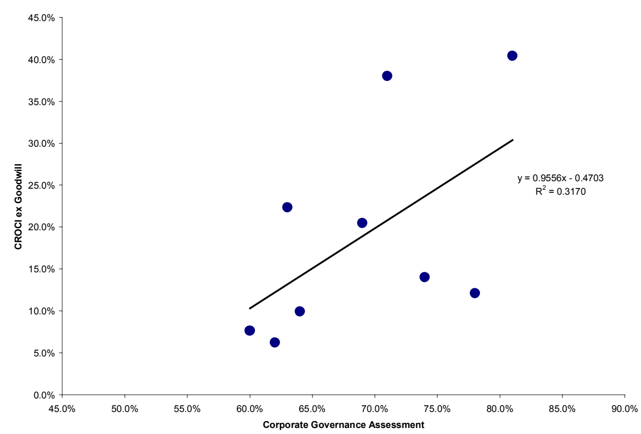
As with ROE, we found a majority of sectors under review demonstrated a clear positive relationship between our governance assessment and CROCI excluding goodwill. The Consumer Durable & Apparel and Media sectors showed particularly strong correlation.

Figure 23: S&P 500: Consumer Durable & Apparel – Corporate governance vs. CROCI ex goodwill



Source: Deutsche Bank estimates and company data

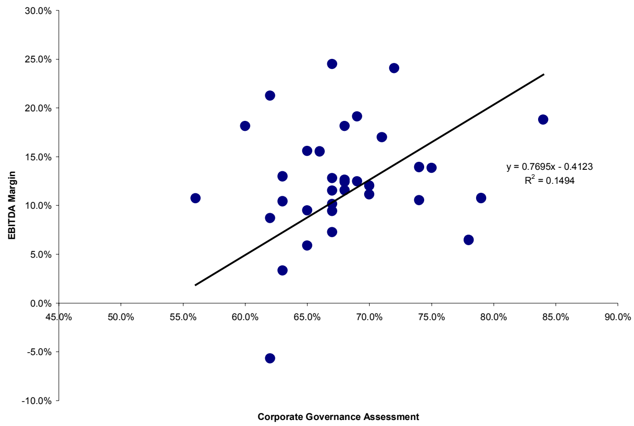
Figure 24: S&P 500: Media – Corporate governance vs. CROCI ex goodwill



Source: Deutsche Bank estimates and company data

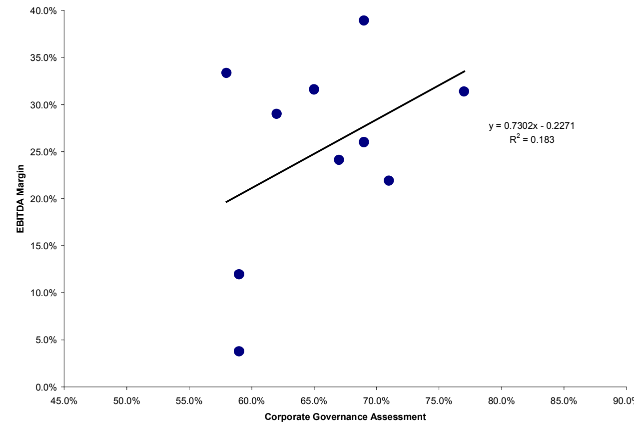
The graphs below show findings from our review of the relationship between our governance assessment and EBITDA Margin. While our overall conclusion regarding the governance relationship with EBITDA Margin is inclusive, we did note a few positive sectors. The Capital Goods and Commercial Services & Supplies sectors showed particularly strong correlation.

Figure 25: S&P500: Capital Goods – Corporate governance vs. EBITDA Margin



Source: Deutsche Bank estimates and company data

Figure 26: S&P500:Commercial Services & Supplies –Corporate governance vs. EBITDA margin



Source: Deutsche Bank estimates and company data

Corporate governance impacts risk

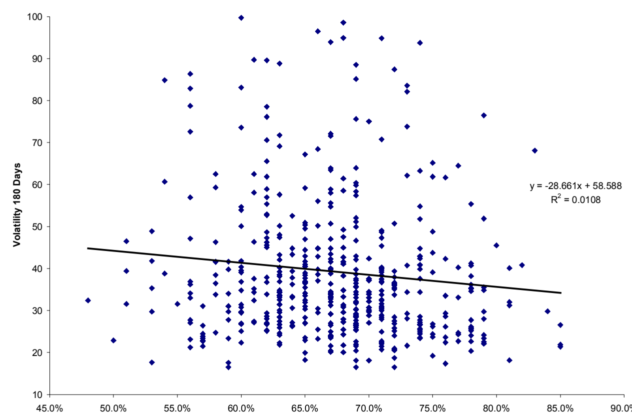
Corporate governance standards can be a measurement of risk

We contend that a company's standards of corporate governance can be used as a measurement of risk. While this opinion can be justified by numerous recent examples of destroyed shareholder value as a result of corporate governance failures, we would like to add support to our logic by offering evidence through the statistical relationship between our corporate governance assessment and companies' share price volatility.

The better the corporate governance, the lower the volatility

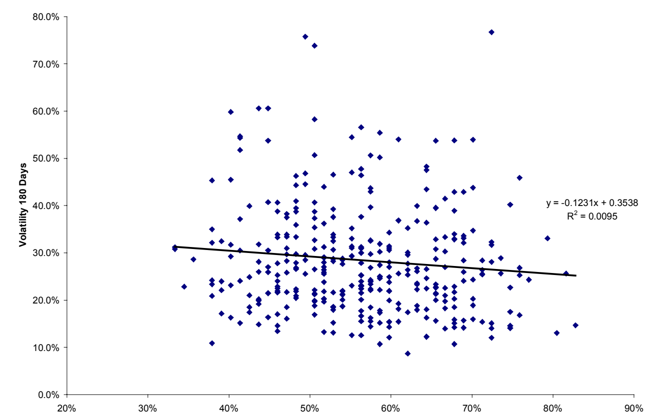
Given that equity price volatility is a known measurement of risk, we hypothesize that a relationship between corporate governance practices and volatility would support our belief that corporate governance standards can also serve as a measurement of risk. Below, we compare volatility (using equity price 180-day volatility, measured by Bloomberg) to our corporate governance assessment for the companies in the S&P 500 and FTSE 350.

Figure 27: S&P 500 – Corporate governance vs. volatility (180-day)



Source: Deutsche Bank estimates and company data

Figure 28: FTSE 350 – Corporate governance vs. volatility (180-day)



Source: Deutsche Bank estimates and company data

The graphs above show that the higher the corporate governance score, the lower the volatility, with the trend line showing a negative slope.

Sector analysis also shows a clear relationship between good governance and low risk

We also review the correlation at a sector level, analyzing 16 of the largest S&P 500 sectors. Of the 16 US sectors under review, 14 demonstrated a clearly negative relationship between our governance assessment and volatility. The sector review adds support to our overall conclusion that good governance structures and behavior are linked to lower volatility and investment risk.

Corporate governance impacts valuation

So far we have demonstrated a positive relationship between our corporate governance assessment and historical share price performance, profitability (ROE, ROA, CROCI ex goodwill and EBITDA Margin), and risk (volatility). Given these separate, yet related, conclusions, one could initially expect to see a clear relationship between our corporate governance assessment and equity valuation.

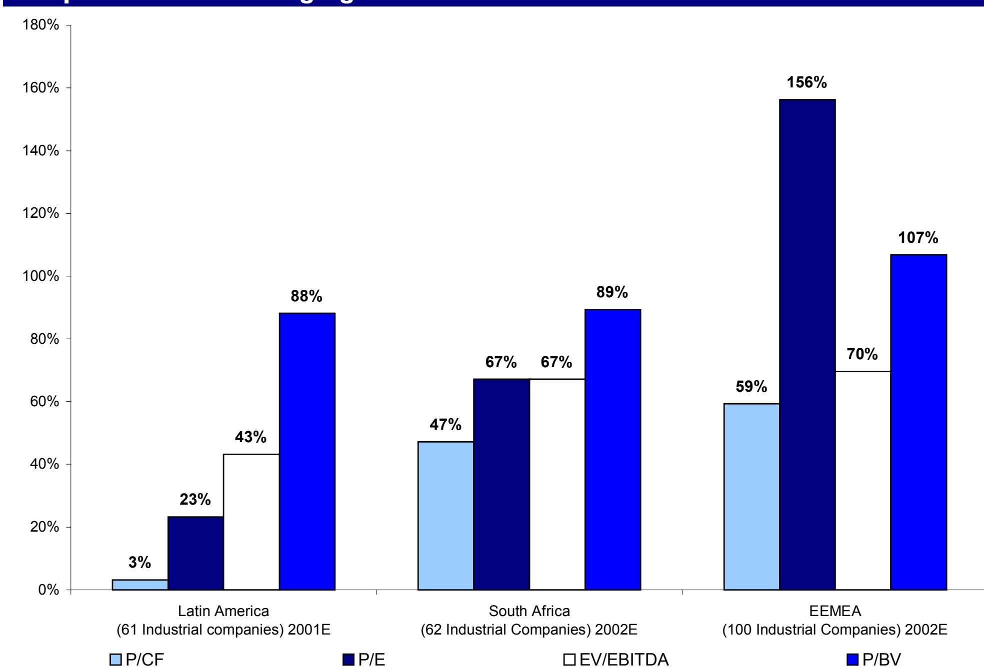
The experience of riskier markets

As shown in the figures below, our corporate governance work in emerging markets has shown a clear relationship between governance and equity valuation.

Investors in the emerging markets seem to have doubts in respect to management and local legal and regulatory structures, and thus are willing to price (or discount) companies according to their corporate governance structure and behavior. Note that companies with higher standards of governance trade at large valuation premiums to those with poorer practices in the emerging markets that we have analyzed.

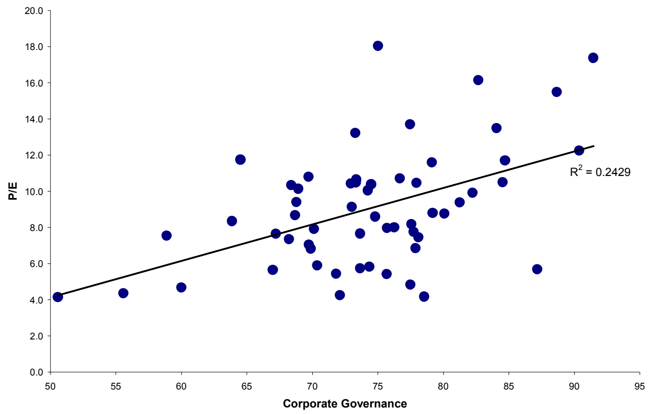
Investors in the emerging markets are willing to price (or discount) corporate governance risk

Figure 29: Valuation premium of top vs. bottom governance assessed companies in the emerging markets



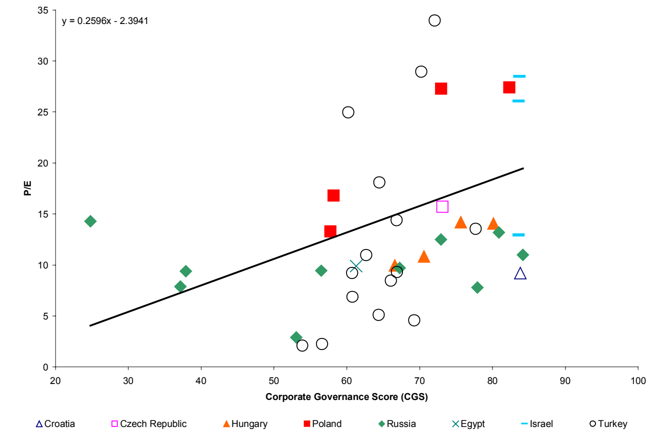
Source: Deutsche Bank Securities Inc. estimates and company information
Note: Based on simple average per quintile, priced as of 12 August 2002 and 24 April 2001 for LatAm.

Figure 30: South African: governance assessment vs. Price to Earnings ratio



Source: Deutsche Bank Securities Inc. estimates and company information
Note: Priced as of 12 August 2002 and based on 2002 estimated earnings

Figure 31: EEME: governance assessment vs. Price to Earnings ratio



Source: Deutsche Bank Securities Inc. estimates and company information
Note: Priced as of 13 December 2002 and based on 2002 estimated earnings

South Africa

Efforts to improve governance started in 1994

We find that South Africa is ahead of most emerging markets in the implementation and enforcement of corporate governance standards. The process of self-regulation began in 1994 and continues to be further strengthened.

Investors reward those South African companies with better corporate governance through higher valuation multiples. On average, top tier companies trade at prima in terms of P/E and EV/EBITDA versus those in the bottom tier. Our analysis also suggests that South African companies in our top tiers outperformed the MSCI SA index and those in the bottom tiers over a one-, three- and five-year period.

Emerging Europe and The Middle East

Some countries still suffer from weak and inconsistent enforcement

We find a general trend towards improvement of corporate governance practices in the region. These improvements include legislative and regulatory reforms and appear to be motivated by a desire for increased direct investment and, in some cases (Czech Republic, Hungary, Poland and Turkey), accession to the EU. However, we observed that in some countries these efforts are undermined by weak and inconsistent enforcement.

Our analysis indicates that companies with higher corporate governance standards have consistently outperformed both the MSCI EEME index and the group of companies in the bottom tiers over a five-year period. Investors indeed reward EEME companies demonstrating superior corporate governance standards with higher valuation multiples, as shown in Figure 29.

Latin America

Brazil, Mexico and Argentina approved new corporate laws in 2001

Companies' treatment of minority shareholders in Latin America varies considerably by country, mainly a result of differing weak legal and regulatory structures. Several governments in Latin America have recognized these structural deficiencies and are working to correct them. In 2001, Brazil, Mexico and Argentina approved new corporate laws and a slew of new regulation has followed, all directed at improving minority shareholder protection.

As expected, we find that investors in Latin America reward companies with superior corporate governance practices. Our research shows that companies in our top quintile trade at significant valuation premiums relative to those in the bottom quintile.

The experience of the developed markets

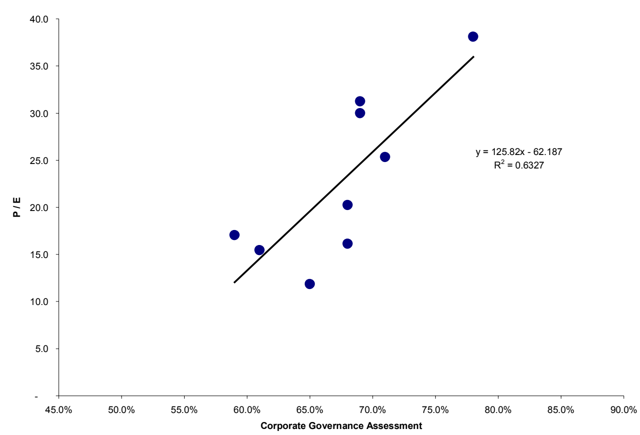
Our research in the US and the UK has indicated that there is a link between corporate governance and share price performance, profitability, and volatility. However, when analyzing the connection between governance and current market valuations, we have seen a mixed picture. We found no clear relationship for the aggregate S&P 500 or FTSE 350 between corporate governance and valuations, while a few individual sectors did show some positive relationships. In the graphs and tables below we show some of these relationships.

United States – S&P 500

Out of the 21 sectors of S&P 500 companies (Banks, Diversified Financials and Insurance sectors were excluded due to a lack of financial data), we selected the 16 largest for review. Our review incorporates three measures of valuation: Price to Earnings, Price to Book Value, and Price to Cash Flow. For each of these valuation measures, we analyzed the relationship with our corporate governance assessment to determine a positive, neutral, or negative impact.

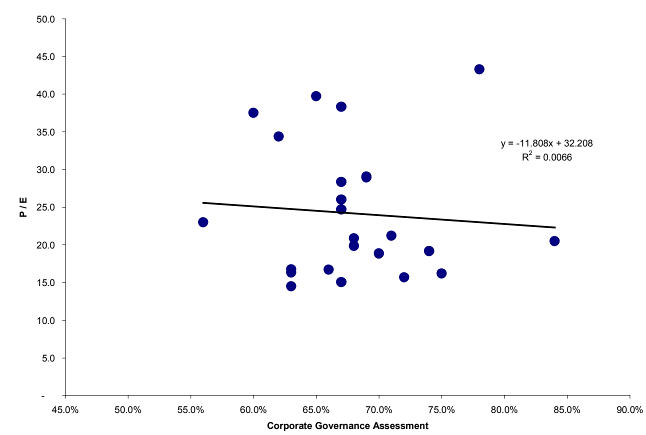
In the graphs below we show two examples of the relationship of our corporate governance assessment to P/E ratio. Note that while for the Food & Staples Retailing sector the relationship shows that companies with higher governance standards trade at higher valuation multiples, the same cannot be said for the Capital Goods sector.

Figure 32: S&P 500: Food & Staples Retailing: Corporate Governance vs. P/E ratio



Source: Deutsche Bank estimates and company data

Figure 33: Capital Goods: Corporate Governance vs. P/E ratio



Source: Deutsche Bank estimates and company data

The table below presents a summary of our findings.

Figure 34: Governance impact on equity valuation, by S&P 500 sector

	P/E	P/BV	P/CF
Semiconductors & Semiconductor Equipment	Positive	Positive	Positive
Food & Staples Retailing	Positive	Positive	Positive
Materials	Positive	Positive	Positive
Technology Hardware & Equipment	Positive	Positive	Positive
Retailing	Positive	Positive	Positive
Food Beverage & Tobacco	Positive	Positive	Positive
Software & Services	Positive	Positive	Negative
Telecommunication Services	Positive	neutral	Negative
Utilities	neutral	neutral	neutral
Consumer Durables & Apparel	neutral	neutral	Negative
Commercial Services & Supplies	Negative	neutral	neutral
Pharmaceuticals & Biotechnology	Negative	Positive	Negative
Capital Goods	Negative	neutral	Negative
Energy	Negative	neutral	Negative
Media	Negative	neutral	neutral
Health Care Equipment & Services	Negative	Negative	Negative

Source: Deutsche Bank Securities Inc. estimates and company information

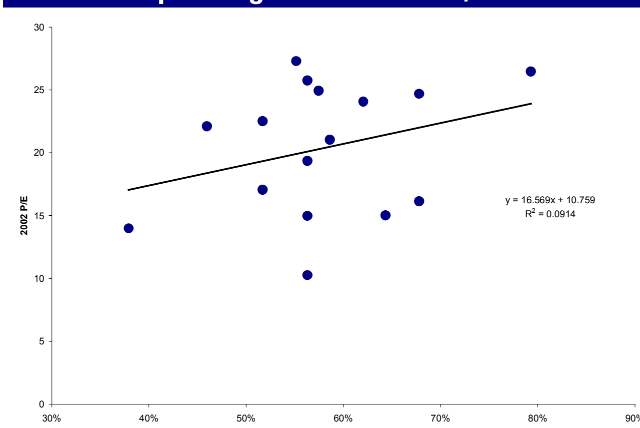
Some sectors are incorporating governance into valuations

Based on these findings, we can conclude that there is no US market-wide correlation between corporate governance and equity valuations. We can, however, conclude that some sectors are incorporating governance into valuations. Additionally, as we have seen in our review of share price performance during the past year, over time investors do react to governance news.

United Kingdom – FTSE 350

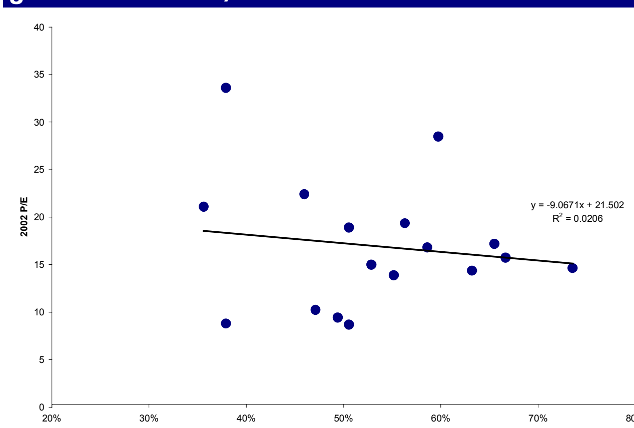
As in the US, we find mixed results when analyzing governance and valuation at the UK sector level. While the Leisure Entertainment & Hotels and some other sectors demonstrate a positive relationship between governance and valuation, most sectors have a negative or neutral relationship for at least two (often all three) of the valuation measures. Figure 37 below details our findings for each sector and valuation metric.

Figure 35: FTSE 350: Leisure Entertainment & Hotels – corporate governance vs. P/E ratio



Source: Deutsche Bank estimates and company data

Figure 36: FTSE 350: General Retailers – corporate governance vs. P/E ratio



Source: Deutsche Bank estimates and company data

Figure 37: Governance impact on equity valuation (2002), by FTSE 350 sector

	P / E	P / BV	P / CF
Construction & Building Materials	Positive	Positive	Negative
Engineering & Machinery	Negative	Negative	Neutral
General Retailers	Neutral	Negative	Negative
Investment Companies	Positive	Negative	Negative
Leisure Entertainment & Hotels	Positive	Positive	Positive
Media & Photography	Neutral	neutral	neutral
Real Estate	Positive	neutral	Positive
Specialty & Other Finance	Neutral	Positive	neutral
Support Services	Negative	Negative	neutral
Transport	Neutral	Negative	Negative

Source: Deutsche Bank estimates and company data

It seems that while US and UK governance standards have an impact on corporate results and longer term equity performance, not all US and UK investors are currently incorporating governance into their equity valuations on a timely basis. Instead, they seem to react to bad corporate governance news rather than anticipate potential problems, as exemplified by recent corporate collapses.

We have concluded that investors are still struggling to find efficient and effective ways of incorporating governance assessment into their equity valuations and anticipating governance problems.

What does this mean for valuations?

Most investors react to bad corporate governance news, rather than anticipate potential problems

These findings, in both the US and UK, were at first somewhat surprising to us, given the relationships with volatility, profitability, and historical share price performance. It was also surprising in view of the findings of our earlier research on emerging markets that has consistently shown a strong relationship between our corporate governance assessment and equity valuation.

Upon further thought, however, this finding should not be that surprising. While the US and UK markets may be attempting to value a company's corporate governance structure and behavior when arriving at a share price, it could be argued that investors currently do not possess or use the tools necessary to incorporate this assessment into valuation models on a timely basis. As a result, there is a time and information gap that causes most investors to react to corporate governance events, rather than anticipate them.

One could also argue that for the emerging markets, investors are more aware of the potential dangers of corporate governance failure and, therefore, may be attempting to discount those risks into the companies' valuation ratios. While in the developed markets, investors may have been more complacent about discounting the potential corporate governance risks.

Governance should play an increasing role in a company's valuation

We believe that as investors improve their ability to measure and integrate corporate governance risk into their investment decision making process in a more systematic way, corporate governance standards will likely play an increasing role in a company's valuation.

Appendix 1: Related corporate governance research

Figure 38: Related corporate governance research

Date	Publication
18-Feb-04	Beyond the Numbers: Corporate Governance in the UK
4-Dec-03	Beyond the Numbers: Corporate Governance: North America
18-Aug-03	Beyond the Numbers: Corporate Governance: Portfolio Opportunities
11-Aug-03	Beyond the Numbers: Corporate Governance: Unveiling the S&P500
31-Jul-03	Beyond the Numbers: Corporate Governance: North America
3-Feb-03	US Regulatory Update
24-Jan-03	Brazil takeouts - A reminder of the benefits of ON ownership
17-Jan-03	TCP's Acquisition of TRO - A Fitting End to a History of Inequality
9-Jan-03	The End of US Dividend Double Taxation: Effect on ADR Holders and Foreign Issuers?
9-Jan-03	Audit Committees: Foreign Issuers Allowed Minimal Exemption to Independence Rule
8-Jan-03	Valuing Corporate Governance in Emerging Europe & the Middle East
28-Aug-02	What's Next for Foreign Issuers Under the Sarbanes-Oxley Act?
19-Aug-02	Valuing Corporate Governance in South Africa
29-Jul-02	Corus-CSN Merger: Voiceless Minorities
23-Jul-02	Perez Companc: Opting Out
14-May-02	Quinsa: More News Is Bad News
8-May-02	Pepsi-Gemex: A Toast to the New Rules!
3-May-02	Quinsa's Neglected Minorities
25-Apr-02	Mexico's New Tender Offer Regulation
21-Feb-02	Mexico: The Capital Gains Tax Saga
1-Feb-02	Brazil: Upcoming Tender Offer Regulation
5-Nov-01	Brazil Welcomes Corporate Governance
25-Oct-01	Brazil: Delaying the Corporate Law
25-Sep-01	Brazil: FX Accounting Changes
20-Sep-01	Brazil: Corporate Law Nears Final Approval
29-Jun-01	Argentina: Protecting Minority Shareholders
28-Jun-01	Brazil: Welcoming Bovespa's First Level Companies
4-Jun-01	Mexico: Upgrading Minority Shareholder Rights
1-May-01	Who Has the Best Corporate Governance in Latin America?
3-Apr-01	Brazil: Minority Shareholders Gain as Lower House Approves Corporate Law
5-Mar-01	Brazil: Focusing on Corporate Governance
25-Oct-00	Chile: New Tender Offer Law Provides Stronger Shield for Minorities
15-Sep-00	Brazil: CVM Clarifies Tender Offer Rules, Reading Came As We Expected
11-Sep-00	Brazil: Positive New Tender Offer Regulations
24-Aug-00	Brazil: General Assembly On New Securities Law - Changing Estimate For Possible Approval Date
8-Jun-00	Brazil: Securities Legislation Advances - Buy ON Shares!
28-Mar-00	Brazil: Minority Shareholders – News from the Motherland!
20-Mar-00	Brazil: Is There Hope For ON Shareholders?
18-Feb-00	Brazil: Changing Securities Laws

Source: Deutsche Bank

Disclosures

Additional information available upon request

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Deutsche Bank's Corporate Governance team analyzes a company's corporate governance standards by using a proprietary model that evaluates its strengths and weaknesses. The analysis also focuses on corporate governance implications for equity valuation and stock price performance. The research also analyzes corporate transactions and their implications for minority shareholders of the companies involved. The group also monitors changes in the legal and regulatory environments in different countries, analyzing their implications to shareholders.

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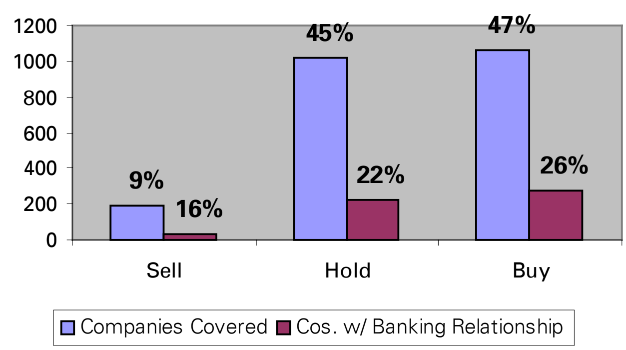
Rating key

Buy: Total return expected to appreciate 10% or more over a 12-month period

Hold: Total return expected to be between 10% to –10% over a 12-month period

Sell: Total return expected to depreciate 10% or more over a 12-month period

Rating dispersion and banking relationships



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