Equity Strategy Focus Point

ESG Part II: a deeper dive

15 June 2017

What if we told you how to avoid stocks that go bankrupt?

We think you would listen. Environmental, Social & Governance (ESG) factors are too critical to ignore, in our view. In our earlier report ESG: good companies can make good stocks, we found that ESG-based investing would have offered long-term equity investors substantial benefits in mitigating price risk, earnings risk and even existential risk for US stocks – ESG would have helped investors avoid 90% of bankruptcies in the time frame we examined. Our findings were encouraging enough to warrant a closer look. We here assess how US corporations, regulators and investors are positioned for ESG, and how the market is responding.

ESG is the best signal we have found for future risk

Prior to our work on ESG, we found scant evidence of fundamental measures reliably predicting earnings quality. If anything, high quality stocks based on measures like Return on Equity (ROE) or earnings stability tended to deteriorate in quality, and low quality stocks tended to improve just on the principle of mean reversion. But ESG appears to isolate non-fundamental attributes that have real earnings impact: these attributes have been a better signal of future earnings volatility than any other measure we have found.

US corporates may be behind the curve…

Despite empirical evidence of its efficacy, ESG is not drawing much enthusiasm from US corporates. Among companies participating in our survey at our March 2017 BofAML US Investor Relations conference, almost half of the survey respondents indicated they have no resources dedicated to ESG initiatives, and no intentions of implementation. Globally, the theme is burgeoning: ESG-related regulations have doubled since 2015; over 6,000 EU member state companies will be required to publish disclosures; and 12 global stock exchanges require written ESG guidance – but not one is in the US!

…but investors are ahead of it & PE multiples are responding

In our May survey of BofAML institutional clients, 20% cited using ESG, well above the estimated 5% of float that corporations believe is held by ESG-oriented investors. In another investor survey, 66% raised issues on sustainability disclosures, and 85% called for improved disclosure in filings. And the investment industry is changing to accommodate governance: for the first time ever, FTSE Russell ruled out the addition of zero voting rights stocks, citing "concerns raised by shareholders." The market is listening: shareholder-friendly companies have seen significant multiple expansion – and we see strong signs that this re-rating continues.

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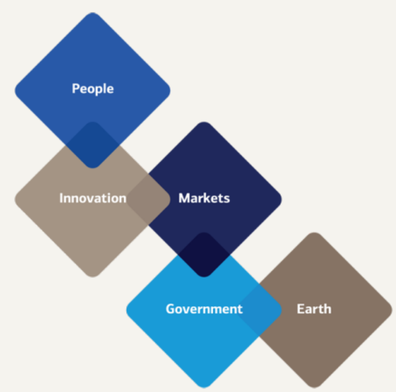
A Transforming World



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ESG: too critical to ignore

What if we told that you we could help you to identify the following?

- Stocks least likely to go bankrupt over the next five years
- Stocks least likely to have large price declines
- Stocks least likely to have earnings declines or increased EPS volatility
- Stocks that were going to *become* high quality vs low quality
- Stocks that would have extreme inflows over the next few decades
- Stocks with three-year returns significantly better than their peers

We think you would listen.

In our earlier report ESG: good companies can make good stocks on the Environmental, Social and Governance (ESG) landscape, we found that companies that rank as attractive on ESG attributes not only represent likely beneficiaries of the next wave of investing based on preferences among millennials, but historically have exhibited lower risks – based on price volatility, earnings volatility, and even bankruptcy risk – than lower-ranked peers. In fact, ESG could have helped investors avoid 90% of bankruptcies: based on our analysis of companies with ESG scores that declared bankruptcy, an investor who only held stocks with above average-ranks on both Environmental and Social scores would have avoided 15 of the 17 bankruptcies we have seen since 2008. Moreover, "good companies" by these measures have begun to re-rate as this theme is taking hold. Our findings were encouraging enough to warrant a deeper dive. In this report, we examine how US investors and corporates are positioned for ESG.

The best signal we've found for fundamental risk

Prior to our work on ESG, we found scant evidence of fundamental measures reliably predicting earnings quality. If anything, high quality stocks based on measures like ROE or earnings volatility tended to deteriorate in quality, and low quality stocks tended to improve just on the principle of mean reversion (Table 1, Table 2, Table 3).

Table 1: Subsequent five-year percentage point change in ROE (median) based on ROE quintiles , 2005-2015

Quintile (from highest to lowest ROE)	Percentage point change in ROE over next 5 years
1 (highest ROE)	-7.79
2	-2.92
3	-1.70
4	0.48
5 (lowest ROE)	8.01

Source: BofA Merrill Lynch US Equity & Quant Strategy based on Thomson Reuters data

Table 2: Subsequent five-year percentage point change in EPS volatility (median) based on EPS volatility quintiles, 2005-2015

EPS Volatility Quintile (from most stable to most volatile)	Percentage change in subsequent EPS volatility over next 5 years (negative = deteriorating)
1 (most stable)	-81%
2	-23%
3	-2%
4	40%
5 (most volatile)	106%

Source: BofA Merrill Lynch US Equity & Quant Strategy based on Thomson Reuters data

Table 3: Quality Migration: initial quality ranking vs median quality ranking after five years, 2005-2015

Initial Quality Rtg	Quality Rtg in 5 yrs
A+	A
A	A
A-	A-
B+	B+
B	B
B-	B
C	B-
D	B+

Source: BofA Merrill Lynch US Equity & Quant Strategy based on Thomson Reuters data

But ESG may isolate non-fundamental factors that have real earnings impact: ESG has been a better signal of future earnings volatility more than any other measure we have observed at a market level (Table 4).

Table 4: Subsequent five-year median change in EPS volatility by overall ESG percentile ranks

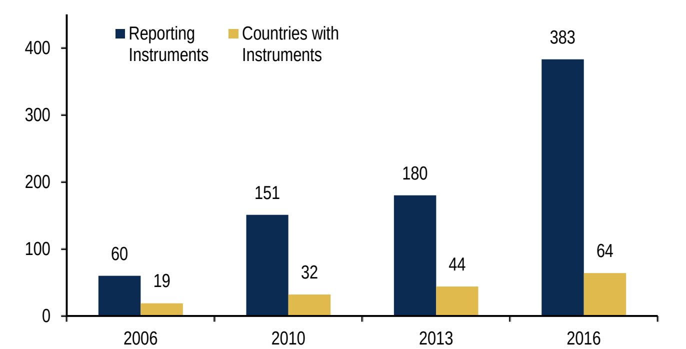
Overall ESG Rank (from worst to best)	Median change in EPS volatility over next 5 years (%)
1st to 20th percentile (worst)	92%
21st to 40th percentile	64%
41st to 60th percentile	65%
61st to 80th percentile	37%
81st to 100th percentile (best)	32%

Source: BofA Merrill Lynch US Equity & Quant Strategy based on Thomson Reuters data

ESG in the USA

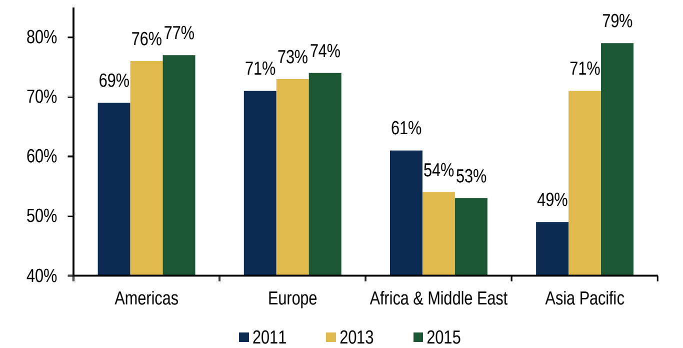
We believe we are in the early stages of ESG permeating the US investment management landscape. Our initial findings suggest that while US ESG asset growth is high, the percentage of assets managed using these criteria trails other developed regions, particularly Europe, whereas demand from US investors is increasing. Globally, the ESG theme has burgeoned. The number of sustainability reporting instruments[1] around the world has more than doubled in the past three years, while the number of countries with sustainability reporting instruments has increased by nearly 50% (Chart 22) [2]. The growth in corporates' sustainability reporting in the past few years, however, has been more pervasive in the emerging markets than in Europe or the US (Chart 23).

Chart 1: Number of sustainability reporting instruments around the world (2006-2016)



Source: Carrots and Sticks. (2016) KPMG, GRI, UNEP and Centre for Corporate Governance in Africa.

Chart 2: Rate of sustainability reporting among the 100 largest companies by country (2011-2015)



Source: Carrots and Sticks. (2016) KPMG, GRI, UNEP and Centre for Corporate Governance in Africa.

The Non-Financial Reporting Directive

6,000 companies in EU member states are expected to publish ESG disclosures in 2018.

This new directive is one of the most binding and far-reaching of the hundreds of new regulations that came into existence in the past few years. As of 1 January 2017, the EU mandated the disclosure of non-financial and diversity information through the Directive 2014/95/EU. Under the Directive, companies and groups (including US multinationals) with more than 500 employees must include a non-financial statement that covers environmental, social and employee matters, human rights, anti-corruption and bribery matters, as well as a diversity disclosure as part of the corporate governance statement.

[1] Defined in the Carrots and Sticks report as regulation and policy, self-regulation, guidance, guidelines and standards for sustainability reporting, and standards on sustainability assurance.

[2] Carrots and Sticks: Global trends in sustainability reporting regulation and policy. (2016) KPMG, GRI, UNEP and The Centre for Corporate Governance in Africa. https://assets.kpmg.com/content/dam/kpmg/pdf/2016/05/carrots-and-sticks-may-2016.pdf

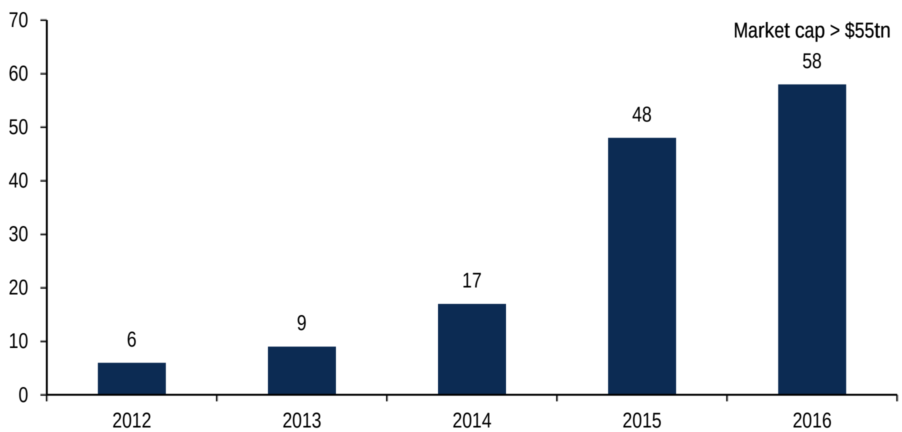
Around 6,000 companies in the EU member states are expected to publish their first sustainability reports in 2018 based on their FY 2017 financials.

Sustainability is hitting global stock exchanges

The UN's Sustainable Stock Exchange (SSE) Initiative's global partners include 15 stock exchanges that provide written guidance on ESG reporting and 12 that require companies to make ESG disclosures. Not one is in the United States.

Launched in 2009, the UN's Sustainable Stock Exchanges (SSE) Initiative works with stock exchanges globally to promote improved ESG reporting instruments. The SSE has expanded its footprint exponentially over the past few years, and as of August 2016, has partnered with 58 out of the 83 stock exchanges worldwide, where 41 of those partnerships were established within the last two years (Chart 24). Among those stock exchanges, 15 provide formal guidance to corporates and 12 require corporates to make ESG related disclosures in order to be listed on the exchanges. But developed markets trail the emerging markets, as just four out of the 12 exchanges that require companies to make ESG disclosures are based in developed markets, namely Canada, Germany, Hong Kong and Singapore. The United States is notably absent.

Chart 3: Number of stock exchanged partnered with SSE 2012-2016



Source: SSE Report on Progress (2016).
http://www.sseinitiative.org/wp-content/uploads/2012/03/SSE-Report-on-Progress-2016.pdf

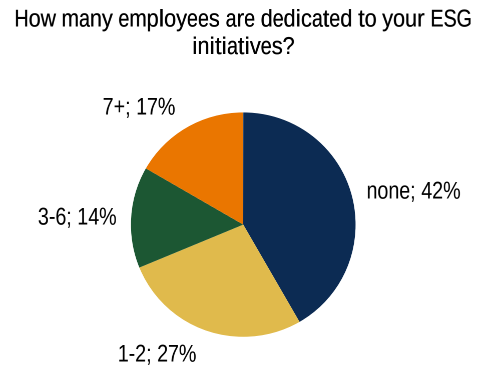
Corporate America may be behind the curve

Of those corporates included in BofAML's 2017 Investor Relations conference survey, 42% of the survey respondents indicated that they have zero resources dedicated to ESG initiatives, and state that they have no intentions to implement them in the future.

While investor relations representatives at BofAML's 2017 Investor Relations conference that responded to our survey noted that at least some of their shareholders are ESG-focused, just a small proportion (<15%) of the representatives included in the survey noted that the holdings of those investors made up more than 5% of their companies' market cap. On a weighted basis, companies responding to our survey are assuming that less than 5% of their shares outstanding are managed by ESG-aware investors, a gross underestimation relative to what was suggested in our 2017 institutional client survey (more details in next section). Close to half (42%) of the companies at BofAML's investor relationships conference that responded to our survey indicated they had no dedicated employees for the ESG initiatives, and only 17% of the survey respondents noted they had seven or more employees dedicated to their ESG initiatives. And a mere 4% of the IR professionals that responded to our survey currently incorporate ESG efforts at the leadership level of the firm.

Chart 4: 42% of the corporates have zero ESG resources

2017 March BofA Merrill Lynch Investor Relations conference poll



Source: Audience polling conducted during the BofAML IR Insights Conference on March 23, 2017. A total of 54 respondents

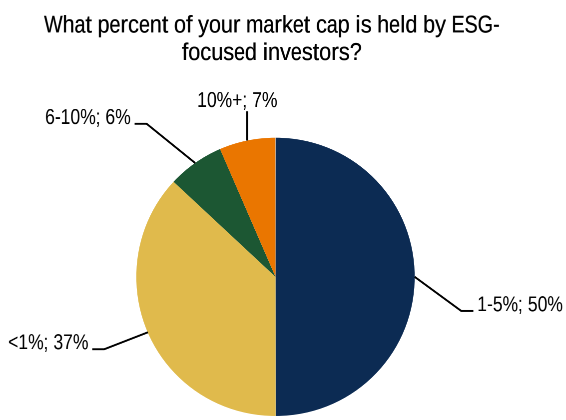
Chart 5: Corporate practices on ESG reporting

2017 March BofA Merrill Lynch Investor Relations conference poll

Source: Audience polling conducted during the BofAML IR Insights Conference on March 23, 2017. A total of 48 respondents

Chart 6: Majority assume <5% of float is held by ESG-aware investors

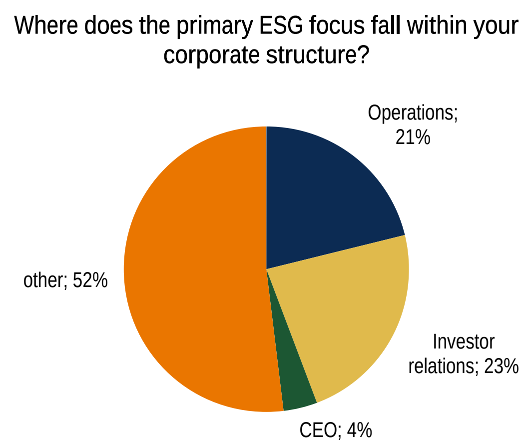
2017 March BofA Merrill Lynch Investor Relations conference poll



Source: Audience polling conducted during the BofAML IR Insights Conference on March 23, 2017. A total of 48 respondents

Chart 7: Only 4% of corporates incorporate ESG at the CEO level

2017 March BofA Merrill Lynch Investor Relations conference poll



Source: Audience polling conducted during the BofAML IR Insights Conference on March 23, 2017. A total of 48 respondents

US investors care more about ESG than companies think

66% of investors are worried about sustainability disclosures

In April 2016, the SEC issued a “Concept Release” to solicit feedback from investors on modernizing the financial disclosure requirements in Regulation S-K. According to SASB[3], the SEC had received 227 original letters as of July 25, 66% of which pertained to sustainability disclosures, while only 11 of 341 pages of the Concept Release discussed the subject. 85% of sustainability-related letters called for improved disclosure of sustainability issues in SEC filings.

A 2016 PwC report[4] also highlighted the gap between corporate and investor perceptions on ESG: 100% of corporates polled felt confident in the quality of ESG

[3] Investors Ask SEC for Better sustainability Disclosure. SASB. https://www.sasb.org/investors-sec-sustainability-disclosure/

[4] PwC, *ESG Pulse 2016*, October 2016. https://www.pwc.com/us/en/governance-insights-center/publications/esg-environmental-social-governance-reporting.html. Findings were based on a Spring 2016 survey of 28 institutional investors, pension funds and companies.

information they were reporting, while just 29% of investors polled were confident in the quality of ESG information they were receiving. Similarly, 60% of corporates but just 8% of investors polled thought that existing ESG disclosures allow for comparison across companies/peers.

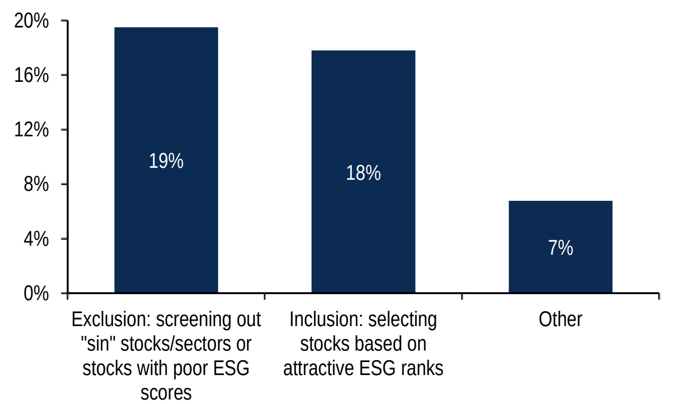
Institutional investors use ESG much more than companies think they do

Each year, we survey institutional investors to monitor which factors, characteristics, attributes and models they use in their stock selection processes. Our 2017 survey indicated that while use of ESG was still lower on the popularity spectrum relative to many more traditional factors we asked about, nearly 20% of respondents to our survey use ESG – making it more popular than a number of other factors included on our survey such as analyst price targets or tools such as web-scraping and machine-learning.

> One-fifth of investors in our May 2017 institutional factor survey use ESG in their processes, significantly higher than the 5% that US corporates estimated.

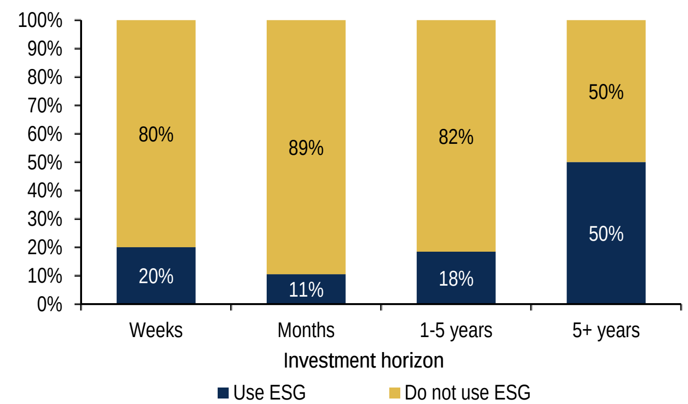
Of those using ESG factors, an equal proportion use inclusion (selecting stocks based on attractive ESG ranks) as those who use exclusion (screening out “sin” stocks/sectors or those with poor ESG scores) (Chart 29). And 7% indicated using more selective screening (ie, based on client demand/restrictions) or comprehensive use (using it to evaluate all key investments). ESG appeared to be more popular with US clients than global clients who responded to our survey. Also notable, 50% of respondents with long-term (5+ year) time horizons cited that they use ESG factors, vs just 11% with “months” as their time horizon (Chart 30).

Chart 8: For investors using ESG: how do you use ESG factors in your investment process? (Multiple answers allowed)



Source: 2017 Institutional Factor Survey, BofA Merrill Lynch US Equity & US Quant Strategy

Chart 9: Proportion of 2017 survey respondents using ESG factors, broken down by respondents’ investment time horizon



Source: 2017 Institutional Factor Survey, BofA Merrill Lynch US Equity & US Quant Strategy

Regulators also care about ESG

Requiring listed companies to make ESG disclosures is not an easy task because there is no standardized reporting framework. Currently, several frameworks are recognized and used internationally, including the Sustainability Accounting Standards Board (SASB), Global Reporting Initiative (GRI), the Integrated Reporting Framework, Climate Disclosure Standards Board (CDSB), United Nations Global Compact (UNGC) and CDP.[5] Each framework has a different focus that may be more relevant for some industries than others, and standardization of frameworks still remains a major headwind against enforcing ESG into companies’ reporting.

[5] Your Guide to ESG Reporting. (2017) London Stock Exchange Group.
http://www.lseg.com/sites/default/files/content/images/Green_Finance/ESG_Guidance_Report_LSEG.pdf

SASB pushing to integrate ESG into US companies' SEC filings

Incorporated in 2011, SASB is a US-based organization that develops and disseminates sustainability accounting standards. The key difference that sets SASB apart from other standard setting organizations is its focus on encouraging stock exchanges to require ESG integration into company filings. SASB standards are designed to be compatible with the SEC filings, including 10-K and 20-F, and to serve as a metric that investors can easily use to gauge the implications of sustainability issues on the companies' performance. Through their Materiality Map,[6] SASB identifies and ranks 30 sustainability issues that can have material impacts on the performance of companies in each industry. Provided that regulations require listed companies to make sustainability disclosures, SASB standards can help guide them to report on sustainability issues that are most relevant to what the investors are seeking in their quarterly and annual reports.

Index providers care about ESG

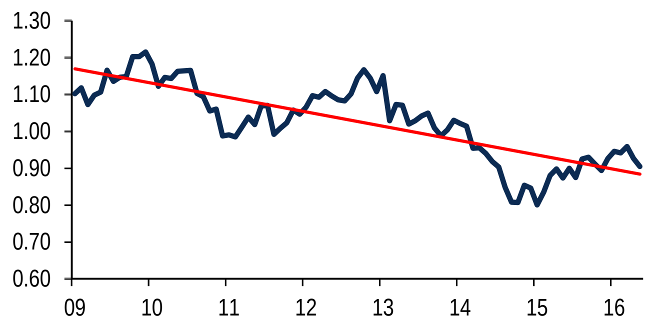
For the first time ever, the FTSE Russell decided to exclude zero voting rights stocks in this year's Russell US indices reconstitution process. That serves as a reminder to the corporates and investors that poor governance, among other ESG factors, can have real investment consequences.

Ultimately, the market cares about ESG

Given a growing awareness of shareholder rights, and given FTSE Russell's recent focus on voting rights, we noticed that stocks that offer zero voting rights to shareholders with no alternative multiple share classes have generally de-rated over time relative to the S&P 500 (Chart 31 and Chart 32).

Ignoring shareholders has been penalized: stocks with zero voting rights have undergone multiple compression relative to the market.

Chart 10: De-rating of zero voting rights stocks: forward P/E vs S&P 500



Source: BofA Merrill Lynch US Equity & US Quant Strategy

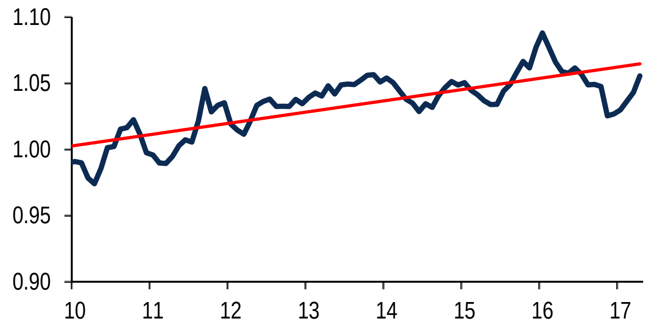
Chart 11: De-rating of zero voting rights stocks: P/B vs S&P 500

Source: BofA Merrill Lynch US Equity & US Quant Strategy

Shareholder fealty has been rewarded: Two things shareholders dislike are dividend cuts and dilutive capital raises. And these two factors similarly have mattered for valuations. Companies with no dividend cuts and no equity capital raises had multiples expand over time relative to the market.

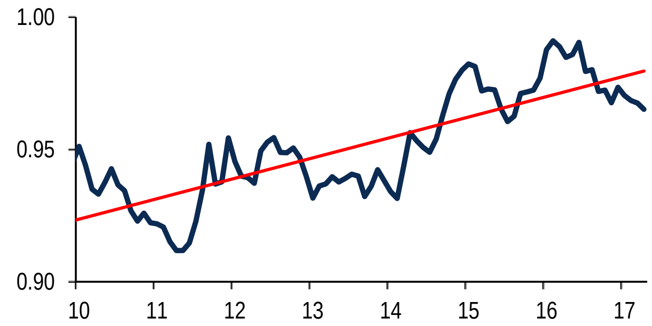
[6] SASB Materiality Map. SASB. https://www.sasb.org/materiality/sasb-materiality-map/

Chart 12: Companies with no dividend cuts since '86 forward P/E vs S&P 500



Source: BofA Merrill Lynch Global Research

Chart 13: Companies with no add'l capital raise since '86 forward P/E vs S&P 500

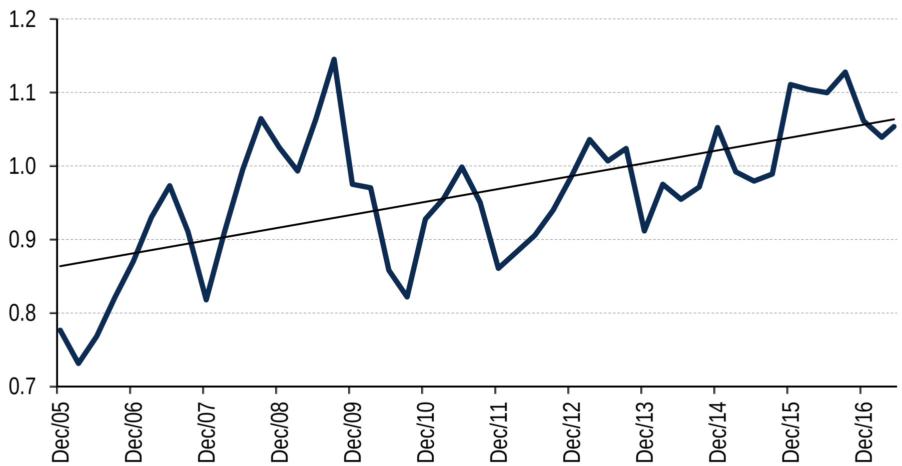


Source: BofA Merrill Lynch Global Research

And "good' companies have had multiple expansion

A general re-rating of companies based on ESG scores has been in the works. The relative Enterprise Value/EBITDA ratio for companies within the highest decile by overall ESG score (based on current scores) has been increasing relative to that of the bottom decile by current ESG scores.

Chart 14: Median EV/EBITDA: of high vs low ESG deciles based on current overall ESG scores 4Q05-present (as of 5/24/17)

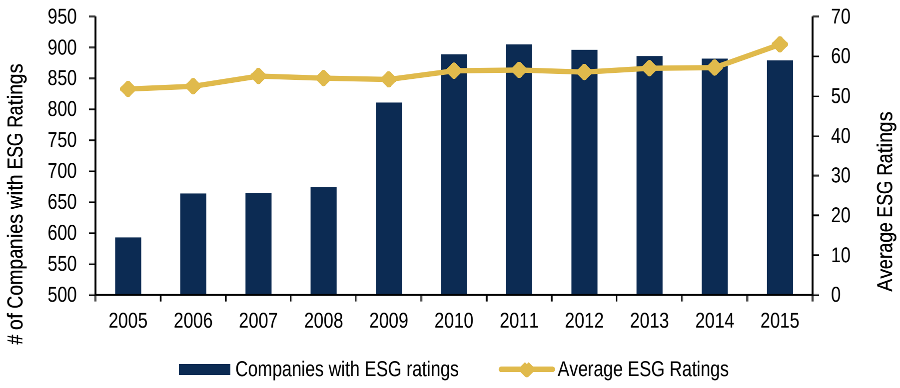


Note: based on deciles of the current BofAML US coverage universe for which Thomson Reuters ESG data are available
Source: BofA Merrill Lynch US Equity & US Quant Strategy based on Thomson Reuters data, FactSet

Methodology

In the report we used data provided by Thomson Reuters as applied to the BofA Merrill Lynch US Research coverage universe, spanning the period from 2002 to 2015. Given the relative sparseness of data prior to 2005, we restricted most analyses to the period spanning 2005 to today.

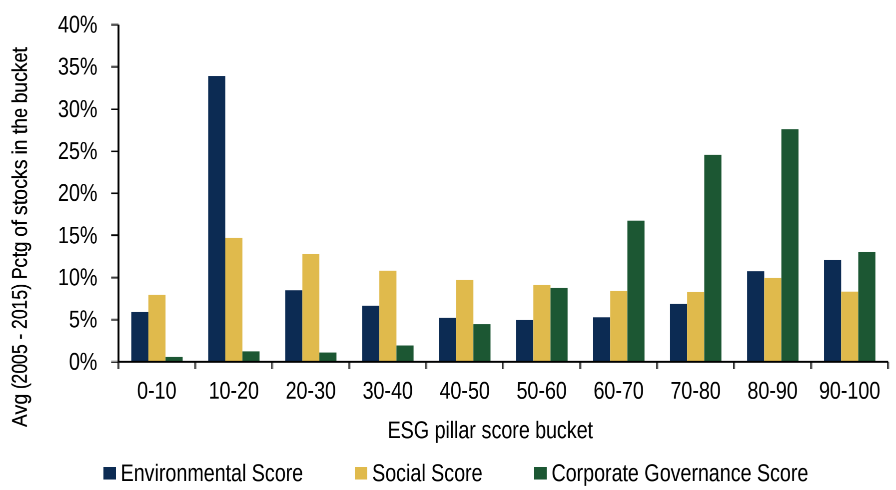
Chart 15: Companies in Thomson Reuters and BofA Merrill Lynch US Research coverage universe



Source: BofA Merrill Lynch US Equity & Quant Strategy based on Thomson Reuters data

We observed the dataset had an irregular distribution of ranks, which may have contributed to the lack of consistent monotonic results for some factors, as shown in the chart below.

Chart 16: Distribution of ESG ratings (2005-2015)



Source: Thomson Reuters

The Thomson dataset is broken into four broad categories or pillars: Corporate Governance, Economic, Environmental and Social (Table 6). Note that we excluded the Economic pillar from this analysis, as our focus was on non-economic measures of corporate health. For more on Thomson's ESG rating methodology, please see "Thomson Reuters Corporate Responsibility Ratings (TRCRR): Ranking Rules and Methodologies" (http://financial.thomsonreuters.com/content/dam/openweb/documents/pdf/tr-com-financial/methodology/corporate-responsibility-ratings.pdf).

Below we provide the breakdown of ESG pillars and factors provided by Thomson Reuters.

Table 5: Thomson-Reuters ESG Factors Pillars

Pillar	Definition
Environmental	The environmental pillar measures a company's impact on living and non-living natural systems, including the air, land and water, as well as complete ecosystems. It reflects how well a company uses best management practices to avoid environmental risks and capitalize on environmental opportunities in order to generate long term shareholder value.
Social	The social pillar measures a company's capacity to generate trust and loyalty with its workforce, customers and society, through its use of best management practices. It is a reflection of the company's reputation and the health of its license to operate, which are key factors in determining its ability to generate long term shareholder value.
Corporate Governance	The corporate governance pillar measures a company's systems and processes, which ensure that its board members and executives act in the best interests of its long term shareholders. It reflects a company's capacity, through its use of best management practices, to direct and control its rights and responsibilities through the creation of incentives, as well as checks and balances in order to generate long term shareholder value.

Source: Thomson Reuters

Each pillar relies on underlying factors (Table 7).

Table 6: Thomson-Reuters ESG Factors Hierarchy

ESG Factor	Pillar	Definition	Hierarchy Level
Environmental Score	Environmental	The environmental pillar measures a company's impact on living and non-living natural systems, including the air, land and water, as well as complete ecosystems. It reflects how well a company uses best management practices to avoid environmental risks and capitalize on environmental opportunities in order to generate long term shareholder value.	1
Emission Reduction	Environmental	The emission reduction category measures a company's management commitment and effectiveness toward reducing environmental emission in the production and operational processes. It reflects a company's capacity to reduce air emissions (greenhouse gases, F-gases, ozone-depleting substances, NOx and SOx, etc), waste, hazardous waste, water discharges, spills or its impacts on biodiversity and to partner with environmental organizations to reduce the environmental impact of the company in the local or broader community.	2
Product Innovation	Environmental	The product innovation category measures a company's management commitment and effectiveness toward supporting the research and development of eco-efficient products or services. It reflects a company's capacity to reduce the environmental costs and burdens for its customers, and thereby creating new market opportunities through new environmental technologies and processes or eco-designed, dematerialized products with extended durability.	2
Resource Reduction	Environmental	The resource reduction category measures a company's management commitment and effectiveness toward achieving an efficient use of natural resources in the production process. It reflects a company's capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.	2
Social Score	Social	The social pillar measures a company's capacity to generate trust and loyalty with its workforce, customers and society, through its use of best management practices. It is a reflection of the company's reputation and the health of its license to operate, which are key factors in determining its ability to generate long term shareholder value.	1
Customer /Product Responsibility	Social	The customer/product responsibility category measures a company's management commitment and effectiveness toward creating value-added products and services upholding the customer's security. It reflects a company's capacity to maintain its license to operate by producing quality goods and services integrating the customer's health and safety, and preserving its integrity and privacy also through accurate product information and labelling.	2
Society /Community	Social	The society/community category measures a company's management commitment and effectiveness toward maintaining the company's reputation within the general community (local, national and global). It reflects a company's capacity to maintain its license to operate by being a good citizen (donations of cash, goods or staff time, etc), protecting public health (avoidance of industrial accidents, etc) and respecting business ethics (avoiding bribery and corruption, etc).	2
Society /Human Rights	Social	The society/human rights category measures a company's management commitment and effectiveness toward respecting the fundamental human rights conventions. It reflects a company's capacity to maintain its license to operate by guaranteeing the freedom of association and excluding child, forced or compulsory labor.	2
Workforce /Diversity and Opportunity	Social	The workforce/diversity and opportunity category measures a company's management commitment and effectiveness toward maintaining diversity and equal opportunities in its workforce. It reflects a company's capacity to increase its workforce loyalty and productivity by promoting an effective life-work balance, a family friendly environment and equal opportunities regardless of gender, age, ethnicity, religion or sexual orientation.	2

Table 6: Thomson-Reuters ESG Factors Hierarchy

ESG Factor	Pillar	Definition	Hierarchy Level
Workforce /Employment Quality	Social	The workforce/employment quality category measures a company's management commitment and effectiveness toward providing high-quality employment benefits and job conditions. It reflects a company's capacity to increase its workforce loyalty and productivity by distributing rewarding and fair employment benefits, and by focusing on long-term employment growth and stability by promoting from within, avoiding lay-offs and maintaining relations with trade unions.	2
Workforce /Health & Safety	Social	The workforce/health & safety category measures a company's management commitment and effectiveness toward providing a healthy and safe workplace. It reflects a company's capacity to increase its workforce loyalty and productivity by integrating into its day-to-day operations a concern for the physical and mental health, well-being and stress level of all employees.	2
Workforce /Training and Development	Social	The workforce/training and development category measures a company's management commitment and effectiveness toward providing training and development (education) for its workforce. It reflects a company's capacity to increase its intellectual capital, workforce loyalty and productivity by developing the workforce's skills, competences, employability and careers in an entrepreneurial environment.	2
Corporate Governance Score	Corporate Governance	The corporate governance pillar measures a company's systems and processes, which ensure that its board members and executives act in the best interests of its long term shareholders. It reflects a company's capacity, through its use of best management practices, to direct and control its rights and responsibilities through the creation of incentives, as well as checks and balances in order to generate long term shareholder value.	1
Board of Directors/Board Functions	Corporate Governance	The board of directors/board functions category measures a company's management commitment and effectiveness toward following best practice corporate governance principles related to board activities and functions. It reflects a company's capacity to have an effective board by setting up the essential board committees with allocated tasks and responsibilities.	2
Board of Directors/Board Structure	Corporate Governance	The board of directors/board structure category measures a company's management commitment and effectiveness toward following best practice corporate governance principles related to a well-balanced membership of the board. It reflects a company's capacity to ensure a critical exchange of ideas and an independent decision-making process through an experienced, diverse and independent board.	2
Board of Directors/Compensation Policy	Corporate Governance	The board of directors/compensation policy category measures a company's management commitment and effectiveness toward following best practice corporate governance principles related to competitive and proportionate management compensation. It reflects a company's capacity to attract and retain executives and board members with the necessary skills by linking their compensation to individual or company-wide financial or extra-financial targets.	2
Integration/Vision and Strategy	Corporate Governance	The integration/vision and strategy category measures a company's management commitment and effectiveness toward the creation of an overarching vision and strategy integrating financial and extra-financial aspects. It reflects a company's capacity to convincingly show and communicate that it integrates the economic (financial), social and environmental dimensions into its day-to-day decision-making processes.	2
Shareholders /Shareholder Rights	Corporate Governance	The shareholders/shareholder rights category measures a company's management commitment and effectiveness toward following best practice corporate governance principles related to a shareholder policy and equal treatment of shareholders. It reflects a company's capacity to be attractive to minority shareholders by ensuring them equal rights and privileges and by limiting the use of anti-takeover devices.	2

Source: Thomson Reuters

The universe

The universe of companies used in the study consists of the BofAML US coverage universe each year for which Thomson Reuters ESG data is available.

Universe attributes

Table 7: Factor median by quintiles of ESG overall scores

Factor	Q1*	Q2	Q3	Q4	Q5
Market Cap ($mn)	26,802	9,927	6,491	3,638	3,192
Adjusted Beta vs S&P 500	1.05	1.09	1.02	1.04	0.95
Long Term Growth Rate	9%	9%	8%	8%	6%
Quality	B+	B	B	B-	C
Dividend Yield	2%	2%	1%	1%	0%
Debt to Equity	0.75	0.73	0.60	0.49	0.75
Foreign Exposure	43%	21%	8%	0%	0%
Institutional Ownership	80%	89%	88%	91%	86%
Analyst Coverage	20	18	16	11	12

*Q1 includes stocks with highest overall scores; Q5 includes stocks with lowest overall scores
Source: BofA Merrill Lynch US Equity & Quant Strategy based on Thomson Reuters data

Calculation methodology

EV/EBITDA: Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA) is calculated as [Operating Income plus depreciation & amortization expense minus most recently reported earnings]. Enterprise Value is calculated as [Equity Market Capitalization plus Long Term Debt plus Short Term Debt plus Preferred Stock plus non-controlling Interest minus Cash & Cash Equivalents].

Forward one-year, three-year and five-year performance is calculated as price return of stocks in the subsequent year(s); not annualized.

Forward three-year EPS volatility is calculated as a standard deviation of 12-month EPS in the next 12 quarters and measures the earnings volatility of a company over the next three years.

Forward one-year ROE is calculated as the net income divided by average equity in the subsequent year.

Outliers for ROE have been excluded using the interquartile method, with the top cutoff at 3x the interquartile range (IQR) above the low end of the fourth quartile and bottom cutoff at 3*IQR below the high end of the first quartile.

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