

ESG INVESTING

ESG ISSUES

CONSCIOUS ESG ISSUES vs SUBCONSCIOUS ESG ISSUES

Conscious environmental issues

Environmental
Climate change
Renewable energy
Air pollution
Water security
Deforestation
Waste

=

Subconscious environmental issues

Environmental
Energy security
Energy mix
Auto electrification
Water technologies
Food production
Automation

CONSCIOUS ESG ISSUES vs SUBCONSCIOUS ESG ISSUES

Conscious social issues

Social
Human rights
Child labour
Poverty & starvation
Employee relations
Privacy
Inequality

=

Subconscious social issues

Social
Social unrest
Supply chain disruption
Health & well-being
Workforce strikes
Cybersecurity
Minimum wage

CONSCIOUS ESG ISSUES vs SUBCONSCIOUS ESG ISSUES

Conscious governance issues

Governance
Accounting fraud
Executive pay
Succession planning
Board composition
Corruption & instability
Rule of law

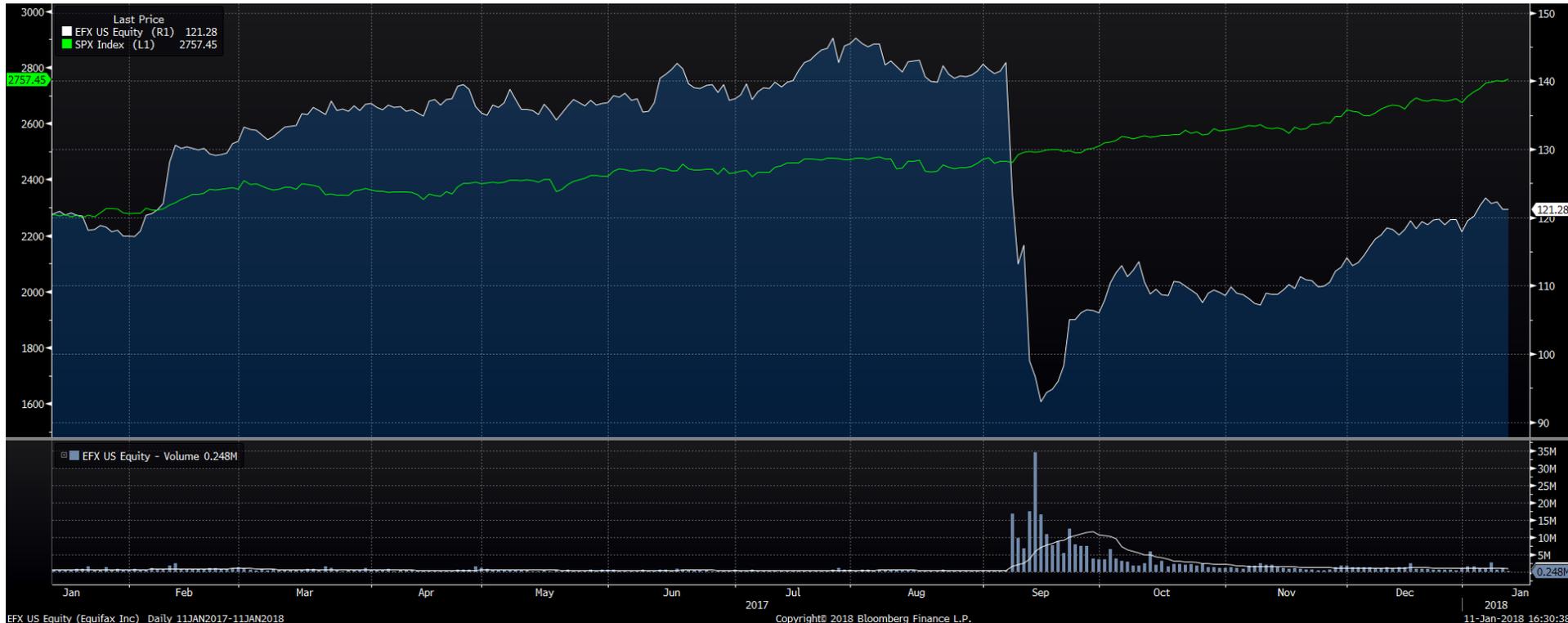
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Subconscious governance issues

Governance
Accounting fraud
Executive pay
Succession planning
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Rule of law

INVESTMENT RISK – DATA & PRIVACY PROTECTION / CYBERSECURITY

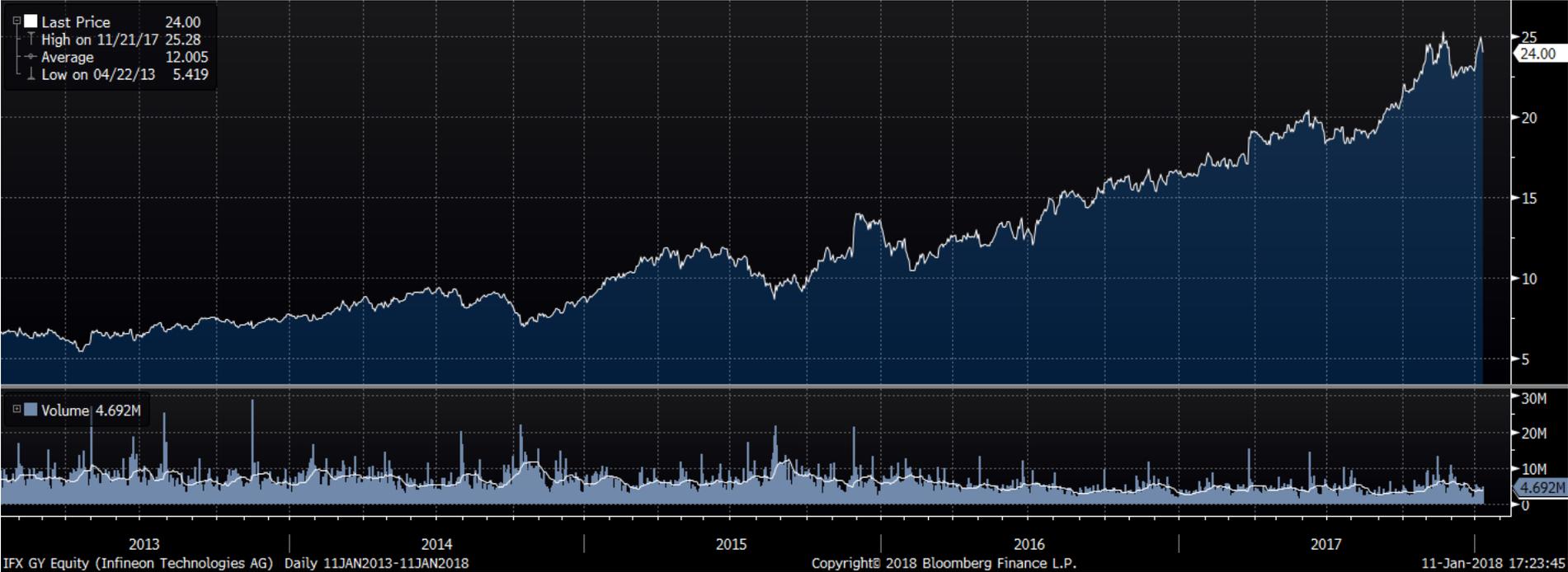
Equifax: share price



Equifax share price and volume data from 2017 to 2018, Bloomberg, 11 January 2018

INVESTMENT OPPORTUNITY – AIR POLLUTION / AUTO ELECTRIFICATION

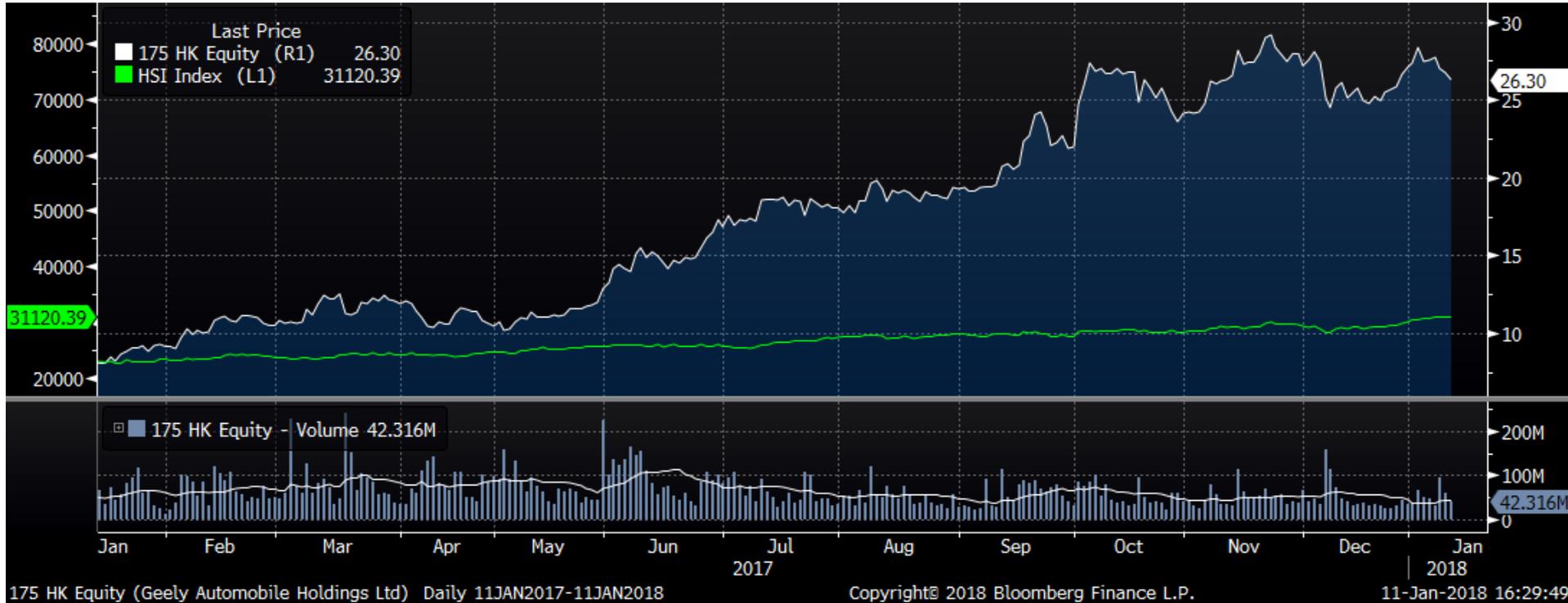
Infineon Technologies AG: share price



Infineon Technologies AG share price and volume data from 2012 to 2018, Bloomberg, 11 January 2018

INVESTMENT OPPORTUNITY – AIR POLLUTION / AUTO ELECTRIFICATION

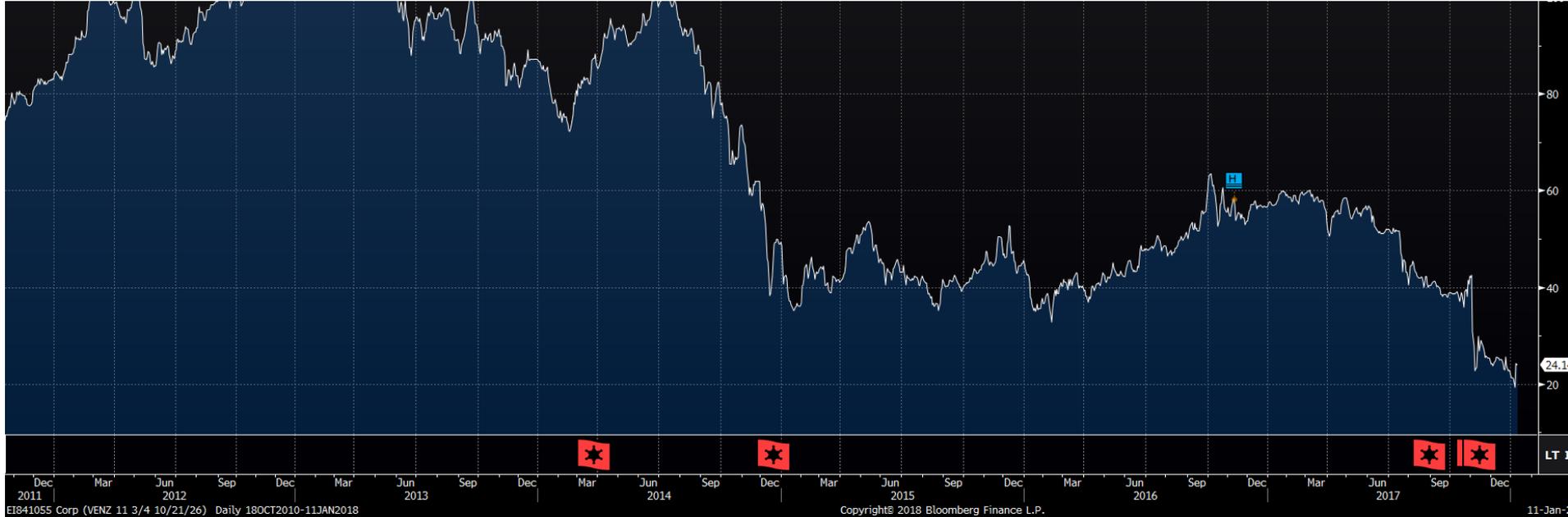
Geely Automobile Holdings Ltd: share price



Geely Automobile Holdings Ltd share price and volume data from 2017 to 2018, Bloomberg, 11 January 2018

INVESTMENT RISK – HUMAN RIGHTS / SOCIAL UNREST & RULE OF LAW

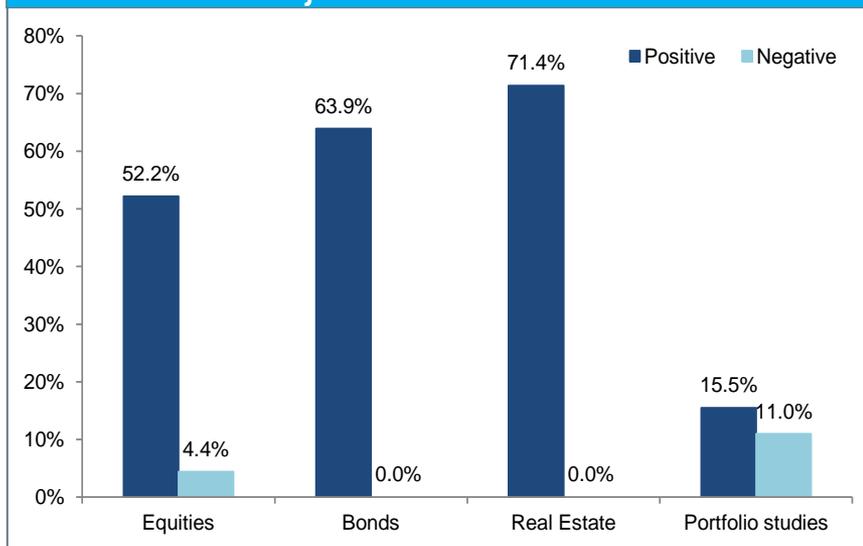
Venezuelan 10yr government bond: bond price



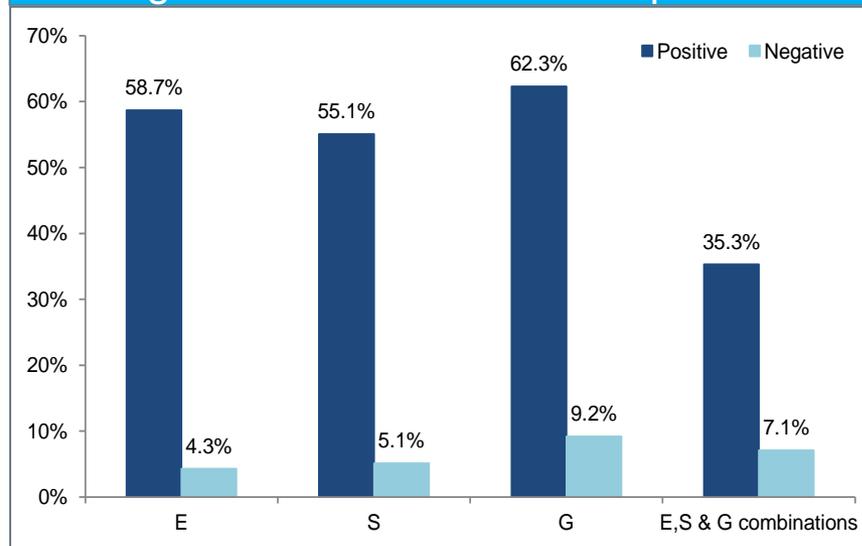
Venezuelan 10yr government bond price data from 2010 to 2018, Bloomberg, 11 January 2018

THE ESG-CFP LINK BY ASSET CLASS AND E,S,G & ESG

Tracking the ESG and CFP Link across major asset classes



Environmental, Social and Governance Categories and their relationship to CFP



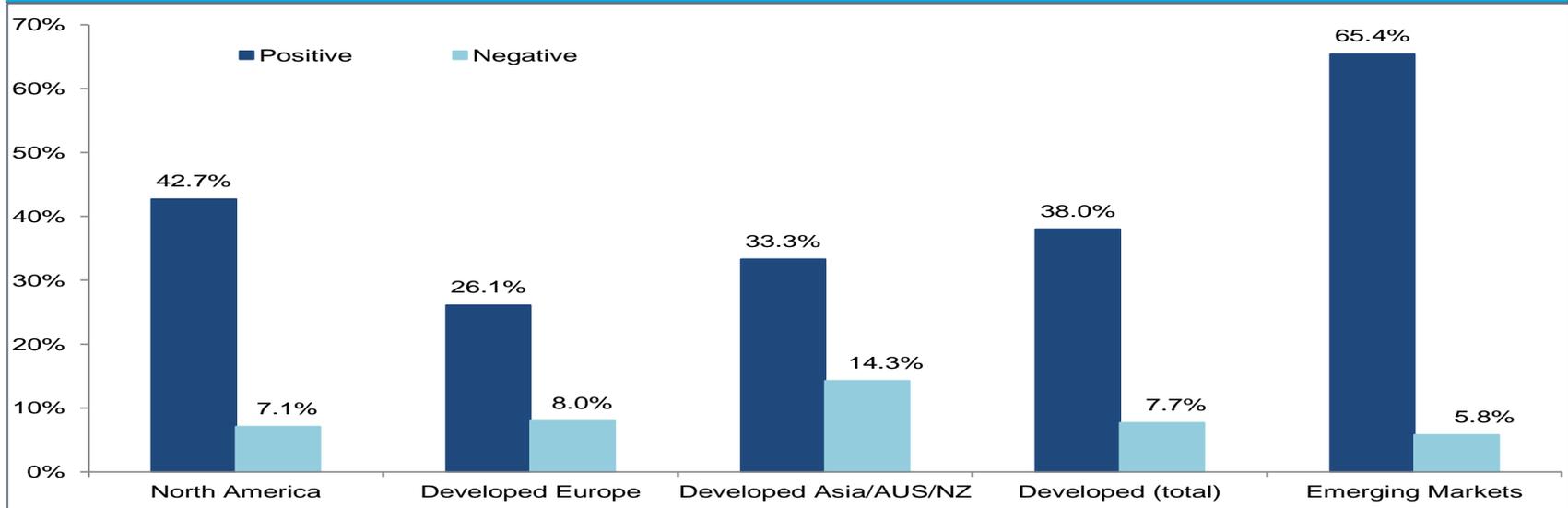
Summary

- There was a disproportionate positive response to integrating ESG criteria in non-equity classes and specifically fixed income and real estate.
- There was relatively similar results for E, S and G. However, the highest proportion of positive results occurs in G.

Friede, Busch and Bassen, "ESG & Corporate Financial Performance: Mapping the global landscape", Deutsche Asset & Wealth Management & University of Hamburg, December 2015

THE ESG-CFP LINK BY REGION

Tracking the ESG and CFP Link by regions



Summary

- There were two main patterns:
 - First, developed markets ex-North America exhibited a smaller share of positive returns;
 - Second, the existence of a strong correlation between ESG and CFP in the group of emerging market studies.

Friede, Busch and Bassen, "ESG & Corporate Financial Performance: Mapping the global landscape", Deutsche Asset & Wealth Management & University of Hamburg, December 2015

PRACTITIONERS' RESEARCH - EQUITIES

ESG integration is an indicator of future risk / volatility and bankruptcy

July 2014

ESG in US stocks

“Higher return companies in aggregate had better ESG ratings.”

“There was a strong negative correlation between ESG ratings and stock volatility, and this relationship was stronger when market volatility was higher.”

“The correlation between ESG rating and risk-adjusted return turned significantly positive in the recent years and this positive correlation strengthens further by excluding the lowest ESG stocks.”

I De and M Clayman,
“The Benefits of Socially Responsible Investing: An Active Manager's Perspective”,
New Amsterdam Partners, July 2014.

April 2016

ESG in global equity portfolios

“Portfolios comprising stocks with high ESG score levels underperformed their lower-scoring counterparts in the majority of cases.”

“Return differences between stocks with strong ESG momentum and those with weak momentum were largest among stocks that scored medium in terms of ESG levels, suggesting that stock selection benefits from joint consideration of levels and changes in ESG scores.”

“Excluding firms with controversial behaviour from the universe has helped improve performance in the research period past years.”

J Bos,
“The materiality of ESG factors for equity investment decisions: academic evidence”,
NN Investment Partners and Maastricht University, April 2016.

December 2016

ESG in US stocks

“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.”

“Large companies within the highest quartile of the ESG framework tended to have consistently lower future price volatility than poorly ranked companies.”

“ESG scores have been strongly correlated with companies' future earnings volatility, both at a market level and within sectors.”

S Subramanian, D Suzuki, A Makedon, J C Hall, Marc Pouey and J Bonilla,
“Equity strategy focus point: ESG: good companies can make good stocks”,
Bank of America Merrill Lynch, December 2016.

January 2017

ESG in emerging markets

“When adjusted for country/sector effects, high absolute levels as well as positive changes in ESG ratings can lead to positive relative performance in emerging markets. Positive returns to absolute ESG scores is in contrast to the experience in developed markets.”

“The exclusion of firms that have exhibited significant controversial behavior may have led to improved portfolio performance over the research period”.

J Bos,
“The materiality of ESG factors for emerging markets equity investment decisions: academic evidence”,
NN Investment Partners and Maastricht University, January 2017.

February 2017

ESG and US, World ex US and emerging markets

“Stocks with worst ESG exposures have total and stock-specific volatility that is up to 10-15% higher, and betas up to 3% higher, than stocks with the best ESG exposures.”

“This pattern is not only robust to a variety of controls, but is also clear over time and within various investment universes, for example in US equities, in developed markets outside of the US, and in emerging markets.”

J Dunn, S Fitzgibbons and L Pomorski,
“Assessing Risk Through Environmental, Social and Governance Exposures”,
AQR Capital Management, February 2017.

PRACTITIONERS' RESEARCH – FIXED INCOME

ESG integration does not come at a cost; inverse translation between ESG scores and credit spreads

April 2016

ESG in US investment-grade corporates

“We found significant quantitative evidence that ESG scores are positively correlated with small, stable spreads in corporate debt markets. This relationship also applies to other financial metrics such as ROA and leverage ratios.”

“Furthermore, these relationships appear to strengthen during periods of market turmoil, and persist throughout market recoveries.”

R Clubb, Y Takahashi and P Tiburzio,
“Evaluating the Relationship between ESG and corporate fixed income”,
Breckinridge Capital Advisors and MIT Sloan School of Management, April 2016.

October 2016

ESG in US investment-grade corporates

“The findings show that a positive ESG tilt resulted in a small but steady performance advantage.”

“No evidence of a negative performance impact was found.”

“ESG attributes did not significantly affect the price of corporate bonds. No evidence was found that the performance advantage was due to a change in relative valuation over the study period.”

A Desclee, J Hyman, L Dynkin and S Polbennikov,
“Sustainable investing and bond returns Research study into the impact of ESG on credit portfolio performance”,
Barclays Research, October 2016.

April 2017

ESG in North American and European corporates

“Companies with the lowest QESG Scores tend to have the widest CDS spreads and broadest distributions of average annual CDS spreads.”

“Conversely, issuers with the highest QESG Scores tend to have the lowest CDS spreads and the narrowest distribution of spreads, which should result in a more stable return profile”

M Reznick and M Viehs,
“Pricing ESG risks in Credit Markets”,
Hermes Investment Management, April 2017.

July 2017

ESG in sovereigns

“Our empirical findings further show that there exists an inverse relationship between countries' ESG risk scores and their credit default swap (CDS) / bond spreads. This relationship seems to be of non-linear nature.”

“We also find that developed and emerging country issuers with better ESG scores benefit from lower borrowing costs.”

S Horter,
“Financial materiality of ESG risk factors for sovereign bond portfolios”,
Allianz Global Investors, July 2017.

ESG PRACTICES

APPROACHES TO RESPONSIBLE INVESTMENT

ESG INCORPORATION



ESG INTEGRATION

The process of integrating ESG issues and information into investment analysis:

ENVIRONMENTAL – e.g. chemical pollution, water management, greenhouse gas emissions, renewable energy etc.

SOCIAL – e.g. labour standards, freedom of association, controversial business practices, talent management etc.

GOVERNANCE – e.g. corporate governance issues, bribery, corruption, lobbying activity etc.



ESG SCREENING

The process of excluding or seeking exposure to securities based on investor values or other criteria:

EXCLUSIONARY (NEGATIVE)

BEST IN CLASS (POSITIVE)

NORMS-BASED



ACTIVE OWNERSHIP

Interactions between the investor and current or potential investees:

VOTING
(e.g. AGM, EGM or special meeting)

SHAREHOLDER ENGAGEMENT
(e.g. Shareholder resolutions, calling an EGM, complaint to regulator)

OTHER ENGAGEMENT
(Other engagements on ESG issues: proactive, reactive and ongoing)

THREE MAIN TYPES OF SCREENING

- **Exclusionary (negative) screening:**
 - Excludes sectors and companies, based on:
 - Absolute rules;
 - Relative rules;
 - Reduces the investible universe.
- **Inclusionary (positive) screening & best-in-class screening:**
 - Actively includes companies that meet an ESG standard;
 - Reduces the investible universe but all sectors are investible.
- **Norms-based screening:**
 - Screening of investments against minimum standards of business practice based on international norms;
 - Reduces the investible universe but all sectors are investible.

ESG INTEGRATION

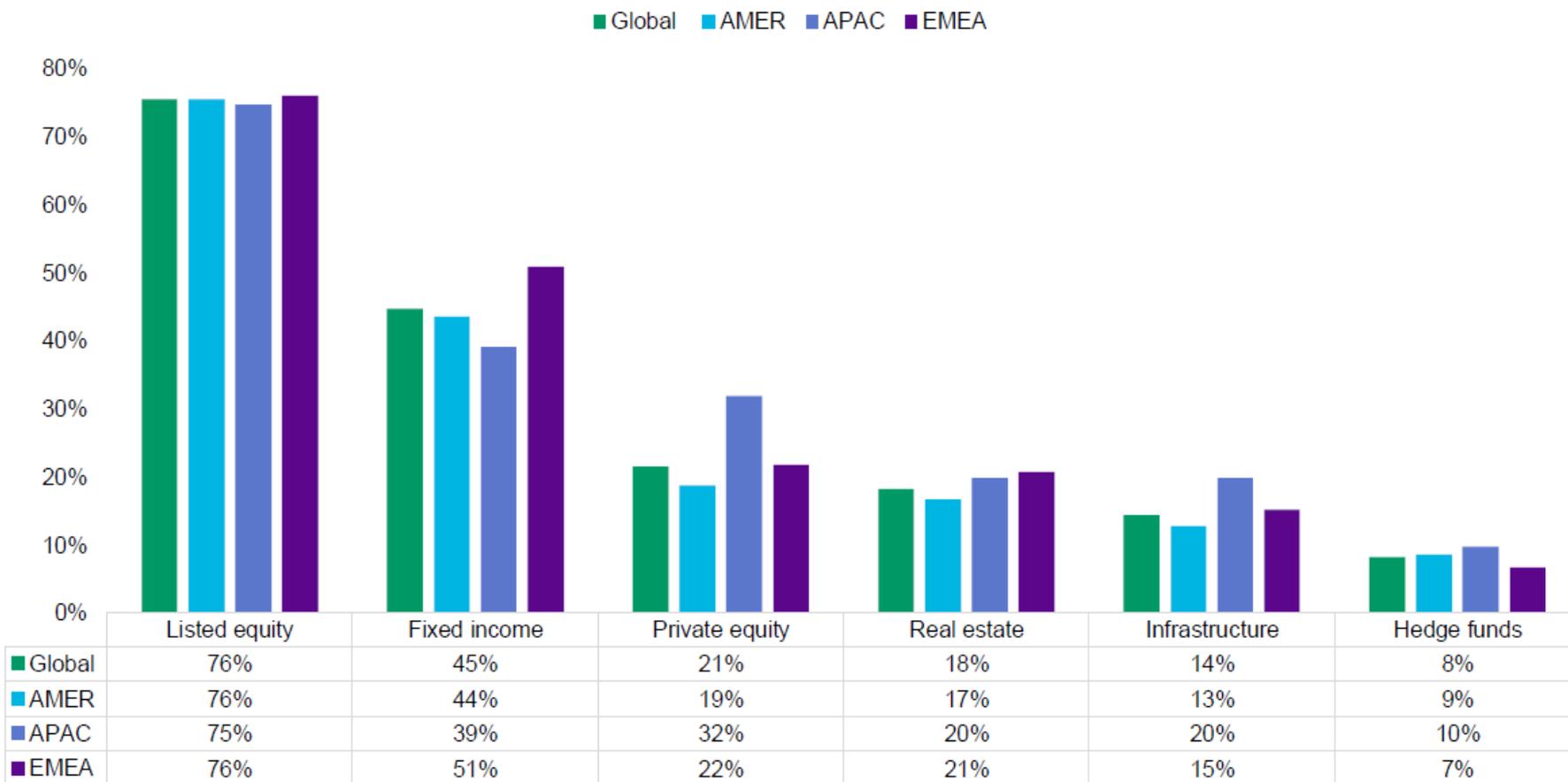
- **Definition of ESG integration:**
 - “The systematic and explicit inclusion of ESG factors into investment analysis and investment decisions”.

- **What does that mean?** It means that leading practitioners are:
 - analysing financial information and ESG information;
 - identifying material financial factors and ESG factors;
 - assessing the potential impact of material financial factors and ESG factors; and
 - making an investment decision that includes considerations for all material factors, including ESG factors.

ESG INTEGRATION

- **What does it not mean?** It does not mean that:
 - certain sectors, countries and companies are prohibited from investing;
 - traditional financial factors are ignored;
 - every ESG issue for every company/issuer has to be assessed and valued;
 - every investment decision is impacted by ESG issues;
 - major changes to your investment process are necessary; and
 - portfolio returns are sacrificed to perform ESG integration techniques.

FOR WHAT ASSET CLASSES DO YOU INTEGRATE ESG ANALYSIS?



N=1,107

“Environment, Social, and Governance (ESG) Survey”, CFA Institute, July 2017:
https://www.cfainstitute.org/learning/future/Documents/ESG_Survey_Report_July_2017.pdf