

July 28, 2020

Office of Information and Regulatory Affairs

Office of Management and Budget

Room 10235, New Executive Office Building

Washington, D.C. 20503

Attention: Desk Officer for the Employee Benefits Security Administration

Dear Sir or Madam,

On behalf of Impax Asset Management LLC, a specialist asset manager focused on the investment opportunities arising from the transition to a more sustainable economy, and investment adviser to Pax World Funds, we welcome the opportunity to comment on the Department of Labor Employee Benefits Security Administration's proposed rule on Financial Factors in Selecting Plan Investments, 29 CFR Part 2550, RIN 1210-AB95.

Overall, we find the proposed rule to be based on thin and misleading evidence supporting its assumptions, and utterly lacking in a defensible cost/benefit analysis. The proposal also appears to be based on the assumption that funds incorporating ESG factors rely *solely* on ESG factors to construct investment portfolios, without any regard to financial performance, which is not only untrue but seemingly oblivious to a wide body of credible research underscoring the materiality of ESG factors — both to company performance and investment portfolio performance.

The proposal, in our view, is significantly flawed and should not be adopted.

Inappropriate assumptions, inadequate data

Alleged underperformance of ESG funds

Throughout the proposed rule, there is a presumption that ESG funds commonly select portfolio constituents based on what the rule calls “non-pecuniary” factors, without regard to risk and return. We are actually not aware of *any* ESG funds that select portfolio constituents without regard to financial performance, or risk and return. The [prospectus](#) for Pax World Funds, for example, states that the funds' investment objective is “to seek long-term growth of capital,” and the principal investment strategy is “combining rigorous financial analysis with equally rigorous environmental, social and governance (ESG) analysis in order to identify investments.”¹ Most ESG funds that we are aware of have similar investment objectives. For example, Nuveen describes the investment objective of its TIAA-CREF Social Choice Equity Fund as seeking “favorable long-term total return that reflects the investment performance of the overall U.S. stock market while giving special consideration to certain environmental, social and

¹ Pax World Funds, “Prospectus,” May 1, 2020. https://impaxam.com/assets/pdfs/general-documents/pax_world_prospectus.pdf?pwmm=1189

governance (ESG) criteria.”² The investment objective of Putnam’s Sustainable Leaders Funds is, “seeks long-term capital appreciation.”³ PIMCO states that the investment objective of its Total Return ESG Fund is “maximum total return, consistent with preservation of capital and prudent investment management.”⁴ These are just a few examples, but they are typical of the investment objectives of ESG funds, and none of them promote the incorporation of ESG factors to the exclusion, or even diminution, of financial factors.

The real point, though, is not the strawman the proposed rule erects to describe “non-pecuniary” ESG funds. The proposal cites almost no evidence regarding the actual performance of funds that incorporate ESG factors, and the few citations it does include are either misleading or entirely miss the point. For example, the proposed rule notes on page 9 that “ESG funds often come with higher fees,” and cites a report⁵ that compares 18 ESG funds’ performance and fees with one single S&P 500 Index fund. There is no explanation as to how these 18 funds are cherry-picked, other than having 10-year track records, when there are actually more than 100 ESG funds with track records of 10 years or more listed in Morningstar. Moreover, of the 18 selected, only five are domestic large-cap funds that might fairly be compared with the S&P 500; 10 are sector-specific funds, two invest in non-U.S. equities, and one is a U.S. mid-cap fund. Suffice it to say, a misleading comparison.

In fact, looking at domestic large-cap funds for which the S&P 500 is an appropriate comparison, the Morningstar database contains 19 large-cap blend ESG funds with 10-year track records, two of which beat the S&P 500 net of fees — essentially the same rate by which conventional funds beat the S&P 500. The S&P 500’s rank, in Morningstar, is 9, which means that it outperformed 91% of *all* large cap blend funds.⁶ ESG funds are no more likely to underperform this index than are non-ESG funds, which makes it inappropriate, and indeed inexplicable, to single out ESG funds for the additional scrutiny proposed by the rule.

As the DOL well knows, if an S&P 500 Index fund were the single standard of comparison for fees and performance, it would arguably be incompatible with fiduciary duty for any fund in any ERISA program to include international funds or small-cap funds, or indeed any actively managed funds in any asset class, as all tend to have higher fees than domestic large-cap index funds. In fact, as the rule points out in several places, fiduciaries must construct retirement platforms with attention to overall diversification. Ruling out *any* asset class, investment strategy or approach only because fees might

² Nuveen, “TIAA-CREF Social Choice Equity Fund,” prospectus, March 1, 2020.

<http://connect.rightprospectus.com/TIAA/TADF/87244W300/SP>

³ Putnam Investments, “Putnam Sustainable Leaders Fund Summary prospectus,” Oct. 30, 2019.

https://www.putnam.com/static/html/fund_documents/67.htm

⁴ PIMCO, “PIMCO Total Return ESG Fund Summary Prospectus,” July 31, 2019.

https://www.pimco.com/documents/summary.aspx?c=693390866&wd=Summary%20Prospectus&fn=PIMCO_Total_Return_ESG_SP.pdf&id=Jea8MfoT3TC5bOi9JCQGG5KZLJ8ZgwvaAvfg9pPDBpoBnWcjcKS7J2SjZHDsXYymWZHyUdwRW55iT6Vh7F8wNkioUMQE5M7Q2pvcD29bsTu3wY0ICe9agtYVTZTFJXo1vEFaUF7xJ7J6uytxGJ%2Bj%2F9K8sp%2Fddku9dWR%2FBUIc28qsyml9ztNgehV8luE0veqjGG9iCvXgoGTwjkcCZt%2FRy70793hEfl44gptE48ExBnf8oEJdDtT8Spv4h4zNpNS3CEkHOBbzBv6Q6M8fl8LJVvy7qdfMFXY9MuB%2FlaAPzif6SAQAKiUvviJl%2FGgluDFjQdeXaO6KaMRx9%2F5wtmmp%2BVFrxhBHyntKAFEMWuS0qsXVikBZAzqKVixV%2BIXiWp7dWehBtEr%2BPHed%2F%2FEVAPQj38sqDvW78QEwQyug2y1bEhQhngM6pFUF2OG7ETut0WoRo%2Bwb%2FCax3vdt6cvjVreQ%3D%3D

⁵ Wayne Winegarden, “ESG Investing: An Evaluation of the Evidence,” Pacific Research Institute, May 2019.

⁶ Personal communication with Jon Hale, Morningstar, July 10, 2020.

exceed those of another asset class, or of a low-cost index fund, could potentially undermine portfolio diversification and thus more likely could result in a breach rather than fulfillment of fiduciary duty.

Another note on diversification: It is increasingly clear to many investors that sustainable investment strategies that incorporate ESG factors may hold up particularly well during downturns. Goldman Sachs reported in April 2020 that companies with better sustainability performance had also weathered the COVID-19 crisis better, at least up to that point.⁷ For example, companies that were already good at human capital management, especially with respect to health and safety as well as flexible working arrangements, found that these were particular strengths during the pandemic. There are several papers noted below and in Appendix 1 that show the strength of ESG funds during the COVID-19 pandemic as well as during the Great Recession of 2008-2009. That ESG funds tend to perform better during downturns may be a source of portfolio diversification and downside protection that is especially useful to retirees when they need it most, and making it more difficult to include ESG funds in retirement platforms would only rob fiduciaries of that additional source of diversification.

The proposed rule also avers, on page 29, that individual investors investing in ESG mutual funds pay more attention to social preferences than to financial ones when choosing investments, and that those investors expect lower returns and higher fees. The single study cited to support this dubious proposition is a survey of 3,382 mutual fund investors in the Netherlands between 2006 and 2012. In our view, the expectations of Dutch investors some eight to 14 years ago says literally nothing about funds, fees or performance in the United States at the present time. That this outdated study of investor attitudes in Holland is used as evidence that ESG funds may impair performance or raise costs in retirement platforms, when there is abundant empirical evidence available on *actual* performance and fees in the United States that the rule proposal entirely ignores, is simply misleading.

Why not look at facts? According to [Morningstar](#), “ESG funds have an asset-weighted average fee level percentile of 26, slightly higher than the figure of 23 for non-ESG funds” as of 2017. Morningstar concludes that “[f]unds with an ESG mandate tend to be a bit more expensive than other funds, but the differences are not large...as ESG funds gather more assets, more of them should be able to lower costs for shareholders...There are plenty of cheap ESG options for investors who seek them out, including a growing number of sustainable index funds and exchange-traded funds.”⁸ Moreover, a more recent report from Morningstar found that “[t]he number of ESG mutual fund options has grown by leaps and bounds in recent years. And among those that have opened to investors in the last five years, more are likely to land among the cheapest 10% of their Morningstar Category than those launched before 2015... And it’s not just ESG index funds that are coming in with lower price tags; more lower-cost actively managed ESG strategies are now available.”⁹ Not every ESG fund will be the cheapest in its asset class, of course, but then neither is every conventional fund. Fiduciary duty does not specify that fiduciaries

⁷ Evan Tylenda, Sharmini Chetwode, Derek R. Bingham, Nihar Kantipudi, Brendan Cobett, Keebum Kim and Dan Duggan, “GS SUSTAIN: ESG – Neither Gone nor Forgotten,” Goldman Sachs Equity Research, April 2, 2020.

⁸ David Kathman, CFA, Ph.D., “Are Sustainable Funds More Expensive? Socially Responsible Investing Doesn’t Have To Cost More,” Morningstar, March 16, 2017. <https://www.morningstar.com/articles/798280/are-sustainable-funds-more-expensive>

⁹ Katherine Lynch, “Where To Find Low-Cost ESG Funds,” Morningstar, June 6, 2020. <https://www.morningstar.com/articles/987495/where-to-find-low-cost-esg-funds>

must select *the cheapest* fund, but instead must balance many factors, including diversification and risk-adjusted returns.

According to a sizeable and robust body of literature ignored by the DOL, funds that incorporate ESG factors are competitive with conventional funds in terms of risk-adjusted performance. We have collected hundreds of academic and financial studies and papers showing that more sustainable companies and funds do not sacrifice performance compared with less sustainable peers, and in fact are somewhat more likely to outperform than to underperform. A full list of those studies is included in Appendix 1, and a summary of some of the more salient, recent studies is below. Some of these studies illustrate the impact of ESG on financial outcomes more generally, while others focus on the impact of specific ESG factors that many, if not most, market participants now see as material to financial performance, including climate change, diversity and sustainability-related risks. Many more studies supporting these arguments are listed in Appendix 1.

1. “Sustainable Investing Myth Busters,” Morgan Stanley Institute for Sustainable Investing, May 2017. https://www.morganstanley.com/ideas/sustainable-investing-myth-busters?et_mid=16000&et_mkid=0232d9d436b7a4fad956135be8740563
 - a. Excerpt: “Analysis by the Institute shows that sustainable strategies have often performed in line with or even better than their traditional counterparts. The Institute conducted a proprietary study in 2015 called Sustainable Reality, which examined seven years’ performance of more than 10,000 mutual funds and 2,800 Separately Managed Accounts. The results showed that sustainable investments usually met, and often exceeded, the performance of traditional investments.”
2. “Sustainable Reality: Analyzing Risk and Returns of Sustainable Funds,” Morgan Stanley Institute for Sustainable Investing, 2019. [https://www.morganstanley.com/content/dam/msdotcom/ideas/sustainable-investing-offers-financial-performance-lowered-risk/Sustainable Reality Analyzing Risk and Returns of Sustainable Funds.pdf](https://www.morganstanley.com/content/dam/msdotcom/ideas/sustainable-investing-offers-financial-performance-lowered-risk/Sustainable%20Reality%20Analyzing%20Risk%20and%20Returns%20of%20Sustainable%20Funds.pdf)
 - a. Summary: A second Morgan Stanley study in 2019 compared the performance of sustainable funds to traditional funds from 2004 to 2018. A total of 10,723 exchange traded and open-ended funds were analyzed. “We compared their performance on total returns, a measure of performance net of fees, and downside deviation, a measure of risk. We found that sustainable funds provided returns in line with comparable traditional funds while reducing downside risk. What’s more, during a period of extreme volatility, we saw strong statistical evidence that sustainable funds are more stable. Incorporating environmental, social and governance (ESG) criteria into investment portfolios may help to limit market risk.”
3. Gunnar Friede, Timo Busch and Alexander Bassen, “ESG and Financial Performance: Aggregated Evidence from More Than 2,000 Empirical Studies,” *Journal of Sustainable Finance & Investment* 5(4), 2015. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2699610
 - a. Summary: The study combines the findings of about 2,200 individual studies and is by far the most exhaustive overview of academic research on this topic. The results show that the business case for ESG investing is empirically well-founded. Roughly 90% of studies find a non-negative ESG-CFP (corporate financial performance) relation while

the large majority of studies report positive findings. The positive impact of ESG on CFP also appears stable over time.

4. Yannick Ouaknine, Nimit Agarwal and Aiswarya Sankar, "SRI: Beyond Integration: Five-year Record Outperformance Delivered by Our Top ESG-rated Stocks," Société Générale, March 2018.
 - a. Summary: Top 10% of ESG-rated stocks outperformed Stoxx 600 by 28.2% since 2013.
5. Barclays, "Sustainable Investing and Bond Returns," Impact Series 01, 2016.
<https://www.investmentbank.barclays.com/content/dam/barclaysmicrosites/ibpublic/documents/our-insights/esg/barclays-sustainable-investing-and-bond-returns-3.6mb.pdf>
 - a. Summary: Barclays research shows that ESG is not an "equity-only" phenomenon but can be applied to credit markets without being detrimental to bondholders' returns. 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.
6. Savita Subramanian, Dan Suzuki, CFA, Alex Makedon, Jill Carey Hall, CFA, Marc Pouey and Jimmy Bonilla, "ESG: Good Companies Can Make Good Stocks," Bank of America Merrill Lynch, December 2016.
 - a. Excerpt: "Two reasons investors need to add ESG to their dashboard: It's not just for tree-huggers — incorporating environmental, social and corporate governance (ESG) considerations into one's framework is critical. First, these metrics have been strong indicators of future volatility, earnings risk, price declines and bankruptcies. Second, trends in the U.S. investment landscape suggest that trillions of dollars could be allocated to ESG-oriented equity investments, to stocks that are attractive on these attributes, over the next few decades.... 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."
7. Savita Subramanian, Dan Suzuki, CFA, Alex Makedon, Jill Carey Hall, CFA, Marc Pouey, Jimmy Bonilla and James Yeo, "ESG Part II: A Deeper Dive," Bank of America Merrill Lynch, Equity Strategy Focus Point, June 2017.
https://www.iccr.org/sites/default/files/page_attachments/esg_part_2_deeper_dive_bof_of_a_june_2017.pdf
 - a. Excerpt: "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."
8. BlackRock, "Sustainable Investing: Resilience Amid Uncertainty," 2020.
<https://www.blackrock.com/corporate/literature/investor-education/sustainable-investing-resilience.pdf>
 - a. Excerpt: "The recent downturn was a key test of this conviction. In the first quarter of 2020, we have observed better risk-adjusted performance across sustainable products

globally, with 94% of a globally representative selection of widely analyzed sustainable indices outperforming their parent benchmarks. While this short time period is not determinative, it aligns with the resilience we have seen in sustainable strategies during prior downturns, explored below in section “Sustainability Performance in the Markets.” Furthermore, these results are consistent with the research BlackRock has been publishing since mid-2018, demonstrating that sustainable strategies do not require a return tradeoff and have important resilient properties.”

9. Guido Giese, Linda-Eling Lee, Dimitris Melas Zoltan Nagy, Laura Nishikawa, “Foundations of ESG Investing Part 4: Integrating ESG Into Factor Strategies and Active Portfolios,” MSCI Research Insight, June 2018.
 - a. Excerpt: “We analyzed close to 1,200 global equity funds, finding that they have shown no significant level of ESG integration during the study period. However, our simulations showed that applying a consistent overlay to fund holdings using ESG ratings and ESG momentum led to an improvement in risk and risk-adjusted return characteristics.”
10. Georg Inderst and Fiona Stewart, “Incorporating Environmental, Social and Governance (ESG) Factors Into Fixed Income Investment,” World Bank Group, 2018.
<http://documents1.worldbank.org/curated/en/913961524150628959/pdf/125442-REPL-PUBLIC-Incorporating-ESG-Factors-into-Fixed-Income-Investment-Final-April26-LowRes.pdf>
 - a. Summary: There is a growing body of research analyzing the relevance of ESG factors in fixed income. While the methodology for individual studies varies, the research supports a widely held view that: 1) ESG factors can constitute material credit risk; and 2) incorporating ESG factors does not mean having to sacrificing return.
11. Reid Steadman and Daniel Perrone, “Integrating ESG Into Core Around the World: The S&P 500™ ESG Index and Beyond,” July 2019.
<https://www.savvyinvestor.net/sites/default/files/node/paper/file/integrating-esg-into-core-around-the-world.pdf>
 - a. Summary: The S&P 500 ESG Index tracks the S&P 500 closely, and it has done so despite excluding more than 30% of constituents based on the various eligibility criteria. Realized tracking errors for the one-, three-, and five-year periods were consistently within 1%, and the index volatility was nearly identical to the S&P 500 over those same periods. This return profiles holds for the rest of the indices in the S&P ESG Index Series as well.
12. “Sacrifice Nothing: A Fresh Look at Investment Performance of Sustainable and Impact Strategies by Asset Class,” Cornerstone Capital Group, 2019.
https://cornerstonecapinc.com/wp-content/uploads/Sacrifice-Nothing_A-Fresh-Look-at-Performance.pdf
 - a. Excerpt: “We recently conducted a fresh review of the academic and practitioner literature on this topic. Sampling from 2,200 reports published over the past few decades, our review provides assurance that applying an ESG lens is consistent with fiduciary duty. (We would argue that it is essential to fiduciary duty.)”

13. Jim Reid and Luke Templeman, "Climate Change and Corporates: Past the Tipping Point with Customers and Stock Markets," Deutsche Bank, September 18, 2019.

- a. Summary: Deutsche Bank programmed its artificial intelligence platform to map company stock prices after reading the five million pages of company announcements released by the 1,600 MSCI World Index companies over the last two decades, along with every Dow Jones news article written over the period (something that would take a human more than a century to complete!). The results were startling: Companies that experienced positive press and announcements about climate change saw share price outperformance of 1.4 percentage points per year over the MSCI World index — outperformance of 26%. Conversely, bad press resulted in underperformance. Furthermore, it was not the energy, materials, and utilities sectors that were the most affected.

14. Savita Subramanian, Manish Kabra, CFA, Sameer Chopra, James Yeo, Paulina Strzelinska and Lucy Huang, "ESG from A to Z: A Global Primer," Bank of America Merrill Lynch, November 25, 2019.

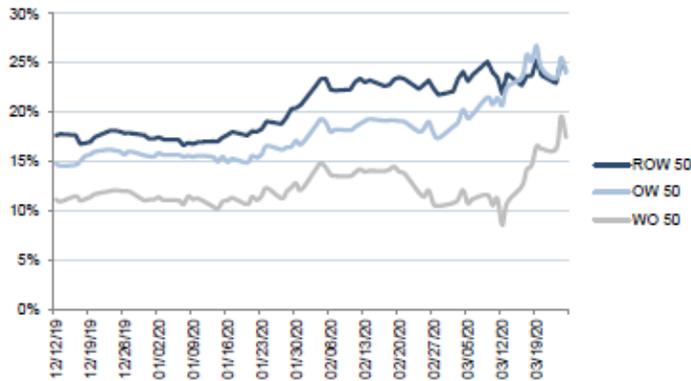
- a. Excerpt: "ESG analysis can help you steer clear of the meltdowns. Just this year, three out of the five biggest chairperson/CEO resignations in U.S. were related to E, S or G scandals. And in the last five years, corporate ESG blunders have destroyed more than half a trillion dollars of market cap in the U.S. market alone. In Asia, 73% of companies with credit downgrades over the last five years had below-median ESG scores."

15. Evan Tylenda, CFA, Sharmini Chetwode, Ph.D., Derek R. Bingham, Nihar Kantipudi, Brendan Corbett, Keebum Kim and Dan Duggan, Ph.D., "GS Sustain: ESG – Neither Gone nor Forgotten," Goldman Sachs Equity Research, April 2, 2020.

- a. Excerpt: "Perceived 'ESG winners' remain resilient in selloff. Valuation premiums for ESG favorites have crept higher during the crisis. While still too early to assess the robustness of ESG through a full downturn, at this early stage we find ESG favorites outperforming the broader market by 100-650bps YTD (Exhibits 2-3)."

Exhibit 2: Premiums for ESG fund favorites have expanded further in the downturn

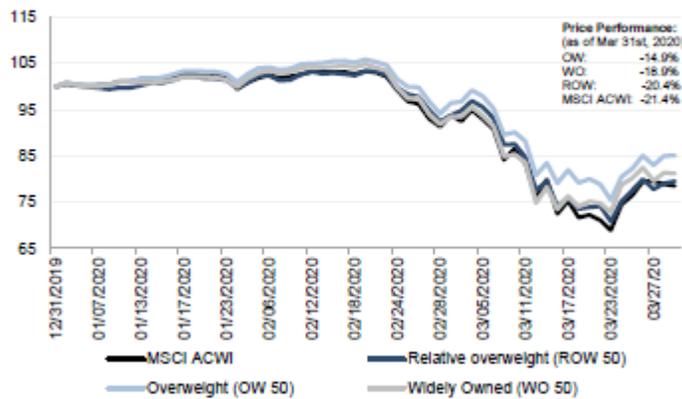
12-mo fwd consensus P/E multiples (trimmed mean) vs. MSCI ACWI GICS 2 peers (1/1/2020-3/25/2020)



Widely Owned 50 (WO 50): Top 50 companies most widely held in ESG funds. Relative Overweight 50 (ROW 50): Top 50 companies most overweight in ESG funds relative to their weight in the MSCI ACWI. Overweight 50 (OW 50): Top 50 companies most absolute overweight vs. their weight in the MSCI ACWI

Exhibit 3: 'Nifty Fifty' lists have outperformed the broader market, with overweights outperforming the most

Average equal-weighted stock performance for 'Nifty Fifty' lists and MSCI ACWI indexed to 100 on Jan 1, 2020



Source: Bloomberg, Factset, Goldman Sachs Global Investment Research

Source: FactSet, Data compiled by Goldman Sachs Global Investment Research

16. Davide Benedetti, Enrico Biffis, Fotis Chatzimichalakis, Luciano Ruben Lillo Fedele, and Ian Simm, "Climate Change Investment Risk: Optimal Portfolio Construction Ahead of the

Transition to a Lower-Carbon Economy,” October 2019.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3281390

- a. Excerpt: “There is an increasing likelihood that governments of major economies will act within the next decade to reduce greenhouse gas emissions, probably by intervening in the fossil fuel markets through taxation or cap & trade mechanisms (collectively “carbon pricing”). We develop a model to capture the potential impact of carbon pricing on fossil fuel stocks and use it to inform Bayesian portfolio construction methodologies, which are then used to create what we call Smart Carbon Portfolios. We find that investors could reduce ex-post risk by lowering the weightings of some fossil fuel stocks with corresponding higher weightings in lower-risk fossil fuel stocks and/or in the stocks of companies active in energy efficiency markets. The financial costs of such de-risking strategy are found to be statistically negligible in risk-return space.”
17. Vivian Hunt, Sundiatu Dixon-Fyle, Sara Prince and Kevin Dolan, “Diversity Wins,” McKinsey, May 2020.
<https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Diversity%20and%20Inclusion/Diversity%20wins%20How%20inclusion%20matters/Diversity-wins-How-inclusion-matters-vF.pdf>
 - a. Excerpt: “The report demonstrates that the business case for gender and ethnic diversity in top teams is stronger than ever. Since we first published “Why Diversity Matters” in 2015, the likelihood of diverse companies outperforming industry peers on profitability has increased significantly.”
 18. Center for Social and Sustainable Products AG and South Pole Carbon Asset Management Ltd., “Climate-friendly Investment Strategies and Performance,” November 7, 2016.
https://yoursri.com/media-new/download/en_def_zusammenfassung_07-11-2016_klimafreundliche_investitionsstrategie.pdf
 - a. Summary: Eleven different climate-friendly indices by the relevant market index providers MSCI and STOXX were analyzed. A quantitative analysis of these indices shows: Almost all more climate-friendly indices studied show a higher return than their respective conventional benchmark indices (10 of the 11 cases). A slightly higher risk was observed in seven of the 11 indices studied. If, in addition, the return is juxtaposed against the risk involved, then in eight out of the 11 cases, the investor has a better risk-return ratio in climate-friendly indices compared to the respective conventional benchmark index. In most cases, the investor is thus compensated for taking the additional risk by a correspondingly higher return.

Materiality

It is somewhat astonishing, in light of all of the research (above and below in Appendix 1) underscoring the materiality of ESG factors that the proposed rule would deem such factors “non-pecuniary” — which essentially means *not* material. The disconnect between the proposed rule and the actual evidence could hardly be more profound.

In fact, while the proposed rule is purportedly focused on financial performance, it mentions materiality only briefly, simply noting that fiduciaries should be focused “on financial factors that have a material effect on the return and risk of an investment” (page 7) or “economic considerations that have a material effect on the risk and return of an investment” (page 11). The above studies, in our view, provide compelling if not overwhelming evidence that fiduciaries are indeed integrating ESG factors into company analysis and portfolio construction precisely *because* they view such factors as material.

In fact, the financial community has increasingly and widely embraced ESG factors as material to both individual company and investment portfolio behavior. The CFA Institute’s [ESG Survey Report](#) in 2017 found that nearly three-quarters of financial analysts take ESG issues into account in their investment analysis and decisions, and the percentage of analysts using ESG factors in analysis increased between 2015 and 2017.¹⁰ The CFA Institute’s 2020 report on [ESG and Responsible Institutional Investing Around the World](#) notes that “[a]lthough it is widely recognized that capital markets have contributed to efficient resource allocation and wealth creation over the past century, the total value that corporations deliver to society through their products and services depends on the value created jointly by a set of stakeholders, such as workers, suppliers, and the communities in which they operate. In the last few years, awareness has increased that corporate exposure to such factors as environmental risks, social practices, and governance issues can materially affect firm value over the long term.”¹¹

Of course, not all ESG factors are material to the performance of all companies at all times, but the same is true of the financial factors that are required to be reported by the SEC and other financial regulators. There are dozens of individual numbers in any company’s balance sheet, income statement, and statement of cash flows that may or may not be, by themselves, material to that quarter’s performance or annual performance. The only thing that distinguishes “financial” from “non-pecuniary” factors is that financial factors are required reporting, whereas for the most part ESG factors are not — at least not widely, at the moment, though that is changing.

The CFA Institute [notes](#) that “[m]any jurisdictions — either through regulation or listing standards — require a certain level of ESG reporting and disclosure from companies to provide investors with material ESG-related information.” [NASDAQ](#) very recently introduced a tool to help companies report on ESG information, One Report, that also includes many other existing ESG reporting schemes, including the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the Task Force on Climate-Related Financial Disclosure (TCFD) and others. In fact, stock exchanges around the world are increasingly encouraging and providing tools for ESG reporting; the [Sustainable Stock Exchanges](#) Initiative partners with 96 stock exchanges around the world, 55 of which provide written guidance and/or training on ESG reporting and topics.

Many mainstream financial institutions are providing and/or integrating ESG factors into their own analysis, because these factors are increasingly seen as material to financial performance. S&P Global describes its new [ESG Solutions](#) business as “Our ESG solutions offer financially relevant analytics and timely data to assess risk, uncover opportunities and inform long-term sustainable growth,” and in 2020

¹⁰ CFA Institute, “Environmental, Social and Governance Survey,” 2017.

¹¹ Pedro Matos, “ESG And Responsible Institutional Investing Around the World: A Critical Review,” CFA Institute, 2020.

[launched](#) an ESG scoring system. It also [reported](#) last year that “[c]ompanies focusing on ESG issues have achieved reduced costs, improved worker productivity, mitigated risk potential, and created revenue-generating opportunities.”¹² All of these should easily qualify as “economic considerations that have a material effect on the risk and return of an investment.”

There are numerous other examples of mainstream financial institutions viewing ESG factors as material to financial and economic outcomes. Here are some of them:

- Russell Investments in 2018 developed [a material ESG score](#)¹³ to illuminate ESG issues financially material to businesses.
- [BlackRock](#) introduced a “materiality matrix” showing the most financially relevant ESG characteristics for global credit.¹⁴
- Fitch Ratings, one of the major credit rating agencies, introduced [ESG Relevance Scores](#) for corporate debt issuers in 2020.¹⁵
- Moody’s Corporation, another major credit rating agency, [purchased](#) Four Twenty Seven, Inc., a specialist in assessing climate physical risks for companies, in 2019.¹⁶
- Interest in ESG factors by all credit rating agencies is on the rise, as investors increasingly see ESG as pertinent to companies’ abilities to pay back debt obligations.¹⁷
- Morgan Stanley [noted](#) that ESG factors help the firm identify investment opportunities.¹⁸

This kind of interest from mainstream financial institutions and self-regulatory organizations is evidence of the fact that ESG factors are not some sort of “non-pecuniary” fringe interest on the part of investors who don’t care about returns, but rather a useful tool in fundamental analysis assessing opportunities and risk, and in designing investment portfolios that provide competitive risk-adjusted returns.

Indeed, because they are so often material, it is in ignoring ESG factors, rather than incorporating them, that fiduciary duty is more likely to be compromised and investment returns more likely to be imperiled.

Fiduciary duty: substituting the judgment of Washington regulators for the market

As the papers listed above and in Appendix 1 make clear, sustainability or ESG factors can have material impacts on financial outcomes for both firms and investors. These papers demonstrate that integrating ESG analysis into portfolio construction results in better risk-adjusted performance, or at least competitive performance, compared with non-ESG funds in the same asset classes. To erect barriers against or to outright exclude such funds, as the DOL proposes, creates increased risk of depriving

¹² “The ESG Advantage: Exploring Links to Corporate Financial Performance,” S&P Global Ratings, April 8, 2019.

¹³ Emily Steinbarth, “Materiality Matters: Targeting the ESG issues that can impact performance,” Russell Investments, <https://russellinvestments.com/us/insights/articles/materiality-matters>.

¹⁴ Andre Bertolotti, CFA Nad Jaime Maihuire Irigoyen, “ESG in credit markets – what’s material?” BlackRock, November 25, 2019. <https://www.blackrockblog.com/2019/11/25/esg-in-credit-markets/>

¹⁵ “What Investors Want to Know: ESG Relevance Scores for Corporates,” Fitch Ratings, 20 Feb 2020.

¹⁶ Leonid Berdshidsky, “Moody’s Catches on to Climate Risk Mispricing,” Bloomberg Opinion, July 25, 2019.

¹⁷ Jennifer Thompson, “Credit rating agencies turn attention to ESG risk,” *Financial Times*, February 22, 2019.

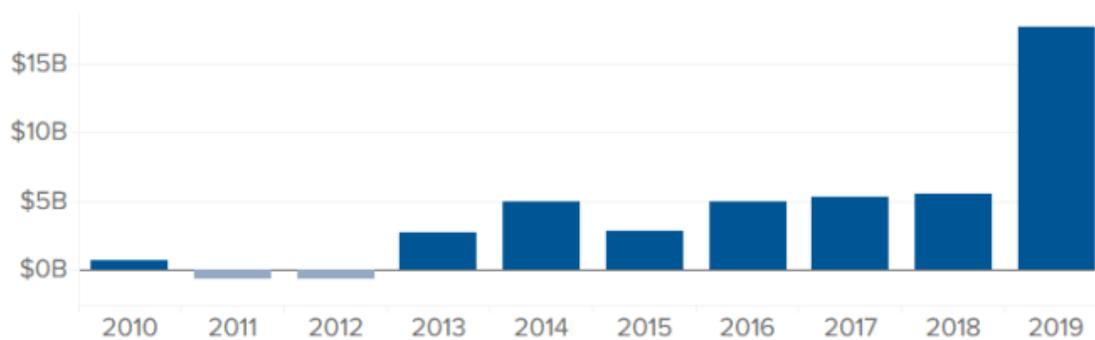
¹⁸ Kristian Heugh and Marc Fox, “ESG and the Sustainability of Competitive Advantage,” Morgan Stanley Investment Management, 2017. https://www.morganstanley.com/im/publication/insights/investment-insights/ii_esgandthesustainabilityofcompetitiveadvantage_en.pdf

retirement investors access to lower-risk, better performing funds. These sorts of decisions would be better left to fund fiduciaries, portfolio managers, analysts and other experts rather than imposed across the board by overzealous government regulators. Essentially, DOL is proposing to substitute its judgment, a judgment which may be more subject to political influences, for the judgment of investment practitioners on the ground who possess the responsibility and the expertise to design and administer retirement plans. The proposed rule effectively substitutes activist, big government fiat in place of the market.

That the market is already sorting this out, without the interference of government, is demonstrated by the surge of interest in ESG investment over the past few years. The inflows during 2019 shown below are an indicator that the market sees ESG as financially relevant, i.e., material.

Inflows to sustainable funds hit record high

Year to date inflows to funds investing in companies with positive environmental, social, and governance (ESG) practices are more than triple the 2018 total



SOURCE: Morningstar estimates through 11/2019. Includes ESG Integration, Impact, and Sustainable Sector funds as defined in the 2018 Sustainable Funds U.S. Landscape Report. Includes liquidated funds; excludes funds of funds.



Market participants are choosing to invest in funds that incorporate ESG factors, plain and simple. They are doing so because ESG factors increasingly are seen as material to how individual companies and broader investment portfolios perform. For the DOL to be substituting the views of federal bureaucrats for market participants at this moment in time is curious, and it is fair to ask whether the rule proposal is more politically or ideologically motivated than grounded in market data or fact. For the DOL to require that funds incorporating ESG factors be subjected to burdensome, onerous, unnecessary due diligence that non-ESG funds are not subject to — ignoring what the research tells us regarding risk-adjusted performance — strikes us as not only inconsistent with fiduciary duty under ERISA but ultimately arbitrary and capricious.

Inconsistent ratings and definitions

The proposed rule states that there are inconsistencies around the definition of ESG investing and notes that there was no consensus around what constitutes “genuine ESG investment.” It is true that there are

a number of approaches to ESG investing, but that is typical of many other investment styles or approaches that lack a single, consensus definition.

The suggestion that there should be one definition or standard for what constitutes ESG or sustainable investing is absurd. Is there one definition of what constitutes a value stock or a value fund? Might there be some disagreement between Benjamin Graham, Warren Buffett, and Joel Greenblatt or a host of other “value” managers or investors over what constitutes a “value” stock or whether a particular company is an attractive value stock? Portfolio managers are not only allowed to have different perspectives that place different weights on different factors to determine whether a company is a strong value stock or not, but we expect those differences. That doesn’t mean the process is subjective. It’s the way markets actually work. Different approaches to evaluating the mass of data available to investment managers leads to differing conclusions. If there were no disagreement, if value stocks were not rated differently by different analysts, then all companies would get the same rating, and all value funds would own the same companies.

The same is true of sustainable investing. Different portfolio managers or analysts may have different perspectives about what constitutes a sustainable company, or they may legitimately weight certain ESG factors differently, or have differing views about which ESG factors are most material for a given sector, industry or company at a given time, and thus reach different conclusions about the sustainability profile of a given stock.

The idea that fiduciary duty is somehow compromised by the fact that there are multiple ways to rate sustainability is as incomprehensible as suggesting that fiduciary duty is compromised by multiple ways to rate a value stock. The proposed rule cites several papers noting that different ratings providers have different ESG ratings, sometimes quite significant, for the same company. While that is true, it is unclear how it constitutes a handicap. It is not uncommon for different financial analysts to rate companies differently as well — to the contrary, it is unusual to find a uniform consensus among financial analysts.¹⁹ A portfolio manager at Impax Asset Management noted that this is common for nearly every security he follows. As this is being written, one stock, AT&T, has 31 analyst ratings: 10 buys, 18 holds, and 3 sells.²⁰ In fact, for the entire S&P 500 Index, there is no company for which there is a consensus in analyst recommendations (see Appendix 2).

Even credit rating agencies’ ratings differ. The same bond can have an investment grade rating from one credit rating agency while another rates it as high yield. As this letter is being written, a single bond from Amgen was rated Baa1 by Moody’s and A- by S&P; an Amazon bond was rated A2 by Moody’s and AA- by S&P.²¹ For reference, a Baa1 rating by Moody’s equates to BBB+ from S&P, while an A2 rating by Moody’s equates to an A rating from S&P.

Both financial ratings — equity ratings and credit ratings — and sustainability ratings incorporate dozens of individual data points. There isn’t a single definition of what makes a company a stellar or dreadful investment, just as there isn’t a single definition of what makes a company more or less sustainable. We would expect different thoughtful, qualified, well-informed financial professionals to make different

¹⁹ Michael Schmidt, “What to Know About Stock Analysts,” Investopedia, June 25, 2019.

²⁰ Personal communication with Andy Braun, Large Cap Fund Portfolio Manager, Impax Asset Management LLC, July 16, 2020.

²¹ Data from Bloomberg, 7/16/2010.

judgments, and, indeed, this disagreement can be a source of strength and innovation rather than a weakness. Again, it is how markets work. Investors incorporate both financial and ESG judgments from raters, as well as their own judgment, to make investment decisions. The ESG ratings enterprise (no matter how divergent between providers) is no different from sell-side equity research. Having different sustainability ratings is no handicap to any knowledgeable asset manager or fiduciary, and using that dispersion as a reason to outright exclude ESG funds as QDIAs or erect burdensome barriers to their inclusion in ERISA plans more generally is, again, arbitrary and capricious.

Summary

The proposed rule on Financial Factors in Selecting Plan Investments is unnecessary, based more on supposition than fact, and ignores the wide body of research on this issue as well as developing best practices in finance. The rule would create undue burdens for fund managers and fiduciaries who incorporate all material information likely to affect financial returns and risks, both financial and ESG. The proposed rule should not be adopted.

Thank you for your attention.

Sincerely,

Joseph F. Keefe

President, Impax Asset Management LLC

Julie Fox Gorte

SVP for Sustainable Investing, Impax
Asset Management LLC

Appendix: Literature on Financial Performance of Sustainable Companies and Funds

The following articles and papers link various aspects of ESG — environmental factors, social factors, and the parameters of governance — to financial and economic results for companies and funds. Relevant quotations from studies that are not online are included with the citations. We include both older and newer citations to illustrate that ESG factors have had material financial impacts on companies and funds for many years. We also include studies and papers about the financial and economic outcomes of ESG factors from many countries, because funds available to fiduciaries in the United States may contain securities from developed and developing markets globally.

1. Susmita Dasgupta, Benôit Laplante and Nlandu Mamingi, “Capital Market Responses to Environmental Performance in Developing Countries,” The World Bank, 1998.
<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/128661468777891401/capital-markets-responses-to-environmental-performance-in-developing-countries>
2. Amy J. Hillman and Gerald D. Keim, “Shareholder Value, Shareholder Management, and Social Issues: What’s the Bottom Line?” *Strategic Management Journal*, Vol. 22, No. 2, Feb. 2001. <https://www.jstor.org/stable/3094310?seq=1>
3. Shameek Konar and Mark A. Cohen, “Does the Market Value Environmental Performance?” *The Review of Economics and Statistics*, Vol. 83, No. 2, May 2001.
<https://www.jstor.org/stable/3211606?seq=1>
4. Sonda Marrakchi Chtourou, Jean Bédard and Lucie Courteau, “Corporate Governance and Earnings Management,” April 21, 2001.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=275053
5. Roy D. Adler, “Women in the Executive Suite Correlate to High Profits,” *European Project on Equal Pay*, 2003.
https://pdfs.semanticscholar.org/e5f3/025e7aae2ea096f5fe7cc63f2247183c80de.pdf?_ga=2.119850248.1666984740.1594656565-370530735.1594656565
6. Jae-Seung Baek, Jun-Koo Kang, Kyung Suh Park, “Corporate Governance and Firm Value: Evidence from the Korean Financial Crisis,” *Journal of Financial Economics*, Vol. 71, Issue 2, February 2004.
<https://www.sciencedirect.com/science/article/abs/pii/S0304405X03001673>
7. Doug Wheat, “Performance of Socially and Environmentally Screened Mutual Funds,” SRI World Group, 2002. <https://community-wealth.org/content/performance-socially-and-environmentally-screened-mutual-funds>
8. David A. Carter, Betty Jo Simkins and W. Gary Simpson, “Corporate Governance, Board Diversity, and Firm Value,” *Financial Review* 38(1), January 2003.
https://www.researchgate.net/publication/4990531_Corporate_Governance_Board_Diversity_and_Firm_Value
9. Michael Schröder, “Socially Responsible Investments in Germany, Switzerland and the United States: An Analysis of Investment Funds and Indices,” *Centre for European Economic Research*, Discussion Paper No. 03-10, 2003.
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.567.2427&rep=rep1&type=pdf>

10. Joshua D. Margolis and James P. Walsh, "Misery Loves Companies: Rethinking Social Initiatives by Business," *Administrative Science Quarterly*, Vol. 48, No. 2, June 2003.
<https://www.jstor.org/stable/3556659?seq=1>
11. Sulaiman A Al-Tuwaijri, Theodore E Christensen, and K. E. Hughes II, "The Relations Among Environmental Disclosure, Environmental Performance, and Economic Performance: A Simultaneous Equations Approach," *Accounting, Organizations and Society* Vol, 29, Issues 5-6, July-August 2004.
<https://www.sciencedirect.com/science/article/abs/pii/S0361368203000321>
12. Marc Orlitzky, Frank L. Schmidt and Sara L. Rynes, "Corporate Social and Financial Performance: A Meta-Analysis," *Organization Studies*, March 1, 2003.
<https://journals.sagepub.com/doi/abs/10.1177/0170840603024003910?journalCode=ossa>
13. Wolfgang Drobetz, Andreas Schillhofer and Heinz Zimmermann, "Corporate Governance and Expected Stock Returns: Evidence from Germany," *European Financial Management*, June 2004. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1354-7798.2004.00250.x>
14. Nicolas L. Erhardt, James D. Werbel, and Charles B. Shrader, "Board of Director Diversity and Firm Financial Performance," *Corporate Governance*, March 2003.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/1467-8683.00011>
15. Kimberly Gluck and Ying L. Becker, "Can Environmental Factors Improve Stock Selection?" April 2010.
https://www.researchgate.net/publication/228258895_Can_Environmental_Factors_Improve_Stock_Selection
16. "Clear Advantage: Building Shareholder Value," *Environment: Value to the Investor Work Group*, February 2004. <http://gemi.org/resources/GEMI%20Clear%20Advantage.pdf>
17. Steven D. Carden and Olive Darragh, "A Halo for Angel Investors," *The McKinsey Quarterly*, 2004 Number 1. <https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/article-carden-harragh.pdf>
18. Paul Fronstin, Ray Werntz, "The 'business case' for Investing in Employee Health: A Review of the Literature and Employer Self-assessments," *EBRI Issue Brief*, March 2004.
<https://pubmed.ncbi.nlm.nih.gov/15054947/>
19. Jeroen Derwall, Nadja Guenster, Rob Bauer and Kees Koedijk, "The Eco-Efficiency Premium Puzzle," *Financial Analysts Journal*, Vol. 61, 2005.
<https://www.tandfonline.com/doi/abs/10.2469/faj.v61.n2.2716>
20. José Allouche and Patrice Laroche, "A Meta-Analytical Investigation of the Relationship Between Corporate Social and Financial Performance," June 2005.
https://www.researchgate.net/publication/257823704_A_Meta-Analytical_Investigation_of_the_Relationship_Between_Corporate_Social_and_Financial_Performance
21. Leonardo Becchetti, Stefania Di Giacomo and Damiano Pinnacchio, "Corporate Social Responsibility and Corporate Performance: Evidence from a Panel of U.S. Listed Companies," February 2008.
https://www.researchgate.net/publication/24076283_Corporate_Social_Responsibility_and_Corporate_Performance_Evidence_from_a_Panel_of_US_Listed_Companies

22. Jonathan M. Karpoff, John R. Lott and Eric W. Wehrly, "The Reputational Penalties for Environmental Violations: Empirical Evidence," *Journal of Law and Economics*, Vol. 68, October 2005. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=747824
23. Nina Smith, Valdemar Smith and Mette Verner, "Do Women in Top Management Affect Firm Performance? A Panel Study of 2,500 Danish Firms," Institute for the Study of Labor, IZA DP No. 1708, August 2005. <http://ftp.iza.org/dp1708.pdf>
24. Brad M. Barber, "Monitoring the Monitor: Evaluating CalPERS' Activism," November 2006. https://investedinterests.com/wp-content/uploads/2018/03/Monitoring_the_Monitor_-_Evaluating_CalPERS_Activism_-_Barber1.pdf
25. Mark P. Sharfman and Chitru S. Fernando, "Environmental Risk Management and the Cost of Capital," *Strategic Management Journal*, April 2008. <https://onlinelibrary.wiley.com/doi/10.1002/smj.678>
26. Nadja Guenster, Jeroen Derwall, Rob Bauer and Kees Koedijk, "The Economic Value of Eco-Efficiency," 2005 Academy of Management Paper, July 25, 2005. <https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/paper-guenster-et-al.pdf>
27. Peter M. Clarkson, Yue Li, Gordon D. Richardson and Florin P. Vasvari, "Does it Really Pay To Be Green? Determinants and Consequences of Proactive Environmental Strategies," *Journal of Accounting and Public Policy*, Vol. 30 Issue 2, March-April 2011. <https://www.sciencedirect.com/science/article/pii/S0278425410000645>
28. Nicole Darnall, G. Jason Jolley and Bjarne Ytterhus, "Understanding the Relationship Between a Facility's Environmental and Financial Performance," August 2007, in Nick Johnstone, *Environmental Policy and Corporate Behavior*, (OECD and Edward Elgar), 2007. https://www.researchgate.net/publication/228133446_Understanding_the_Relationship_between_a_Facility's_Environmental_and_Financial_Performance
29. Claudia Nicoleta Borsan, "Investors' Perception of Value Creation in Environmental Strategies: The Impact of Past Environmental Performance on Future Stock Market Returns," *Economics and Applied Informatics*, 2009. <https://pdfs.semanticscholar.org/1d2d/f9a8cf2287020278286238fd32e43a6c8579.pdf>
30. Insight Investment, "Does Good Governance Pay?" Investor Responsibility Briefing, July 2005.
31. Leonardo Becchetti and Rocco Ciciretti, "Corporate Social Responsibility and Stock Market Performance," CEIS Working Paper No 29, April 2006. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=897499
32. Olubunmi Faleye and Emery A. Trahan, "Is What's Best for Employees Best for Shareholders?" 2006. <https://www.semanticscholar.org/paper/Is-What's-Best-for-Employees-Best-for-Shareholders-Faleye-Trahan/3837396c119d4bccd2b5ee970f0176a78a4b6a54>
33. Gopal V. Krishnan Linda M. Parsons, "Getting to the Bottom Line: An Exploration of Gender and Earnings Quality," *Journal of Business Ethics*, March 2007. <https://link.springer.com/article/10.1007/s10551-006-9314-z>
34. "Carbon Beta and Equity Performance: An Empirical Analysis," Innovest Strategic Value Advisors, October 2007. [https://www.kellogg.northwestern.edu/faculty/mazzeo/htm/sp_files/021209/\(4\)%20innovest/innovest%20publications/carbon_20final.pdf](https://www.kellogg.northwestern.edu/faculty/mazzeo/htm/sp_files/021209/(4)%20innovest/innovest%20publications/carbon_20final.pdf)

35. Dietrich Earnhart and Lubomir Lizal, "Does Better Environmental Performance Affect Revenues, Cost, or Both? Evidence from a Transition Economy," William Davidson Institute Working Papers Series wp856, 2007. <https://ideas.repec.org/p/wdi/papers/2007-856.html>
36. Peter N. Rampling, Ian Eddie and Monir Zaman Mir, "The Association Between Environmental Performance and Financial Performance: An Empirical Examination of Energy Industry in Australia and New Zealand," December 3, 2007. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1873160
37. Bernard S. Black and Vikramaditya S. Khanna, "Can Corporate Governance Reforms Increase Firm Market Values? Event Study Evidence from India," Journal of Empirical Legal Studies, December 10, 2007. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1740-1461.2007.00106.x>
38. Gerard J. Tellis and Joseph Johnson, "The Value of Quality: Stock Market Returns to Reviewed Quality of New Products," Marshall School of Business Working Paper No. MKT 02-07, Feb 2007. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=961472
39. Klaus P. Fischer and Nabil Khoury, "The Impact of Ethical Ratings on Canadian Security Performance: Portfolio Management and Corporate Governance Implications," The Quarterly Review of Economics and Finance 47(1), February 2007. https://www.researchgate.net/publication/4923491_The_impact_of_ethical_ratings_on_Canadian_security_performance_Portfolio_management_and_corporate_governance_implications
40. Alison Mackey, Tyson B. Mackey and Jay B. Barney, "Corporate Social Responsibility and Firm Performance: Investor Preferences and Corporate Strategies," The Academy of Management Review, Vol. 32, No. 3, July 2007. <https://www.jstor.org/stable/20159337?seq=1>
41. Joshua D. Margolis, Hillary Anger Elfenbein and James P. Walsh, "Does it Pay To Be Good? A Meta-analysis and Redirection of Research on the Relationship Between Corporate Social and Financial Performance," December 2006. https://www.researchgate.net/publication/237455609_Does_it_pay_to_be_good_A_meta-analysis_and_redirection_of_research_on_the_relationship_between_corporate_social_and_financial_performance
42. Alex Edmans, "Does the Stock Market Fully Value Intangibles? Employee Satisfaction and Equity Prices," Journal of Financial Economics 101, 2011. <http://faculty.london.edu/aedmans/Rowe.pdf>
43. Deborah L. Murphy, Ronald E. Shrieves and Samuel L. Tibbs, "Understanding the Penalties Associated with Corporate Misconduct: An Empirical Examination of Earnings and Risk," The Journal of Financial and Quantitative Analysis Vol. 44, No. 1, Feb. 2009. <https://www.jstor.org/stable/40505915?seq=1>
44. Kevin Daly, "Gender Inequality, Growth and Global Ageing," Goldman Sachs, 2007. <https://www.empowerwomen.org/en/resources/documents/2013/8/global-economics-paper-no-154-gender-inequality--growth-and-global-ageing?lang=en>
45. Nick Bloom, Tobias Kretschmer and John Van Reenan, "Work-Life Balance, Management Practices and Productivity," Chapter in NBER book *International Differences in the Business Practices and Productivity of Firms*, 2009, Richard B. Freeman and Kathryn L. Shaw, eds.,

- University of Chicago Press 2009. <https://www.nber.org/chapters/c0441>
<https://nbloom.people.stanford.edu/sites/g/files/sbiybj4746/f/worklifebalance.pdf>
46. "Doing Good: Business and the Sustainability Challenge," Economist Intelligence Unit, 2008. https://graphics.eiu.com/upload/Sustainability_allponsors.pdf
 47. George Pohle and Jeff Hittner, "Attaining Sustainable Growth Through Corporate Responsibility," IBM Institute for Business Value, 2008. <http://satellinstitute.org/wp-content/uploads/2018/09/gbe03019-usen-02.pdf>
 48. John R. Evans and Dinusha Peiris, "The Relationship Between Environmental Social and Governance Factors and Stock Returns," August 2010. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1725077
 49. Meir Statman and Denys Glushkov, "The Wages of Social Responsibility," Financial Analysts Journal Vol. 65, 2009. <https://www.tandfonline.com/doi/abs/10.2469/faj.v65.n4.5>
 50. G. Jeffrey MacDonald, "Why Ethical Investors Fared a Little Better This Quarter," The Christian Science Monitor, April 7, 2008. <https://www.csmonitor.com/Business/2008/0407/p15s01-wmgn.html>
 51. David Katz and Carmen X. W. Lu, "ESG in the Mainstream: Sell-Side Analysts Addressing ESG Concerns," Harvard Law School Forum on Corporate Governance, May 29, 2009. <https://corpgov.law.harvard.edu/2020/05/29/esg-in-the-mainstream-sell-side-analysts-addressing-esg-concerns/>
 52. Pieter van Beurden and Tobias Gössling, "The Worth of Values — A Literature Review on the Relation Between Corporate Social and Financial Performance," Journal of Business Ethics 83, 2008. <https://link.springer.com/article/10.1007/s10551-008-9894-x>
 53. Georges Desvaux, Sandrine Devillard-Hoellinger and Mary C. Meaney, "A Business Case for Women," The McKinsey Quarterly, September 2008. <https://annazavaritt.blog.ilssole24ore.com/wp-content/uploads/sites/54/files/studio-mckinsey-sulle-donne.pdf>
 54. Reto Ringger and Samuel A DiPlazza Jr., "The Sustainability Yearbook 2008," PricewaterhouseCoopers, 2008. <https://www.pwc.com/gx/en/sustainability/yearbook2008.pdf>
 55. Patrick Verwijmeren and Jeroen Derwall, "Employee Well-Being, Firm Leverage, and Bankruptcy Risk," Journal of Banking and Finance, SSRN Oct 2009. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1495374
 56. Laura Poddi and Sergio Vergalli, "Does Corporate Social Responsibility Affect Firms' Performance?" 2008. https://www.researchgate.net/publication/24138929_Does_Corporate_Social_Responsibility_Affect_Firms'_Performance
 57. Urs von Arx and Andreas Ziegler, "The Effect of CSR on Stock Performance: New Evidence for the USA and Europe," Center of Economic Research at ETH Zurich, Working Paper No. 08/85. March 2008. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1102528
 58. A.T. Kearney, "Green Winners: The Performance of Sustainability-Focused Companies During the Financial Crisis," March 2009. <http://www.atkearney.com/index/php/Publications/green-winners.html>

59. Gary F. Peters and Andrea M. Romi, "Environmental Sanction Disclosures: Does It Pay Not To Be Green?" 28th Annual Congress of the Francophone Accounting Association, June 17, 2009.
60. Ram Nidumolu, C.K. Prahalad and M.R. Rangaswami, "Why Sustainability Is Now the Key Driver of Innovation," Harvard Business Review, September 2009.
<https://hbr.org/2009/09/why-sustainability-is-now-the-key-driver-of-innovation>
61. Cassandra Walsh and Adam Sulkowski, "A Greener Company Makes for Happier Employees More so than Does a More Valuable One: A Regression Analysis of Employee Satisfaction, Perceived Environmental Performance and Firm Value," 2009.
https://www.researchgate.net/publication/255851793_A_Greener_Company_Makes_for_Happier_Employees_More_so_than_Does_a_More_Valuable_One_A_Regression_Analysis_of_Employee_Satisfaction_Perceived_Environmental_Performance_and_Firm_Financial_Valu_e
62. Dan S. Dhaliwal, Oliver Zhen Li, Albert Tsang and Yong George Yang, "Voluntary Nonfinancial Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting," The Accounting Review, January 2011.
<https://www.jstor.org/stable/29780225?seq=1>
63. Manuel Ammann, David Oesch, Markus M. Schmid, "Corporate Governance and firm Value: International Evidence," Journal of Empirical Finance Vol. 18, Issue 1, January 2011.
<https://www.sciencedirect.com/science/article/abs/pii/S0927539810000757>
64. GovernanceMetrics International, "Well Governed Companies Fare Better in a Downturn: The 2008 Experience," March 2, 2009.
65. David I. Levine and Michael W. Toffel, "Quality Management and Job Quality: How the ISO 9001 Standard for Quality Management Systems Affects Employees and Employers," Management Science, April 2010.
<https://pubsonline.informs.org/doi/10.1287/mnsc.1100.1159>
66. PricewaterhouseCoopers and SAM, "The Sustainability Yearbook 2009," 2009.
https://issuu.com/sam-group.com/docs/yearbook_2009
67. Mercer, "Shedding Light on Responsible Investment: Approaches, Returns and Impacts." November 2009.
https://www.sustainablefinance.ch/upload/cms/user/Shedding_light_on_responsible_investment_free_version.pdf
68. Leonardo Becchetti, Rocco Cichiretti and Iftekhar Hasan, "Corporate Social Responsibility and Shareholder's Value: An Empirical Analysis," February 2009.
https://www.researchgate.net/publication/23970103_Corporate_social_responsibility_and_shareholder's_value_an_empirical_analysis
69. Rob Bauer, Jeroen Derwall and Danial Hann, "Employee Relations and Credit Risk," Oct. 2009. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1483112
70. Zenyep Ton, "The Effect of Labor on Profitability: The Role of Quality," Harvard Business School Working Paper 09-040, 2008. https://www.hbs.edu/faculty/Publication%20Files/09-040_146640ac-c502-4c2a-9e97-f8370c7c6903.pdf
71. Javier Gil-Bazo, Pablo Ruiz-Verdú and André A.P. Santos, "The Performance of Socially Responsible Mutual Funds: The Role of Fees and Management Companies," Journal of Business Ethics 94, November 2009. <https://link.springer.com/article/10.1007/s10551-009-0260-4>

72. Nick Wilson and Ali Altanlar, "Director Characteristics, Gender Balance and Insolvency Risk: An Empirical Study," September 2009.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1932107
73. Olaf Weber, Marco Mansfeld and Eric Schirrmann, "The Financial Performance of SRI Funds Between 2002 and 2009," June 2010.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1630502
74. Alan Gregory, Julie Whittaker and Xiaojuan Yan, "Stock Market Valuation of Corporate Social Responsibility Indicators," University of Exeter Business School Discussion Paper No 10/06, November 2010.
<https://pdfs.semanticscholar.org/f989/f80f5714dea9e00a4b79366302ddcc20cae4.pdf>
75. Jacquelyn Humphrey, Darren Lee and Yaokan Shen, "The Independent Effects of Environmental, Social and Governance Initiatives on the Performance of UK firms," 23rd Australasian Finance and Banking Conference 2010 paper, August 2010.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1663444
76. Rob Bauer and Daniel Hann, "Corporate Environmental Management and Credit Risk," December 2010. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1660470
77. Nathan Troutman Blumenshine and Phanindra V. Wunnava, "The Value of Green: The Effect of Environmental Rankings on Market Cap," Technology and Investment, 2010.
http://community.middlebury.edu/~wunnava/Recent_Papers/TI_final_9900046_Revised.pdf
78. Salama, K. Anderson and J.S. Toms, "Does Community and Environmental Responsibility Affect Firm Risk? Evidence from UK Panel Data 1994-2006," Business Ethics, March 2011.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-8608.2011.01617.x>
79. Dan S. Dhaliwal, Suresh Radhakrishnan, Albert Tsang and Yong George Yang, "Nonfinancial Disclosure and Analyst Forecast Accuracy: International Evidence on Corporate Social Responsibility Disclosure," The Accounting Review, Vol. 87 No. 3, May 2012.
<https://www.jstor.org/stable/23245628?seq=1>
80. Dr. Stellen Horter, Dr. Wolfgang Mader and Barbara Menzinger, "E.S.G. Risk Factors in a Portfolio Context: Integrated Modeling of Environmental, Social and Governance Risk Factors," Risklab, 2010. <https://www.yumpu.com/en/document/read/25786699/esg-risk-factors-in-a-portfolio-context-allianz>
81. Marc Schauten and Dick J.C. van Dijk, "Corporate Governance and the Cost of Debt of Large European Firms," ERIM Report Series Reference No. ERS-2010-025-F&A, June 2010.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1620719
82. Vicente Cunat, Mireia Gine and Maria Guadalupe, "The Vote is Cast: The Effect of Corporate Governance on Shareholder Value," December 2010. <https://www.nber.org/papers/w16574>
83. Jon Quigley, "Reducing Portfolio Risk through Sustainable Investing," Advisor Perspectives, November 2010. <file:///C:/Users/j.gorte/Downloads/reducing-portfolio-risk-through-sustainable-investing.pdf>
84. "2012 Corporate ESG/Sustainability/Responsibility Reporting — Does it Matter?" G&A Institute 2012. <https://www.ga-institute.com/research-reports/2012-corporate-esg-sustainability-responsibility-reporting-does-it-matter.html>
85. Sadok El Ghouli, Omrane Guedhami, Chuck C.Y. Kwok and Dev R. Mishra, "Does Corporate Social Responsibility Affect the Cost of Capital?" Journal of Banking and Finance Vol. 35 Issue 9, September 2011.
<https://www.sciencedirect.com/science/article/abs/pii/S0378426611000781>

86. Nihat Aktas, Eric de Bodt and Jean-Gabriel Cousin, "Do Financial Markets Care About SRI? Evidence from Mergers and Acquisitions," *Journal of Banking and Finance*, Vol. 35, Issue 7, July 2011. <https://www.sciencedirect.com/science/article/abs/pii/S037842661000453X>
87. Mark Fulton, Bruce M. Kahn, Ph.D., Nils Mellquist, Emily Soong, Jake Baker, Lucy Cotter, "Investing in Climate Change 2010: A Strategic Asset Allocation Perspective," Deutsche Bank Group, 2010.
88. Dan DiBartolomeo, "Equity Risk, Credit Risk, Default Correlation, and Corporate Sustainability," *Journal of Investing*, Winter 2010. <https://joi.pm-research.com/content/19/4/128>
89. Jin-Woo Kim, "Assessing the Long-term Financial Performance of Ethical Companies," *Journal of Targeting Measurement and Analysis for Marketing*, September 2010. https://www.researchgate.net/publication/233669348_Assessing_the_long-term_financial_performance_of_ethical_companies
90. Vanina Forget, "Doing Well and Doing Good: A Multi-dimensional Puzzle," July 2012. https://www.researchgate.net/publication/254419234_Doing_well_and_doing_good_a_multi-dimensional_puzzle
91. Yongtai Ki and Myung Seok Park, "Is Earnings Quality Associated with Corporate Social Responsibility?" *The Accounting Review*, May 2012. <https://aaapubs.org/doi/10.2308/accr-10209>
92. Beiting Cheng, Ionnis Ioannou and George Serafeim, "Corporate Social Responsibility and Access to Finance," *Harvard Business School Working Knowledge*, July 2011. <https://hbswk.hbs.edu/item/corporate-social-responsibility-and-access-to-finance>
93. Robert G. Eccles, George Serafeim, and Michael P. Krzus, "Market Interest in Nonfinancial Information," *Journal of Applied Corporate Finance*, December 2011. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1745-6622.2011.00357.x>
94. Leonardo Becchetti, Rocco Ciciretti, Ambrogio Dalo and Stefano Herzel, "Socially Responsible and Conventional Investment Funds: Performance Comparison and the Global Financial Crisis," *CEIS Working Paper No. 310*, Feb. 2014. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2397939
95. Andreas G.F. Hoepner, Michael Rezec and Sebastian Siegl, "Does Pension Funds' Fiduciary Duty Prohibit the Integration of Environmental Responsibility Criteria in Investment Processes? A Realistic Prudent Investment Test," August 2017. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1930189
96. Caroline Flammer, "Corporate Social Responsibility and Shareholder Reaction: The Environmental Awareness of Investors," *Academy of Management Journal* Vol. 56, No. e, July 2012. <https://journals.aom.org/doi/10.5465/amj.2011.0744>
97. Magali Delmas, Volker H. Hoffmann and Matthias Kuss, "Under the Tip of the Iceberg: Absorptive Capacity, Environmental Strategy and Competitive Advantage," *Business Management and Economics*, February 2011. <https://journals.sagepub.com/doi/10.1177/0007650310394400>
98. Kais Bouslah, Lawrence Kryanowski and Bouchra M'Zali, "Social Performance and Firm Risk: Impact of the Financial Crisis," *Journal of Business Ethics* February 2016. <https://link.springer.com/article/10.1007/s10551-016-3017-x>
99. Robert G. Eccles, Ioannis Ioannou and George Serafeim, "The Impact of Corporate Sustainability on Organizational Progress and Performance," *Harvard Business School*

- Working Knowledge, 14 Nov 2011. <https://hbswk.hbs.edu/item/the-impact-of-corporate-sustainability-on-organizational-process-and-performance>
100. "Sustainability: Opportunity or Opportunity Cost? Applying ESG factors to a Portfolio Does Not Negatively Impact Performance and May Enhance It," RCM Sustainability White Paper, 2011.
https://www.msci.com/documents/10199/248121/11_10717_RCMSWP_ET1907.pdf/277befe1-7d58-4dbf-abf4-ec31fe021f84
 101. Emma Sjöstrom, "The Performance of Socially Responsible Investment — A Review of Scholarly Studies Published in 2008-2010," October 2011.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1948169
 102. RobecoSAM SI Research & Development, "Alpha from Sustainability," Robeco Quantitative Strategies, 2011. https://www.e-education.psu.edu/ba850/sites/www.e-education.psu.edu/ba850/files/Lesson3/Alpha_from_Sustainability_06_2014.pdf
 103. Janusz Berezcyński and Graham McIntosh, "Performance of Portfolios Composed of British SRI Stocks," Journal of Business Ethics, 120, March 2013.
<https://link.springer.com/article/10.1007/s10551-012-1541-x>
 104. Ferdinand Gul, Marion Hutchison and Karen Lai, "Gender Diversity and Properties of Analyst Earnings Forecasts," American Accounting Association Vol 27, Issue 3, September 2013. <https://aaapubs.org/doi/abs/10.2308/acch-50486>
 105. Neeraj J. Gupta, Christina C. Benson, "Sustainability and Competitive Advantage: An Empirical Study of Value Creation," Competition Forum Vo. 9(1), 2011.
https://pdfs.semanticscholar.org/30aa/2c62875f6ad2cbc5cfd4f60b8d0c7d1fd4f7.pdf?_ga=2.52879912.1666984740.1594656565-370530735.1594656565
 106. Sergio Vergalli and Laura Poddi, "Does Corporate Social Responsibility Pay?" March 2012.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2030219
 107. Paul A Griffin and Estelle Sun, "Going Green: Market Reaction to CSR Newswire Releases," Journal of Accounting and Public Policy Vol 32, No. 2, 2013.
https://www.researchgate.net/publication/228259596_Going_Green_Market_Reaction_to_CSR_Newswire_Releases
 108. Bill Francis, Iftekhar Hasan and Qiang Wu, "Do Corporate Boards Affect Firm Performance? Evidence from the Financial Crisis," Bank of Finland Research Discussion Paper 11, 2012.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2041194
 109. Mark Fulton, Bruce M. Kahn, Ph.D., Camilla Sharples, Jake Baker and Lucy Cotter, "Investing in Climate Change 2012," DB Climate Change Advisors, May 2012.
https://www.db.com/cr/en/docs/Inv_in_CC_2012.pdf
 110. Mark Fulton, Bruce Kahn and Camilla Sharples, "Sustainable Investing: Establishing Long-Term Value and Performance," June 2012.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2222740
 111. Leonardo Becchetti, Rocco Ciciretti and Alessandro Giovannelli, "Corporate Social Responsibility and Stock Market Efficiency," December 2011.
https://www.researchgate.net/publication/241767071_Corporate_Social_Responsibility_and_Stock_Market_Efficiency

112. "The CS Gender 3000: Women in Senior Management," Credit Suisse Research Institute, September 2014. <https://www.credit-suisse.com/about-us-news/en/articles/news-and-expertise/cs-gender-3000-report-2019-201910.html>
113. Nicola Misani, Stefano Pogutz, "Unraveling the Effects of Environmental Outcomes and Processes on Financial Performance: A Non-linear Approach," Ecological Economics Vol. 109, January 2015. <https://www.sciencedirect.com/science/article/abs/pii/S0921800914003449>
114. "The CS Gender 3000: Reward for Change," Credit Suisse Gender 3000: The Reward for Change," Credit Suisse Research Institute, September 2016. <https://www.credit-suisse.com/about-us-news/en/articles/news-and-expertise/cs-gender-3000-report-2019-201910.html>
115. Henri Servaes and Ane Tamayo, "The Impact of Corporate Social Responsibility on Firm Value: The Role of Customer Awareness," Management Science, Jan 2013. <https://pubsonline.informs.org/doi/10.1287/mnsc.1120.1630>
116. PwC, "Carbon Disclosure Project Global 500 Report – 2012 Summary Highlights," 2012. https://preview.thenewsmarket.com/Previews/PWC/DocumentAssets/254579_v2.pdf
117. Julia Hartmann, Richard Germain, Ph.D., and Cornelia Dodge, "Sustainability Meets Performance: Performance Implications of Waste Reduction and Product Stewardship Initiatives," December 2011. https://www.researchgate.net/publication/275847093_Sustainability_Meets_Performance_Performance_Implications_of_Waste_Reduction_and_Product_Stewardship_Initiatives
118. Sayuri Otsuka and Yusuke Takimoto, "Impact of ESG Rating Changes on Share Price Performance," Nomura Equity Research, November 21, 2012.
119. Larelle Chapple, Pamela Kent and James Routledge, "Board Gender Diversity and Going Concern Audit Opinions," January 2012. https://www.researchgate.net/publication/228198264_Board_Gender_Diversity_and_Goin_g_Concern_Audit_Opinions
120. Rami Yosef, "Female Directors and Earnings Management in High-technology Firms," Pacific Accounting Review, 2012. https://www.academia.edu/14492691/Female_directors_and_earnings_management_in_high-technology_firms?email_work_card=thumbnail
121. Janell Blazovich, Kirsten A. Cook, Janet McDonald Huston and William Robert Strawser, "Do Gay-Friendly Corporate Policies Enhance Firm Performance?" April 2013. https://www.researchgate.net/publication/256056241_Do_Gay-Friendly_Corporate_Policies_Enhance_Firm_Performance
122. André Chanavat and Katharine Ramsden, "Mining the Metrics of Board Diversity," Thomson Reuters, 2013. <https://www.empowerwomen.org/en/resources/documents/2016/1/mining-the-metrics-of-board-diversity?lang=en>
123. Brian J. Bolton, "Corporate Social Responsibility and Bank Performance," June 2013. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2277912#:~:text=First%2C%20there%20is%20a%20positive,operating%20performance%20and%20firm%20value.&text=Overall%2C%20these%20results%20suggest%20that,associated%20with%20U.S.%20financial%20institutions.
124. Leonardo Becchetti, Rocco Ciciretti, Iftexhar Hasan, "Corporate Social Responsibility, Shareholder Risk, and Idiosyncratic Volatility," Journal of Corporate Finance, Vol. 35, December 2015. <https://www.sciencedirect.com/science/article/pii/S0929119915001194>

125. Philipp Krüger, "Corporate Goodness and Shareholder Wealth," *Journal of Financial Economics*, Vol. 115, Issue 2, February 2015.
<https://www.sciencedirect.com/science/article/abs/pii/S0304405X14001925>
126. Sustainable Insight and CDP, "Linking Climate Engagement to Financial Performance: An Investor's Perspective," September 2013.
https://www.sicm.com/docs/CDP_SICM_VF_page.pdf
127. Caroline Flammer, "Does Corporate Social Responsibility Lead to Superior Financial Performance? A Regression Discontinuity Approach," *Management Science*, Feb. 2015.
128. Bahar Gidwani, "The Link Between Brand Value and Sustainability," *The Conference Board Director Notes*, October 2013.
[https://brandfinance.com/images/upload/the link between brand value and sustainability.pdf](https://brandfinance.com/images/upload/the_link_between_brand_value_and_sustainability.pdf)
129. Sangeeta Badal and James K. Harter, "Gender Diversity, Business-Unit Engagement, and Performance," *Journal of Leadership & Organizational Studies*, September 2013.
<https://journals.sagepub.com/doi/abs/10.1177/1548051813504460>
130. Elroy Dimson, Oğuzhan Karakaş, and Xi Li, "Active Ownership," June 2013.
https://www.hbs.edu/faculty/conferences/2013-sustainability-and-corporation/Documents/Active_Ownership_-_Dimson_Karakas_Li_v131_complete.pdf
131. Janell Blazovich, Katherine Taken Smith and Murphy Smith, "Employee-Friendly Companies and Work-Life Balance: Is There an Impact on Financial Performance and Risk Level?" *Journal of Organizational Culture, Communications and Conflict*, Feb. 2014.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2396084
132. JMG Consulting, LLC and Wyckoff Consulting, LLC, "Venture Capital, Social Capital and the Funding of Women-led Businesses," *SBA Office of Advocacy*, April 2013.
[https://www.sba.gov/sites/default/files/files/rs406tot\(4\).pdf](https://www.sba.gov/sites/default/files/files/rs406tot(4).pdf)
133. Bill Francis, Iftekhhar Hasan, Joog Chool Park and Qiang Wu, "Gender Differences in Financial Reporting Decision Making: Evidence from Accounting Conservatism," *Contemporary Accounting Research*, August 2014. <https://onlinelibrary.wiley.com/doi/abs/10.1111/1911-3846.12098>
134. Marcia Million Cornett, Orgontsetseg Erhemjamts and Hassan Tehranian, "Corporate Social Responsibility and Its Impact on Financial Performance: Investigation of the U.S. Commercial Banks," December 2012.
[https://www.researchgate.net/publication/272540009_Corporate_Social_Responsibility_and_Its_Impact_on_Financial_Performance_Investigation_of_the_US_Commercial_Banks#:~:text=\(2014\)%20on%20Corporate%20Social%20Responsibility,be%20rewarded%20for%20their%20social](https://www.researchgate.net/publication/272540009_Corporate_Social_Responsibility_and_Its_Impact_on_Financial_Performance_Investigation_of_the_US_Commercial_Banks#:~:text=(2014)%20on%20Corporate%20Social%20Responsibility,be%20rewarded%20for%20their%20social)
135. Yongtae Kim, Haidan Li and Siqi Li, "Corporate Social Responsibility and Stock Price Crash Risk," *Journal of Banking and Finance* Vol. 43, June 2014.
<https://www.sciencedirect.com/science/article/abs/pii/S0378426614000764>
136. Jordan I. Siegel, Lynn Pyun and B.Y. Cheon, "Multinational Firms, Labor Market Discrimination, and the Capture of Competitive Advantage by Exploiting the Social Divide," *Harvard Business School Working Knowledge*, August 2010.
<https://hbswk.hbs.edu/item/multinational-firms-labor-market-discrimination-and-the-capture-of-competitive-advantage-by-exploiting-the-social-divide>
137. Allen Ferrell, Hao Liang and Luc Renneboog, "Socially Responsible Firms," *European Corporate Governance Institute Finance Working Paper* No. 432/2014, 2104.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2464561

138. Maretno A. Harjoto, Indrarini Laksmana and Ya-Wen Yang, "Board Diversity and Corporate Risk-Taking," January 2018.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2412634#:~:text=Our%20additional%20analysis%20shows%20that,negatively%20associated%20with%20risk%20taking.
139. Hoje Jo, Hakkon Kim and Kwangwoo Park, "Corporate Environmental Responsibility and Firm Performance in the Financial Services Sector," *Journal of Business Ethics*, July 2014.
<https://link.springer.com/article/10.1007/s10551-014-2276-7>
140. Sadok El Ghouli, Omrane Guedhami, Hakkon Kim and Kwangwoo Park, "Corporate Environmental Responsibility and the Cost of Capital: International Evidence," *Journal of Business Ethics*, February 2016. <https://link.springer.com/article/10.1007/s10551-015-3005-6>
141. Deniz Anginer, Asli Demirguc-Kunt, Harry Hyizinga and Kebin Ma, "World Bank Group Policy Research Working Paper 7017, September 2014.
<http://documents1.worldbank.org/curated/en/990311468149673385/pdf/WPS7017.pdf>
142. Soh Young In, Ki Young Park and Ashby H.B. Monk, "Is 'Being Green' Rewarded in the Market?: An Empirical Investigation of Decarbonization and Stock Returns," Stanford Global Project Center Working Paper, August 2017.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3020304
143. Ali Alshehhi, Haitham Nobanee and Nilesh Khare, "The Impact of Sustainability Practices on Corporate Financial Performance: Literature Trends and Future Research Potential," March 2018. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3127668
144. Amy O'Brien, Lei Liao, CFA, and Jim Campagna, CFA, "Responsible Investing: Delivering Competitive Performance," Nuveen, Summer 2018.
https://www.tiaa.org/public/pdf/delivering_competitive_performance.pdf
145. Huasheng Gao, Wei Zhang, "Does Workforce Diversity Pay? Evidence from Corporate Innovation," July 2014.
http://images.transcontinentalmedia.com/LAF/lacom/workforce_diversity.pdf
146. "How and Why SRI Performance Differs from Conventional Strategies," Envestnet PMC, 2014. <https://www.envestnet.com/files/Campaigns/PMC-SRI-TrustedAdvisor/images/PMC-SRI-0914.pdf>
147. "The A List: The CFP Climate Performance Leadership Index 2014," 2014.
<https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/000/624/original/CDP-climate-performance-leadership-index-2014.pdf?1470231794>
148. Corinne Post and Kris Byron, "Women on Boards and Firm Financial Performance: A Meta-Analysis," *Academy of Management Journal* Vol. 58, No. 5, November 2014.
<https://journals.aom.org/doi/abs/10.5465/amj.2013.0319?journalCode=amj>
149. Mats Andersson, Patrick Bolton, Frédéric Samama, "Hedging Climate Risk," *Financial Analysts Journal*, May-June 2016. <https://www.cfainstitute.org/en/research/financial-analysts-journal/2016/hedging-climate-risk>
150. Andreas Hoepner, Ioannis Oikonomou, Bert Scholtens and Michael Schröder, "The Effects of Corporate and Country Sustainability Characteristics on The Cost of Debt: An International Investigation," *Journal of Business Finance and Accounting*, January 2016.
<https://onlinelibrary.wiley.com/doi/10.1111/jbfa.12183>
151. Shantanu Banerjee, Xin (Simba) Chang, Kangkang Fu, Tao Li and George Wong, "Corporate Environmental Risk and the Customer-Supplier Relationship," October 2014.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2533471

152. Jonathan M. Karpoff, D. Scott Lee and Gerald S. Martin, "The Economics of Foreign Bribery: Evidence from FCPA Enforcement Actions," January 2014.
https://www.stern.nyu.edu/sites/default/files/assets/documents/con_046060.pdf
153. June Rhee, "Why Do Dual-Class Firms Have Staggered Boards?" Harvard Law School Forum on Corporate Governance, February 18, 2015.
<https://corpgov.law.harvard.edu/2015/02/18/why-do-dual-class-firms-have-staggered-boards/>
154. Sadra Amiri-Moghadam and Mahdi Rastad, "The Effect of Corporate Governance on Debtholder: Evidence from CDS Spread Response to Shareholders' Votes," December 2013.
https://www.researchgate.net/publication/315452329_The_Effect_of_Corporate_Governance_on_Debtholders_Evidence_from_CDS_Spread_Response_to_Shareholders_Votes
155. Faten Lakhali, Amal Aguir, Nadia Lakhali and Adnane Malck, "Do Women on Boards and in Top Management Reduce Earnings Management? Evidence In France," The Journal of Applied Business Research, May/June 2015.
<https://pdfs.semanticscholar.org/7916/2deda121fcc2b70725e47b26410ff8c2b122.pdf>
156. Thankom Gopinath Arun, Yousf Ebrahim Alhahrog and Zakaria Ali-aribi, "Female Directors and Earnings Management: Evidence from UK Companies," University of Central Lincolnshire, International Review of Financial Analysts 39, 2015.
http://clock.uclan.ac.uk/11691/3/11691_Arun.pdf
157. Shenggang Yang, Feiying He, Zhu Qi and Zou Ziang, "How Does Corporate Social Responsibility Change Capital Structure?" Asian Finance Association 2016 Conference, Feb 2016. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2726063
158. Martin J. Conyon and Lerong He, "Firm Performance and Boardroom Gender Diversity: A Quantile Regression Approach," March 2016.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2748558
159. Robert Fernandez and Nicholas Elfner, "ESG Integration in Corporate Fixed Income," Journal of Applied Corporate Finance, July 2015,
<https://onlinelibrary.wiley.com/doi/full/10.1111/jacf.12119> Muhammad Suhail Rizwan, Asfia Obaid and Dawood Ashraf, "The Impact of Corporate Social Responsibility on Default Risk: Empirical Evidence from U.S. Firms," Business & Economic Review 9(3), 2017.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3074531
160. Douglas Beal, Robert Eccles, Gerry Hansell, Rich Lesser, Shalini Unnikrishnan, Wendy Woods, and David Young, "Total Societal Impact: A New Lens for Strategy," Boston Consulting Group, October 2017.
161. Marcus Noland, Tyler Moran and Barbara Kotschwar, "Is Gender Diversity Profitable? Evidence from a Global Survey," Peterson Institute for International Economics, Working Paper 16-3, February 2016. <https://www.piie.com/publications/working-papers/gender-diversity-profitable-evidence-global-survey>
162. Iftekhar Hasan, Nada Kobeissi, Liuling Liu and Haizhi Wang, "Corporate Social Responsibility and Firm Financial Performance: The Mediating Role of Productivity," Bank of Finland Research Discussion Paper No. 7/2016, April 2016.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2768097
163. George Serafeim, Jade Huang, Joshua Linder, CFA, Patrick Faul, CFA, and John Streur, "The Financial and Societal Benefits of ESG Integration: Focus on Materiality," Calvert Investments, June 2016. <http://ww2.oldmutual.co.za/docs/default-source/esg-documents/q3-2016/wp10013.pdf?sfvrsn=0>
164. Jon Hale, Ph.D., CFA, "You Don't Have To Sacrifice Returns for Sustainability," Morningstar, August 2016. <https://www.morningstar.com/articles/765799/article>

165. Jenna J. Burke and Rani Hoitash, "Auditor Response to Clients' Reputational Risk," December 2015. https://www.researchgate.net/publication/314503607_Auditor_Response_to_Clients'_Reputational_Risk
166. Gordon L. Clark, Andreas Feiner and Michael Viehs, "From Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance," March 2015. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2508281
167. Taeke Wiersma, "Credit analysis and ESG: a Perfect Fit," Robeco, September 2014. <https://www.robeco.com/en/insights/2014/09/credit-analysis-and-esg-a-perfect-fit.html>
168. Pradeep Velvadapu, "Russell Investments Decarbonization strategy," Russell Investments Research, May 2016. <https://russellinvestments.com/-/media/files/us/insights/institutions/equities/russell-investments-decarbonization-strategy.pdf?la=en>
169. "The Case for Sustainable Bond Investing Strengthens," Barclays, October 22, 2018. <https://www.investmentbank.barclays.com/content/dam/barclaysmicrosites/ibpublic/documents/our-insights/ESG2/BarclaysIB-ImpactSeries4-ESG-in-credit-5MB.pdf>
170. Meggiin Thwing Eastman, Damion Rallis and Gaia Mazzucchelli, "The Tipping Point: Women on Boards and Financial Performance," MSCI Research Insights, Dec. 2016. <https://www.msci.com/documents/10199/fd1f8228-cc07-4789-acee-3f9ed97ee8bb>
171. Sea-Jin Change, Ji Yeol Jimmy Oh and Kwangwoo Park, "Employee Satisfaction, Career Concerns, and Acquirer Performance," KAIST College of Business Working Paper Series No. 2016-013, August 2016. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2827397
172. N.C. Ashwin Kumar, Camille Smith, Leïa Badis, Nan Wang, Paz Ambrosy & Rodrigo Tavares, "ESG Factors and Risk-adjusted Performance: A New Quantitative Model," Journal of Sustainable Finance & Investment, 2016. <https://www.unpri.org/Uploads/g/t/y/ESG-Factors-and-Risk-Adjusted-Performance.-A-New-Quantitative-Model.pdf>
173. Jon Hale, Ph.D., CFA, "Higher Sustainability Ratings Can Mean Lower Risk," Yahoo Finance, October 2016. <https://finance.yahoo.com/news/higher-sustainability-ratings-mean-lower-100000976.html>
174. Korn Ferry Institute, "The Diversity Scorecard 2015: Diversity Matters," 2015. <https://www.kornferry.com/insights/articles/diversity-matters-adding-colour-boards-apac>
175. "Corporate Board Diversity: An Empirical Study of Its Effects on Firm Financial Performance," Submitted to Princeton University Department of Economics in Partial Fulfillment of the Requirements for the A.B. Degree, April 2016. <https://economics.princeton.edu/wp-content/uploads/2016/09/2016sample6.pdf>
176. Chuah Jim Leon Yeow, "Do LGBT-supportive Corporate Policies Enhance Firm Performance? Diversity and Inclusion Culture," Deloitte, August 2019. <https://www2.deloitte.com/au/en/blog/diversity-inclusion-blog/2019/lgbt-supportive-corporate-policies-enhance-firm-performance.html>
177. Jeff Dunn, Shaun Fitzgibbons and Lukasz Pomorski, "Assessing Risk through Environmental, Social and Governance Exposures," AQR, Journal of Investment Management, Feb. 2017. <https://www.aqr.com/Insights/Research/Journal-Article/Assessing-Risk-through-Environmental-Social-and-Governance-Exposures>
178. Alberto Manconi, Antonio Emanuele Rizzo and Oliver G. Spalt, "Diversity Investing," August 2017. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2706550

179. Hao Liang, Luc Renneboog and Cara Vansteenkiste, "Corporate Employee-Engagement and Merger Outcomes," CentER Discussion Paper Series No. 2017-011, March 2017. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2932021
180. Christopher Geczy, John Guerard and Mikhail Samonov, "Efficient SRI/ESG Portfolios," July 2019, [https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3011644&dgcid=ejournal_html_email_wharton:research:data:services:\(wrds\):research:paper:series_abstractlink](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3011644&dgcid=ejournal_html_email_wharton:research:data:services:(wrds):research:paper:series_abstractlink).
181. Tony Batsakis and Sarah Cain, "ASX 300+ for Mid-market Enterprises: Secrets to Success," KPMG, April 2017. <https://home.kpmg/au/en/home/insights/2017/04/secrets-to-success-asx-300-mid-market-enterprises.html>
182. Robert G. Eccles, Ph.D., and Mirtha D. Kastropeli, "The Investing Enlightenment: How Principle and Pragmatism Can Create Sustainable Value through ESG," State Street Corporation, 2017. https://www.statestreet.com/content/dam/statestreet/documents/Articles/The_Investing_Enlightenment.pdf
183. Susanna Rust, "Hermes Finds 'Clear Relationship' Between ESG and Credit Spreads," IPE, April 2017. <https://www.ipe.com/news/esg/hermes-finds-clear-relationship-between-esg-and-credit-spreads/10018501.article>
184. Priyank Arora, Manpreet Hora, Vinod R. Singhal and Ravi Subramanian, "When Do Appointments of Corporate Sustainability Executives Affect Shareholder Value?" Georgia Tech Scheller College of Business Research Paper No. 17-17, April 2017. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2959705
185. Hernando Cortina, "JUST Companies Exhibit Lower Investment Risk," JUST Capital, March 4, 2017. <https://justcapital.com/news/just-companies-exhibit-lower-investment-risk/>
186. "Women Employees Boost the Bottom Line for Tech Firms," Morgan Stanley Research, May 2017. https://www.morganstanley.com/ideas/gender-diversity-tech-companies?et_mid=15605&et_mkid=e447ca85804c5776f23e794e218a6864
187. Kee-Hong Bae, Sadok El Ghouli, Omrane Guedhami, Chuck C.Y. Kwok and Ying Zheng, "Does Corporate Social Responsibility Reduce the Costs of High Leverage? Evidence from Capital Structure and Product Market Interactions," Journal of Banking and Finance, April 2017. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2959444
188. "CEO Value: How Corporate Governance Can Be a Differentiating Factor for Long-term Value," Société Générale, May 2017.
189. Jeff Hoffman and Andrea Bonime-Blanc, "Seeing Opportunity in Reputation Risk," NACD Directorship, March/April 2017.
190. Tamas Barko, Martijn Cremers and Luc Renneboog, "Shareholder Engagement on Environmental, Social, and Governance Performance," CentER Discussion Paper Series No. 2017-040, May 2017. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2977219
191. Jon Hale, "Sustainable Funds Start To Perform," Morningstar Fund Research & Insights, August 2017. <https://www.morningstar.co.uk/uk/news/160656/sustainable-funds-start-to-perform.aspx>
192. Leslie P. Norton and Crystal Kim, "The Top-Performing Sustainable Funds," Barron's, Oct. 2017. https://www.barrons.com/articles/the-top-performing-sustainable-funds-1507350787?mod=hp_highlight_1&

193. Hami Amiraslani, Karl V. Lins, Henri Servaes and Ane Tamayo, "A Matter of Trust? The Bond Market Benefits of Corporate Social Capital During the Financial Crisis," CEPR Discussion Paper No. DP12321, September 2017.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3042634
194. Yannick Ouaknine, Nimit Agarwal and Aiswarya Sankar, "SRI: Beyond Integration," Société Générale Cross Asset Research, October 2017.
<https://doc.sgmarkets.com/en/1/0/4118/207818.html?sid=e41b27950eb1c8cb9d4e9030b737eba1>
195. Elena K. Johansson, "Governance Quality Could Drive Green Bond Outperformance, says Nomura," Environmental Finance, December 2018. https://www.environmental-finance.com/content/news/governance-quality-could-drive-green-bond-outperformance-says-nomura.html?utm_source=020119na&utm_medium=email&utm_campaign=alert
196. Robert F. Engle, Stefano Giglio, Heebum Lee, Bryan T. Kelly and Johannes Stroebel, "Hedging Climate News," Yale ICF Working Paper No. 2019-02, August 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3317570
197. Haim Israel, Savita Subramanian, Sameer Chopra, Manish Kabra, CFA, Felix Tran, Lauma Kalns-Timans Jill Carey Hall, CFA, Janes Yeo and Paula Strzelinska, "The She-conomy," Morgan Stanley, March 2019.
https://research1.ml.com/Archive/11972288.pdf?w=jgorte%40paxworld.com&q=zx4sAnT VLQpvstAJPyjhw&_gda_ =1595004843_e8eaf7f2b3aa75139cfa56790d1c72ae
198. George Serafeim, "How Purpose-driven Employees Help Power Profitable Companies," Eaton Vance, February 2019.
<https://www.savvyinvestor.net/sites/default/files/node/paper/file/Managing%20human%20capital%20for%20value%20creation.pdf>
199. Rob Drijckoning and Nish Popat, "ESG for EMG: Toward Best Practice," Neuberger Berman, January 2019. <https://www.nb.com/en/global/insights/esg-for-emd-toward-best-practice>
200. Bhupinder Bahra, Lovjit Thukral, "Does an ESG Tilt Improve Corporate Bond Portfolio Outcomes? A Systematic Back-test of MSCI ESG ratings," J.P. Morgan Asset Management, <https://am.jpmorgan.com/au/en/asset-management/adv/insights/portfolio-insights/does-an-esg-tilt-improve-corporate-bond-portfolio-outcomes/#:~:text=Can%20an%20active%2C%20ESG%2Dtilted,strategy%20generate%20superior%20performance%20vs.&text=We%20conclude%20that%20ESG%20scores,marginally%20increased%20risk%2Dadjusted%20returns.>
201. Vineet Bhagwat, Sara Shirley and Jeffrey Stark, "Gender, Learning, and Overconfidence: Why Females Create More Accurate Earnings Estimates," February 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3338478
202. "The Long-Term Habits of a Highly Effective Corporate Board," FCLT Global, March 2019.
<https://www.fcltglobal.org/resource/the-long-term-habits-of-a-highly-effective-corporate-board/#:~:text=Corporate%20boards%20are%20vital%20in,company's%20current%20and%20future%20path.>

203. Hongtao Shen, Hyiyang Wu and Parmod Chand, "The Impact of Corporate Social Responsibility Assurance on Investor Decisions: Chinese Evidence," *International Journal of Auditing* Vol. 21, Issue 3, Oct 2017.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3050220
204. Dan Lefkowitz, "Analyzing the Performance of the Morningstar Sustainability Indexes: Sustainability Indexes Score Well on Returns, Volatility, Quality and Financial Health," Oct. 2017. <https://www.morningstar.com/insights/2017/10/20/sustainability-index>
205. Mohammed Zakriya, "Sustain and Deliver: Capturing the Valuation Effects of Corporate Sustainability," ESADE Business School Research Paper Series, June 2018.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3053816
206. Mónica López-Lamy, Kurt Desender and Mircea Epure, "Corporate Social Responsibility and the Assessment by Auditors of the Risk of Material Misstatement," *Journal of Business Finance & Accounting*, July 2017. <https://onlinelibrary.wiley.com/doi/10.1111/jbfa.12268>
207. Fábio Costa, M.H. Carol Liu, Regina C. Rosa and Samuel L. Tiras, "The Impact of the Deviation in Sustainability Reporting from Implementation on Future Performance and Analysts' Forecasts," December 2016.
https://www.researchgate.net/publication/321230571_The_Impact_of_the_Deviation_in_Sustainability_Reporting_from_Implementation_on_Future_Performance_and_Analysts'_Forecasts
208. Jody Grewal, Clarissa Haputmann and George Serafeim, "Material Sustainability Information and Stock Price Informativeness," *Journal of Business Ethics*, May 2017.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2966144
209. Ravi Jagannathan, Ashwin Ravikumar and Marco Sammon, "Environmental, Social, and Governance Criteria: Why Investors Are Paying Attention," NBER Working Paper No. w24063, Dec. 2017. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3082225
210. Doug Morrow, Martin Vezér, Andrei Apostol and Kasey Vosburg, "Understanding ESG Incidents: Key Lessons for Investors," December 2017.
https://marketing.sustainalytics.com/acton/attachment/5105/f-0a70/1/-/-/-/-/UnderstandingESGIncidents_KeyLessonsforInvestors.pdf?utm_term=DOWNLOAD%20THE%20REPORT&utm_campaign=Sustainalytics%20Publishes%20New%20Thematic%20Research%20Report%20-%20Understand
211. Guido Giese, Linda-Eling Lee, Dimitris Melas, Zoltán Nagy, and Laura Nishikawa, "Foundations of ESG Investing: How ESG Affects Equity Valuation, Risk, and Performance," MSCI, July 2019. <https://www.msci.com/documents/10199/03d6faef-2394-44e9-a119-4ca130909226>
212. Richard Paul Gregory, "Does Socially Responsible Corporate Reporting Lead to Less Stock Speculation?" December 2017.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3092245
213. Roger C. Mayer, Richard S. Warr and Jing Zhao, "Do Pro-Diversity Policies Improve Corporate Innovation?" Jan 2018.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3103322
214. Rodney Overmans, "The Effect of Gender Diversity on Earnings Quality," Erasmus School of Economics, August 2017. <https://thesis.eur.nl/pub/39303>

215. Dilesha Rathnayake, Gang Sun, "Corporate Ownership, Governance and Performance: Evidence from Asian Countries," Research Journal of Finance and Accounting 8(15), March 2018. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3134585
216. "How Environmental and Climate Risks and Opportunities Factor Into Global Corporate Ratings — An Update," S&P Global Ratings, November 2017. <https://www.spratings.com/documents/20184/1634005/How+Environmental+And+Climate+Risks+And+Opportunities+Factor+Into+Global+Corporate+Ratings+-+An+Update/5119c3fa-7901-4da2-bc90-9ad6e1836801>
217. Moody's Investors Service, "Moody's Approach To Assessing ESG in Credit Analysis," October 2017. <https://us.rbcgam.com/resources/docs/pdf/HTML-files/ESG/Roadshow/ESG%20in%20ratings.pdf>
218. Lazard Emerging Markets Debt Team, "Giving Credit Where It's Due: ESG Factors in EM Sovereign Debt," Lazard Asset Management, 2017. https://www.lazardassetmanagement.com/docs/-m0-/54204/GivingCreditWhereItsDue_LazardResearch_en.pdf
219. Kirsten A. Cook, Andrea Romi, Daniela Sanchez and Juan Manuel Sanchez, "The Influence of Corporate Social Responsibility on Investment Efficiency and Innovation," Journal of Business Finance and Accounting, June 2015. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2616021
220. Claudine Madras Gartenberg, Andrea Prat and George Serafeim, "Corporate Purpose and Financial Performance," Sept. 2016. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2840005
221. Vivian Hunt, Lareina Yee, Sara Prince and Sundiatu Dixon-Fyle, "Delivering through Diversity," McKinsey & Company, January 2018. <https://www.mckinsey.com/business-functions/organization/our-insights/delivering-through-diversity>
222. Lu Yu, "Can ESG Analysis Help Improve High Yield Returns?" B&G Bond Vigilantes, June 2018. <https://www.bondvigilantes.com/blog/2018/02/06/can-esg-analysis-help-improve-high-yield-returns/>
223. Savita Subramanian, Jill Carey Hall, CFA and James Yeo, "Women: The X-factor," Bank of America Merrill Lynch, March 2018.
224. Meggin Thwing Eastman, "Women on Boards: One Piece of a Bigger Puzzle," MSCI, March 2018. https://www.msci.com/www/blog-posts/women-on-boards-one-piece-of-a/0872932779?utm_source=onemsci&utm_medium=email&utm_campaign=msci_monthly_03_2018
225. "The Carbon Clean200: Leading the Transition to a Clean Energy Future," February 2020. <https://www.corporateknights.com/reports/2020-clean-200/2020s-carbon-clean-200-top-200-leading-transition-clean-energy-future-15815808/>
226. Carlo Svaluto Moreolo, "ESG: The Sustainability Factor," IPE, April 2018. https://www.ipe.com/reports/special-reports/factor-investing/esg-the-sustainability-factor/10023927.article?utm_term=&utm_source=IPE%20Top%2010%20this%20week&utm_medium=Email&utm_content=6.%20ESG%3A%20The%20sustainability%20factor%C2%A0https%3A%2F%2Fwww.ipe.com%2Freports%2Fspecial-reports%2Ffactor-investing%2Fesg-the-sustainability-

- [factor%2F10023927.article&utm_campaign=13.4.18%20ipe%20top%2010%20news_Norway%20decides%20against%20private%20equity%20for%20SWF](#)
227. Encarna Guillamon Saorin, "Corporate Social Responsibility and Operational Inefficiency: A Dynamic Approach," March 2018.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3148746
228. Panos Seretic, Meggin Thwing Eastman, "Enhancing Economic Value with ESG," MSCI Research Insight, February 2018. <https://www.msci.com/documents/10199/48e85d65-66d4-40e7-b316-c64a95b83a04>
229. Guido Giese, Linda-Eling Lee, Dimitris Melas, Zoltan Nagy and Laura Nishikawa, "Foundations of ESG Investing Part 2: Integrating ESG Into Benchmarks," May 2018.
<https://www.msci.com/esg-foundations>
230. Mike Chen and George Mussalli, "Integrated Alpha: The Future of ESG Investing," April 2018. <http://www.panagora.com/assets/PanAgora-Investment-Insight-April-2018-Integrated-Alpha-The-Future-of-ESG-Investing.pdf>
231. Emily Steinbarth and Scott Bennett, Russell Investments, "Materiality Matters: Targeting the ESG Issues that Impact Performance," Harvard Law School Forum on Corporate Governance, May 10, 2018. <https://corpgov.law.harvard.edu/2018/05/10/materiality-matters-targeting-the-esg-issues-that-impact-performance/>
232. "Sustainable Investing Goes Mainstream," Morgan Stanley, Feb. 2019.
<https://www.morganstanley.com/press-releases/sustainable-investing-goes-mainstream---morgan-stanley-and-bloom>
233. E. Han Kim, Ernst G. Maug, Christoph Schneider, "Labor Representation in Governance as an Insurance Mechanism," Review of Finance 22 (4), February 2014.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2399399
234. Jegoo Lee, Samuel B. Graves and Sandra Waddock, "Doing Good Does Not Preclude Doing Well: Corporate Responsibility and Financial Performance, Social Responsibility Journal 14(4), 2017. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3168075
235. Benjamin Colton, "What Are the Effects of Employee Voice Mechanisms on Performance, Diversity, and Employee Satisfaction Dimensions in Public Corporations?" May 2018. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3178382
236. Ann-Kathrin Blankenberg and Jonas F.A. Gottschalk, "Is Socially Responsible Investing (SRI) in Stocks a Competitive Capital Investment? A Comparative Analysis Based on the Performance of Sustainable Stocks," CEGE Discussion Paper No. 349, May 2018.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3186094
237. Panos Seretis and Meggin Thwing Eastman, "'G' is just one part of the ESG story," MSCI, June 2018. <https://www.msci.com/www/blog-posts/g-is-just-one-part-of-the-esg/01027687895>
238. Anthony A. Renshaw, Ph.D., "ESG's Evolving Performance: First, Do No Harm," Axioma, 2018.
<https://www.savvyinvestor.net/sites/default/files/node/paper/file/ESG%20evolving%20performance%20Axioma.pdf>
239. Jayasuriya M.R. Fernaldo, Leon Li and Yang (Greg) Hou, "Corporate Governance and Correlation in Corporate Defaults," Corporate Governance, October 2019.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/corg.12306>

240. Michael Shafer and Edward Szado, "Environmental, Social and Governance Practices and Perceived Tail Risk," August 2018.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3220617
241. Guido Geise, Linda-Eling Lee, Dimitris Melas, Zoltán Nagy, and Laura Nishikawa, "Performance and Risk Analysis of Index-Based ESG Portfolios," *The Journal of Index Investing* 9(4), 2019. <https://www.msci.com/documents/10199/b07d04e1-2cce-9f35-5400-0e5cf4a0c76a>
242. Zhichuan Frank Li, Dylan Minor, Jun Wang, and Chong Yu, "A Learning Curve of the Market: Chasing Alpha of Socially Responsible Firms," *Journal of Economic Dynamics and Control*, 2018. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3224796
243. Dhoha Trabelsi and Sabrina Chikh, "Do Financial Markets Reward Eco-Efficiency?" May 2018. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3172773
244. Mohammed Zakriya, "Sustain and Deliver: Capturing the Valuation Effects of Corporate Sustainability," ESADE Business School Research Paper Series, 9th Conference on Financial Markets and Corporate Governance 2018, 2018.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3053816
245. George Serafeim, "Public Sentiment and the Price of Corporate Sustainability," *Financial Analysts Journal* 76(2), October 2018.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3265502
246. Joni Hersch, "Valuing the Risk of Workplace Sexual Harassment," *Journal of Risk and Uncertainty*, Vanderbilt Law Research Paper No. 18-44, October 2018.
247. Guido Giese, Zoltan Nagy, "How Markets Price ESG," MSCI Research Insight, November 2018. <https://www.msci.com/documents/10199/f3f252a7-0dbd-035b-e67c-964a87fbcd03>
248. Samuel Hartzmark and Abigail B. Sussman, "Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows," *European Corporate Governance Institute Finance Working Paper No. 565/2018*, 2018.
https://ecgi.global/sites/default/files/working_papers/documents/finalhartzmarksussman.pdf
249. Ross Levine, Chen Lin and Zigan Wang, "Pollution and Human Capital: Evidence from Corporate Executives," NBER Working Paper No. w24389, March 2018.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3138342
250. Mozaffar Khan, "Corporate Governance, ESG, and Stock Returns Around the World," *Financial Analysts Journal* 75(4), 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3279830
251. Hanna Sikadz, Przemyslaw Wolczek, "ESG Analysis of Companies Included in the Respect Index Based on Thomson Reuters EIKON Database," *Research Papers of Wroclaw University of Economics*, 2018. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3296026
252. Abraham Louoi, "Is ESG Risk Priced?" November 2018.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3285091
253. "Integrating ESG in Portfolio Construction," QMa, a PGIM Company, 2018.
https://www.qma.com/assets/pdf/QMA_Integrating_ESG_in_Portfolio_Construction_Brief_ADA.pdf
254. Sawai Jin, Liuling Liu, Jun Ma, Haizhi Wang and Desheng Yin, "How Have Green Companies Fared in Transactions with Banks? A Stakeholder-Management Perspective,"

- Journal of Applied Corporate Finance 30(4), February 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3335336
255. Edith Ginglinger and Quentin Moreau, "Climate Risk and Capital Structure," Université Paris-Dauphine Research Paper No 3327185, Feb 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3327185
256. Vijay Eswaran, "The Business Case for Diversity in the Workplace is Now Overwhelming," World Economic Forum, April 2019.
<https://www.weforum.org/agenda/2019/04/business-case-for-diversity-in-the-workplace/>
257. Rodolphe Durand, Luc Paugam and Hervé Stolowy, "Do Investors Actually Value Sustainability Indices? Replication, Development, and New Evidence on CSR Visibility," Strategic Management Journal, HEC Paris Research Paper No. SPE-2019-1335, May 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3364141
258. Shiu-Yik Au, Bin Qiu and Szy-Yin (Jennifer) Wu, "Do Risk Factor Disclosures Reduce Stock Price Crash Risk?" June 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3363912
259. Vishal K. Gupta, Sandra Mortal, Bidisha Chakrabarty, Xiaohu Guo and Daniel B. Turban, "CFO Gender and Financial Statement Irregularities," Academy of Management Journal 63(3), Jun3 29, 2020. <https://journals.aom.org/doi/10.5465/amj.2017.0713>
260. Muhammad Shahin Miah, "Does Female Representation in Top Management Affect the Cost of Debt? A Study of Australian CEO Gender Perspective," Bank Parikrama: A Journal of Banking and Finance Vol. XLIV, Issue 1 & 2, 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3367701
261. Alison Omens, "Reskilling America's Workforce for the Future of Work," JUST Capital, July 18, 2019. <https://justcapital.com/news/reskilling-americas-workforce-for-the-future-of-work/>
262. Aneta Pintekova and Jiri Kukacka, "Corporate Social Responsibility and Stock Prices After the Financial Crisis: The Role of Primary Strategic CSR Activities," April 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3380881
263. Hollis A. Skaife and Timothy Werner, "Changes in Firms' Political Investment Opportunities, Managerial Accountability, and Reputational Risk," Journal of Business Ethics 163, June 2019. <https://link.springer.com/article/10.1007/s10551-019-04224-6>
264. Suwongrat Papangkorn, Pattanaport Chatjuthamard, Pornsit Jiraporn and Sirisak Chueykamhang, "The Effect of Female Directors on Firm Performance: Evidence from the Great Recession," May 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3375702
265. "The Win-Win of Just Jobs," JUST Capital, April 2019. https://justcapital.com/wp-content/uploads/2019/04/Win-Win-of-JUST-Jobs-Report_041619.pdf
266. H. Xi, J. Wu and M. Dao, "Corporate Social Responsibility and Trade Credit," Rev. Quant. Finan. Acc. 54, May 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3412964&dgcid=ejournal_html_email_corporate:governance:finance:ejournal_abstractlink
267. Hami Amiraslani, "Board Structure and Bondholder Agency Risk: Evidence from Board Reforms," August 2019.

- https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3431997&dgcid=ejournal_html_email_corporate:governance:finance:ejournal_abstractlink
268. Hans Bonde Christensen, Luzi Hail and Christian Leuz, "Adoption of CSR and Sustainability Reporting Standards: Economic Analysis and Review," European Corporate Governance Institute – Finance Working Paper No. 623/2019, August 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3427748
269. Helene Maghin, "Cracks in the Boards: The Opportunity Cost of Homogeneous Boards of Directors," July 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3426192&dgcid=ejournal_html_email_corporate:governance:finance:ejournal_abstractlink
270. John Bae, Wonik Choi and Jongha Lim, "Corporate Social Responsibility: An Umbrella or a Puddle on a Rainy Day? Evidence Surrounding Corporate Financial Misconduct," European Financial Management, Sept 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3443824&dgcid=ejournal_html_email_corporate:governance:social:responsibility:social:impact:ejournal_abstractlink
271. Manthos D. Delis, Kathrin de Greiff, and Steven Ongena, "Being Stranded with Fossil Fuel Reserves? Climate Policy Risk and the Pricing of Bank Loans," EBRD Working Paper No. 231, Sept. 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3451335&dgcid=ejournal_html_email_european:bank:for:reconstruction:development:research:paper:series_abstractlink
272. Gautam Dhingra, PhD, CFA and Christopher J. Olson, CFA, "ESG Investing: Can You Have Your Cake and Eat It Too?" CFA Institute Enterprising Investor, September 3, 2019.
https://blogs.cfainstitute.org/investor/2019/09/03/esg-investing-can-you-have-your-cake-and-eat-it-too/?s_cid=eml_Enterprising&mkt_tok=eyJpIjoiWkRVNVpqY3daVFI3TmpReilsInQiOil0eIE5czIGTVIiU3BIYORESEVKVONuNG5wRW4rM0g1d2ZxNW1CNG40ZGpUcm53YWRPTVdGXC9KRXFRC8xSXBXMzVPbEY5ZXRLQnhxTytmdit2OG53d2gxeXV4akdhZmJldVVmWkhWdWVhIn0%3D
273. Miriam Breitenstein, Duc Khuong Nguyen and Thomas Walther, "Environmental Hazards and Risk Management in the Financial Sector: A Systematic Literature Review," University of St. Gallen, School of Finance Research Paper No. 2019/10, May 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3428953&dgcid=ejournal_html_email_risk:management:ejournal_abstractlink
274. Xi Li and Aneesh Raghunandan, "Institutional Ownership and Labor-Related Misconduct: Evidence from U.S. Federal Violations," September 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3428953&dgcid=ejournal_html_email_risk:management:ejournal_abstractlink
275. Panagiotis Karavitis, Sotirion Kokas and Serafeim Tsoukas, "Gender Board Diversity and the Cost of Bank Loans," Sept. 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3453680&dgcid=ejournal_html_email_corporate:governance:finance:ejournal_abstractlink
276. Othar Kordsachia, "Socially Responsible Investors, Firm Value and Firm Risk," Sept. 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3451115&dgcid=ejournal_html_email_corporate:governance:social:responsibility:social:impact:ejournal_abstractlink

277. Alex Cheema-Fox, Bridget R. LaPerla, George Serafeim, David Turkington and Hui Wang, "Decarbonization Factors," Harvard Business School Working Paper 20-037, 2019. https://www.hbs.edu/faculty/Publication%20Files/20-037_57c71115-3469-44a7-aae9-cdf389b062ca.pdf
278. Alessi Lucia, Elisa Ossola, Roberto Panzica, "The Greenium Matters: Evidence on the Pricing of Climate Risk," University of Milan Bicocca Department of Economics, Management and Statistics Working Paper No. 418, Sept. 2019. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3452649&dgcid=ejournal_html_email_university:of:milan:bicocca:department:of:economics,:management:statistics:research:paper:series_abstractlink
279. Karl V. Lins, Lukas Roth, Henri Servaes and Ane Tamayo, "Gender, Culture, and Firm Value: Evidence from the Harvey Weinstein Scandal and the #MeToo Movement," University of Alberta School of Business Research Paper No. 2019-509, European Corporate Governance Institute – Finance Working Paper No. 679/2020, May 2020. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3458312&dgcid=ejournal_html_email_corporate:governance:finance:ejournal_abstractlink
280. Ashish Lodh, "ESG and the Cost of Capital," MSCI, Feb. 2020. https://www.msci.com/www/blog-posts/esg-and-the-cost-of-capital/01726513589?utm_source=onemsci&utm_medium=email&utm_campaign=msci-weekly-2020-02-27
281. Tobias Kruse, Myra Mohnen and Misato Sato, "Are Financial Markets Aligned with Climate Action? New Evidence from the Paris Agreement," Grantham Research Institute on Climate Change and the Environment, Centre for Climate Change Economics and Policy Working Paper No. 364, Feb. 18, 2020. <http://www.lse.ac.uk/GranthamInstitute/publication/are-financial-markets-aligned-with-climate-action-new-evidence-from-the-paris-agreement/>
282. "The Carbon Clean200: Leading the Transition to a Clean Energy Future," Corporate Knights, Feb. 13, 2020. <https://www.corporateknights.com/channels/clean-technology/2020s-carbon-clean-200-top-200-leading-transition-clean-energy-future-15815808/>
283. Temi Oyeniyi, CFA and Richard Tortoriello, "The 'Trucost' of Climate Investing: Managing Climate Risks in Equity Portfolios," S&P Global Quantamental Research, December 2019. <https://www.spglobal.com/marketintelligence/en/documents/the-trucost-of-climate-investing.pdf>
284. Panos Seretis, Zoltan Nagy, and Ric Marshall, "ESG Investing in Emerging Markets," MSCI, February 2020. <https://www.msci.com/documents/10199/239004/Research-Insight-ESG-investing-in-emerging-markets.pdf/1b53d40c-2caf-b30c-37e5-cf881376cdc4>
285. Suphi Sen and Marie-Theres von Schickfus, "Climate Policy, Stranded Assets, and Investors' Expectations," CESifo Network, CESifo Working Paper No. 7945, 2019. <https://www.cesifo.org/en/publikationen/2019/working-paper/climate-policy-stranded-assets-and-investors-expectations>
286. Christina V. Atanasova and Eduardo S. Schwartz, "Stranded Fossil Fuel Reserves and Firm Value," NBER Working Paper No. 226497, Nov. 2019.

- https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3492899&dgcid=ejournal_html_email_nber:working:paper:series_abstractlink
287. Caroline Flammer, Michael W. Toffel, and Kala Viswanathan, "Shareholder Activism and Firms' Voluntary Disclosure of Climate Change Risks," October 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3468896&dgcid=ejournal_html_email_harvard:business:school:technology:operations:management:unit:working:paper:series_abstractlink
288. Haim Israel, Savita Subramanian, Jill Carey Hall, CFA, Sameer Chopra, Manish Kabra, CFA, Lauma Kalns-Timans, Pinaki Das, Felix Tran, Marisa Sullivan, CFA, and James Yeo, "Womentum!", Bank of America Merrill Lynch Global Research, March 3, 2020.
289. Hyun Joong Im, Barry R. Oliver, Kyojik "Roy" Song and Meng Zhao, "CSR Performance and the Economic Value of Innovation," June 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3549827&dgcid=ejournal_html_email_corporate:governance:economics:ejournal_abstractlink
290. Yucheng Ji, Weijun Xu and Qi Zhao, "The Real Effects of Stock Prices: Learning, Disclosure, and Corporate Social Responsibility," Accounting & Finance 59, 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3556112
291. Philippe Aghion, Roland Bénabou, Ralf Martin and Alexandra Roulet, "Environmental Preferences and Technological Choices: Is Market Competition Clean or Dirty?" NBER Working Paper No. w26921, April 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3569385&dgcid=ejournal_html_email_nber:working:paper:series_abstractlink
292. Ahmed Imran Hunjra, Rashid Mehmood and Tahar Tayachi, "How Do Corporate Social Responsibility and Corporate Governance Affect Stock Price Crash Risk?" J. Risk Financial Manag., 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3538104&download=yes
293. Jinshuai Hu, Siqi Li, Alvaro G. Taboada and Feida Zhang, "Corporate Board Reforms Around the World and Stock Price Crash Risk," Journal of Corporate Finance 62, 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3526384&dgcid=ejournal_html_email_corporate:governance:finance:ejournal_abstractlink
294. Felician G Stratmann et. al, "Green Bond Performance Amid the Volatility," Morgan Stanley Research, April 29, 2020.
295. Alexander Cheema-Fox, Bridget Realmuto LaPerla, George Serafeim and Hui (Stacie) Wang, "Corporate Resilience and Response During COVID-19," Harvard Business School Accounting & Management Unit Working Paper No 20-108, July 2020.
296. Pattanaporn Chatjuthamard, Pornsitt Jiraporn, Manohar Singh and Pattarake Sarajoti, "The Effect of Political Risk on Shareholder Value and the Mitigating Role of Corporate Social Responsibility (CSR)," May 2020.
https://privpapers.ssrn.com/sol3/papers.cfm?abstract_id=3579209&dgcid=ejournal_html_email_corporate:governance:social:responsibility:social:impact:ejournal_abstractlink
297. Peter Iliev and Lukas Roth, "Do Directors Drive Corporate Sustainability?" April 2020.
https://privpapers.ssrn.com/sol3/papers.cfm?abstract_id=3575501&dgcid=ejournal_html_email_corporate:governance:social:responsibility:social:impact:ejournal_abstractlink
298. Wenzhi Ding, Ross Levine, Chen Lin and Wensi Xie, "Corporate Immunity to the COVID-19 Pandemic," April 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3578585&dgcid=ejournal_html_email_corporate:governance:finance:ejournal_abstractlink

299. Lee Seltzer, Laura T. Starks, Qifei Zhu, "Climate Regulatory Risks and Corporate Bonds," April 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3563271&dgcid=ejournal_html_email_risk:management:ejournal_abstractlink
300. Patrick Bolton and Marcin T. Kacperczyk, "Do Investors Care About Carbon Risk?" Columbia Business School Research Paper Forthcoming, April 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3398441
301. Madhu Bala, "Corporate Social Responsibility Activities: A Review and Evaluation After Its Legislation in India," April 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3555271&dgcid=ejournal_html_email_corporate:governance:social:responsibility:social:impact:ejournal_abstractlink
302. Melissa Griswold, David Porras and Brad G. Scott, "Fortune's 50 Best Companies for Minorities: Does Diversity Pay?" January 2005.
https://www.researchgate.net/publication/228238016_Fortune's_50_Best_Companies_for_Minorities_Does_Diversity_Pay
303. Shiu-Yik Au, Ming Dong and Andreanna Tremblay, "How Much Does Workplace Sexual Harassment Hurt Firm Value?" June 2020.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3437444
304. Karl V. Lins, Henri Servaes and Ane Tamayo, "Social Capital, Trust, and Corporate Performance: How CSR Helped Companies During the Financial Crisis (and Why it Can Keep Helping Them)," Journal of Applied Corporate Finance 31(2), May 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3604416
305. Witold J. Henisz and James McGlinch, "ESG, Material Credit Events, and Credit Risk," Journal of Applied Corporate Finance 31 (2), 2019.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3604421
306. Gianfranco Gianfrate, "Climate Change and Credit Risk," Journal of Cleaner Production 2020, EHDEC-Risk Institute Working Paper, 2020.
https://privpapers.ssrn.com/sol3/papers.cfm?abstract_id=3568711&dgcid=ejournal_html_email_risk:management:ejournal_abstractlink
307. Danlin Wang, "The Relationship Between Credit Rating and Corporate Social Responsibility," May 2020.
https://privpapers.ssrn.com/sol3/papers.cfm?abstract_id=3583934&dgcid=ejournal_html_email_risk:management:ejournal_abstractlink
308. Aymeric Bellon, "Does Private Equity Ownership Make Firms Cleaner? The Role of Environmental Liability Risks," June 2020.
https://privpapers.ssrn.com/sol3/papers.cfm?abstract_id=3604360&dgcid=ejournal_html_email_corporate:governance:finance:ejournal_abstractlink
309. Madelyn Antoncic, Geert Bekaert, Richard V Rothenberg, and Miquel Noguer, "Sustainable Investment – Exploring the Linkage between Alpha, ESG, and SDGs," July 2020.
https://privpapers.ssrn.com/sol3/papers.cfm?abstract_id=3623459&dgcid=ejournal_html_email_risk:management:ejournal_abstractlink
310. Rey Dang, L'Hocine Houanti, Krisha Reddy and Michel Simioni, "Does Board Gender Diversity Influence Firm Profitability? A Control Function Approach, Economic Modelling, forthcoming, June 2020.
https://privpapers.ssrn.com/sol3/papers.cfm?abstract_id=3598154&dgcid=ejournal_html_email_corporate:governance:finance:ejournal_abstractlink

311. Savita Subramanian, Sameer Chopra, Manish Kabra, CFA, Alex Makedon, Jill Carey Hall, CFA, Marisa Sullivan, CFA, Paulina Strzelinska, James Yeo, and Lucy Huang, "When Bad News Hits Good Companies," Bank of America Merrill Lynch Global Research, June 24, 2020.

Appendix 2: Financial Analyst Ratings for S&P 500 Companies

Ticker	Short Name	Current Market Cap	Total Buy Recommendations	Total Hold Recommendations	Total Sell Recommendations
A UN Equity	AGILENT TECH INC	\$28,666,893,445	8	6	2
AAL UW Equity	AMERICAN AIRLINE	\$6,325,963,287	4	6	9
AAP UN Equity	ADVANCE AUTO PAR	\$10,043,862,472	12	7	2
AAPL UW Equity	APPLE INC	\$1,673,443,400,150	29	9	4
ABBV UN Equity	ABBVIE INC	\$176,129,661,75	8	15	5
ABC UN Equity	AMERISOURCEBERG E	\$20,897,600,590	10	8	1
ABMD UW Equity	ABIOMED INC	\$12,298,853,351	4	4	1
ABT UN Equity	ABBOTT LABS	\$170,516,689,42	6	17	3
ACN UN Equity	ACCENTURE PLC-A	\$139,607,307,47	1	17	9
ADBE UW Equity	ADOBE INC	\$204,476,494,73	3	18	9
ADI UW Equity	ANALOG DEVICES	\$42,791,334,212	18	5	1
ADM UN Equity	ARCHER-DANIELS	\$22,753,124,762	9	5	0
ADP UW Equity	AUTOMATIC DATA	\$62,824,418,284	5	14	2
ADSK UW Equity	AUTODESK INC	\$51,298,607,914	17	4	4
AEE UN Equity	AMEREN CORP	\$18,946,953,658	10	4	0
AEP UN Equity	AMERICAN ELECTRI	\$42,169,168,787	13	5	1

AES UN Equity	AES CORP	\$9,893,823,228	9	1	0
AFL UN Equity	AFLAC INC	\$26,095,763,014	2	8	2
AIG UN Equity	AMERICAN INTERNA	\$28,043,623,531	9	8	0
AIV UN Equity	APARTMENT INVEST	\$5,603,246,418	5	8	2
AIZ UN Equity	ASSURANT INC	\$6,267,662,118	3	0	0
AJG UN Equity	ARTHUR J GALLAGH	\$19,432,104,000	10	2	1
AKAM UW Equity	AKAMAI TECHNOLOG	\$18,119,567,544	15	5	1
ALB UN Equity	ALBEMARLE CORP	\$9,191,244,180	6	12	5
ALGN UW Equity	ALIGN TECHNOLOGY	\$24,337,754,022	11	5	1
ALK UN Equity	ALASKA AIR GROUP	\$4,569,982,668	10	4	0
ALL UN Equity	ALLSTATE CORP	\$28,776,175,463	9	9	0
ALLE UN Equity	ALLEGION PLC	\$9,905,374,689	0	11	1
ALXN UW Equity	ALEXION PHARM	\$24,173,978,872	16	8	0
AMAT UW Equity	APPLIED MATERIAL	\$57,133,319,126	22	5	0
AMCR UN Equity	AMCOR PLC	\$16,925,201,480	6	7	1
AMD UW Equity	ADV MICRO DEVICE	\$64,321,776,603	17	19	4
AME UN Equity	AMETEK INC	\$21,275,238,077	12	4	0
AMGN UW Equity	AMGEN INC	\$150,120,736,225	17	12	2
AMP UN Equity	AMERIPRISE FINAN	\$18,702,918,474	10	3	0
AMT UN Equity	AMERICAN TOWER C	\$114,142,541,399	19	4	1
AMZN UW Equity	AMAZON.COM INC	\$1,496,278,218,397	52	4	1
ANET UN Equity	ARISTA NETWORKS	\$16,285,555,482	9	18	0

ANSS UW Equity	ANSYS INC	\$25,276,332,841	6	6	3
ANTM UN Equity	ANTHEM INC	\$66,581,340,057	19	6	0
AON UN Equity	AON PLC-CLASS A	\$46,924,607,262	6	7	1
AOS UN Equity	SMITH (A.O.)CORP	\$8,187,542,047	5	7	1
APA UW Equity	APACHE CORP	\$5,234,899,078	6	24	1
APD UN Equity	AIR PRODS & CHEM	\$63,427,246,072	16	10	1
APH UN Equity	AMPHENOL CORP-A	\$29,858,700,776	10	5	1
APTIV UN Equity	APTIV PLC	\$22,213,187,698	19	4	0
ARE UN Equity	ALEXANDRIA REAL	\$21,685,365,836	9	1	0
ATO UN Equity	ATMOS ENERGY	\$12,298,422,632	7	4	1
ATVI UW Equity	ACTIVISION BLIZZ	\$61,153,430,563	30	3	2
AVB UN Equity	AVALONBAY COMMUN	\$21,735,955,772	11	10	1
AVGO UW Equity	BROADCOM INC	\$125,216,366,009	26	6	0
AVY UN Equity	AVERY DENNISON	\$9,952,466,980	7	6	2
AWK UN Equity	AMERICAN WATER W	\$25,039,090,571	8	7	2
AXP UN Equity	AMERICAN EXPRESS	\$77,534,854,784	13	13	3
AZO UN Equity	AUTOZONE INC	\$26,847,398,024	11	10	0
BA UN Equity	BOEING CO/THE	\$100,844,938,973	10	13	5
BAC UN Equity	BANK OF AMERICA	\$207,607,369,986	15	13	1
BAX UN Equity	BAXTER INTL INC	\$43,523,355,012	15	4	1
BBY UN Equity	BEST BUY CO INC	\$22,821,604,126	10	12	3
BDX UN Equity	BECTON DICKINSON	\$76,806,308,007	12	7	0
BEN UN Equity	FRANKLIN RES INC	\$10,554,976,912	0	8	6

	BROWN-FORMAN -				
BF/B UN Equity	B	\$31,043,089,503	1	12	5
BIIB UW Equity	BIOGEN INC	\$45,617,429,836	9	19	5
BIO UN Equity	BIO-RAD LABS-A	\$14,860,657,730	4	0	0
BK UN Equity	BANK NY MELLON	\$32,555,428,500	10	8	1
BKNG UW Equity	BOOKING HOLDINGS	\$71,497,706,026	15	18	1
BKR UN Equity	BAKER HUGHES CO	\$15,889,600,107	24	5	0
BLK UN Equity	BLACKROCK INC	\$86,972,568,301	14	3	1
BLL UN Equity	BALL CORP	\$22,647,438,414	9	6	1
		\$134,222,756,26			
BMY UN Equity	BRISTOL-MYER SQB	7	13	5	0
BR UN Equity	BROADRIDGE FINL	\$14,634,635,873	4	4	1
BRK/B UN Equity	BERKSHIRE HATH-B	\$464,074,300,520	2	1	0
BSX UN Equity	BOSTON SCIENTIFC	\$51,961,581,577	23	2	1
BWA UN Equity	BORGWARNER INC	\$7,830,096,434	10	7	0
BXP UN Equity	BOSTON PROPERTIE	\$14,182,095,190	14	7	0
		\$107,155,393,00			
C UN Equity	CITIGROUP INC	0	23	4	0
CAG UN Equity	CONAGRA BRANDS I	\$17,826,992,763	9	8	1
CAH UN Equity	CARDINAL HEALTH	\$15,305,928,241	4	14	1
CARR UN Equity	CARRIER GLOB	\$23,048,488,595	6	9	0
CAT UN Equity	CATERPILLAR INC	\$74,994,119,348	12	11	2
CB UN Equity	CHUBB LTD	\$61,398,121,276	10	7	3
	CBOE GLOBAL				
CBOE UF Equity	MARK	\$10,194,116,325	5	11	2
CBRE UN Equity	CBRE GROUP INC-A	\$14,945,088,058	5	3	0
CCI UN Equity	CROWN CASTLE INT	\$69,072,348,860	9	9	1
CCL UN Equity	CARNIVAL CORP	\$11,507,785,233	3	13	4

CDNS UW Equity	CADENCE DESIGN	\$27,550,173,160	8	6	1
CDW UW Equity	CDW CORP/DE	\$16,608,521,336	6	3	1
CE UN Equity	CELANESE CORP	\$10,712,720,448	10	12	0
CERN UW Equity	CERNER CORP	\$21,821,794,620	17	7	1
CF UN Equity	CF INDUSTRIES HO	\$6,407,504,392	11	9	0
CFG UN Equity	CITIZENS FINANCI	\$10,857,455,001	17	4	0
CHD UN Equity	CHURCH & DWIGHT	\$20,701,708,013	7	9	3
CHRW UW Equity	CH ROBINSON	\$11,564,343,210	7	11	4
CHTR UW Equity	CHARTER COMMUN-A	\$132,877,774,920	23	9	1
CI UN Equity	CIGNA CORP	\$66,416,577,120	23	3	0
CINF UW Equity	CINCINNATI FIN	\$12,190,364,065	2	2	2
CL UN Equity	COLGATE- PALMOLIV	\$64,222,503,556	11	7	3
CLX UN Equity	COLOROX CO	\$28,701,576,460	5	7	4
CMA UN Equity	COMERICA INC	\$5,112,306,544	5	15	6
CMCSA UW Equity	COMCAST CORP-A	\$192,333,602,024	25	11	0
CME UW Equity	CME GROUP INC	\$59,959,551,650	10	9	3
CMG UN Equity	CHIPOTLE MEXICAN	\$31,519,605,312	17	18	1
CMI UN Equity	CUMMINS INC	\$27,104,967,781	8	17	1
CMS UN Equity	CMS ENERGY CORP	\$17,270,603,620	10	10	1
CNC UN Equity	CENTENE CORP	\$38,245,706,765	20	1	0
CNP UN Equity	CENTERPOINT ENER	\$9,695,437,081	8	8	2
COF UN Equity	CAPITAL ONE FINA	\$28,848,446,859	17	4	2
COG UN Equity	CABOT OIL & GAS	\$7,058,772,282	14	10	2

COO UN Equity	COOPER COS INC	\$15,409,529,983	8	6	0
COP UN Equity	CONOCOPHILLIPS	\$44,602,162,488	23	3	0
COST UW Equity	COSTCO WHOLESALE	\$144,055,941,188	20	12	2
COTY UN Equity	COTY INC-CL A	\$3,281,309,902	3	11	1
CPB UN Equity	CAMPBELL SOUP CO	\$14,972,247,308	4	10	4
CPRT UW Equity	COPART INC	\$20,315,299,325	6	3	0
		\$167,144,510,000			
CRM UN Equity	SALESFORCE.COM	0	36	4	1
CSCO UW Equity	CISCO SYSTEMS	\$193,296,720,128	13	13	2
CSX UW Equity	CSX CORP	\$54,401,661,087	12	15	0
CTAS UW Equity	CINTAS CORP	\$28,868,728,545	5	7	2
CTL UN Equity	CENTURYLINK INC	\$10,898,196,071	2	7	7
CTSH UW Equity	COGNIZANT TECH-A	\$33,002,412,175	10	14	7
CTVA UN Equity	CORTEVA INC	\$20,912,497,991	14	12	1
CTXS UW Equity	CITRIX SYSTEMS	\$18,748,449,304	7	10	1
CVS UN Equity	CVS HEALTH CORP	\$84,947,833,042	21	7	0
		\$164,966,233,514			
CVX UN Equity	CHEVRON CORP	4	17	8	1
	CONCHO				
CXO UN Equity	RESOURCES	\$10,088,824,038	28	6	0
D UN Equity	DOMINION ENERGY	\$64,588,756,960	6	10	1
DAL UN Equity	DELTA AIR LI	\$17,387,974,896	12	7	0
	DUPONT DE				
DD UN Equity	NEMOUR	\$40,204,751,766	23	2	0
DE UN Equity	DEERE & CO	\$54,255,943,788	14	7	1
DFS UN Equity	DISCOVER FINANCI	\$15,403,866,025	14	8	2

DG UN Equity	DOLLAR GENERAL C	\$47,555,287,746	20	8	1
DGX UN Equity	QUEST DIAGNOSTIC	\$16,535,939,790	10	7	1
DHI UN Equity	DR HORTON INC	\$22,735,654,637	14	6	0
		\$133,667,316,73			
DHR UN Equity	DANAHER CORP	5	20	3	1
		\$215,740,499,78			
DIS UN Equity	WALT DISNEY CO	4	17	13	2
DISCA UW Equity	DISCOVERY INC -	\$15,052,683,194	12	13	1
DISCK UW Equity	DISCOVERY INC-C	\$15,052,683,194	1	3	0
DISH UW Equity	DISH NETWORK-A	\$17,417,754,855	9	11	3
DLR UN Equity	DIGITAL REALTY	\$38,877,421,256	12	12	1
DLTR UW Equity	DOLLAR TREE INC	\$22,923,766,232	14	13	0
DOV UN Equity	DOVER CORP	\$14,735,855,209	10	7	0
DOW UN Equity	DOW INC	\$32,551,656,730	8	16	1
DPZ UN Equity	DOMINO'S PIZZA	\$16,034,776,242	17	11	1
DRE UN Equity	DUKE REALTY CORP	\$13,081,250,537	9	5	1
	DARDEN				
DRI UN Equity	RESTAURAN	\$9,961,738,168	21	10	0
DTE UN Equity	DTE ENERGY CO	\$21,077,768,171	11	7	0
DUK UN Equity	DUKE ENERGY CORP	\$59,571,750,000	8	10	0
DVA UN Equity	DAVITA INC	\$10,329,858,000	3	10	0
DVN UN Equity	DEVON ENERGY CO	\$4,083,409,000	20	11	0
DXC UN Equity	DXC TECHNOLOGY C	\$4,230,313,885	7	6	1
DXCM UW Equity	DEXCOM	\$38,158,746,355	16	4	1
EA UW Equity	ELECTRONIC ARTS	\$39,857,019,883	20	11	1

EBAY UW					
Equity	EBAY INC	\$41,212,105,755	11	18	2
ECL UN Equity	ECOLAB INC	\$60,245,923,276	3	16	2
ED UN Equity	CONS EDISON INC	\$24,001,890,697	3	7	7
EFX UN Equity	EQUIFAX INC	\$20,054,038,484	7	11	2
EIX UN Equity	EDISON INTL	\$21,198,737,333	12	5	0
EL UN Equity	ESTEE LAUDER	\$71,690,126,382	12	10	2
	EASTMAN				
EMN UN Equity	CHEMICAL	\$10,280,400,618	15	5	0
EMR UN Equity	EMERSON ELEC CO	\$37,724,590,442	6	19	0
EOG UN Equity	EOG RESOURCES	\$27,833,436,899	24	10	0
EQIX UW Equity	EQUINIX INC	\$63,207,362,150	24	3	1
EQR UN Equity	EQUITY RESIDENTI	\$21,293,027,748	3	15	4
	EVERSOURCE				
ES UN Equity	ENERG	\$29,393,760,450	9	7	4
ESS UN Equity	ESSEX PROPERTY	\$14,670,496,032	8	13	2
ETFC UW Equity	E*TRADE FINANCIA	\$12,020,624,371	2	13	0
ETN UN Equity	EATON CORP PLC	\$37,424,000,000	14	10	0
ETR UN Equity	ENTERGY CORP	\$19,681,922,970	13	6	0
EVRG UN Equity	EVERGY INC	\$13,921,396,578	4	3	1
EW UN Equity	EDWARDS LIFE	\$44,522,876,578	14	10	1
EXC UW Equity	EXELON CORP	\$37,067,770,015	17	3	0
EXPD UW					
Equity	EXPEDITORS INTL	\$13,170,968,360	1	8	5
EXPE UW					
Equity	EXPEDIA GROUP IN	\$12,289,474,337	14	17	1
EXR UN Equity	EXTRA SPACE STOR	\$12,482,673,156	5	6	4
F UN Equity	FORD MOTOR CO	\$27,282,494,009	3	13	3
FANG UW	DIAMONDBACK				
Equity	ENER	\$6,235,303,957	32	4	0

FAST UW Equity	FASTENAL CO	\$24,950,323,145	4	10	2
		\$686,972,338,63			
FB UW Equity	FACEBOOK INC-A	1	46	5	3
	FORTUNE BRANDS				
FBHS UN Equity	H	\$9,525,237,036	5	10	1
	FREEPORT-				
FCX UN Equity	MCMORAN	\$19,558,046,326	15	5	0
FDX UN Equity	FEDEX CORP	\$43,393,588,292	16	13	1
FE UN Equity	FIRSTENERGY CORP	\$22,369,010,067	14	3	0
FFIV UW Equity	F5 NETWORKS	\$8,978,586,005	8	10	1
FIS UN Equity	FIDELITY NATIONA	\$85,736,798,646	29	5	1
FISV UW Equity	FISERV INC	\$66,533,347,846	27	6	2
FITB UW Equity	FIFTH THIRD BANC	\$13,640,229,954	15	8	1
FLIR UW Equity	FLIR SYSTEMS	\$5,590,893,957	5	4	1
FLS UN Equity	FLOWSERVE CORP	\$3,897,271,484	2	10	2
FLT UN Equity	FLEETCOR TECHNOL	\$21,812,884,008	15	8	0
FMC UN Equity	FMC CORP	\$13,745,996,469	19	3	0
FOX UW Equity	FOX CORP - B	\$15,858,111,805	3	0	0
FOXA UW					
Equity	FOX CORP - A	\$15,858,111,805	13	12	3
FRC UN Equity	FIRST REPUBLIC B	\$19,259,578,868	7	15	1
FRT UN Equity	FED REALTY INVS	\$6,011,314,178	12	6	1
FTI UN Equity	TECHNIPFMC PLC	\$3,532,630,894	27	7	3
FTNT UW					
Equity	FORTINET INC	\$20,585,941,569	11	17	1
FTV UN Equity	FORTIVE CORP	\$24,159,320,711	9	9	0
	GENERAL				
GD UN Equity	DYNAMICS	\$42,602,252,835	16	5	0
GE UN Equity	GENERAL ELECTRIC	\$61,666,998,600	13	9	1
GILD UW Equity	GILEAD SCIENCES	\$96,135,177,376	13	15	3

GIS UN Equity	GENERAL MILLS IN	\$39,452,442,688	5	11	3
GL UN Equity	GLOBE LIFE INC	\$8,086,096,227	2	3	4
GLW UN Equity	CORNING INC	\$21,884,863,732	4	8	0
	GENERAL MOTORS				
GM UN Equity	C	\$38,424,403,381	16	2	0
GOOG UW Equity	ALPHABET INC-C	\$1,035,221,860, 430	14	0	0
GOOGL UW Equity	ALPHABET INC-A	\$1,035,221,860, 430	39	3	0
GPC UN Equity	GENUINE PARTS CO	\$12,787,231,396	2	11	1
GPN UN Equity	GLOBAL PAYMENTS	\$49,816,057,833	28	7	0
GPS UN Equity	GAP INC/THE	\$4,881,261,997	3	16	4
GRMN UW Equity	GARMIN LTD	\$19,300,443,160	3	5	2
	GOLDMAN SACHS				
GS UN Equity	GP	\$76,956,620,248	16	10	0
GWW UN Equity	WW GRAINGER INC	\$17,821,932,428	6	10	3
HAL UN Equity	HALLIBURTON CO	\$11,483,564,700	11	17	2
HAS UW Equity	HASBRO INC	\$10,619,749,506	12	6	0
HBAN UW Equity	HUNTINGTON BANC	\$9,198,958,113	7	14	0
HBI UN Equity	HANESBRANDS INC	\$4,962,983,521	7	6	2
HCA UN Equity	HCA HEALTHCARE I	\$36,172,488,946	19	5	0
		\$277,570,940,99			
HD UN Equity	HOME DEPOT INC	9	20	12	2
HES UN Equity	HESS CORP	\$14,948,698,139	17	9	0
HFC UN Equity	HOLLYFRONTIER CO	\$4,599,184,016	9	7	3
HIG UN Equity	HARTFORD FINL SV	\$15,153,733,196	13	4	0
	HUNTINGTON				
HII UN Equity	INGAL	\$7,259,866,581	6	8	1

	HILTON				
HLT UN Equity	WORLDWIDE	\$22,427,681,603	9	15	1
HOLX UW Equity	HOLOGIC INC	\$15,482,012,453	13	4	1
		\$107,438,859,08			
HON UN Equity	HONEYWELL INTL	1	18	7	0
HPE UN Equity	HEWLETT PACKA	\$12,487,839,547	6	14	2
HPQ UN Equity	HP INC	\$25,496,130,689	4	11	2
HRB UN Equity	H&R BLOCK INC	\$2,879,430,608	2	6	1
	HORMEL FOODS				
HRL UN Equity	CRP	\$26,694,284,288	0	9	3
HSIC UW Equity	HENRY SCHEIN INC	\$9,244,881,928	6	10	2
HST UN Equity	HOST HOTELS & RE	\$7,930,788,401	10	7	4
HSY UN Equity	HERSHEY CO/THE	\$27,966,894,485	3	17	0
HUM UN Equity	HUMANA INC	\$52,391,943,084	18	7	0
HWM UN Equity	HOWMET AEROSPACE	\$7,060,514,256	3	6	2
		\$110,107,481,58			
IBM UN Equity	IBM	8	5	13	2
ICE UN Equity	INTERCONTINENTAL	\$50,546,878,867	20	1	0
IDXX UW Equity	IDEXX LABS	\$28,809,263,085	5	2	1
IEX UN Equity	IDEX CORP	\$12,709,561,950	9	7	1
IFF UN Equity	INTL FLVR & FRAG	\$13,848,976,774	7	6	3
ILMN UW Equity	ILLUMINA INC	\$55,254,360,000	10	7	3
INCY UW Equity	INCYTE CORP	\$22,080,795,457	9	12	0
INFO UN Equity	IHS MARKIT LTD	\$30,740,845,212	14	5	0
		\$250,398,760,00			
INTC UW Equity	INTEL CORP	0	18	20	6
INTU UW Equity	INTUIT INC	\$74,502,371,838	13	7	2

IP UN Equity	INTL PAPER CO	\$14,695,813,945	5	9	3
IPG UN Equity	INTERPUBLIC GRP	\$7,090,973,453	6	4	2
IPGP UW Equity	IPG PHOTONICS	\$9,067,714,299	5	8	0
IQV UN Equity	IQVIA HOLDINGS I	\$28,585,366,881	19	3	1
IR UN Equity	INGERSOLL-RAND I	\$13,156,578,902	5	10	0
IRM UN Equity	IRON MOUNTAIN	\$7,873,596,030	5	2	2
ISRG UW Equity	INTUITIVE SURGIC	\$70,466,295,982	12	5	3
IT UN Equity	GARTNER INC	\$11,098,734,688	4	5	0
ITW UN Equity	ILLINOIS TOOL WO	\$57,376,420,327	3	14	5
IVZ UN Equity	INVESCO LTD	\$4,928,539,238	2	12	5
J UN Equity	JACOBS ENGIN GRP	\$10,763,393,310	15	1	0
JBHT UW Equity	HUNT (JB) TRANS	\$13,978,806,904	6	14	2
	JOHNSON				
JCI UN Equity	CONTROLS	\$27,649,363,735	12	9	0
JKHY UW Equity	JACK HENRY	\$13,700,372,266	2	9	3
	JOHNSON&JOHNSO	\$393,213,234,34			
JNJ UN Equity	N	9	14	7	0
JNPR UN Equity	JUNIPER NETWORKS	\$7,674,120,357	5	10	4
		\$304,732,757,92			
JPM UN Equity	JPMORGAN CHASE	9	16	12	1
K UN Equity	KELLOGG CO	\$23,383,802,642	11	9	2
KEY UN Equity	KEYCORP	\$11,685,358,956	9	10	4
KEYS UN Equity	KEYSIGHT TEC	\$18,024,759,063	9	3	1
KHC UW Equity	KRAFT HEINZ CO/T	\$42,031,057,883	6	14	2
KIM UN Equity	KIMCO REALTY	\$5,125,426,097	5	16	1
KLAC UW					
Equity	KLA CORP	\$30,395,785,180	8	11	1
KMB UN Equity	KIMBERLY-CLARK	\$48,929,810,058	6	6	2
KMI UN Equity	KINDER MORGAN IN	\$33,899,691,479	15	10	1

KMX UN Equity	CARMAX INC	\$15,510,325,944	13	2	1
		\$198,209,235,94			
KO UN Equity	COCA-COLA CO/THE	1	18	5	0
KR UN Equity	KROGER CO	\$26,239,437,639	11	12	1
KSS UN Equity	KOHL'S CORP	\$3,593,244,486	4	12	2
KSU UN Equity	KANSAS CITY SOUT	\$15,053,104,520	10	11	1
L UN Equity	LOEWS CORP	\$10,199,040,305	0	0	0
LB UN Equity	L BRANDS INC	\$5,125,950,087	8	17	2
LDOS UN Equity	LEIDOS HOLDINGS	\$12,299,569,958	11	4	0
LEG UN Equity	LEGETT & PLATT	\$4,944,506,971	1	4	0
LEN UN Equity	LENNAR CORP-A	\$21,140,679,527	11	9	0
LH UN Equity	LABORATORY CP	\$18,511,740,000	16	2	0
LHX UN Equity	L3HARRIS TECHNOL	\$36,056,822,890	19	1	0
		\$125,440,513,44			
LIN UN Equity	LINDE PLC	3	22	11	2
LKQ UW Equity	LKQ CORP	\$8,647,889,628	10	2	0
		\$157,804,759,41			
LLY UN Equity	ELI LILLY & CO	6	9	10	0
		\$102,602,868,33			
LMT UN Equity	LOCKHEED MARTIN	3	14	9	0
LNC UN Equity	LINCOLN NATL CRP	\$7,245,916,688	6	7	0
LNT UW Equity	ALLIANT ENERGY	\$12,407,821,686	7	4	0
		\$107,776,646,13			
LOW UN Equity	LOWE'S COS INC	1	24	5	1
LRCX UW Equity	LAM RESEARCH	\$50,063,549,538	19	5	0
LUV UN Equity	SOUTHWEST AIR	\$20,162,878,981	12	9	0
LVS UN Equity	LAS VEGAS SANDS	\$37,965,004,133	16	3	0
LW UN Equity	LAMB WESTON	\$9,770,001,942	3	4	1
LYB UN Equity	LYONDELLBASELL-A	\$22,979,011,962	9	14	1

LYV UN Equity	LIVE NATION ENTE	\$10,948,128,584	11	5	1
		\$300,469,671,67			
MA UN Equity	MASTERCARD INC-A	7	33	6	0
MAA UN Equity	MID-AMERICA APAR	\$12,809,614,703	5	12	0
MAR UW Equity	MARRIOTT INTL-A	\$30,191,469,456	7	18	1
MAS UN Equity	MASCO CORP	\$13,804,956,223	15	5	0
		\$141,959,746,26			
MCD UN Equity	MCDONALDS CORP	7	26	10	0
MCHP UW					
Equity	MICROCHIP TECH	\$26,668,766,976	20	5	0
MCK UN Equity	MCKESSON CORP	\$24,865,290,114	11	7	0
MCO UN Equity	MOODY'S CORP	\$54,256,875,000	11	6	1
MDLZ UW					
Equity	MONDELEZ INTER-A	\$75,712,693,848	20	1	0
		\$128,429,367,95			
MDT UN Equity	MEDTRONIC PLC	2	21	6	1
MET UN Equity	METLIFE INC	\$35,150,911,552	10	4	0
MGM UN					
Equity	MGM RESORTS INTE	\$8,680,631,098	5	14	1
MHK UN Equity	MOHAWK INDS	\$5,585,459,122	7	6	5
MKC UN Equity	MCCORMICK-N/V	\$25,281,787,906	2	6	4
MKTX UW					
Equity	MARKETAXESS	\$20,121,225,183	2	11	0
MLM UN Equity	MARTIN MAR MTLs	\$13,863,639,372	11	8	1
	MARSH &				
MMC UN Equity	MCLENNAN	\$57,053,174,773	8	10	1
MMM UN					
Equity	3M CO	\$92,313,265,582	2	12	4
MNST UW	MONSTER				
Equity	BEVERAGE	\$38,239,048,051	10	6	2
MO UN Equity	ALTRIA GROUP INC	\$77,085,107,046	10	6	1

MOS UN Equity	MOSAIC CO/THE	\$5,003,070,481	12	8	0
	MARATHON				
MPC UN Equity	PETROLE	\$24,313,254,939	15	4	0
		\$200,388,393,55			
MRK UN Equity	MERCK & CO	3	16	5	0
MRO UN Equity	MARATHON OIL	\$4,520,587,237	6	19	4
MS UN Equity	MORGAN STANLEY	\$82,976,400,000	19	8	0
MSCI UN Equity	MSCI INC	\$30,934,588,415	6	5	1
MSFT UW Equity	MICROSOFT CORP	\$1,546,415,135, 168	32	4	0
	MOTOROLA				
MSI UN Equity	SOLUTIO	\$22,913,172,449	9	1	1
MTB UN Equity	M&T BANK CORP	\$13,150,514,436	4	14	2
MTD UN Equity	METTLER-TOLEDO	\$20,576,731,199	0	10	3
MU UW Equity	MICRON TECH	\$55,661,023,447	26	6	1
MXIM UW Equity	MAXIM INTEGRATED	\$18,545,237,905	3	16	0
MYL UW Equity	MYLAN NV	\$8,705,391,421	10	9	0
NBL UW Equity	NOBLE ENERGY INC	\$4,770,603,333	25	8	0
	NORWEGIAN				
NCLH UN Equity	CRUISE	\$4,001,584,038	7	11	1
NDAQ UW Equity	NASDAQ INC	\$20,841,918,805	10	9	1
		\$131,358,604,41			
NEE UN Equity	NEXTERA ENERGY	9	11	6	2
NEM UN Equity	NEWMONT CORP	\$49,399,083,238	15	6	1
NFLX UW Equity	NETFLIX INC	\$231,948,250,01 9	28	9	6
NI UN Equity	NISOURCE INC	\$9,125,939,412	10	5	0
		\$151,242,678,22			
NKE UN Equity	NIKE INC -CL B	9	27	6	1

NLOK UW					
Equity	NORTONLIFELOCK I	\$11,880,709,141	5	12	3
NLSN UN Equity	NIELSEN HOLDINGS	\$5,536,065,928	9	6	3
	NORTHROP				
NOC UN Equity	GRUMMAN	\$50,619,283,965	17	3	1
NOV UN Equity	NATL OILWELL VAR	\$4,472,329,236	13	13	2
NOW UN Equity	SERVICENOW INC	\$78,928,470,533	25	7	1
NRG UN Equity	NRG ENERGY	\$8,259,906,110	10	2	0
	NORFOLK				
NSC UN Equity	SOUTHERN	\$46,844,915,712	14	10	3
NTAP UW					
Equity	NETAPP INC	\$9,835,334,742	5	18	3
NTRS UW					
Equity	NORTHERN TRUST	\$16,631,679,758	4	13	2
NUE UN Equity	NUCOR CORP	\$12,575,386,659	6	5	1
NVDA UW		\$249,314,850,00			
Equity	NVIDIA CORP	0	34	6	2
NVR UN Equity	NVR INC	\$12,312,573,784	2	4	0
NWL UW Equity	NEWELL BRANDS IN	\$7,018,855,000	2	9	1
NWS UW Equity	NEWS CORP-CL B	\$7,515,084,380	0	1	1
NWSA UW					
Equity	NEWS CORP-CL A	\$7,515,084,380	5	2	4
O UN Equity	REALTY INCOME	\$19,801,369,847	12	10	0
ODFL UW					
Equity	OLD DOMINION FRT	\$21,345,079,963	4	8	3
OKE UN Equity	ONEOK INC	\$12,809,582,159	10	15	1
OMC UN Equity	OMNICOM GROUP	\$12,053,411,775	3	5	5
		\$171,263,142,42			
ORCL UN Equity	ORACLE CORP	0	8	20	3
ORLY UW					
Equity	O'REILLY AUTOMOT	\$32,040,983,745	11	7	2

OTIS UN Equity	OTIS WORLDWI	\$25,257,193,816	5	7	1
OXY UN Equity	OCCIDENTAL PETE	\$15,618,621,276	3	15	8
	PAYCOM				
PAYC UN Equity	SOFTWARE	\$17,014,030,739	4	6	2
PAYX UW					
Equity	PAYCHEX INC	\$26,099,112,000	2	16	4
PBCT UW					
Equity	PEOPLE'S UNITED	\$4,951,507,721	1	13	0
PCAR UW					
Equity	PACCAR INC	\$27,468,002,205	9	11	2
PEAK UN Equity	HEALTHPEAK PROPE	\$14,124,211,701	10	10	0
PEG UN Equity	PUB SERV ENTERP	\$26,747,579,851	8	11	0
		\$185,374,644,88			
PEP UW Equity	PEPSICO INC	7	13	7	0
		\$197,752,081,64			
PFE UN Equity	PFIZER INC	2	7	11	0
PFG UW Equity	PRINCIPAL FINL	\$12,258,321,385	2	8	2
	PROCTER &	\$308,885,928,82			
PG UN Equity	GAMBLE	4	13	8	2
PGR UN Equity	PROGRESSIVE CORP	\$50,994,194,000	11	7	1
PH UN Equity	PARKER HANNIFIN	\$23,650,984,186	15	6	1
PHM UN Equity	PULTEGROUP INC	\$9,857,139,301	6	12	0
PKG UN Equity	PACKAGING CORP	\$10,152,919,385	3	9	3
PKI UN Equity	PERKINELMER INC	\$12,136,638,282	5	9	2
PLD UN Equity	PROLOGIS INC	\$68,023,402,200	14	3	1
		\$117,329,710,68			
PM UN Equity	PHILIP MORRIS IN	8	14	4	0
PNC UN Equity	PNC FINANCIAL SE	\$44,543,102,966	10	14	1
PNR UN Equity	PENTAIR PLC	\$6,915,712,095	10	8	1
PNW UN Equity	PINNACLE WEST	\$9,063,597,911	7	7	1

PPG UN Equity	PPG INDS INC	\$27,181,607,234	13	14	1
PPL UN Equity	PPL CORP	\$19,859,676,100	5	8	1
PRGO UN Equity	PERRIGO CO PLC	\$7,881,638,706	4	8	1
PRU UN Equity	PRUDENTL FINL	\$25,378,750,000	4	9	2
PSA UN Equity	PUBLIC STORAGE	\$32,927,457,303	2	11	3
PSX UN Equity	PHILLIPS 66	\$28,327,088,243	19	2	0
PVH UN Equity	PVH CORP	\$3,641,463,958	11	9	1
PWR UN Equity	QUANTA SERVICES	\$5,509,993,718	13	0	0
PXD UN Equity	PIONEER NATURAL	\$15,962,056,476	33	4	0
PYPL UW Equity	PAYPAL HOLDINGS	\$199,384,258,69	3	36	8
QCOM UW Equity	QUALCOMM INC	\$102,593,431,77	6	22	7
QRVO UW Equity	QORVO INC	\$12,778,864,614	15	9	0
RCL UN Equity	ROYAL CARIBBEAN	\$11,855,223,235	7	11	2
RE UN Equity	EVEREST RE GROUP	\$8,921,102,823	4	5	1
REG UW Equity	REGENCY CENTERS	\$7,148,361,880	12	6	1
REGN UW Equity	REGENERON PHARM	\$64,728,416,868	16	11	1
RF UN Equity	REGIONS FINANCIA	\$10,364,539,799	14	12	1
RHI UN Equity	ROBERT HALF INTL	\$6,264,158,548	3	8	3
RJF UN Equity	RAYMOND JAMES	\$9,968,970,039	4	6	2
RL UN Equity	RALPH LAUREN COR	\$5,420,322,683	10	9	1
RMD UN Equity	RESMED INC	\$28,328,971,767	7	3	3
ROK UN Equity	ROCKWELL AUTOMAT	\$25,866,964,987	5	11	8
ROL UN Equity	ROLLINS INC	\$15,405,070,103	1	3	0

	ROPER				
ROP UN Equity	TECHNOLOGI	\$42,344,319,122	6	7	0
ROST UW					
Equity	ROSS STORES INC	\$30,096,731,426	20	7	0
RSG UN Equity	REPUBLIC SVCS	\$26,929,211,189	9	6	1
	RAYTHEON				
RTX UN Equity	TECHNOL	\$94,569,695,472	16	5	0
SBAC UW					
Equity	SBA COMM CORP	\$32,545,352,054	14	3	1
SBUX UW					
Equity	STARBUCKS CORP	\$86,909,837,000	14	20	1
SCHW UN					
Equity	SCHWAB (CHARLES)	\$44,956,459,271	9	11	0
SEE UN Equity	SEALED AIR CORP	\$5,759,517,865	6	8	0
SHW UN Equity	SHERWIN-WILLIAMS	\$54,368,316,000	14	14	2
SIVB UW Equity	SVB FINANCIAL GR	\$11,342,182,321	12	8	1
SJM UN Equity	JM SMUCKER CO	\$12,104,553,727	1	13	3
	SCHLUMBERGER				
SLB UN Equity	LTD	\$26,118,638,910	20	11	1
SLG UN Equity	SL GREEN REALTY	\$3,775,814,011	5	11	2
SNA UN Equity	SNAP-ON INC	\$7,762,872,557	4	5	0
SNPS UW					
Equity	SYNOPSIS INC	\$29,135,393,967	14	0	1
SO UN Equity	SOUTHERN CO	\$56,803,538,715	4	11	3
SPG UN Equity	SIMON PROPERTY	\$19,232,000,256	7	12	0
SPGI UN Equity	S&P GLOBAL INC	\$84,196,959,000	14	4	1
SRE UN Equity	SEMPRA ENERGY	\$35,874,830,507	11	8	0
STE UN Equity	STERIS PLC	\$13,345,864,783	2	4	0
STT UN Equity	STATE ST CORP	\$22,680,069,772	7	11	1
	SEAGATE				
STX UW Equity	TECHNOLO	\$12,446,308,378	10	12	5

STZ UN Equity	CONSTELLATION-A	\$34,928,796,156	15	5	1
SWK UN Equity	STANLEY BLACK &	\$23,553,701,741	13	6	0
SWKS UW					
Equity	SKYWORKS SOLUTIO	\$21,960,609,912	18	9	1
	SYNCHRONY				
SYF UN Equity	FINANC	\$13,863,060,868	15	5	0
SYK UN Equity	STRYKER CORP	\$70,045,623,808	15	9	3
SYU UN Equity	SYSCO CORP	\$27,726,093,139	5	5	1
		\$216,600,000,00			
T UN Equity	AT&T INC	0	10	18	3
TAP UN Equity	MOLSON COORS-B	\$8,032,557,493	7	8	4
TDG UN Equity	TRANSDIGM GROUP	\$23,330,583,479	8	8	1
TDY UN Equity	TELEDYNE TECH	\$11,840,146,536	4	0	0
TEL UN Equity	TE CONNECTIVITY	\$27,944,711,801	10	8	0
TFC UN Equity	TRUIST FINANCIAL	\$50,158,006,980	16	10	0
TFX UN Equity	TELEFLEX INC	\$17,174,619,875	11	2	0
TGT UN Equity	TARGET CORP	\$60,976,887,786	18	8	1
TIF UN Equity	TIFFANY & CO	\$14,811,575,028	0	16	1
TJX UN Equity	TJX COS INC	\$64,098,403,300	26	3	0
		\$154,986,712,23			
TMO UN Equity	THERMO FISHER	2	15	3	1
TMUS UW		\$129,579,575,60			
Equity	T-MOBILE US INC	1	19	5	1
TPR UN Equity	TAPESTRY INC	\$3,873,661,801	11	18	0
TROW UW					
Equity	T ROWE PRICE GRP	\$30,052,380,978	6	6	5
TRV UN Equity	TRAVELERS COS IN	\$30,466,717,877	6	10	5
TSCO UW					
Equity	TRACTOR SUPPLY	\$16,436,821,558	15	12	1
TSN UN Equity	TYSON FOODS-A	\$21,994,006,610	9	4	0

TT UN Equity	TRANE TECHNOLOGI	\$24,411,169,052	10	14	1
TTWO UW Equity	TAKE-TWO INTERAC	\$17,126,736,256	20	5	2
TWTR UN Equity	TWITTER INC	\$27,689,561,680	7	27	5
		\$121,311,187,68			
TXN UW Equity	TEXAS INSTRUMENT	7	11	14	6
TXT UN Equity	TEXTRON INC	\$7,620,328,315	3	10	0
TYL UN Equity	TYLER TECHNOLOG	\$13,969,055,500	7	7	0
UA UN Equity	UNDER ARMO-C	\$4,413,764,896	2	0	1
UAA UN Equity	UNDER ARMOUR-A	\$4,413,764,896	4	24	5
UAL UW Equity	UNITED AIRLINES	\$10,017,510,787	8	12	0
UDR UN Equity	UDR INC	\$10,840,009,838	8	11	1
UHS UN Equity	UNIVERSAL HLTH-B	\$8,356,765,337	9	7	0
ULTA UW Equity	ULTA BEAUTY INC	\$11,441,413,441	19	7	0
		\$291,294,764,03			
UNH UN Equity	UNITEDHEALTH GRP	9	23	5	0
UNM UN Equity	UNUM GROUP	\$3,576,131,669	1	7	4
		\$120,018,331,53			
UNP UN Equity	UNION PAC CORP	4	18	11	0
		\$103,237,018,54			
UPS UN Equity	UNITED PARCEL-B	0	12	12	4
URI UN Equity	UNITED RENTALS	\$11,415,521,829	10	10	0
USB UN Equity	US BANCORP	\$56,576,218,446	8	14	4
		\$376,066,803,98			
V UN Equity	VISA INC-CLASS A	3	32	4	1
VAR UN Equity	VARIAN MEDICAL S	\$11,446,315,668	7	2	2
VFC UN Equity	VF CORP	\$24,277,342,680	14	13	1
VIAC UW Equity	VIACOMCBS INC-B	\$15,806,485,894	13	15	3

VLO UN Equity	VALERO ENERGY	\$23,067,586,449	18	4	0
VMC UN Equity	VULCAN MATERIALS	\$16,452,315,822	14	7	1
VNO UN Equity	VORNADO RLTY TST	\$7,084,659,963	2	8	4
VRSK UW Equity	VERISK ANALYTI	\$28,463,493,252	7	9	1
VRSN UW Equity	VERISIGN INC	\$22,921,876,644	1	2	1
VRTX UW Equity	VERTEX PHARM	\$75,335,440,567	20	7	1
VTR UN Equity	VENTAS INC	\$13,147,158,243	3	12	5
VZ UN Equity	VERIZON COMMUNIC	\$230,817,383,69 1	8	21	1
WAB UN Equity	WABTEC CORP	\$11,695,138,770	7	3	2
WAT UN Equity	WATERS CORP	\$13,870,640,202	0	10	7
WBA UW Equity	WALGREENS BOOTS	\$35,831,184,580	1	18	2
WDC UW Equity	WESTERN DIGITAL	\$13,126,905,202	21	10	0
WEC UN Equity	WEC ENERGY GROUP	\$27,682,534,441	2	6	6
WELL UN Equity	WELLTOWER INC	\$20,823,867,334	7	10	2
WFC UN Equity	WELLS FARGO & CO	\$104,885,016,00 0	6	18	6
WHR UN Equity	WHIRLPOOL CORP	\$8,974,481,838	3	5	2
WLTW UW Equity	WILLIS TOWERS WA	\$26,717,033,625	7	8	1
WM UN Equity	WASTE MANAGEMENT	\$45,522,977,515	8	8	1
WMB UN Equity	WILLIAMS COS INC	\$24,142,619,783	22	4	0
WMT UN Equity	WALMART INC	\$374,384,246,09 0	25	8	2

WRB UN Equity	WR BERKLEY CORP	\$11,322,185,102	2	6	3
WRK UN Equity	WESTROCK CO	\$7,964,313,661	9	7	1
	WEST				
WST UN Equity	PHARMACEUT	\$17,687,352,612	3	2	1
WU UN Equity	WESTERN UNION	\$9,019,360,601	2	12	9
WY UN Equity	WEYERHAEUSER CO	\$18,759,618,840	8	4	1
WYNN UW Equity	WYNN RESORTS LTD	\$9,125,655,134	12	5	0
XEL UW Equity	XCEL ENERGY INC	\$34,130,851,592	3	10	2
XLNX UW Equity	XILINX INC	\$24,117,584,979	8	15	3
		\$187,225,194,23			
XOM UN Equity	EXXON MOBIL CORP	9	3	18	5
XRAY UW Equity	DENTSPLY SIRONA	\$9,711,835,905	9	9	0
XRX UN Equity	XEROX HOLDINGS C	\$3,688,369,254	2	4	1
XYL UN Equity	XYLEM INC	\$13,446,868,999	4	13	2
YUM UN Equity	YUM! BRANDS INC	\$26,992,421,969	8	17	1
	ZIMMER BIOMET				
ZBH UN Equity	HO	\$27,002,151,894	20	7	1
ZBRA UW Equity	ZEBRA TECH CORP	\$14,210,488,020	5	4	0
ZION UW Equity	ZIONS BANCORP NA	\$5,471,350,511	7	17	1
ZTS UN Equity	ZOETIS INC	\$67,864,286,911	12	6	1

Data Current as of 7/16/2020.