PROBABILITY & PARTNERS

Sustainable investing during the COVID-19 pandemic

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Introduction

Since the outbreak of COVID-19 in China in early January 2020, the epidemic spread around the world at an extreme speed. In the past months, the coronavirus pandemic is the topic on the forefront of everyone's mind. Subsequent lockdown measures have resulted in massive consequences for society, economy, health system, and other aspects of life. It is expected that the coronavirus crisis will trigger a worldwide economic recession.

There is no doubt that the world is changing due to the COVID-19. There are several prominent new trends emerging now, and they will define the post-corona world. One of these new trends is heightened attention to sustainable innovation. It is likely that antiquated, less sustainable companies will partially disappear, giving way to more environmentally and socially conscious organizations. This is partially due to the fact that sustainability requirements are important part of governments' rescue packages.

This is a far-reaching and long term trend; however, the question arises, how sustainable companies have withstood the crisis so far, compared to less sustainable ones? This is the question we attempt to answer in this paper.

The impact of the coronavirus pandemic differs per sector of the economy, so sustainability issues during this pandemic will also likely to be different for different sectors. For example, for energy companies, low (and even negative) oil price meant an unprecedented shock, but more environmentally friendly utilities and energy companies (which rely more on more diversified and sustainable energy sources) are likely to better withstand this shock. Another sector worth mentioning is the healthcare, which is in the spotlight during the coronavirus pandemic. Well-governed, agile healthcare firms are more likely to meet the enormous demand for medical products, and they look well on path towards developing vaccines and treatments for the COVID-19.

A recent study by Morningstar claimed that firms with higher ESG (Environmental, Societal and Governance) scores have exhibited lower lossed during coronavirus pandemic than their less sustainable counterparts. Another recent study, by researchers from Tilburg University, claims that, when other factors are taken into account, more sustainable firms' performance during the pandemic is virtually indistinguishable from that of less sustainable ones. So clearly there is no consensus on this issue. We find that the message is not that black-or-white: the performance of more or less sustainable firms during the pandemic differs greatly per sector and region (US vs EU). Most importantly, it is not the return (or loss) where sustainable firms perform better: it is their lower volatility during crisis times what makes them attractive to investors.

Main Takeaways

In what follows, we will go into more detail of our research; but first we summarize our main findings:

- Sustainable companies are less volatile during the coronavirus stress period. In general, they are hit less (but also rebound less) than their less sustainable counterparts.
- Sustainable investing in the US pays off during the COVID-19 pandemic, in terms of lower overall losses. In EU, sustainable and less sustainable firms performed similarly in that period.

- Three ESG categories, i.e. Environmental, Social and Governance play different roles in resistance to the crisis.
- Sustainable companies in sectors such as utilities, energy, materials and health care have been particularly resilient during the pandemic and hence, deserve investors' attention.

Research scope

We consider large cap companies in the US (S&P 500) and the EU (STOXX 600), from which we choose top 10 companies with the highest ESG scores ("more sustainable" companies) and bottom 10 companies with the lowest ESG scores ("less sustainable" companies). We do the same for the individual categories Environmental, Social and Governance, and per sector within S&P 500 or STOXX 600. In terms of the performance measure, we compare average total return (equally weighted), from January 1, 2020 until May 13, 2020, for more and less sustainable companies [1]. Furthermore, we also look at the average monthly returns, to investigate how these returns declined (and possibly recovered) during that period. The analysis is performed for the whole stock index and per sector[2].

ESG data for companies comes from Refinitiv ESG database, which covers over 7000 companies worldwide, and compresses nearly 200 indicators into E, S and G scores.

Outperformance of US sustainable companies

Figure 1 shows the average total return of the most and least sustainable companies (measured by the ESG score), from the January 1, 2020 to May 13th, 2020. We observe that sustainable companies, in terms of the ESG scores, outperform less sustainable companies and on average have lower losses. Particularly, well-governed (with a high G score) companies suffered less than lower G scoring companies. It is well known that the G score is highly correlated to the quality investment factor, and highly G-scoring firms excel in management, Corporate Social Responsibility (CSR) strategy and shareholder matters.

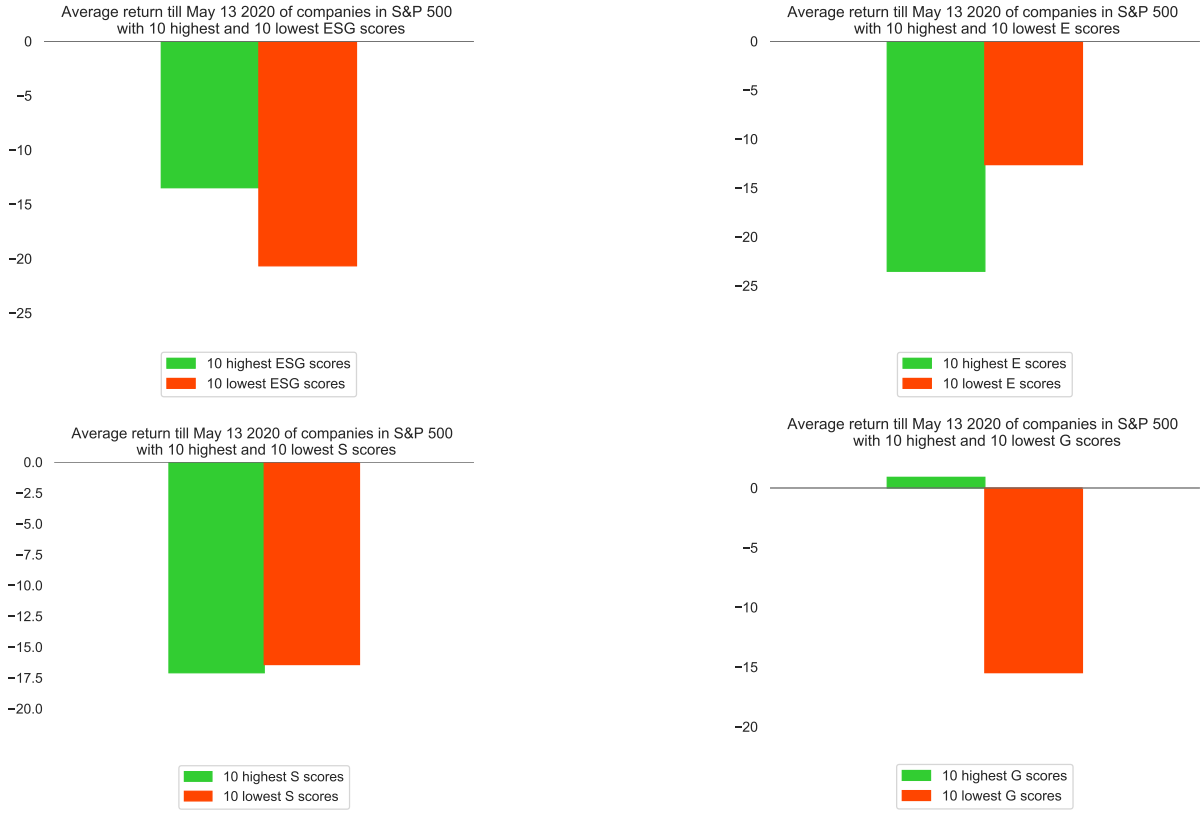
Socially focused companies (i.e., those with a high S score) are affected in a way similar to other companies. As high S scored companies are leaning towards human rights, employees' health and safety, we expect that they are more willing to sacrifice company profits over employees' well-being during the COVID-19 pandemic.

Environmentally friendly companies (as measured by the E score) in the US are hit harder than their lower E-scored counterparts. However, we observe that being environmentally friendly turned out to be beneficial for companies in energy, materials, and utility sectors to confront the COVID-19 pandemic. We will show some evidence to that end in the next section.

[1] Although the outbreak of coronavirus in the US and the EU began in February, we think the market has already been affected by the pandemic in China that started in early January.

[2] We use Global Industry Classification Standard here.

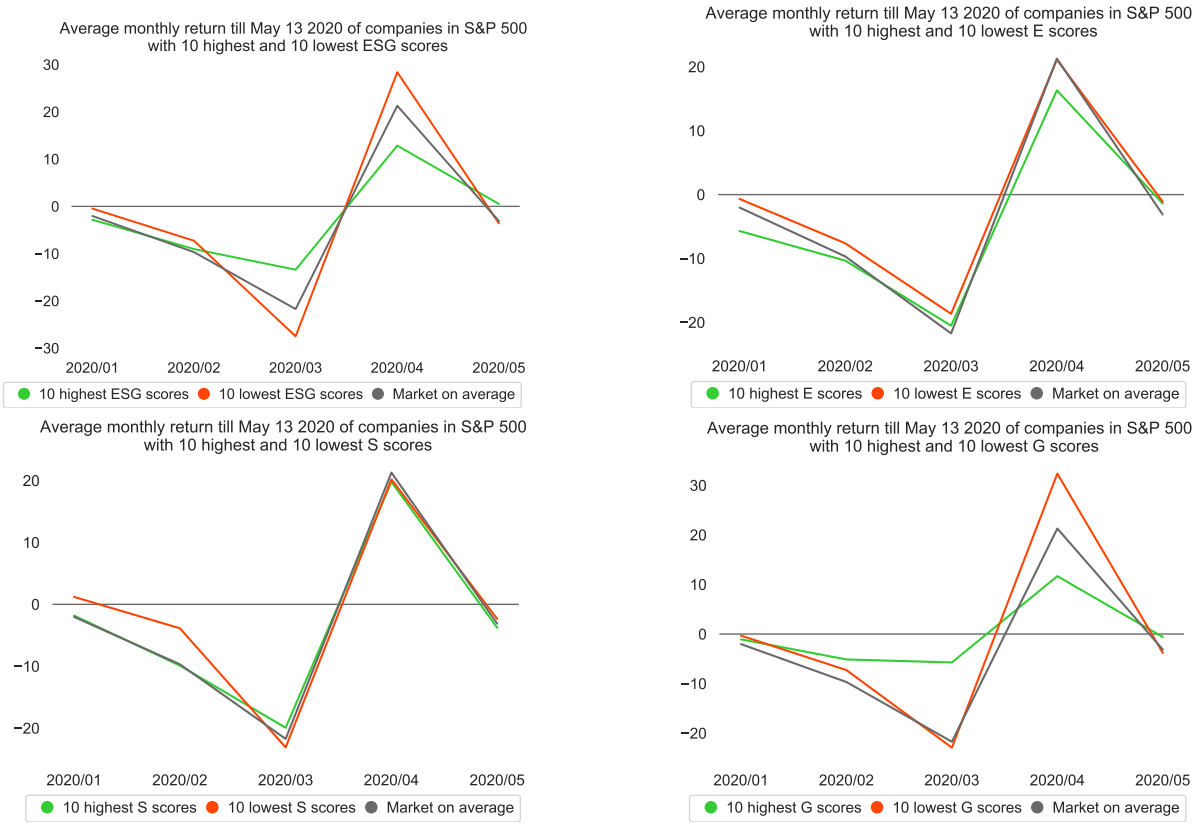
Figure 1: Averaged return from January 1, 2020 to May 13, 2020 of sustainable and less sustainable companies in S&P 500



Sustainability can enhance the stability of firms' financial performance

As presented in Figure 2, sustainable companies are more stable during the COVID-19 pandemic, as they exhibit lower variability of their stock prices. These companies suffer less in terms of losses, but they also rebound less. High G-scoring companies are particularly stable in that respect. It is well-known that high G score is correlated to the well-known quality investment factor, and both are crucial in a stress period such as the coronavirus pandemic.

Figure 2: Averaged monthly return from January 1, 2020 to May 13, 2020 of sustainable and less sustainable companies in S&P 500



Sector breakdown

We also look at the performance of sustainable companies in various sectors. Table 1 summarizes the performance of sustainable and less sustainable companies in each sector, where the green cell indicates outperformance of highly scoring companies and red cell meaning the opposite. We observe that sustainable companies in utility, materials, health care, and consumer staples sector are generally suffering less and are more stable than less sustainable companies. Moreover, the potential driving force (in terms of sustainability) of the outperformance varies between sectors. For example, being environmentally friendly (scoring high in Environmental) is beneficial to energy and utilities companies

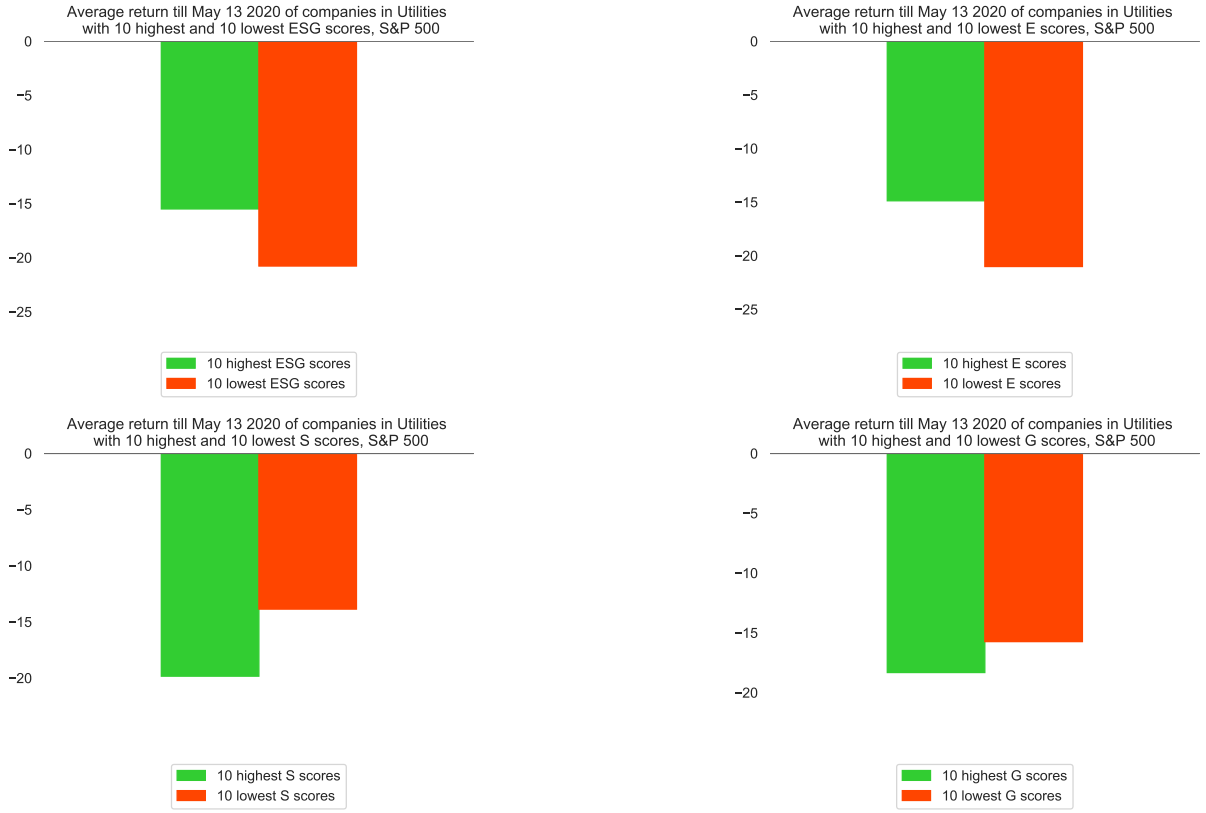
Table 1: Sustainable companies versus less sustainable companies in the US

GICS Sector	US			
	ESG	E	S	G
Energy				
Materials				
Industrials				
Consumer Discretionary				
Consumer Staples				
Health Care				
Financials				
Technology				
Communication				
Utilities				
Real Estate				

Utilities and Energy

Figure 3 presents the average total return from January 1, 2020 to May 13, 2020 of sustainable and less sustainable companies in Utilities sector. Leading environmental friendly companies such as DTE Energy and NRG Energy are the main contenders to become fully green energy producers. Their investment in clean energy projects enables them to provide renewable and sustainable energy. Therefore, when fossil fuel industries are heavily hit by the plunging demand for oil caused by the COVID-19 pandemic, it seems that sustainable utility companies held up better as a result of their diversified energy sources. Similar evidence can be found in the energy sector. The weight of alternative energy tends to be greater in high E scored energy companies, which also suffer less in this crisis.

Figure 3: Averaged return from January 1, 2020 to May 13, 2020 of sustainable and less sustainable companies in Utilities, S&P 500

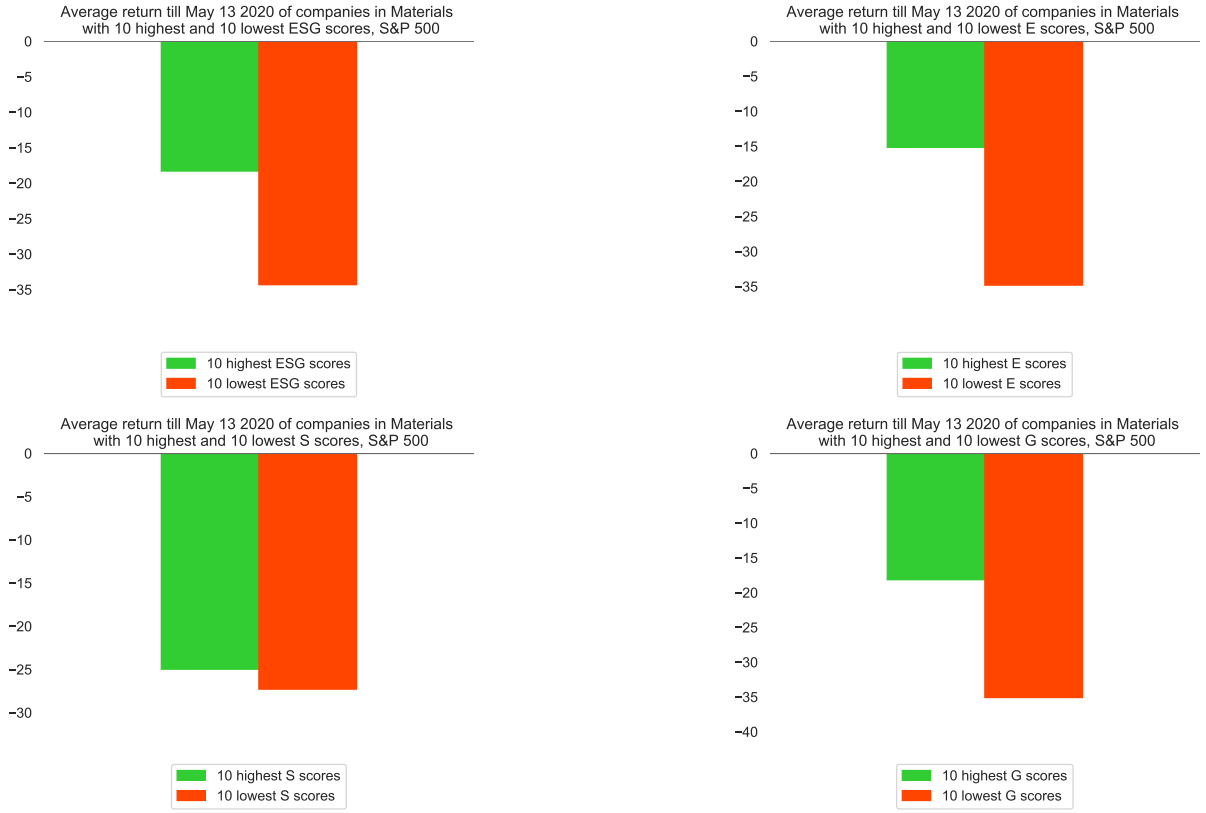


Materials

Figure 4 suggests that less sustainable companies in the Materials sector have been plagued by the COVID-19, while sustainable companies were less affected. On one hand, the demand for metals and other commodities have crashed due to the decrease in economic activities during the coronavirus pandemic. Moreover, buyers are switching to local suppliers to avoid transportation barriers. On the other hand, suppliers in the materials industry are suffering a severe shortage of labor due to lockdown measures. As a response, some suppliers have halved their production and had to encounter delays in delivery to contracted buyers. At this particular moment, buyers are most likely to procure from reliable and steady suppliers. As we observe that there is a negative correlation between the G score and the company's controversies, well-governed companies (with high G score) seem to have higher reputations[3]. Consequently, they are more competitive in the market, which is critical especially when demand is shrinking.

[3]Figure 10 in Appendix presents the constantly negative correlation between the ESG Controversies Score and the G score.

Figure 4: Averaged return from January 1, 2020 to May 13, 2020 of sustainable and less sustainable companies in Materials, S&P 500



Health Care

While most sectors experienced a massive market sell-off, the health care industry was mostly spared, as demonstrated in Figure 5. Especially, health care companies that are highly ESG scored outperformed their lower scored counterparts. Moreover, the top well-governed companies (with a high G score) even managed to achieve positive returns during the pandemic.

Although coronavirus put the public health system under enormous strain, it also generated a huge demand for protective equipment and other medical supplies. Meanwhile, there are some new opportunities, such as the development of potential vaccines and treatments for the COVID-19. However, the health care industry has its own obstacles to overcome during the pandemic. One of them is the medical supply chain disruption. Coronavirus hotbed regions such as Italy, India, Germany, and China had cut the medical export in order to ensure the domestic supply. Consequently, health care companies in the US are exposed to the risk of shortages. Under such circumstances, well-governed companies are more likely to seize the chance and deal with potential risks. Notice that high E and S scored companies also outperform the low scored companies. We consider it a result of the positive correlations among E, S, and G scores.

Figure 5: Averaged return from January 1, 2020 to May 13, 2020 of sustainable and less sustainable companies in Health Care, S&P 500

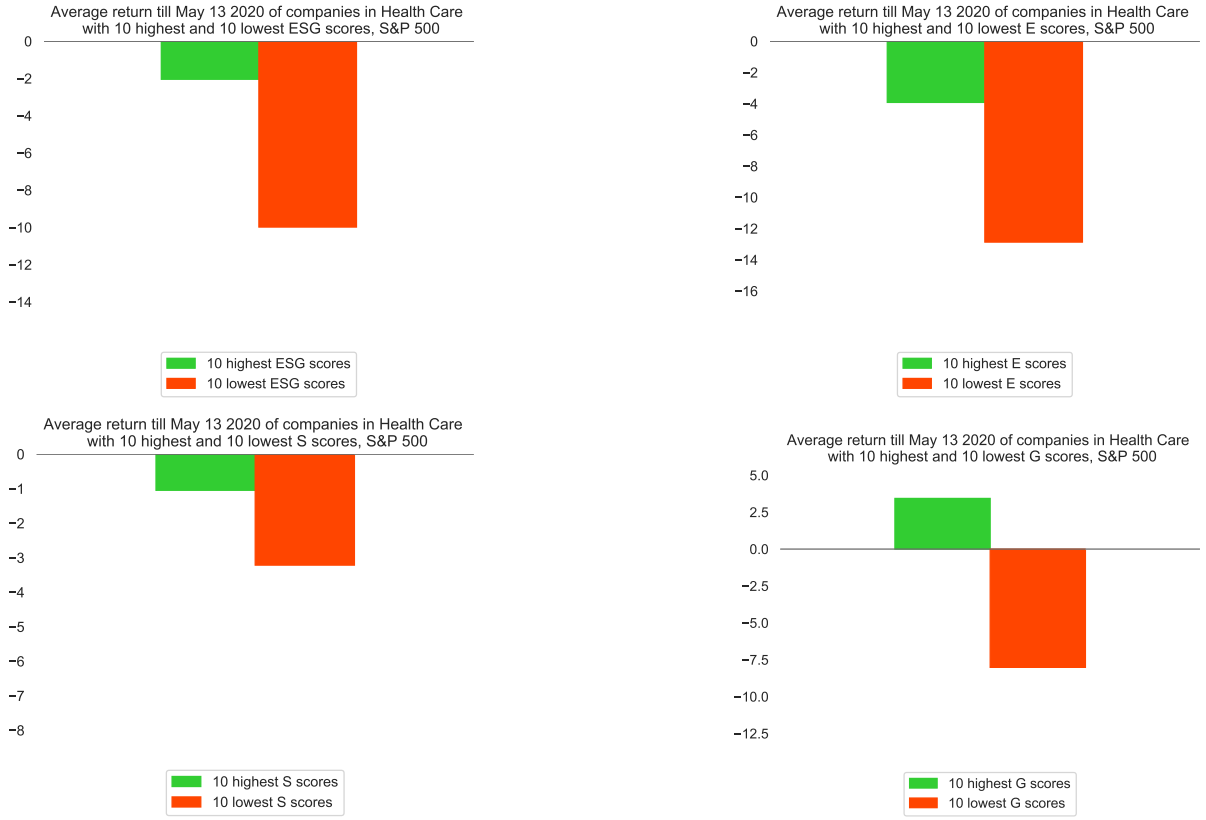
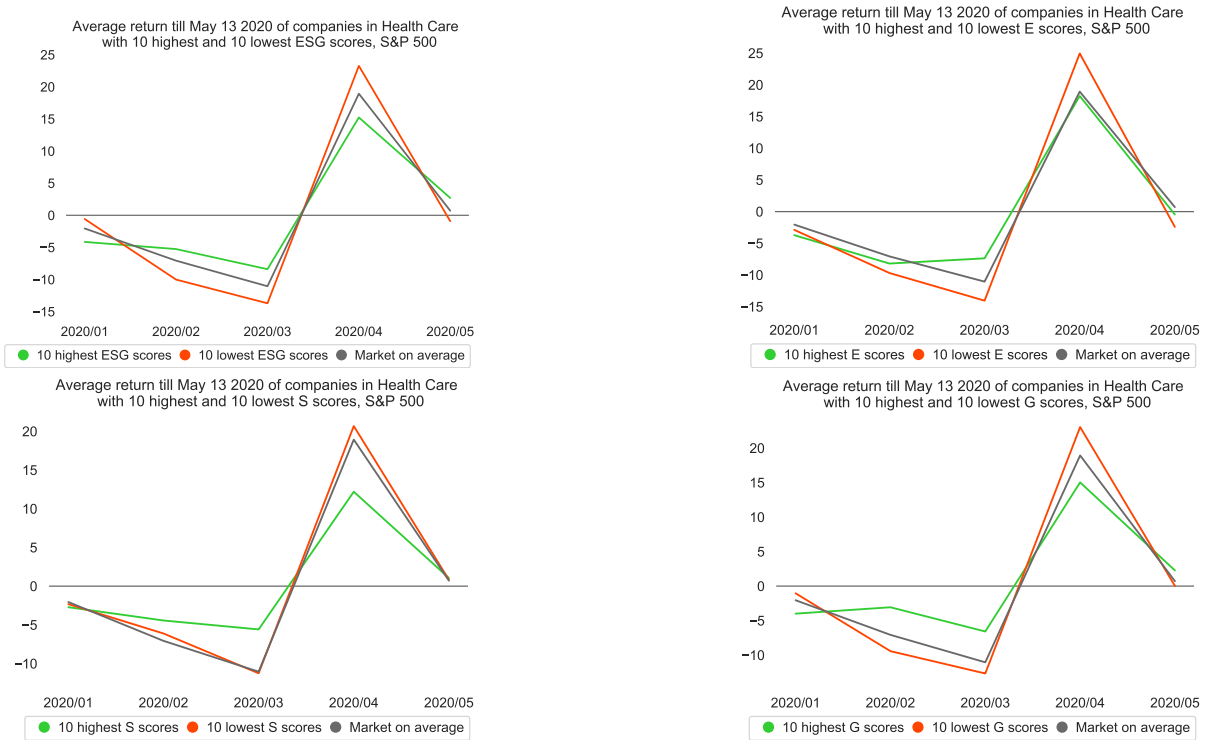


Figure 6: Averaged monthly return from January 1, 2020 to May 13, 2020 of sustainable and less sustainable companies in Health Care, S&P 500



EU companies

In the US, being sustainable (i.e., scoring high on ESG criteria) also meant being more resilient to the pandemic. In the EU, the advantages are not as clear. In general, we see that EU sustainable and less sustainable companies suffered similar losses and performed equally during the pandemic. As shown in Figures 7 and 8, the average monthly return of sustainable companies seems to match the market on average and is slightly below the return of less sustainable companies during the coronavirus pandemic.

However, it is too soon to conclude that sustainable investing in the EU would compromise returns. We think that screening companies by E, S, or G score individually, instead of the ESG scores, seems to be a wise choice for the EU investors. And investors need more professional knowledge to determine which exact score to choose. For STOXX 600 universe, the G score seems to be a better option since highly G-scoring companies are more stable in this stress period. We observe that Governance is an important indicator of a better performance for companies in the Materials, Industrials, Consumer staples and Utilities sectors (as presented in Table 2). Similar to the Energy sector in the US, highly E-scoring energy companies in the EU outperform in terms of lower losses and lower volatilitys as presented in Figure 9.

Figure 7: Average return from January 1, 2020 to May 13, 2020 of sustainable and less sustainable companies in STOXX 600

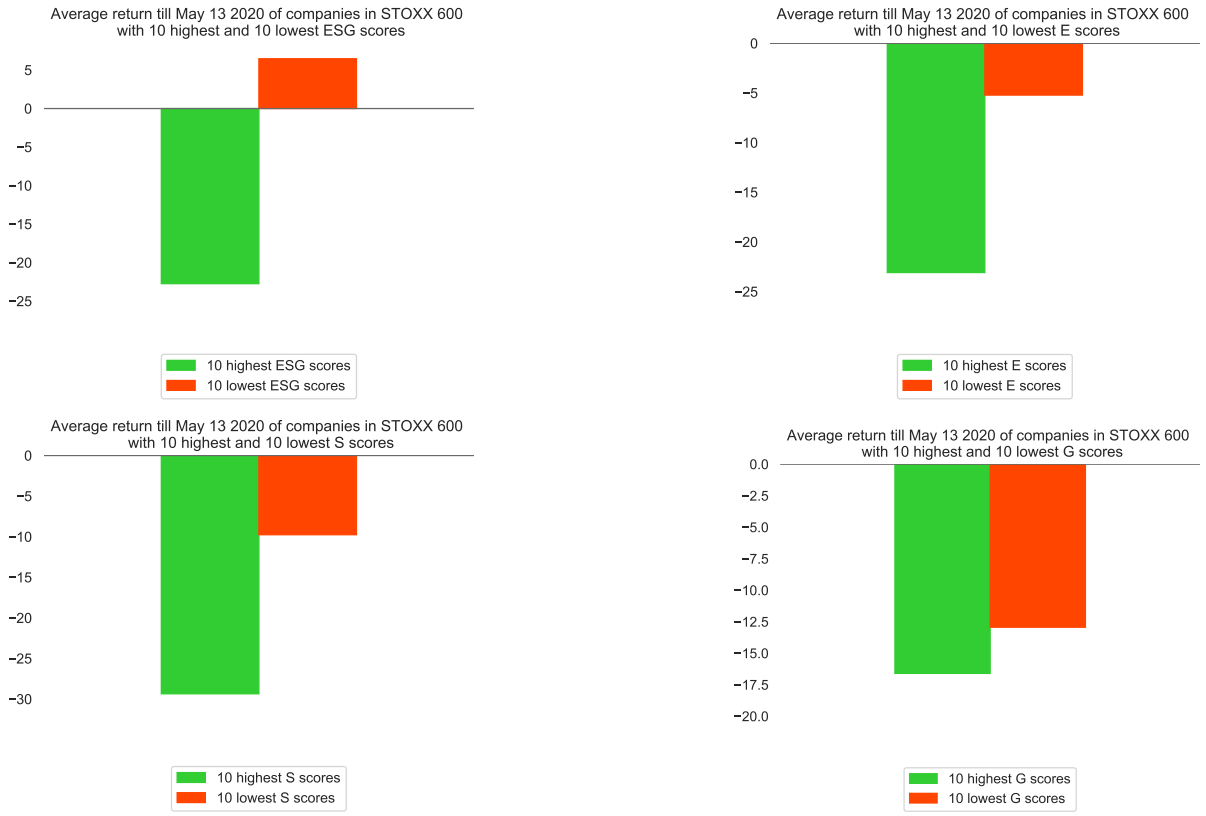


Figure 8: Averaged monthly return from January 1, 2020 to May 13, 2020 of sustainable and less sustainable companies in STOXX 600

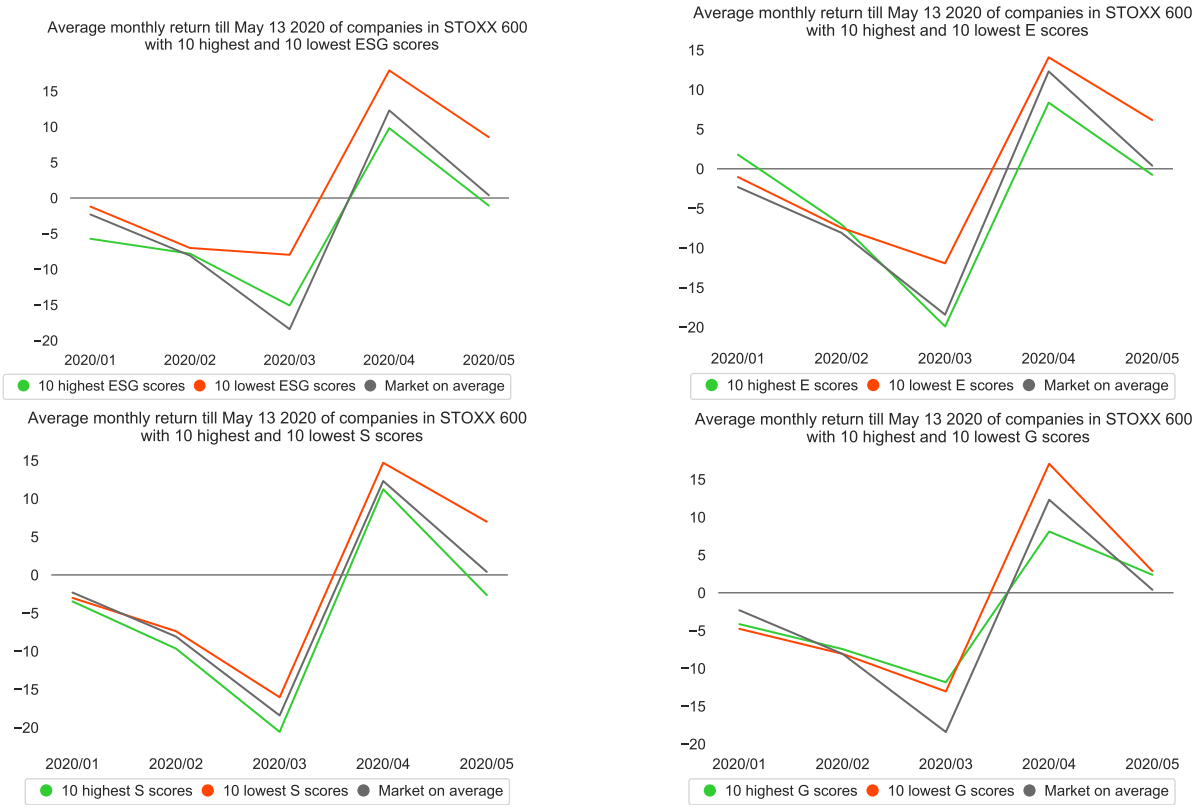
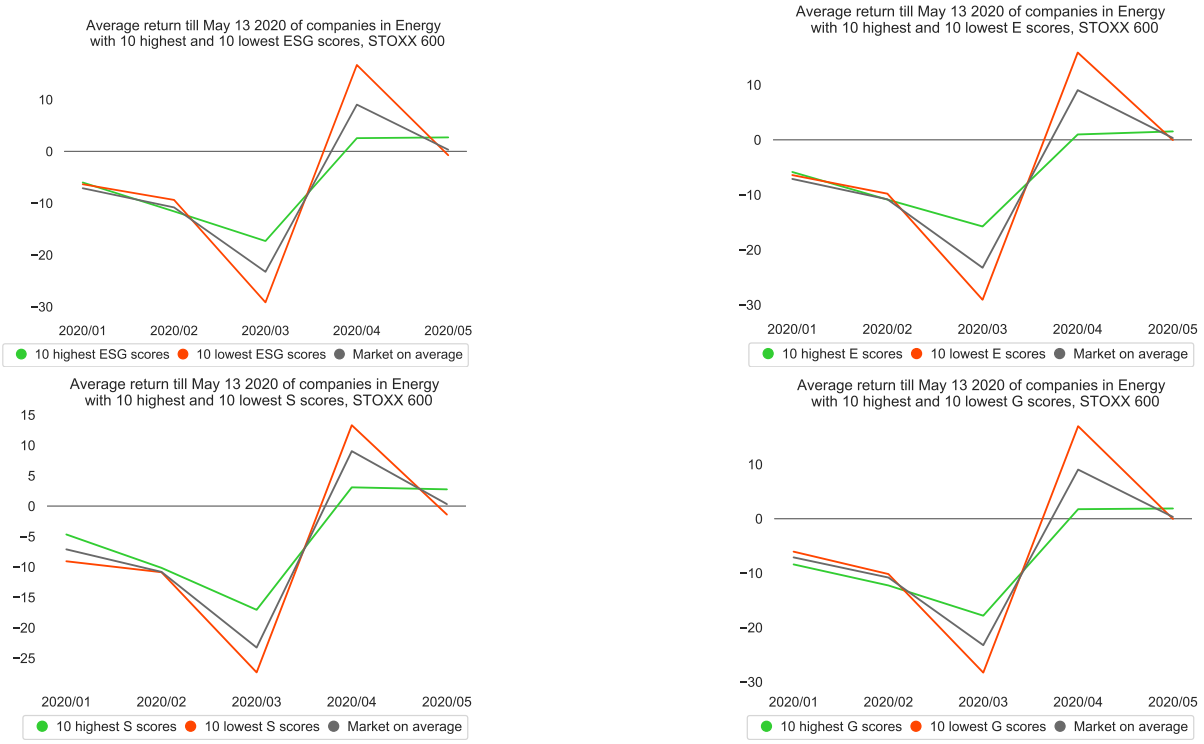


Table 2: Sustainable companies versus less sustainable companies in the EU

GICS Sector	EU			
	ESG	E	S	G
Energy	🟩	🟩	🟩	🟥
Materials	🟩	🟥	🟩	🟩
Industrials	🟥	🟥	🟥	🟩
Consumer Discretionary	🟥	🟩	🟥	🟥
Consumer Staples	🟥	🟥	🟩	🟩
Health Care	🟥	🟥	🟥	🟥
Financials	🟥	🟥	🟥	🟥
Technology	🟥	🟥	🟥	🟥
Communication	🟥	🟥	🟥	🟥
Utilities	🟩	🟥	🟥	🟩
Real Estate	🟥	🟥	🟥	🟥

Figure 9: Averaged monthly return from January 1, 2020 to May 13, 2020 of sustainable and less sustainable companies in Energy, STOXX 600



Concluding remarks

Our analysis shows that, on average, more sustainable companies held up better than less sustainable companies during the current crisis, especially in terms of volatility of their stock.

Our research on ESG and sector breakdown has shown that:

- Environmentally friendly companies (i.e., thoose with high E score) in the utilities and energy sectors suffered less than their less sustainable counterparts.
- Companies with higher S (social) scores generally performed less well during the pandemic. We conjecture that these companies are willing to sacrifice short-term company interests for employees' rights, health and safety, which potentially led to greater losses during the COVID-19 crisis. However, they are more likely to attract high-quality human resources in the future, potentially bringing higher long-term yields.
- We also have shown that good governance is essential for companies at times of crisis. It contributes to a more steady financial performance and a rational response to dramatic changes in the market. This effect is particularly pronounced for healthcare sector

Overall, we believe that investors should take sustainability into consideration when they screen and evaluate companies, especially in times of crisis. Evidence shows that sustainable investing during the COVID-19 pandemic does not compromise returns and even outperforms in some situations. Generally, there is a lower variation in the performance of sustainable companies, and this is vital in a stress period.

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Appendix

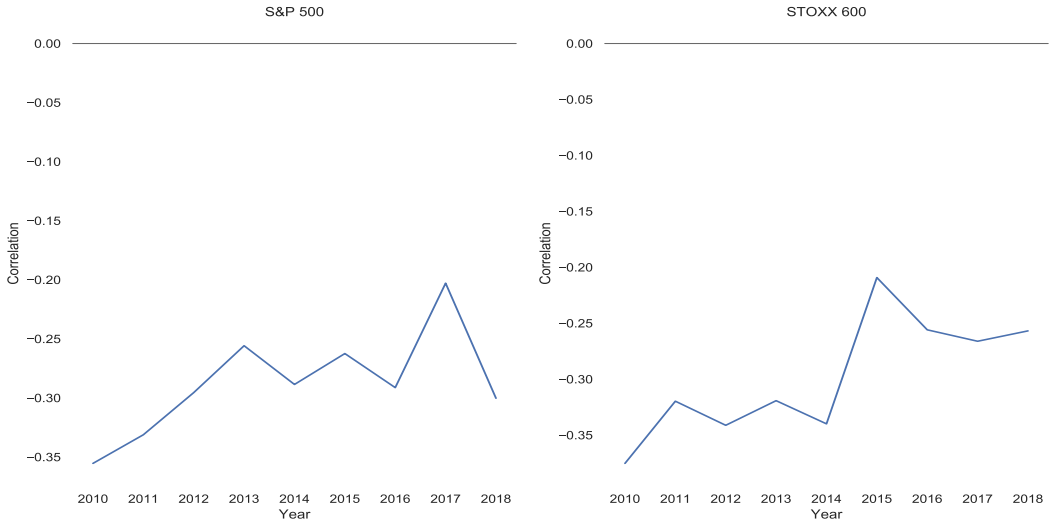

Figure 10: The correlation between the ESG Controversies Score and the G score in US and EU