

Systematic Investment Solutions:

Spotlight on 'S' - Integrating the Social factor into investment portfolios

With the spread of the Covid-19 pandemic, the 'S' (Social) factor has moved into greater focus for ESG-oriented investors. In this article, we shed light on recent trends and approaches to social investing, illustrating that imposing social restrictions does not just alter the sustainability profile of portfolios. Rather, it also typically comes with implicit secondary market exposures, of which investors should be aware. A quantitative investment approach allows portfolio managers to gain a clear understanding of these characteristics and implement a customised strategy aligning their sustainability and financial goals. Risk-adjusted performance can be improved by incorporating an alpha-enhancement mechanism into the portfolio construction.

Introduction

Rethinking the importance of the Social factor

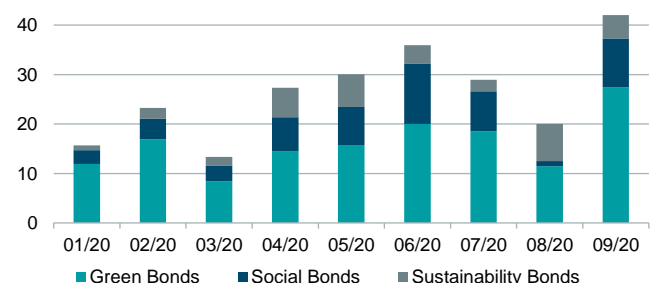
'S' for Social is probably the least researched and standardised aspect of Environmental, Social and Governance (ESG) investment. It relates to how a firm manages its relations to different stakeholders and has been somewhat neglected by investors – until the recent past.

The Covid-19 pandemic has led to a pronounced increase in public interest in how companies ensure their employees' health and safety, and their supply chain management standards. Firms have suffered large reputational losses for reacting inadequately to the crisis, whereas firms with perceived higher 'moral' capital may benefit.¹ The scandal at a large German meat processing company, which suffered a major outbreak of Covid-19, has not only put the company's future at risk, but also triggered public outrage and new legislation with a major impact on the business model of the entire discount meat industry.

Social bonds on the rise

In the investment space, too, interest in the 'S' has increased considerably. More and more research reports are being dedicated to this subject. Figure 1 shows the recent issuance of sustainability bonds. It illustrates the rise of social bonds, the fastest-growing segment of the sustainable debt market in 2020. Issuance directly related to the pandemic has picked up since March and has accounted for roughly one-third of social bond issuance year-to-date.

FIGURE 1. SUSTAINABILITY BOND ISSUANCE IN USD BN



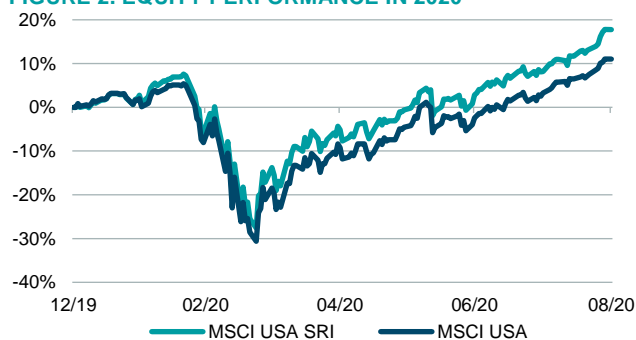
Source: Bloomberg. As of: 14 September 2020. Issuance excludes bonds with use of proceeds for general corporate purposes. Issuance is converted to US-Dollar.

¹ A positive link between company reputation and corporate financial performance has, for instance, been established by Busch et al. (2018).

Relative outperformance of social equity indexes

In equity investments, 'social' equity indexes have fared better than their parent indexes during the course of the Covid-19 pandemic (see Figure 2). Taking the US equity market in 2020 as an example, the MSCI USA SRI index achieved a total return of 17.8% up to August 31, outperforming the MSCI USA by 6.8%. Most, but not all, of the outperformance was achieved during the market downturn early in the year, in the period until mid-March. The absence of a beta tilt can be concluded as the MSCI USA SRI has a beta of approximately one to the broad MSCI USA index; this further supports the theory that the 'S'-factor outperformed.

FIGURE 2. EQUITY PERFORMANCE IN 2020

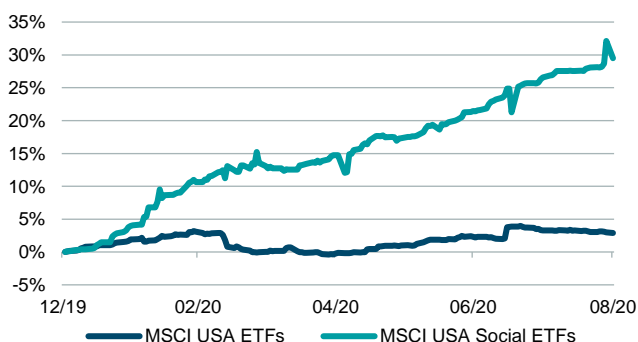


Source: DWS International GmbH, Refinitiv Datastream. The figure depicts total equity performance between 31 December 2019 and 31 August 2020. As of: 31 August 2020. Past performance is not a reliable indicator of future returns.

Stable demand trend for social ETFs year-to-date

To get an idea of whether this outperformance has been accompanied by a significant increase in demand, we compare cumulative flows into social US equity ETFs with flows into their parent indexes. Figure 3 reveals that social ETF flows have been much more stable, with the gap widening since the market downturn in February and March.

FIGURE 3. CUMULATIVE ETF-FLOWS IN % OF ASSETS UNDER MANAGEMENT



Source: DWS International GmbH, Refinitiv Datastream. Cumulative ETF flows in % of assets under management of the respective ETFs as of 31 December 2019. As of: 31 August 2020. Past performance is not a reliable indicator of future returns.

Having established that there has been a marked increase in both public interest and investor demand for social investing recently, we provide the reader below with some important characteristics of the 'S' factor and briefly review the literature. We then dive into specifics of equity investments, analysing the social characteristics of publicly available MSCI equity indexes as well as considering a more customised approach to social investing.

Leveraging our in-house multi-vendor ESG rating tool, we take a practitioner's view to exploring 'S' factor integration in investment strategy. One element in this relates to implicit tilts: regional, sectoral, and style exposures the investor should be aware of when committing to an investment choice. Furthermore, we show that combining the desired 'S'-tilt with our alpha-enhancing engine Qi Dynamic Factors can help generate superior risk-adjusted returns compared to passive portfolios.

The social factor: the basics

Defining and quantifying the social factor

The social factor typically describes the ways in which a company deals with its main stakeholders, like its employees, customers, other firms along the supply chain, and society in general. For example, S&P describes it as the way *'a company manages its relationships with its workforce, the societies in which it operates, and the political environment'* (S&P Global, 2020). The Corporate Finance Institute website says that *'the social factor considers the attitudes towards diversity, human rights, and consumer protection. The social factor may affect the company's operational success by attracting new customers and retaining their loyalty, and maintaining relationships with business partners'* (Corporate Finance Institute, 2020).

Providers of social ratings provide separate categories matching this interpretation of the social factor and define underlying social key issues corresponding to each category. For instance, the social rating of a leading ESG vendor, MSCI, comprises the categories human capital, product liability, stakeholder opposition as well as social opportunities. The human capital pillar encompasses the key risk issues labour management, health & safety, human capital development as well as supply chain labour standards, which have increasingly become the focus of public discussions related to the Covid-19 pandemic.

The data challenge

One major problem is that estimating the social factor is troublesome. This is because a significant part of the available information is subjective and qualitative; the social data of corporations is therefore hard to quantify. The data can, however, be transformed into various reporting frameworks,

though these are often inconsistent. Furthermore, some standards exist worldwide, others are country-specific. Even within geographic regions, measures can differ. The fact that larger firms tend to have more extensive reporting also makes it harder to make fair comparisons between companies.

Table 1 shows that the social scores of leading ESG vendors are positively correlated, though by far less than 100%. In other words, a company that is classified as a social leader by, say, Oekom has a rather high probability of not being classified that way by another provider, such as MSCI.

TABLE 1. CORRELATION OF SOCIAL SCORES FROM THREE VENDORS AS OF 04/2020

	MSCI	Oekom	Sustainalytics
MSCI	100%		
Oekom	33%	100%	
Sustainalytics	32%	63%	100%

Source: DWS International GmbH, ISS Oekom, MSCI, Sustainalytics. As of: April 2020.

However, these issues do not imply that social investing is not feasible due to the lack of coherent data. In time we expect the increased focus on the 'S' to result in greater standardisation and coverage in social reporting. In the meantime, and in order to exploit the various existing data optimally, our in-house DWS social rating combines data from multiple vendors. It therefore permits much broader data coverage and less reliance on specific metrics compared to a single-vendor ratings' approach.

The effect of the social factor on company risk

Why would social issues have an impact on the performance of a specific company? Several studies have found a significantly negative relationship between a company's social rating and its risk, which might explain why social investments became particularly valued during the Covid-19 pandemic.

Sassen et al. (2016) find a significantly negative relationship between the social pillar and systematic, idiosyncratic, and total firm risk. For the environmental pillar, the authors detect a negative relationship with idiosyncratic risk alone, while the governance pillar shows no significant results. Decomposing the social pillar into its building blocks (customer-related, society-related, workforce-related), only the workforce-related social aspect was found not to affect firm risk, which could be explained by it being the only firm 'internal' factor, with a smaller impact on market risk.

In a similar vein, Del Guidice et al. (2019) conclude that a company's adherence to social guidelines affects its risk in a different manner compared to compliance with governance or environmental guidelines. The authors find the social pillar to be the only one of the three factors that significantly reduces systematic risk.

A paper by Bouslah et al. (2018) shows that the inverse relationship between a firm's risk and its social performance became strong during and after the financial crisis in 2008-2009. The authors conclude "[social performance] strengths are very useful in terms of risk reduction during tough periods (e.g., financial crises or economic recessions)."

In a recent MSCI study by Giese et al. (2020), the authors conduct disaggregated analyses on the distinct pillars and subcomponents of the MSCI ESG rating model. While the authors find rather weak evidence regarding short-term effects on the different economic transmission channels (i.e., increasing profitability, reducing firm-specific risk or systematic risk), their long-term analysis shows a significant impact from the social factor on stock market performance. Three out of four of the social key issues analysed were able to deliver outperformance compared to a global equity benchmark between 2013 and 2019. In particular, the key social issue 'labour management' shows persistent outperformance. The relationship for 'health & safety', which is currently in the spotlight, is positive as well but much more volatile, with performance strong mostly towards the end of the analysis period.

Analysis of the social factor from an investment perspective

We now get to the core of this paper and analyse social equity investments from the angle of an investor interested in stocks that are deemed socially superior compared to the broad equity market.

There are several possibilities for investors. First, it is possible to invest in publicly available social indexes, the two most well-known will be described briefly. Second, there are more customised ways to becoming a social investor. In a case study we demonstrate our quantitative approach to the integration of social improvement objectives into portfolio construction. The exemplary results illustrate how quantitative tools can enable investors to opt for a customised strategy, allowing them to balance sustainability vs. financial goals optimally.

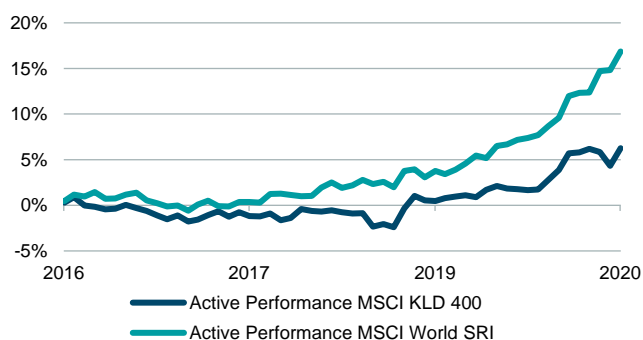
Performance drivers of social indexes

In the first step, we analyse the performance and S-rating distribution of two public social indexes. The first index is the MSCI World SRI Index (launched in June 2011) and secondly the MSCI KLD 400 index (launched in May 1990).

Both indexes are free float-adjusted market capitalisation weighted indexes, which exclude companies focused on products with a high negative social impact (MSCI, 2020).

We start by drilling down to the factors that drive the relative performance of social indexes compared to their benchmarks. Figure 4 shows the performance of the MSCI KLD 400 Index relative to the MSCI USA, as well as the MSCI World SRI vs. the MSCI World since 2016. While there has been outperformance since mid-2017, the relative strength of the social indexes has clearly picked up since the beginning of this year.

FIGURE 4. CUMULATIVE ACTIVE PERFORMANCE OF THE MSCI KLD 400 AND MSCI WORLD SRI SOCIAL INDEXES VS PARENT INDEXES, 31.12.2015 – 31.08.2020



Source: DWS International GmbH, MSCI. Active performance of MSCI World SRI vs. MSCI World. Active performance of MSCI KLD 400 vs. MSCI USA IMI. As of: 31 August 2020. Past performance is not a reliable indicator of future returns.

DWS ESG SynScores: A powerful tool

In order to judge the characteristics of the distinctive approaches to social investing, we need to rely on comparable metrics. To do so, we leverage our in-house multi-vendor ESG Engine.

We already outlined the big data challenge regarding the social factor related to the lack of a unified reporting framework, inadequate data coverage as well as different standards. To mitigate these problems, our in-house DWS SynRating combines multi-vendor data and hence allows a broader data coverage. The SynRating, ranging from 'A' – ESG leaders to 'F' – ESG laggards is the aggregated interpretation of our numerical SynScores ranging from 0 to 100. In order for a company to achieve top or bottom level scores, all providers must evaluate it as such by mutual agreement. Therefore, SynScores are an appropriate measure to identify the true leaders and true laggards within a reference group.

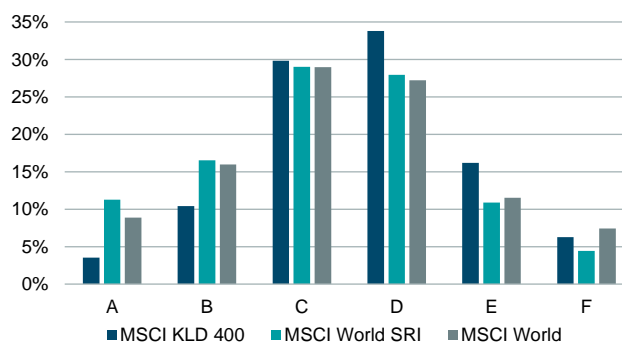
In the remainder of the paper, we employ SynScores only for the social component as our metric for social performance of the respective equity portfolios. In order to judge

the characteristics of the above-mentioned social indexes, we now move to a brief sustainability analysis using our SynRatings.

Regional distribution of social SynRatings for social indexes and MSCI World

In Figure 5, we investigate the rating distribution of the MSCI KLD 400 social index, as well as the MSCI World SRI and MSCI World index, according to the DWS SynRating for the social factor, and make a comparison to the distribution of the broad MSCI World index. As expected, there are markedly more companies with an 'F' rating in the broad index than in the social counterpart of the index.

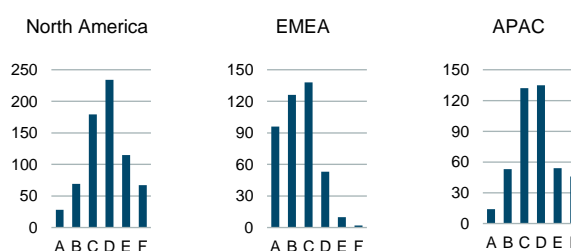
FIGURE 5. MSCI KLD 400, MSCI WORLD SRI & MSCI WORLD SOCIAL RATING DISTRIBUTION AS % OF TOTAL STOCKS IN EACH INDEX ACCORDING TO DWS SYNSCORE SOCIAL FACTOR AS OF 08/2020



Source: DWS International GmbH, MSCI. As of: 31 August 2020.

Figure 6 shows the regional distribution of the social pillar based on the broad MSCI World universe. The good ratings are tilted towards EMEA and the lower ratings towards North America. As a result, portfolios with a higher social score should inherit a secondary exposure towards EMEA stocks that the portfolio manager may need to deal with.

FIGURE 6. REGIONAL MSCI WORLD RATING DISTRIBUTIONS OF THE ESG SYN RATING SOCIAL FACTOR AS OF 08/2020



Source: DWS International GmbH. As of: 31 August 2020.

To get an idea of whether the active performance of the two social indexes was driven by the social rating profile, we

now employ a simple alternative to construct social equity portfolios.

The relative performance of the social leader portfolio is hard to disentangle

One way to single out the performance of ESG leaders from ESG laggards is to build portfolios containing the respective companies. The 'S leader' portfolio would then only include stocks with a Social SynRating of 'A' or 'B', while the 'S laggard' portfolio would contain stocks with an 'E' or 'F' rating. Both portfolios are constructed with equal weights in each stock in order to filter out the pure effect of the social factor rather than effects from the inclusion of a few large companies. Figure 7 depicts the performance differences for both portfolios. Similar to the MSCI social indexes, during the last four years, good social ratings have outperformed the lower ratings and the performance gap has widened since the pandemic. Hence, our first finding is that the outperformance of social indexes is not purely driven by the inclusion of social laggards in the portfolios.

FIGURE 7. PORTFOLIO PERFORMANCE MSCI WORLD A&B RATING VS. E&F RATING AS OF 31 AUGUST 2020



Source: DWS, Barra Portfolio Manager. Computations are based on equal-weighted portfolios. As of: 31 August 2020. Past performance is not a reliable indicator of future returns.

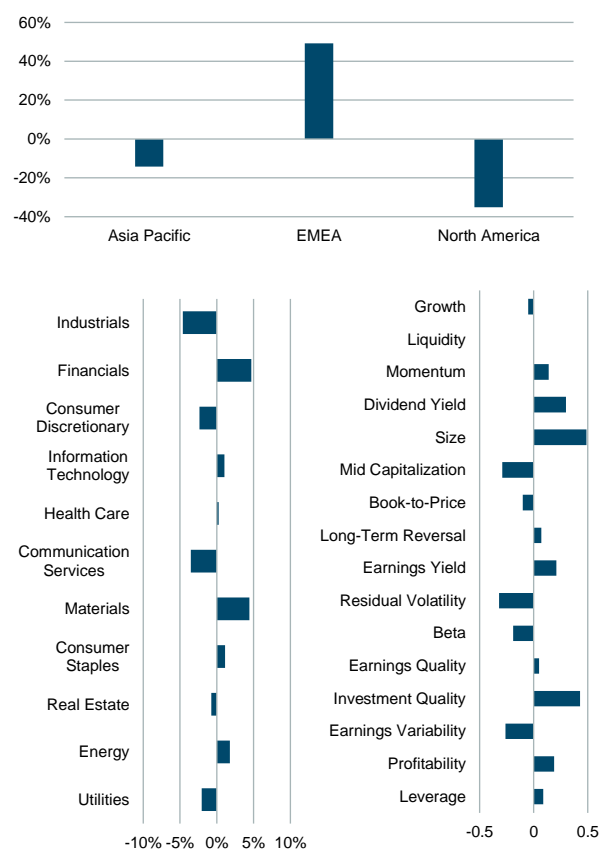
We now focus on characteristics of the social leaders vs. laggards portfolios. Figure 8 shows the active weights of the A&B portfolio over the E&F portfolio for different regions and sectors. As might be expected from the previous analysis, the 'S leader' portfolio has a high overweight of EMEA stocks compared to the 'S laggard' portfolio which puts relatively more weight on North American and Asian Pacific stocks.

The figure shows a relative overweight of the 'S leader' portfolio in financials and materials, a small overweight in information technology and underweights in industrials and utilities, among others. In terms of active factor exposures, Figure 8 illustrates the large tilt of the A&B portfolios towards large caps and quality together with a low volatility tilt. The

low volatility tilt helped the portfolio stabilise during the market breakdown while the quality overweight, unlike the size tilt, was able to deliver the most stable outperformance.

Overall, the outperformance of A&B vs E&F portfolios since 2016 is a result of a multi-dimensional interplay between active regional, sectoral and factor portfolio exposures arising from differing social constraints. While the finding supports the hypothesis that social leaders can be helpful in improving the fundamental quality of a portfolio, the set-up does not allow for the conclusion that outperformance has been driven by social quality.

FIGURE 8. ACTIVE REGIONAL AND SECTOR WEIGHTS AND ACTIVE FACTOR EXPOSURES MSCI WORLD A&B VS. E&F, AS OF 31.08.2020



Source: DWS International GmbH, Barra Portfolio Manager. Computations are based on equal-weighted portfolios. As of: 31 August 2020.

Case study: Smart integration of social factors into portfolio construction

Having shown that a 'social leader vs social laggard' portfolio shows specific active regional, sectoral and factor exposures, we present a case study of a global equity investor who wants to go 'social', but is not yet sure which degree of 'social' to actually implement. The exercise allows us to

show the potential trade-offs between the level of 'S' integration, the resultant secondary market exposures and the risk/return profile of the distinct portfolios.

Analysis settings

The equity benchmark in this example is the MSCI World and due to data restrictions, we analyse the period between 31/12/2015 and 31/08/2020.

We first proceed to construct different portfolios, which track the MSCI World index with the lowest possible tracking error given the imposed social improvement objective. Then we allow for portfolio optimisation including both social restrictions, and our relative return scores in a second step.

For the computations, we again rely on our in-house best-in-class social ranking (another metric can be employed provided it has satisfactory data quality and coverage) and construct portfolios with increasing degrees of social tilts relative to the benchmark. For further information on this methodology, we refer the reader to the research 'the quant road to ESG integration' by Sidorovitch et al. (2018), where a similar exercise was conducted for portfolios with a broad ESG-tilt.

Briefly summarised, the 'tilt portfolio'-methodology introduces an additional target function into portfolio optimisation: it requires an optimal portfolio, which has a total portfolio Social Rating Score that is x-times higher than the benchmark score. For instance, given an average social SynScore of the benchmark of 60, a 30% tilt strategy would produce a portfolio with an ESG score of at least 78.

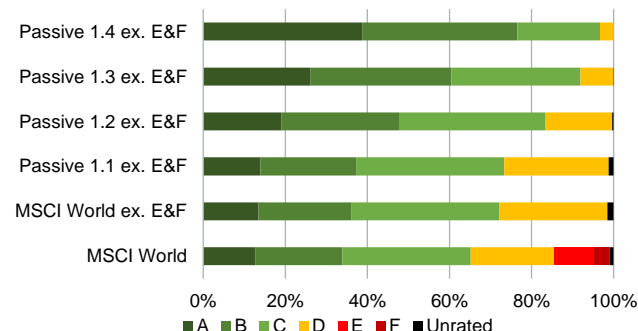
Subsequently increasing the required portfolio social SynScore tilt from 1.0 to 1.5, the benchmark level shows that the portfolio exposure to the best ESG Social Rating Classes A&B increases with the level of tilt. While there are only about 14% A-rated constituents in the MSCI World Index, a 1.3 or 30% tilt portfolio, i.e. a portfolio with a 30% higher ESG Social Score than the MSCI World, has twice as much. Since the tilt portfolios still showed several investments in E and F rated stocks, which should be deemed unacceptable to social investors, all stocks with E and F social ratings were excluded in the next step and the tilting strategies were reapplied to these portfolios.

Passive tilt portfolios: individualising the desired degree of 'social'

We analyse passive tilt portfolios without our quantitative relative return signals first. Figure 9 shows the distribution of Social SynRatings for the different portfolios. While a 10% tilt portfolio excluding E and F ratings still has an exposure of more than 20% to D ratings, a 30% tilt reduces the D exposure to below 10%. The most pronounced social portfolio,

with a 50% tilt compared to the MSCI World benchmark, invests almost entirely in companies with a Social SynRating of A or B.

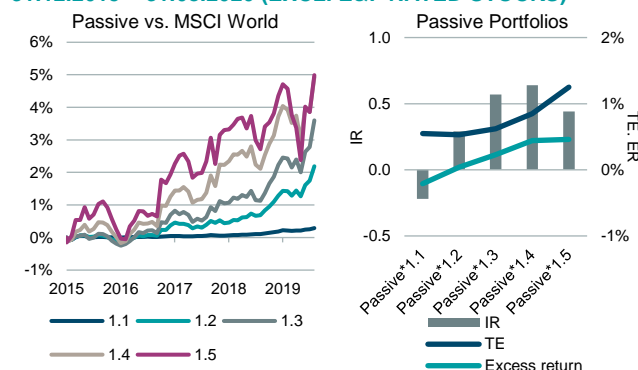
FIGURE 9. SOCIAL RATING CLASS EXPOSURE IN TILTED PORTFOLIOS, AS OF 31 AUGUST 2020



Source: DWS International GmbH, Barra Portfolio Manager. As of: 31 August 2020

The left hand side of Figure 10 shows the cumulative performance of the five different index tracking strategies compared to the MSCI World benchmark. While all passive strategies were able to generate an outperformance versus the benchmark over the analysis period, relative performance was time variable. All strategies recorded an underperformance in 2016, and the active performance of the heavily tilted 1.5 strategy, in particular, showed large swings over time. This behaviour is typically caused by the contribution of a few very volatile stocks.

FIGURE 10. PASSIVE SOCIAL TILT PERFORMANCE 31.12.2015 – 31.08.2020 (EXCL. E&F RATED STOCKS)



Source: DWS International GmbH, Barra Portfolio Manager. As of: 31 August 2020. Past performance is not a reliable indicator of future returns.

The right hand side of the figure depicts the tracking error, excess returns and information ratio of the different strategies. It shows that the tracking error increases with the level of tilt. This relationship is positive for constructional reasons: a higher Social SynRating requirement reduced the universe of eligible stocks compared to the benchmark. The distribution of the information ratio, e.g. the ratio of excess return to

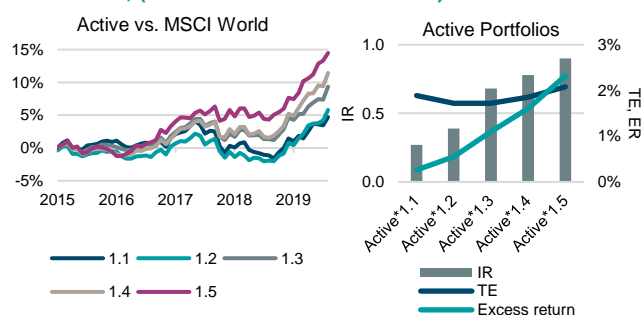
tracking error of a strategy, shows that the 1.3 and 1.4 strategies with an intermediate tilt level delivered the highest risk-adjusted active returns with information ratios above 0.5. The 1.1 strategy with the lowest tilt showed a negative information ratio while for the most heavily tilted 1.5 strategy, the higher tracking error was not accompanied by accordingly higher risk-adjusted returns.

Active portfolios: effects of integrating Qi alpha scores

In the next step, we compare the index-tracking portfolios to active-tilt portfolios including our stock-specific alpha information. We hence combine the social requirements with our proprietary Qi alpha scores, which include additional stock screening criteria like growth, profitability or value. This multi-dimensional stock screening, including both social scores and other technical and fundamental criteria, can lead to a positive interaction of these factors. Given the S-tilt constraints, our target moves from minimising the tracking error in the index-tracking strategies to maximising risk-adjusted active returns. If, for instance, an increase in 'A' weighted stocks is required, this can be implemented by overweighting 'A' stocks with a positive alpha score compared to 'A' stocks with negative alpha scores. The expectation before conducting this exercise is that including alpha information should lead to higher risk-adjusted returns compared to the index-tracking portfolios.

Figure 11 can be interpreted analogously to Figure 10. It exhibits the simulated active returns of different tilt strategies compared to the MSCI World benchmark together with key portfolio characteristics. The left hand side of the Figure shows that all active tilt strategies were able to deliver out-performance versus the benchmark. Comparing Figures 11 and 12, the active performance of the active strategies is higher compared to the index-tracking strategies for all five tilt strategies. While the tracking error of the active strategies is considerably higher and close to 2%, the excess return increase from including our relative return signals outweighs this effect, leading to improved information ratios compared to the index-tracking strategies.

FIGURE 11. ACTIVE SOCIAL TILT PERFORMANCE 31/12/2015 – 31/08/2020, (EXCL. E&F RATED STOCKS)



Source: DWS International GmbH, Barra Portfolio Manager. As of: 31 August 2020. Past performance is not a reliable indicator of future returns.

In order to analyse the specific effect of our alpha signals on portfolio performance, we calculated the return attributions of the two most heavily tilted portfolios. Table 3 summarises the results of our attribution analysis. As can be seen from the high return attribution of risk indices as well as the residual factor, high S-ratings in combination with our proprietary alpha model can help to achieve better risk-adjusted outperformance compared to passive portfolios.

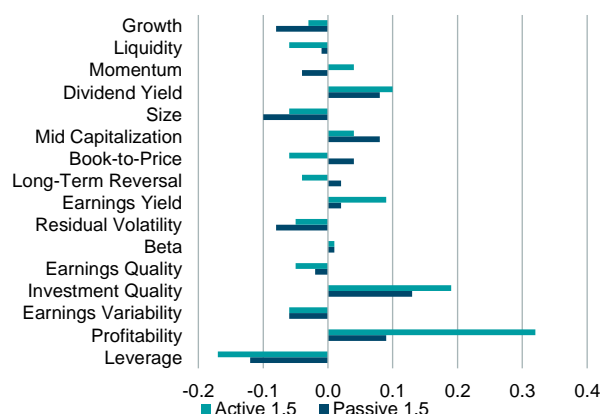
TABLE 3. COMPARISON OF ACTIVE TILT AND PASSIVE PORTFOLIO WITH 1.5 TIMES HIGHER SOCIAL RATINGS AND EXCLUSION OF E&F SOCIAL RATINGS COMPARED TO MSCI WORLD, 31/12/2015 – 31/08/2020

	Passive 1.5	Active 1.5
Total Managed	11.99%	13.31%
Total Benchmark	11.28%	11.28%
Total Active	0.71%	2.03%
Local Excess	0.72%	1.88%
Residual	0.74%	2.01%
Common Factor	0.42%	1.73%
Country	0.07%	0.22%
Industry	0.04%	0.20%
Risk Indices	0.31%	1.31%
Specific	0.32%	0.27%
Market Timing	-0.02%	-0.13%
Currency	-0.01%	0.15%

Source: DWS Investment GmbH. As of: 31 August 2020.

Since our alpha model overlaps with common risk factors, a focus on factor exposures can give some disclosure on how the active approach has steered the inherent factor exposures. Figure 12 reveals that the active portfolio has a stronger exposure towards quality, growth and momentum and on the other hand, a lower exposure to value stocks, when compared to the passive counterpart.

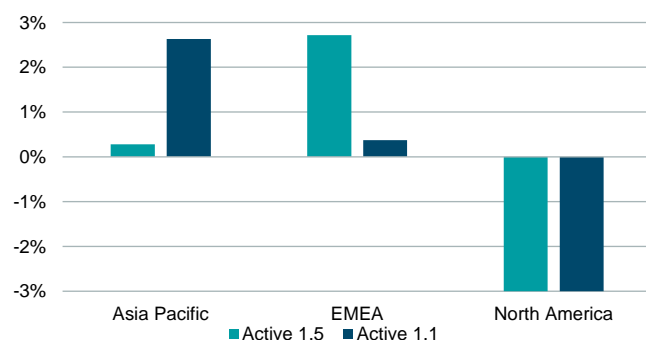
FIGURE 12. ACTIVE FACTOR EXPOSURES COMPARISON OF ACTIVE TILT AND PASSIVE PORTFOLIO WITH 1.5 TIMES HIGHER SOCIAL RATINGS AND EXCLUSION OF E&F SOCIAL RATINGS COMPARED TO MSCI WORLD, AS OF 31/08/2020



Source: DWS International GmbH, Barra Portfolio Manager. As of: 31 August 2020.

Figure 13 illustrates how portfolio characteristics change with the level of tilt by comparing the 10% with the 50% tilt portfolio. It shows that the active social exposure in the tilted portfolios was achieved by active weights towards EMEA, which is a result of the higher social ratings in this region. The portfolios are tilted away from North America.

FIGURE 13. ACTIVE TILT STRATEGIES - ACTIVE REGIONAL WEIGHTS AS OF 31 AUGUST 2020, E&F RATED STOCKS WERE REMOVED PRIOR TO TILTING



Source: DWS International GmbH, Barra Portfolio Manager. As of: 31 August 2020.

These attributes have clearly been a driver of strategy performance, highlighting the fact that the active returns of social portfolios do not result only from social premia but are also a consequence of multiple portfolio characteristics of which the investor should be aware.

While this exercise is simplified and results depend on the analysis period, the benchmark, the social metrics applied and other parameters, it provides valuable insights into the potential portfolio implications of 'going social'. Our aim is to enable clients to be able to take informed decisions on their preferred level of 'social' in the individual portfolio contexts. The quantitative approach to ESG integration we pursue offers a very useful toolbox in this regard.

Conclusion

Social investing is on the rise. This paper outlines different investment opportunities in the equity space, including public social equity indexes offered by large index providers as well as a more customised approach to introduce a desired degree of the social factor into equity portfolios.

Depending on the metric used, publicly available indexes may not provide the desired social profile an investor would like in his or her portfolio.

Investing in social equity indexes is typically accompanied by regional, sectoral or style tilts investors are often not

aware of. For instance, social portfolios tend to have a tilt towards Europe as well as a quality tilt that portfolio managers may want to account for. Applying a quantitative approach to ESG integration has the beauty of allowing investors to gain an extensive understanding of these secondary exposures. They may then take an informed decision on which social profile best aligns sustainability with their performance goals. For the analyses, we leverage our in-house best-in-class ESG SynRating engine and our proprietary alpha engine Dynamic Factors.

While quantitative investing is certainly not the only 'road' to integration of ESG, it offers a very useful toolkit. Complementary analyses could, for example, investigate the question of whether portfolio construction with an exclusive focus on 'Social' may come at a price, with the 'E' and 'G' elements of the portfolio deteriorating.

Social investing may or may not be accompanied by outperformance versus broader benchmarks, depending on the market environment. We think it inadvisable to interpret social investing itself as an alpha enhancement mechanism.

We show that both social and financial objectives can be sensibly aligned within an investment strategy. In a case study, we show that the combination of social improvement objectives with our proprietary alpha scores can add value by resulting in portfolios with better risk-return characteristics compared to index-tracking social portfolios.

As with any active investment strategy, social investing requires that portfolio managers are willing to tolerate active risk (the so-called tracking error). Quantitative simulations can help to find a desirable parameter set across all dimensions - social quality improvement, return and risk.

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5 Year performance according to MIFIDII

12-MONTH ROLLING TOTAL PERFORMANCE (NET RETURN)

Index / strategy name	08/15 - 08/16	08/16 - 08/17	08/17 - 08/18	08/18 - 08/19	08/19 - 08/20
MSCI USA \$ NR	11.2%	15.5%	19.1%	2.2%	23.1%
MSCI USA SRI \$ NR	11.8%	15.3%	22.5%	6.2%	30.1%
MSCI USA IMI \$ NR	10.9%	15.3%	19.7%	0.8%	21.0%
MSCI KLD 400 \$ NR	12.6%	14.2%	18.8%	3.9%	23.6%
MSCI World \$ NR	6.7%	16.2%	13.1%	0.3%	16.8%
MSCI World SRI \$ NR	8.3%	15.4%	14.5%	3.1%	22.5%

Source: DWS International GmbH, Refinitiv Datastream. As of: August 31, 2020

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For investors in EMEA

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