Notebook • Responsible Investment



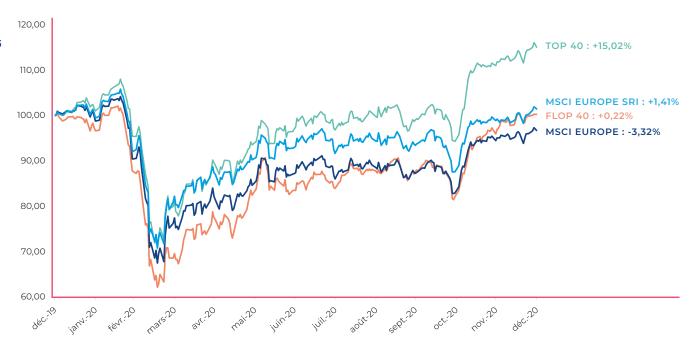
LFDE

Performance during an unprecedented 2020

As far as the financial markets are concerned, 2020 will go down in history as a year of one of the most precipitous declines of all time caused by the emergence of a worldwide health crisis in the first quarter. This decline would also be erased in record time. 2020 is also unique in the history of our study examining the correlation between SRI and performance as it gave us an opportunity to observe the market performance of our various portfolios in a time of crisis and high volatility. The empirical results obtained reinforce our belief in the importance of ESG criteria as a relevant factor for the assessment of companies.



Performance comparison of portfolios made up of the best and the worst ESG profiles in 2020.



st finding

ESG criteria are a key factor of outperformance

Over the course of this anomalous year, the portfolio of companies with the best ESG ratings (TOP 40) turned in performance of 15% vs. performance of 0.2% posted by the portfolio with worst ESG ratings (FLOP 40), i.e. more than 68 times better! We also note that the performance of the MSCI Europe SRI Index (+1.4%) was superior to that of the FLOP 40 (0.2%) and the MSCI Europe Index (-3.32%).

nd finding

ESG criteria are a resilience factor

To analyse the resilience of our portfolios, we looked at both performance and maximum drawdown¹ in 2020. During the first quarter's dramatic fall², the TOP 40 held up best with performance of -19.1% and a maximum drawdown of -34.6%, while the FLOP 40 recorded performance of -30.5% and a maximum drawdown of -39.1%. In this study, ESG criteria were found to play a major role in the resilience of companies in a time of extreme market downturn.

3 rd finding

Resilience does not preclude the ability to quickly bounce back

While FLOP 40 stocks would need 323 days to return to their pre-crisis levels, TOP 40 stocks required only 264 days, i.e. 59 fewer days! The best ESG profiles also demonstrated a greater capacity for recovery than the worst profiles.

¹ The maximum drawdown is a risk management indicator expressed as a percent of invested capital to estimate the maximum loss that an investor might incur if he or she buys at the peak and sells at the trough during a specified period of time.

² From 01/01/2020 to 31/03/2020

What explanations can we put forward to better understand these findings?

We see that the best ESG profiles are mostly high-quality companies with healthy balance sheets. Such financial strength is even more highly sought after by investors during periods of crisis to limit liquidity risk.

The most responsible companies are better able to identify and manage extra-financial risks. They often pay more attention to protecting their employees and maintaining their level of engagement. Some of these companies had already rolled out teleworking solutions prior to the crisis, providing their employees with a wor-

king environment more conducive to an improved work-life balance. These good practices put in place in advance to respond to any identified risks with an impact on the management of talent and relationships with their customers or suppliers enabled them to be faster on their feet and to quickly adapt to crisis conditions.

Moreover, the stocks with the best ESG profiles continue to attract more subscriptions as the responsible investment theme picks up momentum. According to Morningstar, European ESG funds reported inflows of €233bn in 2020,

i.e. nearly double the inflows of 2019, reaching total AUM of €1.1 trillion¹. These figures reflect the growing interest of institutional investors and end customers whose investments help support the share prices of responsible companies.

Finally, in the light of these inflows, there are relatively fewer withdrawals by investors. In fact, investors who assign importance to ESG criteria are more likely to choose long-term share ownership, which is essential for supporting companies with the implementation of their long-term plans².

¹ https://www.morningstar.fr/fr/news/209278/investissement-durable--forte-croissance-de-la-collecte.aspx

² Taking the long view, A toolkit for long-term, sustainable investment mandates – University of Cambridge

The best contributors to TOP 40 performance

Despite strikingly different financial years, ASML and SARTORIUS STEDIM BIOTECH remain, as in 2019, among the top contributors to performance. These high-quality companies continue to deliver long-term performance and to show resilience in all phases of the market cycle. THULE GROUP and LONZA also stand apart.

ASML

8,1/10

This manufacturer of lithography machines for the semiconductor industry has a system of strong checks and balances overseen by a board of directors made up of independent directors with the relevant technical qualifications (semiconductors, electronics, educational background, etc.). The corporate culture is very strong, and the group's environmental policy incorporates a number of ambitious quantified long-term objectives. The product lifecycle is managed with striking efficiency as 98% of the machines produced since the group's founding in 1984 are still in operation.

> <u>Track record</u> 2020:+51,9% | 2019:+95,3%



7,6/10

This manufacturer of products for use in the production of biopharmaceuticals (filters, membranes, single-use bags, etc.) enjoys excellent corporate governance. Its dominance relies on its excellent results in key environmental indicators, particularly water consumption, and the company skilfully manages the attraction and retention of talent, two maior challenges in this fast-growing sector. The group also develops plant-based products with a view to offsetting the increase in the waste generated by its activities.

> <u>Track record</u> 2020:+97,3% | 2019:+69,9%

Thule Group》

This world leader in transport so-

lutions (roof boxes and racks, bike

racks, pushchairs, etc.) relies on

high-quality corporate governance,

notably an executive team with

proven long-term skills and a good

system of checks and balances

overseen by an independent and

qualified board of directors. The

group is also known for its commit-

ment to designing durable products

and conducting serious extra-finan-

cial risk analysis combined with a

clear plan of action on how to control

each risk it identifies. For instance,

the group has set high quality and

sustainable standards governing its

own operations and those of its sup-

pliers, who are subject to constant

monitoring. It has also rolled out a

continuous training programme to

retain the talents it possesses and to maintain a high level of expertise on

the market

7,8/₁₀

Lonza

 $\frac{1}{7,7}$

The group develops speciality chemicals for the healthcare industry used in the manufacture of medicinal products and for the agri-food sector to enable, for example, the reduction of the use of pesticides. The company has the distinction of aligning its interests with those of its shareholders and is known for the demanding results-based compensation paid to its chief executive officer. This Swiss group pays special attention to reducing its environmental footprint and to ensuring employees are satisfied and engaged, which is reflected in one of the lowest employee turnover rates in the industry.

> <u>Track record</u> 2020:+60,1% | 2019:+36,4%

ts activities.

Track record
2019: +69,9%

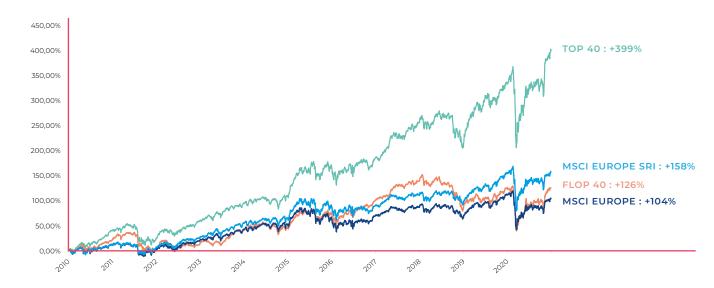
<u>Track record</u> 2020 : +41% | 2019 : +38,1%

The correlation between responsible investment and performance is growing stronger

The first version of the SRI & Performance by LFDE study published at the beginning of 2019 underscored the close correlation between the integration of Environmental, Social and Governance (ESG) criteria and long-term financial performance. Today the study celebrates one more year of existence and has demonstrated yet again that the best ESG profiles consistently outperform the worst profiles. Over 11 years, the portfolio with the best ESG ratings in our investment universe (TOP 40) delivered performance that was 3.2 times greater than the portfolio with the worst ESG ratings (FLOP 40). Outperformance increased again this year after rising 2.3-fold over a 9-year period¹ and 2.6-fold in 10 years².

Over 11 years, the risk/return ratio of the portfolio with the best ESG ratings was 1.9 times greater than the portfolio with the worst ratings, while over a 9-year period it was 1.6 times greater. The further increase in outperformance did not involve higher volatility.

Performance comparison of portfolios made up of the best and worst ESG profiles between 2010 and 2020



^{1 &}quot;SRI & Performance by LFDE" study - 2019

² "SRI & Performance by LFDE, one year later..." study - 2020

The previous years' findings are confirmed

Taken separately, Environmental, Social and Governance criteria are all sources of long-term performance. In fact, over the past 11 years the performance turned in by the best Social ratings (+362%), the best Governance ratings (+262%) and the best Environmental ratings (+233%) was greater than that posted by the worst Environmental ratings, the worst Social ratings and the worst Governance ratings, with the best of these three

categories coming out to +185%.

However, of all our mock portfolios, the one that created the most value over 11 years remains the TOP 40 (+399%). It was the portfolio made up of the worst Governance ratings that posted the worst performance for the period (+120%).

La Financière de l'Échiquier's unique weighting approach, which assigns about 60% of the ESG rating to Governance with the remaining 40% di-

vided between Environmental and Social, is undeniably a long-term value creator, as is the fact that it avoids those companies with the worst governance records

The fact that similar results were obtained using a different methodology only strengthens our convictions on ESG. Significantly, the MSCI Europe SRI Index (154%), made up of the best ESG profiles, is outperforming the MSCI Europe Index (112%).

In 2020, LFDE strengthened its commitment to responsible investment

At the end of December 2020, 92% of assets under management include ESG criteria.

More than half of all managed assets (51%) are SRI or impact funds: Three additional funds earned the French SRI Label, bringing the total number of our SRI-certified funds to nine.

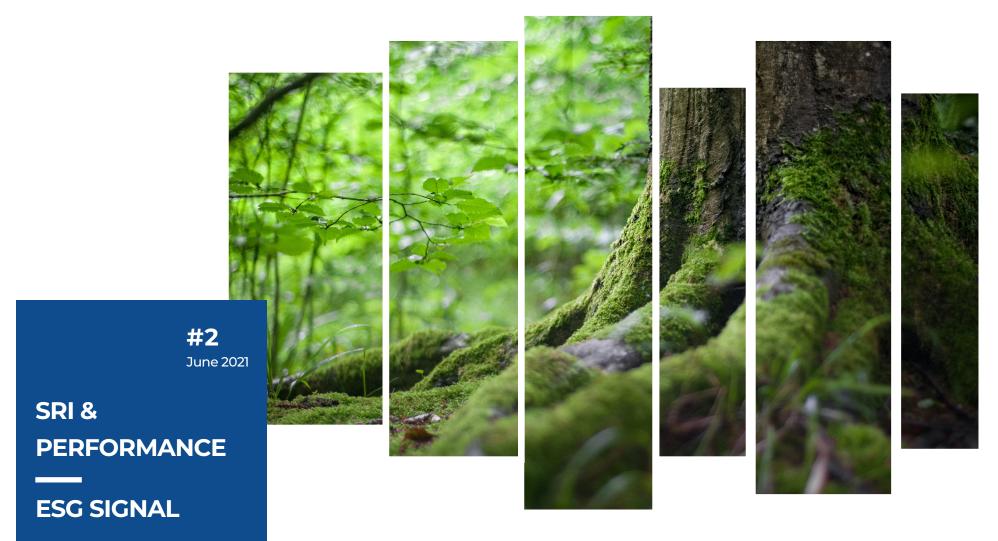
Our two longest standing SRI funds, Echiquier Major SRI Growth Europe and Echiquier Positive Impact Europe, again received the Belgian (Towards Sustainability Initiative) sustainability label and were given three stars by Germany's FNG.. Echiquier Agenor SRI Mid Cap Europe received Belgium's Towards Sustainability Initiative certification for the first time in 2020.

• A commitment with a reach that extends far beyond our doors

L'Ecole de l'ISR by LFDE, an LFDE educational innovation which includes the results of this study, has provided training to more than 1,331 financial professionals since its launch in 2019.

Un pied devant l'autre, an educational podcast with several episodes dedicated to Responsible Investment launched by LFDE in September 2020, already has an audience of over 3,000 listeners.

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Research by La Financière de l'Échiquier (LFDE) is intended to constantly refine its understanding of extra-financial issues and how they influence businesses' financial performance.

In 2019, La Financière de l'Échiquier published its proprietary study "SRI & Performance by LFDE" for the first time. Its results show that portfolios made up of companies with the highest ESG ratings, using the methodology developed by LFDE, outperform portfolios made up of companies with the worst ESG ratings over the long term.

After three consecutive years of updating the study, and confirming the results over time, we have expanded its scope using a different methodology from the main study in order to confirm the validity of the results and test the impact of weighting companies in the portfolio based on their ESG rating.

Framework of the study

In addition to selecting securities, the portfolio's construction is an important factor in generating performance. Thus, within the context of this ad hoc study, we have evolved our methodology in two major ways:

The use of the Top 40 and Flop 40 portfolios entails an arbitrarily defined number of positions, limited to 40 securities (the average size of LFDE equity portfolios). Our methodology has a selection bias, in that companies with an LFDE rating have all seen prior interest from our managers, particularly for their strategic or financial profile. There is also the portfolio concentration effect to consider. These two features statistically limit the impact of the ESG quality criterion in explaining performance.

In order to limit this bias, we have created a portfolio made up of all companies that have an ESG rating from LFDE. By expanding the sample analysed, we thereby strengthen the statistical relevance of our ESG quality criterion analysis.

The second way is to reconsider the equal weighting of the securities, which does not make it possible to differentiate securities within the portfolio by ESG rating. In this study, to strengthen the analysis of the ESG quality criterion, the weight of each security is determined by the value of its ESG rating.

Methodology

We use the ESG rating's Z-score to determine the weighting of the values in the portfolio. The further above the average a security's ESG rating is, the further above 0 its Z-score will be, and consequently, the more heavily it will be weighted in the portfolio's "long" component. Conversely, the further below the average a security's ESG rating is, the further below 0 its Z-score will be, and consequently, the more heavily it will be weighted in the portfolio's "short" component.

This methodology makes it possible to achieve neutral market exposure in the long-short portfolio in order to isolate the impact of the "ESG rating" criterion in performance analysis.

This way, if the long-short portfolio - whose construction is based solely on the value of the ESG ratings of the companies that make it up - has a positive performance, it may be assumed that the ESG rating criterion does indeed have a positive impact on portfolio yield. This way, no matter whether the mar-

LONG ESG ratings (above the average of the universe of rated securities). We are long on these companies.

- A "long" component made up of companies with the highest

- A "short" component made up of companies with the lowest **SHORT** ESG ratings (beneath the average). We are short on these companies.

We are also changing the weighting of the securities to reflect the companies' ESG quality. To do so, we first turn the ESG ratings into a "Z-score" (centered-reduced variable) and consequently obtain a threshold from the ESG signal equal to 01.

¹ Normalising our variables consists of subtracting from each ESG rating the average of our rating universe. Standardising our variables consists of dividing all their values by the standard deviation of our ESG rating universe. This data processing is done to allow us to centre the distribution of ESG ratings on 0 without altering the relative deviations between the ratings.

Methodology

We use the ESG rating's Z-score to determine the weighting of the values in the portfolio. The further above the average a security's ESG rating is, the further above 0 its Z-score will be, and consequently, the more heavily it will be weighted in the portfolio's "long" component. Conversely, the further below the average a security's ESG rating is, the further below 0 its Z-score will be, and consequently, the more heavily it will be weighted in the portfolio's "short" component.

This methodology makes it possible to achieve neutral market exposure in the long-short portfolio in order to isolate the impact of the "ESG rating" criterion in performance analysis.

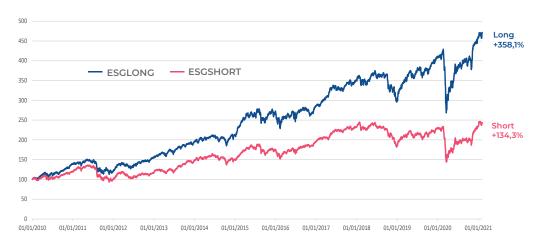
This way, if the long-short portfolio - whose construction is based solely on the value of the ESG ratings of the companies that make it up - has a positive performance, it may be assumed that the ESG rating criterion does indeed have a positive impact on portfolio yield. This way, no matter whether the market goes up or down, if the best-rated companies based on ESG criteria relatively outperform the less well-rated companies, then the long-short portfolio's yield will be positive, and will demonstrate the relevance of the ESG rating factor in explaining yield.

A few additional factors in the methodology:

- To be eligible for the portfolio, the ESG rating must be no more than 3 years old, in order to better reflect the company's reality.
- These portfolios are rebalanced at regular intervals, annually between 2010 and 2015 (on 31 December of each year), then quarterly beginning in 2016.

² Starting in 2016, LFDE research accelerated the pace of its ratings updates and also had access to a larger number of ratings. These two factors made it possible to reconcile the intervals. Today, for securities that we are invested in, the company ratings are updated every two years. This makes them especially attuned to the company's extra-financial dynamics and positioning.

Comparison of the yields of portfolios made up of the best (long) and worst (short) ESG profiles between 2010 and 2020



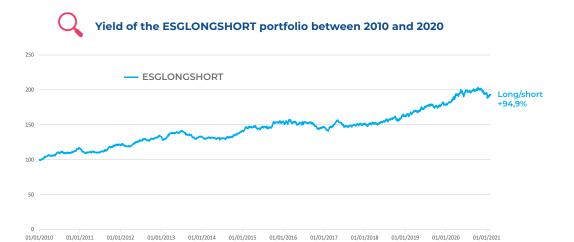


Table comparing the portfolios' annual yields between 2010 and 2020

Years	ESGLONG	ESGSHORT	ESGLONGSHORT
2010	38,49%	19,80%	15,81%
2011	-12,26%	-15,75%	4,33%
2012	27,50%	15,84%	10,01%
2013	26,58%	26,89%	-0,41%
2014	8,29%	0,95%	6,99%
2015	27,73%	16,81%	9,61%
2016	5,45%	11,82%	-5,37%
2017	22,38%	18,95%	2,85%
2018	-12,95%	-19,57%	8,23%
2019	33,80%	22,70%	8,83%
2020	12,37%	2,00%	9,54%

³ The ESGLONG, ESGSHORT, and ESGLONGSHORT portfolios are three distinct portfolios. The yields of ESGLONG and ESGSHORT are presented as examples. The yield of the ESGLONGSHORT portfolio cannot be calculated from the yield of the ESGLONG and ESGSHORT portfolios. The ESGLONGSHORT portfolio is re-weighted daily so that its "long" component is always weighted to 100 and its "short" component is always weighted to -100 in order to adjust for market effects and maintain neutral exposure. Thus, the companies are not weighted exactly the same between the ESGLONGSHORT, ESGLONG, and ESGSHORT portfolios, which leads to slightly different yields that diverge further over time.

The findings confirm the conclusions of our first study

ESG criteria are a contributor to performance

It is observed that the long-short portfolio earned a positive performance of +94.9% between 2010 and 2020, a testament to the outperformance of the portfolio made up of better ESG ratings (long) compared to the one with worse ratings (short). Consequently, we can confirm that the inclusion of ESG criteria is a long-term performance factor. It is also observed that the "long" portfolio outperformed the "short" portfolio in 9 out of the 11 years analysed, which bolsters our conviction that SRI provides performance under different market conditions. This is particularly true in 2020, a global pandemic year when the long-short portfolio earned a yield of +9.5%.

ESG criteria are a contributor to resilience

During the sharp decline in the first quarter of 2020, the "long" portfolio held up better than the "short" portfolio, returning -23.7% and -30.3% respectively, as well as posting maximum drawdowns of -37.3% and -41.2% respectively. Setting aside the year 2020, the sharpest declines in the long and short portfolios were in 2011 and 2018. During those two periods, the long portfolio also held up better than the short portfolio, with maximum drawdowns of -24.8% vs. -31.2%, respectively, and -20.7% vs. -24.9%, respectively. We also note that the annual returns of the long portfolio are greater than those of the short portfolio during the only two years of negative returns in the period we analysed. In this study, ESG criteria were also found to play a major role in the resilience of companies in a time of extreme market downturn.

ESG criteria are a contributor to a better risk/return ratio

The level of risk, measured by volatility, is not statistically significantly different between the long portfolio (annualised volatility of 15.6%) and the short portfolio (annualised volatility of 14.6%). However, annualised performance is significantly better for the long portfolio (+14.8%) than the short portfolio (+8.0%). The risk-return ratio is therefore much better for the long portfolio (0.95) than for the short portfolio over the period analysed. The portfolio made up of better ESG ratings is therefore more attractive because it generates a greater return for the same risk level.



LA FINANCIÈRE DE L'ÉCHIQUIER - 53, AVENUE D'IENA - 75116 PARIS - TEL. : 01.47.23.90.90 - www.lfde.com LIMITED LIABILITY COMPANY (SA) WITH SHARE CAPITAL OF 10,105,300 € - SIREN 352 045 454 - R.C.S. PARIS - AMF ACCREDITED № 91004

Sources: La Financière de l'Echiquier, Bloomberg. Data as of 31/12/2020. 2020 performance was calculated based on total return from 31/12/2019 to 31/12/2020.

Disclaimer: The information contained in this analysis should not be construed as investment advice, a solicitation to invest or an encouragement to operate in financial markets. The results of the analyses presented in this report are based on the best sources available to us and a proprietary methodology for analysis of environmental, social and governance criteria. ESG criteria are not synonyms for performance or limitations; other criteria are taken into consideration when calculating the performance of a share. Past performances are not a reliable indicator of future performances and may vary over time. They should not be the central element in any investment decision. The values quoted in this study are not guaranteed and should not be relied upon to determine return on investment or their inclusion in a portfolio.

Methodological overview: The study includes all the internal ratings assigned between 1 January 2010 and 31 December 2020, i.e. a representative sample of 756 companies. Ratings involve the entire ratings database without sectoral or legislative exclusions. In addition to the internal ratings assigned by the SRI team, beginning on 01/01/2019 the ESG ratings determined by integrating ESG criteria, that is, some of the "E" and "S" ratings, may originate from external rating agencies. The effort to integrate ESG criteria launched at the end of 2017 is now on solid footing. The ESG coverage ratio of all portfolios combined exceeds 90%. Only ratings awarded over the past 3 years are considered. Furthermore, the rating no longer takes into account the profile of any company that has extensively modified its ESG practices. The ratings mostly concern listed European companies of all market cap sizes. Portfolios are equally weighted and created using only an ESG rating filter; they are 100% invested, comprised solely of equities and are regularly rebalanced (between 2010 and the end of 2015, they were rebalanced once a year. Since 01/01/2016 rebalancing has been taking place quarterly). No additional management fee or commission is charged on performance, which means that dividends are reinvested (Net Return).