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# Sustainable ETFs

Resilience amidst market drawdowns

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During the Coronavirus period, the majority of ESG index portfolios delivered better relative returns compared to broad markets. It has emerged as a consistent pattern with ESG outperforming throughout market corrections in recent years. It underscores that companies compliant with ESG principles exhibit reduced risks. Moreover, ESG strength is increasingly seen as a competitive advantage, which may deliver long-term outperformance.

# Sustainable ETFs: Resilience amidst market drawdowns

Sustainable investing has grown to become what represents a major change in finance. It has been driven by climate change awareness, corporate social responsibility, a commitment to sustainable development, and preparedness of asset owners to seek a positive impact from their investments. Also, it provides a way for the financial industry to complement global initiatives such as the Paris Climate Agreement and the United Nations Global Compact. The European Union has endorsed sustainable finance and sponsored an initiative for a more uniform classification of sustainable activities. Sustainable investing is a global trend with many regional initiatives.

Institutional investors and wealth managers are supportive of the idea of improving the ESG impact of their portfolios, but they often have a fiduciary duty to prioritize financial performance. More and more data indicates these two objectives can be well-aligned. The Coronavirus draw-down period has shown that **ESG investing can mitigate portfolio downside during market corrections.** It supports the hypothesis that ESG portfolios are more resilient to economic shocks because companies with strong ESG profiles can better adapt and respond during crises. The Coronavirus period represents a very good test case because it is the deepest market correction since the inception (live-track) of main ESG indices.

## Coronavirus correction: the performance of different ESG solutions

Examining the relative drawdowns reveals that **the great majority of equity ESG indices mitigated downside risks** during the Coronavirus drawdown period. Table 1 shows performance of several variants of MSCI ESG indices classified by their shade of green – representing the strictness of their ESG criteria – with the dark-green approach being the SRI index which only invests in the highest ESG-rated companies. Box 1 provides further details on these different indices. We analyse the period of Q1 2020, which encompasses the Coronavirus market correction and we focus on MSCI indices since their ESG methodology has a dominant position in the ETF industry.

The most imporant message is that all variants of ESG indices based on the **MSCI World and MSCI ACWI outperformed the standard 'parent' indices**. For example, the MSCI World SRI 5% Capped Index delivered a relative outperformance as high as 257 bps. These global indices (World, ACWI) deserve the most attention because they approximate the broad equity portfolio held by a globally diversified investor, who may in addition employ regional tilts. Assessing ESG methodologies based on a global universe is also more robust because it reduces 'idiosyncrasies' associated with narrower universes, so it better captures the average impact of ESG investing.

#### Box 1: Shades of green indices

ESG indices can be classified into light-green, medium green, or dark-green categories depending on how deeply they screen the standard benchmarks to promote ESG excellence. The ESG Screened index is wholly based on exclusions of controversial activities (lightest green .). The ESG Universal (light green ) has fewer exclusions (only controversial weapons), but it reweights stocks to promote more sustainable companies and also those with a positive trend in their ESG profile. The MSCI ESG Leaders enhances exclusions with the ESG best-in-class approach and aims to select the top 50% of the highest-rated ESG scores (medium green ■). The SRI 5% Capped index offers the strongest ESG impact since in addition to exclusions, it aims for the top 25% of highest ESGrated companies (dark green 
).

Table 1. Excess period returns (in bps) of selected MSCI ESG indices versus respective parent indices

Data for Q1 2020. Total period excess return in bps based on index TR net in index currency.

	ESG Screened	ESG Universal	ESG Leaders	SRI 5% Capped
World	+31	+123	+136	+257
ACWI	+36	+119	+131	+200
USA	+13	+138	+122	+201
emu	+62	+98	+204	+162
Japan	-17	+93	+198	+418
EM	+74	-18	+95	-560

Source: MSCI, Bloomberg, UBS Asset Management. Data from 31 December 2019 to 31 March 2020. The currency is USD for MSCI World, ACWI, USA, and EM; EUR for MSCI EMU; JPY for MSCI Japan. Please note that past performance is not a guide to the future.

		MSCI World	MSCI World ESG Screened	MSCI World ESG Universal	MSCI World ESG Leaders	MSCI World SRI 5%
Overall	ESG rating*	А	А	A–AA	AA	AA–AAA
	ESG score*	6.1	6.1	6.8	7.3	7.9
	Exposure to Tobacco	0.9%	0.0%	0.8%	0.0%	0.0%
Raw	Environmental pillar score	6.2	6.3	6.4	6.7	7.0
Pillar	Social pillar score	4.8	4.9	5.2	5.4	5.6
Scores	Governance pillar score	5.5	5.5	5.7	5.9	6.1
E	Carbon Emissions vs MSCI World	100.0%	77.2%	91.0%	61.6%	50.6%
	Natural Resource Usage Theme score	6.9	7.0	7.1	7.3	7.2
	Water Stress Management score	4.4	4.4	4.5	4.8	4.8
S	Human Capital theme score	4.6	4.6	4.8	5.2	5.4
	Privacy & Data Security score	7.0	6.9	7.2	7.4	7.8
	Labor Management score	5.5	5.6	5.8	6.1	6.2
G	Corporate Governance Theme Score	5.9	5.9	6.0	6.1	6.2
	Companies adhering to the "One share, one vote" principle	89.0%	88.6%	88.7%	87.7%	91.6%
	Companies that have an independent board majority	88.8%	88.5%	89.8%	91.2%	91.4%
	Companies that have no severe controversies	89.4%	92.0%	93.3%	92.7%	95.9%
	Number of constituents	1′640	1′536	1′614	777	384
	Tracking error	0.00%	0.42%	0.73%	0.89%	1.44%

Numbers represent weighted averages of the scores within the respective indices. \*Rating is expressed a function of the weighted ESG score. Source: MSCI ESG Manager, UBS Asset Management. Data as of 30th April 2020, ESG data as of 4th May 2020. Please note that past performance is not a guide to the future.

As seen in Table 1, indices employing dark green ESG criteria generally provided higher returns relative to the light- or medium-green approach. It means that while ESG exclusions made a positive contribution, it was in fact the selection of companies that are leaders in ESG compliance that have made the largest difference. It is noteworthy, that even the medium green MSCI World ESG Leaders Index delivered only just above half of the outperformance compared to outperformance delivered by the dark green SRI index (+136bps vs +257bps respectively). It was the ESG excellence that mattered the most. During the Coronavirus correction, the only relative underperformance of sustainable indices for developed markets was for MSCI Japan ESG Screened (light green). It was admittedly rather mild, while other ESG variants of MSCI Japan outperformed the parent index comfortably. Overall, the MSCI EM SRI 5%

Capped (dark green) was the only index with quantitatively meaningful underperformance and its attribution is addressed further down in this paper. However, to put it into perspective, Emerging Markets represent 12% of the global stock universe (according to MSCI), and they are far outweighed by the positive ESG impact within other geographies.

#### **Evolution of SRI index performance over time**

The performance of ESG indices during the Coronavirus correction can also be assessed based on its evolution over time (Figure 1). The relative outperformance of the MSCI World SRI 5% Capped Index has grown steadily over this period, which is clearly a very positive indication. The lighter-green approaches exhibited a less pronounced trend, but nonetheless avoided any meaningful drawdowns.







Source: MSCI, UBS Asset Management. Data from 31 December 2019 to 31 March 2020. Please note that past performance is not a guide to the future. The currency is USD for MSCI World, ACWI, USA, and EM; EUR for MSCI EMU; JPY for MSCI Japan.

## MSCI SRI indices outperformed during previous market corrections

Sustainable investing approach has also provided downside reductions during previous market corrections, so it emerges as a consistent pattern. This finding is crucial because reducing the downside has much value for investors. Analysing historical drawdowns of above 15% since 2007<sup>1</sup> reveals that in most cases, SRI 5% Capped indices<sup>2</sup> outperformed the broad markets (Table 2). Across the full range, we can see outperformance in 19 out of 24 'period-geography' cases. In particular, the SRI methodology outperformed for the

MSCI World Index across all market corrections. During each correction, we observe underperformance of the SRI methodology for only one region, which is far outweighed by the value added of SRI within other regions.

Importantly, the SRI index family was launched on 28 June of 2011, so the results of Table 2 in three periods are based on the live-track performance of the SRI methodology<sup>3</sup>, while the Coronavirus period has again seen SRI outperforming. Hence, the results are consistent and credible.

**Table 2.** Excess period returns (in bps) of selected **SRI indices** versus respective parent indices.Data for Q1 2020. Based on index TR net in index currency.

	<b>Financial crisis</b>	2010	2011	2015	2018
Dates	31.10.2007 – 09.03.2009	15.04.2010 – 05.07.2010	02.05.2011 – 25.11.2011	21.05.2015 – 11.02.2016	20.09.2018 – 25.12.2018
MSCI World drawdown	-57.8%	-16.2%	-20.1%	-17.9%	-17.9%
	SR	I 5% Capped Index	performance relative	to MSCI World in b	ps:
World	189	66	120	25	132
ACWI				103	136
USA	184	92	157	-238	147
EMU	-34	120	140	620	148
Japan	151	-130	-156	60	-222
EM				573	454

Source: MSCI, Bloomberg, UBS Asset Management. Data as of 31 March 2020. Please note that past performance is not a guide to the future.

## MSCI ESG indices outperformed over a longer-term

The ESG indices have also delivered outperformance over regular bull markets. Most importantly, the overall outperformance of MSCI World SRI 5% Capped Index over the past 5 years (Table 3) was +129 bps per annum, with the largest contributions from the EMU universe (+431 bps per annum). While the SRI methodology underperformed for MSCI EM, in a global portfolio it is far outweighed by SRI benefits for other regions. The MSCI ACWI SRI 5% index which includes both Developed Markets and Emerging Markets had an average outperformance of +128 per annum.

The underperformance of the MSCI EM 5% Capped Index is attributable to capping of the largest company, which often had a weight of 20%. The uncapped version of the index delivered a +17 bps per annum outperformance. This capping is only applied within the MSCI EM SRI 5% Capped index, whereas it is not binding when the EM stocks become part of MSCI ACWI SRI 5% Capped index.

## Table 3. Excess annualized returns (in bps) of selected ESG indices versus respective parent indices.

Period from 31 March 2015 to 31 March 2020. Based on index TR net in index currency.

	ESG Screened	ESG Universal	ESG Leaders	SRI 5% Capped
World	+15	+48	+32	+129
ACWI	+15	+60	+48	+128
USA	+19	+93	0	+49
EMU	-19	+90	+242	+431
Japan	+18	+47	+80	+140
EM	+20	+50	+163	-224

Source: MSCI, Bloomberg, UBS Asset Management. Data as of 31 March 2020. Please note that past performance is not a guide to the future.

<sup>1</sup> The period analysed in Table 2 covers full data availability. The backtest data reaches back to 2007 for the SRI 5% Capped index. Other ESG indices have generally shorter data availability.

<sup>2</sup> We report performance for MSCI EMU SRI (uncapped) for the Financial Crisis and 2010 drawdowns due to unavailability of data for the 5% Issuer Capped variant.

<sup>3</sup> The live-tracks refers to uncapped SRI indices, which use the same ESG data and overall the same methodology (except capping). Introducing capping entails no risks of 'data mining', but only increases diversification, so the results are equally credible.

Adding to the overall positive picture, the lighter- / mediumgreen indices provided outperformance relative to parent indices, albeit to a lower extent than the dark-green approach. In conclusion, sustainable investing has delivered superior investment returns both during regular periods as well periods of market corrections. The same conclusion would be reached if we considered longer periods of time periods longer than 5 years.<sup>4</sup>

Financial theory suggests that a strategy exhibiting downside protection should generally underperform the markets over the long-term. That is because investors assign a large value to downside reduction characteristics, and hence they are willing to accept lower returns for such 'less-cyclical' securities. For the ESG indices, we see that historically they both reduced the downside and provided higher returns over the long term. These results suggest there is an 'ESG factor' that positively contributes to performance whilst reducing risks.

## Attribution of SRI performance during Coronavirus (Q1 2020)

#### **MSCI World universe**

To gain an understanding into the sources of the strong World SRI outperformance, we conduct attribution analysis of the UBS ETF World Socially Responsible UCITS ETF over the Coronavirus drawdown period using Bloomberg's PORT functionality. The ETF tracks MSCI World SRI 5% Capped Index, while the reference index is the MSCI World.

The key finding is that the World SRI outperformance has well diversified sources with a positive contribution from most sectors and regions. It is not concentrated in a few sectors, regions, or companies. This outperformance comes primarily from selecting the top 25% highest ESG-rated companies within sectors, and only very little comes from active sector allocations. This is a very positive finding because it clearly demonstrates that ESG qualities of companies are indeed the reason for the reduced downside.

To provide some technical details: examining Table 4 in column (10) 'Total Attribution'5 reveals that 9 out of 11 sectors have positively contributed to the total outperformance of 2.79%. The highest contributions were from Healthcare (+70 bps), IT (+66 bps) and Financials (+42 bps). We can also see that the majority of outperformance is attributable to 'Selection'6 (see top row, column 8), which is estimated at 296 bps, which means that selecting the top 25% of highest ESG-rated stocks within sectors explains all of the outperformance. Only a minimal part of outperformance (+2 bps) is attributable to over-/under-weighting certain sectors - see 'Allocation'7 (column 7). This is consistent with the SRI methodology being close to sector neutrality (although it is only approximate for various reasons as seen in column (1)-(3))<sup>8</sup>. Finally, currency effects had a negative effect on the portfolio return of 25 bps.

Table 4. Attribution analysis of UBS ETF MSCI World Socially Responsible UCITS ETF (portfolio) versus MSCI World index (benchmark) over Q1 2020: grouping by sector.

	Aver	age Weight	: (%)	То	tal Return (	%)	Allocation	Selection	Currency	Tot Attr
	Port	Bench	+/-	Port	Bench	+/-	Effect (%)	Effect (%)	Effect (%)	(%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	100.00	100.00	0.00	-18.16	-20.95	2.79	0.02	2.96	-0.25	2.79
Comm Serv	4.77	8.61	-3.84	-21.41	-17.42	-3.99	-0.14	-0.23	-0.01	-0.30
Cons Discr	11.33	10.28	1.05	-21.10	-21.94	0.84	-0.04	0.12	0.01	0.09
Cons Staples	10.73	8.49	2.24	-10.67	-13.19	2.53	0.18	0.19	-0.02	0.39
Energy	4.28	4.22	0.06	-47.26	-44.60	-2.66	0.00	-0.17	0.00	-0.17
Financials	14.84	14.95	-0.11	-29.44	-31.79	2.36	0.01	0.42	-0.01	0.42
Health Care	14.58	13.33	1.26	-6.82	-11.30	4.49	0.13	0.57	-0.04	0.70
Industrials	11.52	10.74	0.77	-22.46	-26.01	3.56	-0.03	0.45	-0.07	0.37
IT	15.15	18.31	-3.15	-6.89	-13.06	6.18	-0.21	1.06	-0.01	0.66
Materials	5.11	4.17	0.95	-21.14	-26.27	5.12	-0.03	0.20	0.01	0.22
Real Estate	3.82	3.29	0.53	-17.59	-23.12	5.53	-0.03	0.23	-0.05	0.19
Utilities	3.31	3.61	-0.30	-11.58	-13.65	2.07	-0.02	0.12	-0.03	0.05

Source: UBS Asset Management, Bloomberg (PORT attribution). Data as of 31 March 2020. Please note that past performance is not a guide to the future.

stocks since the last rebalancing.

weight and cause overweighting 2) differential in performance between SRI and non-SRI

<sup>&</sup>lt;sup>4</sup> We use 5 years because data for all indices is available for this period and it represents live-track of MSCI SRI, Leaders, and Universal methodologies. The backtest data goes back to 2007 for the SRI range but only shorter histories are available for other indices.

<sup>&</sup>lt;sup>5</sup> Total attribution is defined as the total active return. At the portfolio and grouping levels, it equals the sum of allocation, selection, interaction and currency effect. Intuitively, in this table it indicates how much an active decision pertaining to a specific sector contributed to overall outperformance of the SRI portfolio.

<sup>&</sup>lt;sup>6</sup> The selection effect is an active return that can be attributed to security selection (e.g.

choosing a subset of stocks compared to the benchmark within a group (e.g. sector)). <sup>7</sup> The allocation effect is an active return that can be attributed to asset allocation bets

 <sup>(</sup>e.g. over-/under -weighting of a grouping (e.g. sectors)).
 <sup>8</sup> Two main reasons why the SRI index is not sector neutral: 1) the marginal company that is included to reach the 25% market cap target for each sector may have a substantial

We also find that World SRI outperformance is attributable to several regions (Table 5), see column (10) 'Total Attribution', with North America (+138 bps) and Western Europe (+96 bps) being most relevant, which is due to the largest allocation to these regions. In Tables A.1 and A.2 of Appendix A, we show which companies contributed the most to overall outperformance of the SRI approach as well as those which had a negative contribution.

## Table 5. Attribution analysis of UBS ETF MSCI World Socially Responsible UCITS ETF (portfolio) versus MSCI World index (benchmark) over Q1 2020: grouping by region.

	Aver	age Weigh	t (%)	Tot	tal Return (	(%)	Allocation	Selection	Currency	Tot Attr
	Port	Bench	+/-	Port	Bench	+/-	Effect (%)	Effect (%)	Effect (%)	(%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	100.00	100.00	0.00	-18.16	-20.95	2.79	0.07	2.90	-0.25	2.79
Africa / Middle East	0.08	0.19	-0.11	-25.90	-19.15	-6.75	0.00	-0.01	0.00	-0.01
Asia Pacific	13.00	11.98	1.02	-18.02	-20.31	2.29	0.02	0.41	-0.18	0.29
Eastern Europe	0.00	0.01	-0.01		-40.61	40.61	0.00	0.00	0.00	0.00
North America	58.61	65.72	-7.10	-17.57	-19.95	2.38	-0.05	1.64	-0.03	1.38
South & Central America	0.00	0.08	-0.08		-15.60	15.60	0.00	0.00	0.00	0.00
Western Europe	27.74	22.03	5.71	-19.99	-24.19	4.20	-0.09	0.86	-0.03	0.96

Source: UBS Asset Management, Bloomberg (PORT attribution). Data as of 31 March 2020. Please note that past performance is not a guide to the future.

#### **MSCI Emerging Markets (EM) universe**

A similar attribution analysis can be used to explore reasons for underperformance of the SRI methodology for the MSCI Emerging Markets index. While a major underweight of China in the EM SRI has been a major differentiating factor (covered below), there are also sectoral factors. The underperformance comes primarily from selection of SRI stocks within industries and from currency effects, whilst under-/over-weighting of sectors has a marginally positive impact. Overall, the financial sector had the largest negative influence on the SRI index performance (-3.65%), followed by Consumer Discretionary (-1.41%).

## Table 6. Attribution analysis of UBS ETF MSCI Emerging Markets Socially Responsible UCITS ETF (portfolio) versus MSCI EM (benchmark) over Q1 2020: grouping by industry.

	Ave	age Weight	:(%)	То	tal Return (	%)	Allocation	Selection	Currency	Tot Attr
	Port	Bench	+/-	Port	Bench	+/-	Effect (%)	Effect (%)	Effect (%)	(%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	100.00	100.00	0.00	-29.32	-23.58	-5.75	-0.16	-2.18	-3.06	-5.75
Comm Serv	8.67	11.82	-3.15	-19.47	-9.60	-9.87	-0.32	-0.46	-0.32	-1.00
Cons Discr	15.91	14.67	1.24	-27.15	-18.12	-9.03	0.05	-0.28	-1.10	-1.41
Cons Staples	10.52	6.38	4.14	-17.98	-19.76	1.78	0.30	0.16	-0.40	0.14
Energy	5.03	6.75	-1.72	-42.06	-39.83	-2.22	0.26	-0.43	0.30	0.22
Financials	30.85	23.22	7.63	-39.06	-31.05	-8.01	-0.48	-1.28	-1.44	-3.65
Health Care	2.90	3.08	-0.18	-18.15	-8.49	-9.66	-0.03	-0.26	0.00	-0.28
Industrials	5.16	5.15	0.01	-31.73	-28.06	-3.67	0.01	0.03	-0.21	-0.18
IT	11.81	16.39	-4.58	-18.73	-17.72	-1.01	-0.13	-0.02	0.01	-0.15
Materials	5.11	7.09	-1.98	-17.42	-30.62	13.20	0.09	0.80	0.24	0.89
Real Estate	1.69	2.92	-1.22	-41.44	-26.70	-14.74	0.07	-0.31	-0.07	-0.18
Utilities	1.90	2.55	-0.65	-35.72	-25.95	-9.77	0.01	-0.10	-0.06	-0.14

Source: UBS Asset Management, Bloomberg (PORT attribution). Data as of 31 March 2020. Please note that past performance is not a guide to the future.

The heterogeneity of the EM universe implies that the SRI methodology effectively makes large active allocations across EM countries (Table 7). Recall that while the MSCI SRI index aims to be broadly sector neutral, it does not aim to be country neutral because it is constructed within the regional building blocks. In fact, China has a massive underweight of 26.17% in the EM SRI vs. the parent index (column 3), which

results in it having an attribution (column 10) of -1.09% during the Coronavirus period. China has very few SRIcompliant stocks, so it was historically the most substantial country underweight in the SRI portfolio. This means that whenever Chinese stocks outperform broader EM markets, it is a drag for the EM SRI index. During the Coronavirus period, an overweight of South Africa from 4.26% to 13.88%, coupled with weak performance of its equity market, has contributed a -1.32% to total attribution. Additionally, an overweight on Indonesia had a negative impact on SRI portfolio return (-0.84%). Overall, the weak performance of MSCI EM SRI 5% Capped Index is attributable to over-/under-weights of countries, selection of SRI stocks and currency effects (compare columns (7), (8), and (9), top row).

In Tables B.1 and B.2 of Appendix B, we show which companies contributed the most to overall performance of the SRI approach and which had a negative contribution.

Table 7. Attribution analysis of UBS ETF MSCI Emerging Markets Socially Responsible UCITS ETF (portfolio) versus
MSCI EM index (benchmark) over Q1 2020: grouping by region.

	Avera	ge Weigh	nt (%)	Tot	al Return	(%)	Allocation	Selection	Currency	Tot Attr
	Port	Bench	+/-	Port	Bench	+/-	Effect (%)	Effect (%)	Effect (%)	(%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	100.00	100.00	0.00	-29.32	-23.58	-5.75	-2.09	-2.54	-3.06	-5.75
Africa / Middle East	15.72	8.42	7.30	-35.36	-32.11	-3.26	-0.29	0.31	-1.73	-1.53
Egypt	0.00	0.14	-0.14		-27.12	27.12	0.01	0.00	0.00	0.00
Qatar	0.39	0.93	-0.54	-23.57	-17.28	-6.29	-0.04	-0.05	0.00	-0.05
Saudi Arabia	0.00	2.50	-2.50		-23.98	23.98	0.01	0.00	0.00	0.01
South Africa	13.88	4.26	9.62	-35.74	-40.37	4.63	0.01	0.23	-1.73	-1.32
UAE	1.45	0.59	0.86	-34.24	-27.14	-7.10	-0.01	-0.04	0.00	-0.05
Asia Pacific	48.97	66.71	-17.74	-23.73	-16.34	-7.39	-0.72	-3.38	-0.61	-3.84
China	6.33	32.51	-26.17	-9.56	-9.57	0.01	-1.09	-0.08	0.01	-1.09
Hong Kong	1.08	3.75	-2.67	-25.47	-15.28	-10.18	0.02	-0.35	-0.01	-0.14
Indonesia	4.24	1.83	2.42	-39.73	-39.44	-0.29	-0.55	0.00	-0.28	-0.84
Malaysia	4.45	1.80	2.65	-17.88	-19.18	1.30	0.02	0.02	-0.10	-0.02
Philippines	1.35	0.90	0.46	-33.25	-32.00	-1.26	-0.16	-0.01	0.00	-0.18
Singapore	0.00	0.03	-0.03		-37.08	37.08	0.01	0.00	0.00	0.01
South Korea	12.21	11.67	0.53	-28.20	-22.37	-5.83	-0.14	-0.67	0.00	-1.09
Taiwan	13.89	11.88	2.01	-16.67	-19.00	2.33	-0.23	0.26	-0.02	0.17
Thailand	5.42	2.36	3.06	-33.72	-34.05	0.33	-0.60	0.00	-0.21	-0.80
Central Asia	15.82	8.62	7.20	-22.78	-31.15	8.38	-0.63	0.71	-0.33	0.40
Eastern Europe	4.06	5.48	-1.42	-38.38	-36.08	-2.30	0.08	-0.50	0.43	0.15
North America	3.12	2.30	0.82	-36.35	-35.49	-0.86	-0.01	-0.01	-0.15	-0.18
South & Central America	11.79	8.15	3.65	-46.36	-48.10	1.74	-0.58	0.35	-0.67	-0.78
Western Europe	0.07	0.32	-0.26	-47.59	-42.40	-5.20	0.05	-0.03	0.01	0.06

Source: UBS Asset Management, Bloomberg (PORT attribution). Data as of 31 March 2020. Please note that past performance is not a guide to the future.

#### The greener, the better?

The investor preference for the specific ESG solution (the shade of green) is often motivated by three considerations:

- (1) ESG impact: The strict ESG approach (dark green) offered by the SRI index has the highest ESG impact, which means that invested money makes a stronger societal contribution. For example, in the case of the MSCI World, the SRI approach reduces the carbon footprint by 50% compared to the broad parent benchmark and it improves the overall ESG score by 30%, which is a far greater ESG impact compared to lighter green ESG indices (Table Box 1).
- (2) **Performance:** Investors may formulate expectations regarding risks and returns of ESG indices. For investors with the conviction that ESG has a positive impact on performance in the long-term, the greenest index (higher active share) has the potential for more significant relative outperformance. Furthermore, there is empirical evidence that a stricter ESG approach may offer more meaningful risk mitigation.
- (3) **Tracking error:** Preparedness of investors to deviate from the broad benchmark (higher active share) and accept a higher tracking error (see Table Box 1). For example, the MSCI World SRI 5% Capped index has a tracking error vs the MSCI World parent index of 1.44%.

While the benefits of (1) and (2) are straightforward, it is important to consider the nature of the tracking error risk (3). Tracking error risk is not a fundamental risk measure, but rather a measure of deviation from the broad benchmark. It is often employed by institutional investors as part of internal investment processes. However, the SRI indices actually have volatilities comparable to their parent indices (e.g. for MSCI World universe, the SRI approach reduced the annualized volatility by 20 bps over the past 10 years). Furthermore, the results of this paper suggest that tracking error risk is not a 'systemic risk', i.e. a risk that materializes during market drawdowns, but rather the opposite. A fundamental implication of financial theory is that investors should demand incremental returns only for carrying systematic risk. The 'idiosyncratic' risks can be largely diversified away in a broader portfolio, and therefore investors can be far more comfortable carrying such risks, especially when incentivised to do so by a much larger ESG impact and performance considerations.

## Performance of UBS ETF benchmarks during the Coronavirus market correction

Let us comment on the performance of ESG/SRI benchmarks, which are tracked by UBS ETFs (Figure 2) over Q1 2020. As seen earlier, the performance of SRI portfolios on key main indices such as ACWI, World, USA, and EMU has been very strong with the exception of EM. Furthermore, the SRI methodology also delivered outperformance for more narrow stock indices such as the MSCI UK IMI and MSCI Pacific, while it lagged behind for MSCI Switzerland. The MSCI China ESG index underperformed, but it is mostly due to the 5% capping of the largest two companies (Alibaba and Tencent). Overall, a sustainable investor has received a reward for adherence to the highest ESG standard, whilst at the same time improving the ESG profile of their portfolio.

In addition to UBS's suite of ETFs tracking the MSCI indices, UBS ETFs was the first provider to have launched ESG variants of the flagship S&P 500 and Euro STOXX 50 indices. This sustainable approach has proven excellent for the S&P 500 ESG (+103 bps) and Euro STOXX 50 ESG (+262 bps) vs their respective parent indices during the crisis period. These ESG methodologies represent a fairly 'light-medium green' approach. These ETFs are characterised by limited (historical) tracking error figures of below 100 bps vs. their parent indices. Thus, increasingly, these products have seen demand from investors as an ESG alternative for their core equity allocation.

#### Figure 2. Performance of indices tracked by UBS ETFs over Q1 2020.



Source: UBS Asset Management, Bloomberg. Data as of 31 March 2020. Please note that past performance is not a guide to the future.

#### **About UBS ETFs**

Index-tracking investment solutions have been a core competence of UBS Asset Management for over 35 years. As a leading fund house in Europe, UBS launched its first ETF in Europe in 2001 and is currently both one of Europe's foremost providers as well as a dominant force in currency hedged ETFs in the region. UBS ETFs offers investors a transparent and flexible opportunity to diversify their investments across key markets and all asset classes, including equities, bonds, real estate, commodities and alternative investments. UBS ETFs are listed on the following stock exchanges around the world – SIX Swiss Exchange, Borsa Italiana, London Stock Exchange, Deutsche Börse XETRA, Euronext Amsterdam, Australian Securities Exchange ASX, KRX Korea Exchange, Tokyo Stock Exchange and the Mexican Stock Exchange BMV.

### Appendix A

**Table A.1.** Top 20 attribution contributors: companies that had the largest positive contribution to outperformance of UBS ETF MSCI World SRI UCITS ETF versus MSCI World over Q1 2020.

	% Average Weight			Tota	al Return	(%)	Contribution to Ret (%)			Selection	Currency	Tot Attr
	Port	Bench	+/-	Port	Bench	+/-	Port	Bench	+/-	Effect (%)	Effect (%)	(%)
Portfolio	100.00	100.00	0.00	-18.16	-20.95	2.79	-18.16	-20.95	2.79	3.04	-0.25	2.79
Microsoft Corp	5.54	2.86	2.68	0.28	0.28	0.00	-0.08	0.02	-0.10	0.50	0.00	0.50
Roche Holding AG- Genusschein	2.23	0.56	1.67	3.02	3.02	0.00	0.07	0.02	0.05	0.36	-0.01	0.35
Nvidia Corp	1.40	0.35	1.05	12.10	12.10	0.00	0.17	0.04	0.13	0.30	0.00	0.30
Gilead Sciences Inc	0.85	0.21	0.64	16.19	16.19	0.00	0.11	0.03	0.08	0.20	0.00	0.20
Adobe Inc	1.60	0.40	1.20	-3.51	-3.51	0.00	-0.05	-0.01	-0.03	0.18	0.00	0.18
Tesla Inc	0.79	0.20	0.59	25.26	25.26	0.00	0.08	0.02	0.07	0.18	0.00	0.18
Procter & Gamble Co/THE	2.90	0.72	2.17	-11.40	-11.40	0.00	-0.34	-0.09	-0.26	0.18	0.00	0.18
Novo Nordisk A/S-B	1.02	0.25	0.76	5.03	5.03	0.00	0.04	0.01	0.03	0.19	-0.01	0.17
Exxon Mobil Corp		0.56	-0.56		-44.80	44.80		-0.28	0.28	0.16	0.00	0.16
JPMorgan Chase & Co		0.93	-0.93		-35.00	35.00		-0.34	0.34	0.15	0.00	0.15
US Dollar	0.35		0.35	0.00		0.00	0.00		0.00	0.14	0.00	0.14
Bank of America Corp		0.63	-0.63		-39.32	39.32		-0.26	0.26	0.13	0.00	0.13
Boeing Co/THE		0.35	-0.35		-53.94	53.94		-0.21	0.21	0.13	0.00	0.13
Wells Fargo & Co		0.42	-0.42		-46.09	46.09		-0.22	0.22	0.13	0.00	0.13
Pepsico Inc	1.82	0.45	1.37	-11.52	-11.52	0.00	-0.22	-0.06	-0.17	0.11	0.00	0.11
Vertex Pharmaceut. Inc	0.57	0.14	0.42	8.68	8.68	0.00	0.05	0.01	0.04	0.11	0.00	0.11
Citigroup Inc		0.36	-0.36		-46.92	46.92		-0.18	0.18	0.11	0.00	0.11
Home Depot Inc	2.31	0.58	1.73	-13.90	-13.90	0.00	-0.33	-0.08	-0.25	0.10	0.00	0.10
American Tower Corp	0.99	0.25	0.75	-5.25	-5.25	0.00	-0.07	-0.02	-0.05	0.10	0.00	0.10
Chevron Corp		0.45	-0.45		-39.17	39.17		-0.20	0.20	0.10	0.00	0.10

Source: UBS Asset Management, Bloomberg. Data as of 31 March 2020. Please note that past performance is not a guide to the future.

**Table A.2.** Bottom 20 attribution contributors: companies that had the largest negative contribution to performance of UBS MSCI World SRI UCITS ETF vs. MSCI World over Q1 2020.

	% Average Weight			Total Return (%)			Contrib	ution to R	et (%)	Selection	Currency	Tot Attr
	Port	Bench	+/-	Port	Bench	+/-	Port	Bench	+/-	Effect (%)	Effect (%)	(%)
Portfolio	100.00	100.00	0.00	-18.16	-20.95	2.79	-18.16	-20.95	2.79	3.04	-0.25	2.79
Amazon.com Inc		1.96	-1.96		5.51	-5.51		0.12	-0.12	-0.45	0.00	-0.45
Walt Disney Co/THE	2.19	0.55	1.64	-33.21	-33.21	0.00	-0.74	-0.19	-0.56	-0.23	0.00	-0.23
Apple Inc		3.17	-3.17		-13.20	13.20		-0.42	0.42	-0.20	0.00	-0.20
Conocophillips	0.54	0.13	0.41	-52.30	-52.30	0.00	-0.32	-0.08	-0.24	-0.16	0.00	-0.16
Netflix Inc		0.37	-0.37		16.05	-16.05		0.05	-0.05	-0.12	0.00	-0.12
Nestle Sa-Reg		0.76	-0.76		-5.01	5.01		-0.04	0.04	-0.11	0.00	-0.11
Phillips 66	0.35	0.09	0.26	-51.36	-51.36	0.00	-0.22	-0.05	-0.17	-0.11	0.00	-0.11
Suncor Energy Inc	0.39	0.10	0.29	-51.28	-51.28	0.00	-0.23	-0.06	-0.18	-0.09	-0.02	-0.11
Oneok Inc	0.24	0.06	0.18	-70.82	-70.82	0.00	-0.20	-0.05	-0.15	-0.10	0.00	-0.10
PNC Financial Services Group	0.57	0.14	0.43	-39.58	-39.58	0.00	-0.25	-0.06	-0.19	-0.09	0.00	-0.09
Johnson & Johnson		0.90	-0.90		-9.52	9.52		-0.09	0.09	-0.09	0.00	-0.09
Siemens AG-REG	0.80	0.20	0.60	-32.69	-32.69	0.00	-0.27	-0.07	-0.20	-0.08	-0.01	-0.09
Westpac Banking Corp	0.50	0.12	0.37	-40.71	-40.71	0.00	-0.23	-0.06	-0.17	-0.04	-0.04	-0.08
Allianz SE-REG	0.89	0.22	0.67	-29.78	-29.78	0.00	-0.28	-0.07	-0.21	-0.06	-0.01	-0.07
AXA SA	0.44	0.11	0.33	-38.54	-38.54	0.00	-0.18	-0.05	-0.14	-0.06	0.00	-0.07
Eli Lilly & Co		0.29	-0.29		6.10	-6.10		0.01	-0.01	-0.07	0.00	-0.07
Alphabet Inc-Cl C		1.01	-1.01		-13.03	13.03		-0.13	0.13	-0.07	0.00	-0.07
Intel Corp		0.62	-0.62		-9.13	9.13		-0.04	0.04	-0.07	0.00	-0.07
Total SA	1.03	0.26	0.77	-27.32	-27.32	0.00	-0.26	-0.07	-0.20	-0.05	-0.01	-0.06
American Express Co	0.79	0.20	0.59	-31.00	-31.00	0.00	-0.25	-0.06	-0.19	-0.06	0.00	-0.06

Source: UBS Asset Management, Bloomberg. Data as of 31 March 2020. Please note that past performance is not a guide to the future.

### Appendix B

 Table B.1. Top 20 attribution contributors: companies that had the largest positive contribution to performance of UBS ETF MSCI Emerging

 Markets Socially Responsible UCITS ETF vs. MSCI Emerging Markets over Q1 2020.

	% Average Weight		Total Return (%)			Contribution to Ret (%)			Selection Currency		Tot Attr	
	Port	Bench	+/-	Port	Bench	+/-	Port	Bench	+/-	Effect (%) E	ffect (%)	(%)
Portfolio	100.00	100.00	0.00	-29.32	-23.58	-5.75	-29.32	-23.58	-5.75	-2.68	-3.06	-5.75
Hindustan Unilever Ltd	1.79	0.33	1.46	12.78	12.78	0.00	0.19	0.04	0.15	0.45	-0.07	0.38
Naspers Ltd-N Shs	5.78	1.22	4.55	-12.72	-12.72	0.00	-0.78	-0.13	-0.65	1.07	-0.84	0.23
Petrobras – Petroleo Bras-PR		0.41	-0.41		-64.05	64.05		-0.31	0.31	0.15	0.07	0.21
Itau Unibanco Holding S-Pref		0.60	-0.60		-50.18	50.18		-0.34	0.34	0.10	0.11	0.20
Petrobras – Petroleo Bras		0.34	-0.34		-65.73	65.73		-0.29	0.29	0.15	0.06	0.20
Gazprom Pjsc		0.61	-0.61		-43.76	43.76		-0.29	0.29	0.07	0.09	0.16
Sberbank of Russia Pjsc		0.67	-0.67		-41.58	41.58		-0.29	0.29	0.04	0.11	0.15
Chunghwa Telecom Co Ltd	1.29	0.24	1.05	-3.13	-3.13	0.00	-0.03	-0.01	-0.02	0.15	-0.01	0.14
lcici Bank Ltd		0.56	-0.56		-43.32	43.32		-0.27	0.27	0.11	0.02	0.14
Sasol Ltd		0.12	-0.12		-90.47	90.47		-0.17	0.17	0.11	0.02	0.13
Lukoil Pjsc		0.63	-0.63		-39.24	39.24		-0.26	0.26	0.03	0.10	0.13
Axis Bank Ltd		0.33	-0.33		-52.58	52.58		-0.20	0.20	0.10	0.01	0.11
Vale Sa		0.61	-0.61		-37.11	37.11		-0.23	0.23	0.01	0.11	0.11
Country Garden Services Hold	0.43	0.08	0.35	20.63	20.63	0.00	0.07	0.01	0.06	6 0.11	0.00	0.11
Meituan Dianping-Class B	1.22	0.22	1.00	-7.61	-7.61	0.00	-0.07	-0.01	-0.05	0.10	0.00	0.11
Reliance Industries Ltd		0.92	-0.92		-30.59	30.59		-0.29	0.29	0.07	0.04	0.11
Ambev SA		0.30	-0.30		-50.48	50.48		-0.17	0.17	0.05	0.05	0.10
Naver Corp	1.97	0.36	1.61	-13.41	-13.41	0.00	-0.23	-0.04	-0.18	0.15	-0.06	0.09
Wuxi Biologics Cayman Inc	0.77	0.15	0.61	2.41	2.41	0.00	0.01	-0.01	0.02	0.09	0.00	0.09
Polymetal International Plc	0.33		0.33	9.35		9.35	0.03		0.03	0.10	-0.02	0.08

Source: UBS Asset Management, Bloomberg. Data as of 31 March 2020. Please note that past performance is not a guide to the future.

**Table B.2.** Bottom 20 attribution contributors: companies that had the largest negative contribution to performance of UBS ETF MSCI

 Emerging Markets Socially Responsible UCITS ETF vs.
 MSCI Emerging Markets over Q1 2020.

	% Average Weight			Total Return (%)			Contribution to Ret (%)			Selection	Tot Attr	
	Port	Bench	+/-	Port	Bench	/0 <b>)</b> +/-	Port	Bench	+/-		Effect (%)	(%)
Portfolio	100.00		0.00	-29.32		-5.75		-23.58	-5.75	-		-5.75
Banco Bradesco SA-Pref	2.68	0.48	2.19	-55.30	-55.30	0.00	-1.68	-0.31	-1.37	-0.52	-0.38	-0.90
Tencent Holdings Ltd		4.98	-4.98		1.76	-1.76		0.11	-0.11	-0.85	-0.02	-0.87
Housing Development Finance	4.73	0.87	3.85	-36.13	-36.13	0.00	-1.83	-0.34	-1.49	-0.52	-0.16	-0.68
Alibaba Group Holding-SP ADR		6.22	-6.22		-8.31	8.31		-0.43	0.43	-0.60	0.00	-0.60
Standard Bank Group Ltd	1.20	0.22	0.98	-52.34	-52.34	0.00	-0.73	-0.14	-0.59	-0.19	-0.17	-0.36
Firstrand Ltd	1.15	0.21	0.94	-49.79	-49.79	0.00	-0.65	-0.12	-0.53	-0.16	-0.16	-0.32
Novatek PJSC-Spons GDR Reg S	1.37	0.25	1.11	-43.20	-43.20	0.00	-0.59	-0.12	-0.47	-0.28	0.00	-0.28
Lojas Renner S.A.	0.88	0.16	0.72	-53.58	-53.58	0.00	-0.52	-0.10	-0.43	-0.14	-0.12	-0.26
Banco Bradesco S.A.	0.74	0.13	0.61	-57.03	-57.03	0.00	-0.47	-0.09	-0.38	-0.16	-0.10	-0.26
MTN Group Ltd	0.76	0.14	0.62	-54.07	-54.07	0.00	-0.48	-0.09	-0.39	-0.14	-0.10	-0.24
Astra International TBK PT	0.79	0.15	0.65	-52.06	-52.06	0.00	-0.48	-0.09	-0.39	-0.17	-0.07	-0.23
Absa Group Ltd	0.58	0.11	0.47	-60.67	-60.67	0.00	-0.43	-0.08	-0.35	-0.15	-0.08	-0.23
B3 SA-Brasil Bolsa Balcao	1.97	0.36	1.61	-33.63	-33.63	0.00	-0.65	-0.12	-0.53	0.06	-0.28	-0.22
Fomento Economico Mexica-UBD	1.56	0.29	1.27	-35.47	-35.47	0.00	-0.57	-0.11	-0.46	0.00	-0.21	-0.21
Nedbank Group Ltd	0.41	0.07	0.33	-69.80	-69.80	0.00	-0.35	-0.07	-0.28	-0.14	-0.05	-0.20
Shinhan Financial Group Ltd	1.28	0.24	1.05	-37.33	-37.33	0.00	-0.49	-0.10	-0.40	-0.16	-0.04	-0.20
Bank Mandiri Persero TBK PT	0.88	0.16	0.71	-45.58	-45.58	0.00	-0.46	-0.08	-0.38	-0.11	-0.08	-0.20
Bank Central Asia TBK PT	2.07	0.38	1.69	-29.65	-29.65	0.00	-0.67	-0.12	-0.55	0.01	-0.20	-0.19
Localiza Rent A Car	0.59	0.11	0.48	-56.84	-56.84	0.00	-0.36	-0.07	-0.29	-0.11	-0.08	-0.19
China Construction Bank-H		1.39	-1.39		-5.30	5.30		-0.06	0.06	-0.17	-0.01	-0.18

Source: UBS Asset Management, Bloomberg. Data as of 31 March 2020. Please note that past performance is not a guide to the future.

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