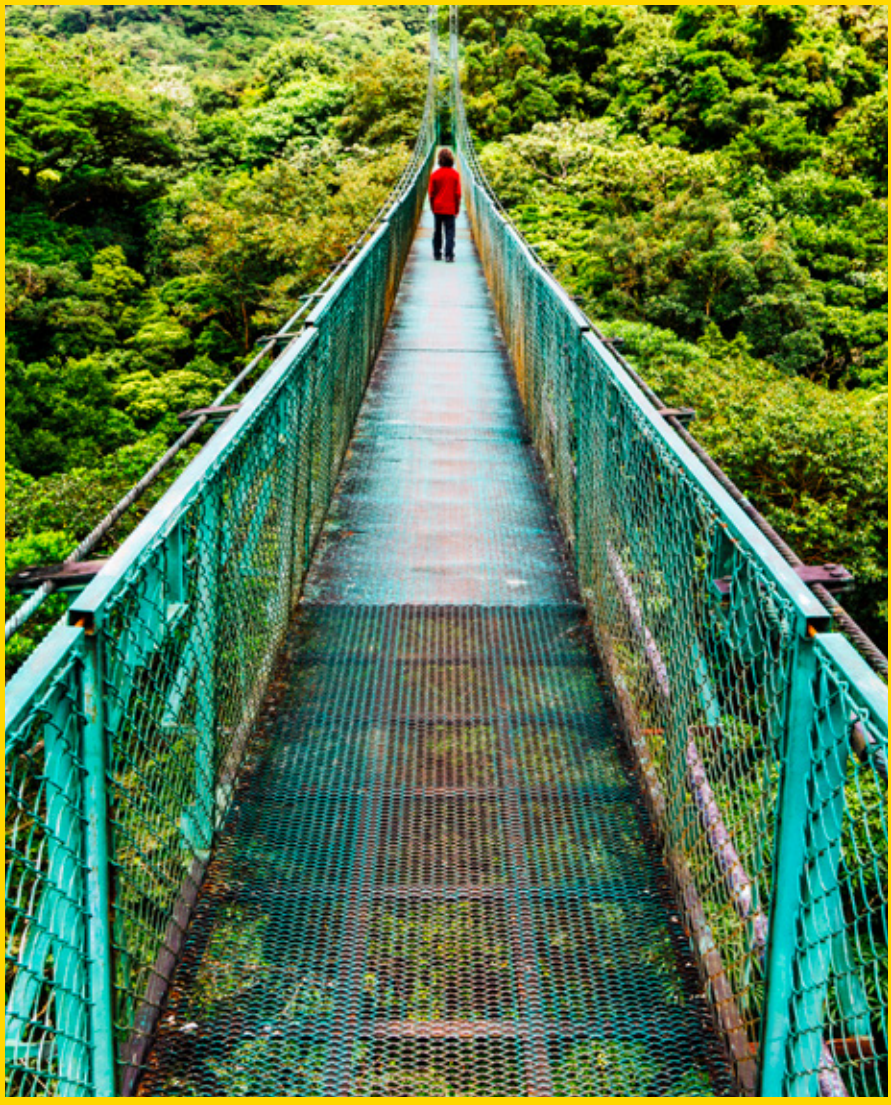
BlackRock®

Sustainable investing: resilience amid uncertainty



MKTGM0520U-1189262-1/28

Executive Summary

Resilience amid uncertainty

The tremendous toll of the COVID-19 crisis – on health, economic well-being, and everyday activity – has precipitated a widespread reassessment of the way we live our lives. For governments, businesses, and investors, an essential question has been to understand the sources of resilience during these past few months and how to build on them to prepare for future crises.

Global equity markets signaled the severity of the crisis before much of the world had begun its lockdowns. Equities began their steep descent in late February, and in the course of one month, the Dow Jones Industrial Average fell over 10,000 points (34%),[1] demand for cash soared, and economic activity ground to a halt as businesses were forcibly shut down and people directed to stay inside. In this volatile environment, investors have been seeking to understand what characteristics contributed to comparative resilience in portfolios and how to incorporate these characteristics in their own investments.

The concept of sustainable investing can mean different things. Asset owners and asset managers often operate with multiple definitions, messages and motivations. BlackRock operates from a simple definition of sustainable investing: Combining traditional investing with environmental, social, and governance-related (ESG) insights to improve long-term outcomes for our clients. Our view: Companies with strong profiles on material sustainability issues have potential to outperform those with poor profiles. In particular, we believe companies managed with a focus on sustainability should be better positioned versus their less sustainable peers to weather adverse conditions while still benefiting from positive market environments.

1 Source: Bloomberg. Period: 20 February, 2020 to 20 March, 2020.

For investors, the most important question is why? What explains the resilience?

The recent downturn was a key test of this conviction. In the first quarter of 2020, we have observed better risk-adjusted performance across sustainable products globally, with 94% of a globally-representative selection of widely-analyzed sustainable indices outperforming their parent benchmarks [2] While this short time period is not determinative, it aligns with the resilience we have seen in sustainable strategies during prior downturns, explored below in section "Sustainability Performance in the Markets." Furthermore, these results are consistent with the research BlackRock has been publishing since mid-2018, demonstrating that sustainable strategies do not require a return tradeoff and have important resilient properties.[3]

For investors, the most important question is why? What explains the resilience?

Research by BlackRock[4,5] has established a correlation between sustainability and traditional factors such as quality and low volatility, which themselves indicate resilience. As a result, we would expect sustainable companies to be more resilient during downturns.

Traditional factors, however, do not describe the full set of attributes that can impact a company's resilience. Analyzing the various sustainability characteristics of companies – and how these characteristics contributed to performance – deepens our understanding how sustainability reinforces resilience. As explored below in section "Analyzing the Resilience of Sustainable Funds," our research indicates that, in the current crisis, with its transformative and devastating impact on daily life, companies with a record of good customer relations or robust corporate culture are demonstrating resilient financial performance.

Casual observers initially attributed the strong performance of ESG funds to their relative underweighting to traditional energy companies, whose prices fell further than the overall market during the downturn. However, our own analysis in this paper and third-party research[6] shows that the underperformance of traditional energy explains only a fraction of the outperformance seen in many sustainable funds.

We believe that the outperformance has instead been driven by a range of material sustainability characteristics, including job satisfaction of employees, the strength of customer relations, or the effectiveness of the company's board. Overall, this period of market turbulence and economic uncertainty has further reinforced our conviction that ESG characteristics indicate resilience during market downturns.

2 See Appendix C for index universe.
3 BlackRock Investment Institute, "Sustainability: The bond that endures," November 2019.
4 BlackRock Investment Institute,"Sustainable investing: 'a why not' moment" May 2018.
5 Ibid.
6 www.morningstar.com: Sustainable funds weather the first quarter better than conventional funds

This period of market turbulence and economic uncertainty has further reinforced our conviction that ESG characteristics indicate resilience during market downturns.

Another key piece of the resilience story has been investor preference for sustainable assets during the crisis. As investors have sought to rebalance their portfolios during market turmoil, they are increasingly preferring sustainable funds over more traditional ones. In the first quarter of 2020, global sustainable open-ended funds (mutual funds and ETFs) brought in USD40.5bn in new assets, a 41% increase year-over-year. U.S. sustainable funds attracted a record USD7.3 billion for the quarter.[7]

We believe these inflows during a period of extraordinary market drawdown suggests a persistence in investor preferences toward sustainability. They upend an oft-cited concern pre-COVID crisis that during sharp market downturns, investors will de-prioritize sustainability. And they offer important, though short-term, evidence that the incipient shift in preferences – which was explored in research by the BlackRock Investment Institute earlier this year[8] – has been accelerated by the crisis and is another key contributor to the resilience of sustainable funds.

In this paper, we analyze performance differences between ESG indices and their core, non-ESG, versions, as well as ESG-managed funds versus their peers, and we find that the majority of ESG-tilted portfolios have outperformed their non-sustainable counterparts during this year's market downturn. We also examine a variety of sustainability-related themes using our research-driven framework for assessing and integrating material sustainability insights to understand the performance of each theme during the downturn. We find particularly strong performance in themes including customer relations, firm culture, and board effectiveness, providing insight into resilience during this crisis. Finally, we explore the increasing allocation to sustainable portfolios during the crisis and the structural shift in investor preferences to sustainable assets.

7 The data for this analysis is captured from a number of sources by BlackRock, including provider websites, fund prospectuses, provider press releases, provider surveys, Bloomberg, the National Stock Exchange, Strategic Insight Simfund, and Wind. All amounts are reported in US dollars. Flows are derived using daily net asset values and shares outstanding using the most recent data we can capture at month-end. For products with cross-listings, we attribute net flows and assets to the primary listings. Data is as of March 31, 2020.

8 BlackRock Investment Institute, 'Sustainability: The tectonic shift transforming investing," February 2020.

Sustainability performance in the markets

As noted above, we have observed better risk-adjusted performance across sustainable products globally in the first quarter of 2020. Morningstar reported 51 out of 57 of their sustainable indices outperformed their broad market counterparts, and MSCI reported 15 of 17 of their sustainable indices outperformed broad market counterparts in the first quarter of 2020—robust across region and index methodology.[9,10] Further, Morningstar found that 70% of sustainable mutual funds performed in the top half of their respective Morningstar categories.[11]

One quarter of performance is a short period and not determinative; however, the performance is significant for a few reasons.

01 It is consistent with the resilience in sustainable strategies that we have seen in prior drawdowns – i.e., their strong performance versus non-sustainable counterparts.

Using a globally-representative, widely-analyzed set of 32 sustainable indices,[12] we analyzed their performance against their non-sustainable benchmarks back to 2015. Our analysis found that during notable market downturns in 2015-2016 and 2018, sustainable indices tended to outperform their non-sustainable counterparts – that is they demonstrated a smaller drawdown during the market downturn, as shown in Figure 01 overleaf. In Q1 of 2020, 94% of sustainable indices in our analysis outperformed their parent benchmarks. We also tested whether this effect remained after the market recovery that began in late March of this year and found that the resilience was persistent. 88% of these sustainable funds outperformed their non-sustainable counterparts from January 1, 2020 through April 30, 2020.

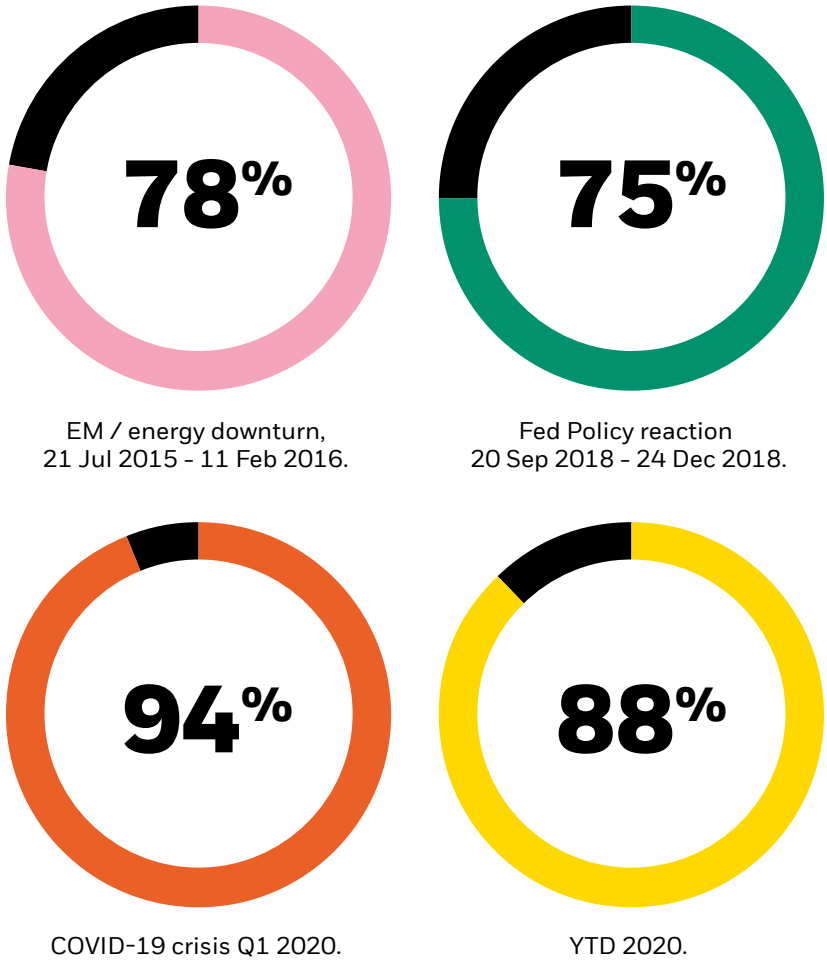
02 The recent downturn was the most significant test of this resilience, due to the severity of the market turmoil.

03 The recent evidence is further evidence against the claim that there is a necessary return tradeoff in sustainable strategies. Consistent with prior BlackRock research, financial research across market cycles supports our view that sustainable strategies do not require a return tradeoff, have important resilient properties, and can offer investors better risk-adjusted returns.[13]

9 Morningstar.com How did ESG indexes fare during the first quarter sell-off?
10 msci.com MSCI ESG Indexes during the coronavirus crisis
11 Morningstar.com Sustainable funds weather the first quarter better than conventional funds
12 See Appendix C
13 BlackRock Investment Institute, "Sustainable investing: a 'why not' moment." May 2018.

In Q1 of 2020, 94% of sustainable indices in our analysis outperformed their parent benchmarks.

Figure 01: percentage of sustainable indices that have outperformed during downturns



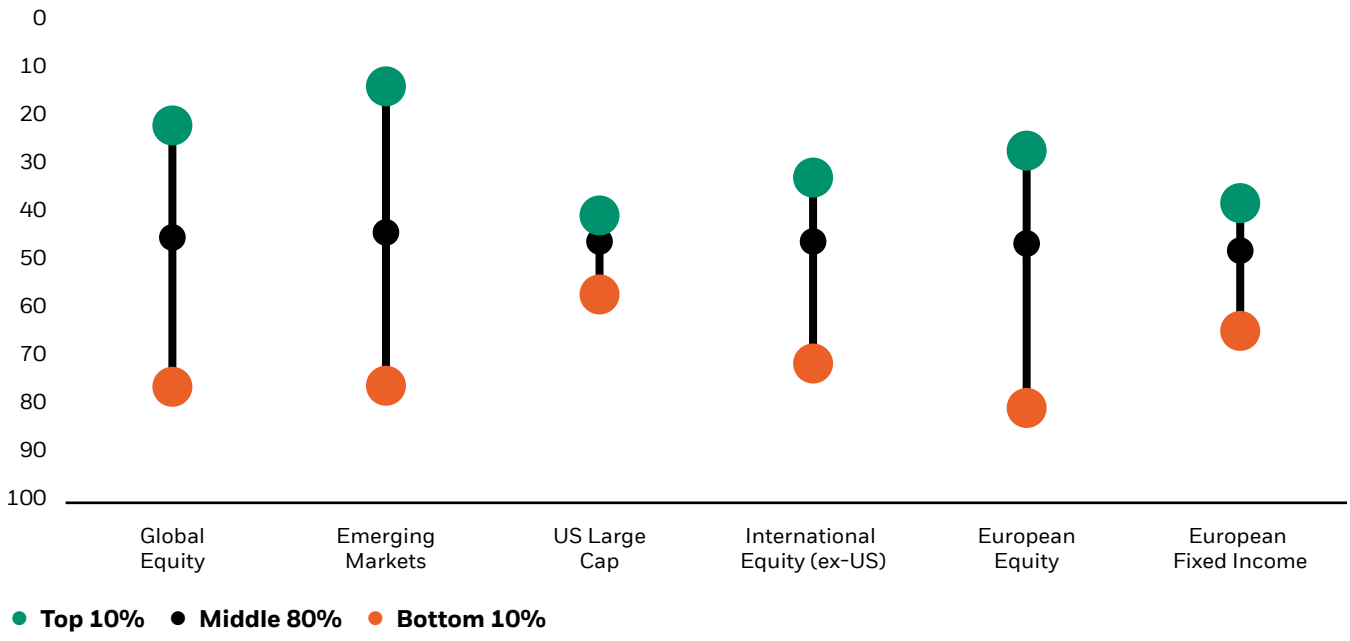
Source: BlackRock, as of May 11, 2020. For illustrative purposes only. This is a set of 32 globally-representative, widely analyzed sustainable indices and their non-sustainable counterparts. Indices are unmanaged and used for illustrative purposes only and are not intended to be indicative of any fund's performance. It is not possible to invest directly in an index.

We find that open-ended funds that score in the top 10% on Morningstar's sustainability ratings have significantly outperformed low-scoring peers (bottom 10%)

What about beyond sustainable indices? We find that open-ended funds that score in the top 10% on Morningstar's sustainability ratings have significantly outperformed low-scoring peers (bottom 10%). In Figure 02, we analyze the Q1 2020 performance of 6,759 open-ended funds, comparing those with high sustainability rankings to those with low sustainability rankings, relative to their peers in the respective Morningstar Category. We find that, on average, funds ranking in the top 10% of their peers on sustainability also rank in the top half of their peers for Q1 2020 financial returns. Meanwhile, funds ranking in the bottom 10% on sustainability tend to rank near the bottom for financial performance as well.

For example, within global equities, funds that rank within the top 10% on sustainability, on average ranked in the top 29th percentile for their Q1 2020 financial returns, while those in the bottom 10% on sustainability rank towards the bottom 76th percentile on performance. The performance spread is stark across both region and asset class. The spread is even higher in emerging market equities, with the top 10% on sustainability ranking around the top 21st percentile in performance and the bottom 10% on sustainability ranking in the bottom 76th percentile.

Figure 02: average peer group performance ranking, Q1 2020
Comparing funds with highest and lowest sustainability rankings within peer group.



Source: BlackRock, Morningstar as of May 11, 2020. Past performance is not an indicator of future results. Peer comparison shown is for illustrative purposes only and does not purport to compare all funds in the same investment universe nor does it compare all characteristics of the funds.

Outperformance and the energy sector

Importantly, the resilience in sustainable assets is more than just an "energy story"— in other words, the severe downturn in energy stocks only explains a fraction of the strong performance of ESG funds. According to Morningstar, across 26 sustainable funds, energy contributed an average of 43 basis points (bps) of outperformance in U.S. funds, 28 bps in ex-U.S. developed markets, and 24 bps in emerging markets funds. But they found an even greater overall effect from "stock selection" – i.e., the higher exposure of these funds to more sustainable companies. The impact of this higher exposure was just as important as energy in the U.S. (contributing 45 bps of outperformance), and was significantly stronger in developed markets outside the U.S. (144 bps) and emerging markets (105 bps).[14]

In order to gain a deeper understanding of this outperformance, we performed an analysis of how sustainability impacted performance within the energy sector. We examined cumulative performance from January 1, 2020 to May 1, 2020 – which also allows us to see performance against the recent stock market recovery – and found that there was a correlation between sustainability and performance within the energy sector, as shown in Figure 03. The correlation also holds across a range of oil and gas sub-industries, showing, for example, that integrated oil and gas companies with better sustainability characteristics were more likely to outperform.

Given the severe collapse in energy prices, we also examined the relationship between crude price changes and the performance of our hypothetical long-short sustainable portfolio, finding no significant correlation between the two, when controlled for broad market index returns. (The hypothetical portfolio's construction is explained in greater detail in section "Examining the sources of resilience;" see Appendix B for analysis against crude prices.)

14 Morningstar.com sustainable funds weather the first quarter better than conventional funds

Better sustainability characteristics correlate with performance across the energy sector and its subsectors

Figure 03A: Energy sectors

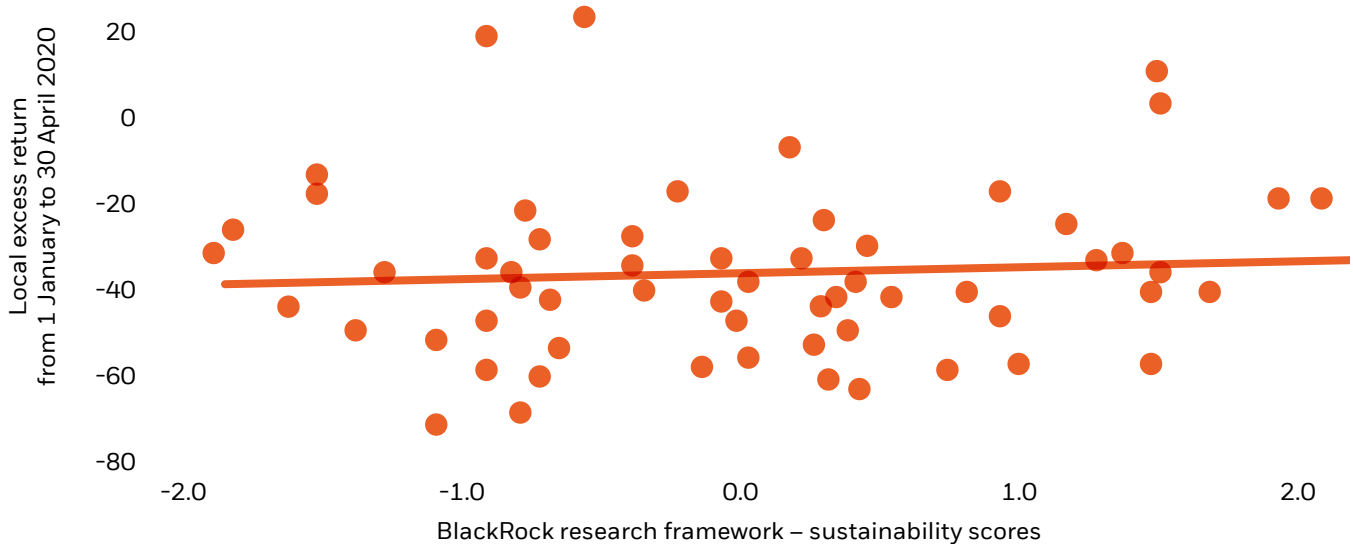
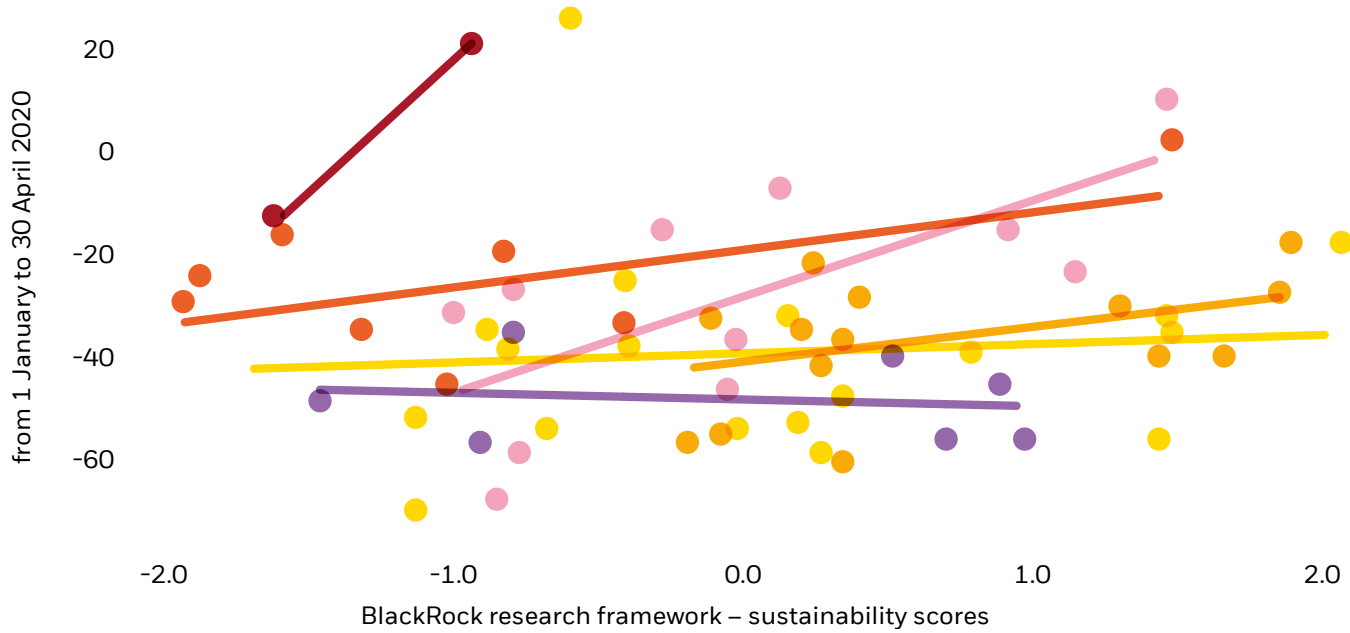


Figure 03B: Energy subsectors



- **Integrated oil & gas**
- **Oil & gas equipment & services**
- **Oil & gas refining & marketing**
- **Oil & gas storage & transportation**
- **Oil & gas exploration & production**
- **Oil & gas drilling**
- **Coal & consumable fuels**

Source: BlackRock as of May 11, 2020. This material represents an assessment of how sustainability scores correlated with performance across the energy sector of the MSCI World as well as within energy sub-sectors. The analysis was limited to January 1, 2020 to April 30, 2020, and a different time period or market environment would likely result in different outcomes. This is a proprietary BlackRock sustainability scoring methodology and results could change with a different sustainability scoring methodology

Armed with more information, investors are better positioned to evaluate risks

Analyzing the resilience of sustainable funds

To understand why sustainable funds tended to outperform during the crisis – and why we see this difference between ESG leaders and laggards – it is essential to analyze how different sustainability characteristics drove performance. In the section below, we show that the resilience in sustainable strategies stems from the materiality of various sustainability-related factors (termed as Descriptors within our framework). The basis for this method is the conviction that investing with exposure to sustainability factors can lead to better risk adjusted returns over the long-term.

An overview of our approach

Our research framework is built on the concept of "materiality" – i.e., examining sustainability characteristics in the context of what makes them quantifiable, actionable and investable.

A key tenet of sustainable investing is that traditional financial accounting standards such as GAAP or IFRS do not provide investors with a complete picture of what is material – that is, the full set of risks and opportunities faced by companies. Armed with more information, investors are better positioned to evaluate risks, an advantage that is especially relevant in market stress periods when uncertainty about future outcomes is larger.

Our analysis is based on 15 "descriptors"[15] that each focus on a different, material sustainability issue and seeks to understand its relevance to a company's long-term prospects. Examples include:

15 See Appendix D for full list of descriptors.

Regulatory issues that could affect the bottom line of a company

Audit, Tax and Risk management descriptor can inform investors about possible fines from cybersecurity breaches.

Structural change in consumer or investor behavior

Clean Technology descriptor can inform investors of increased demand for environmentally friendly products and services (energy efficient vehicles).

Valuation of intangible assets of a company

Talent Management descriptor that evaluates employee retention and job satisfaction.

Each of these descriptors thus anticipate an adjustment to the long term expected growth rate of companies, that market participants have not fully factored in. In the market pricing hypothesis proposed by Shiller (1980)[16] and later Campbell and Schiller (1988)[17], stock markets move more often in response to drivers of market inefficiencies such as investor fear or exuberance as compared to revisions in expected growth rate. These types of market inefficiencies are why we do not see sustainability related information to be priced in efficiently in financial markets today and in post-crisis periods, as explored in our earlier research.[18]

The speed of this re-pricing is accelerated during crisis periods, when a rapid decline in anticipated growth is amplified by the declines in share valuations. Furthermore, in the COVID-19 crisis, sustainability issues related to employee well-being, resilience of supply-chains, fair pricing for customers differentiated companies better positioned to handle these issues from their peers. We therefore expect descriptors that had captured these anticipated changes to be more resilient in the crisis period.

16 Shiller, R. J. (1980). The use of volatility measures in assessing market efficiency (No. w0565). National Bureau of Economic Research.

17 Campbell, J. Y., & Shiller, R. J. (1988). The dividend-price ratio and expectations of future dividends and discount factors. The Review of Financial Studies, 1(3), 195-228.

18 BlackRock Investment Institute, "Sustainability: The tectonic shift transforming investing." February 2020.

Examining the sources of resilience

To test these propositions, we created 15 hypothetical portfolios; one for each sustainability descriptor – for example, a portfolio that examines the impact of Board Effectiveness on returns, or one that examines the impact of Energy Management; each descriptor portfolio is evaluated independent of other descriptors. In addition, we also created a portfolio that generates an overall sustainability assessment across all 15 descriptors. To create these descriptors, we use data from a range of third-party providers, including the Sustainability Accounting Standards Board, and overlay our own analysis.

Construction of the hypothetical portfolios

01 We use the MSCI World Index as the parent universe.

02 The portfolios are essentially Markowitz's mean-variance efficient portfolios using a descriptor score instead of expected returns. We use a commercial risk model for controlling for the risk of the companies.

03 We go long companies with a highly positive Descriptor score. We go short companies with a highly negative Descriptor score as of 31 December 2019.

04 No sector bets are taken, the longs and short positions net out to zero in each sector.

05 The portfolios were market neutral, so the performance of the portfolios is in excess of the market performance.

06 All the portfolios had the same amount of risk (Ex-Ante risk of 1%).

07 The portfolios were constructed based on the sustainability scores of the underlying securities as of 31 Dececember 2019. They were assumed to be invested on 1 January 2020, and held till market close on 30 April 2020.

For the aggregate portfolio, the descriptors for each company in the universe are weighted according to their materiality by sector. The aggregate portfolio is then weighted based on the overall descriptor score for each company, with the long and short positions netting out to zero in each sector.

The overall portfolio is weighted in this way because ESG issues, though material for all sectors, materialize with varying degree of effectiveness in different sectors. Environmental issues related to production and management of energy are significantly more material in manufacturing sectors compared to the services sectors. Employee satisfaction and retention are issues with a greater impact on high-skilled and technologically advanced sectors.

In order to account for this heterogeneity by sectors, descriptors need to be weighted appropriately by their relative importance in each sector before they are summed up to form the final score under our research framework. For example, the score of a company in the Financial sector – which would not be a comparatively significant carbon emitter or consumer – is weighed heavily in favor of social and governance issues, and marginally on environmental issues. Such a weighting scheme has been described by the Sustainability Accounting Standards Board (SASB) as a Materiality Map. Our framework relies on the views expressed in the SASB Materiality Map® but also augments them by overlaying additional data.

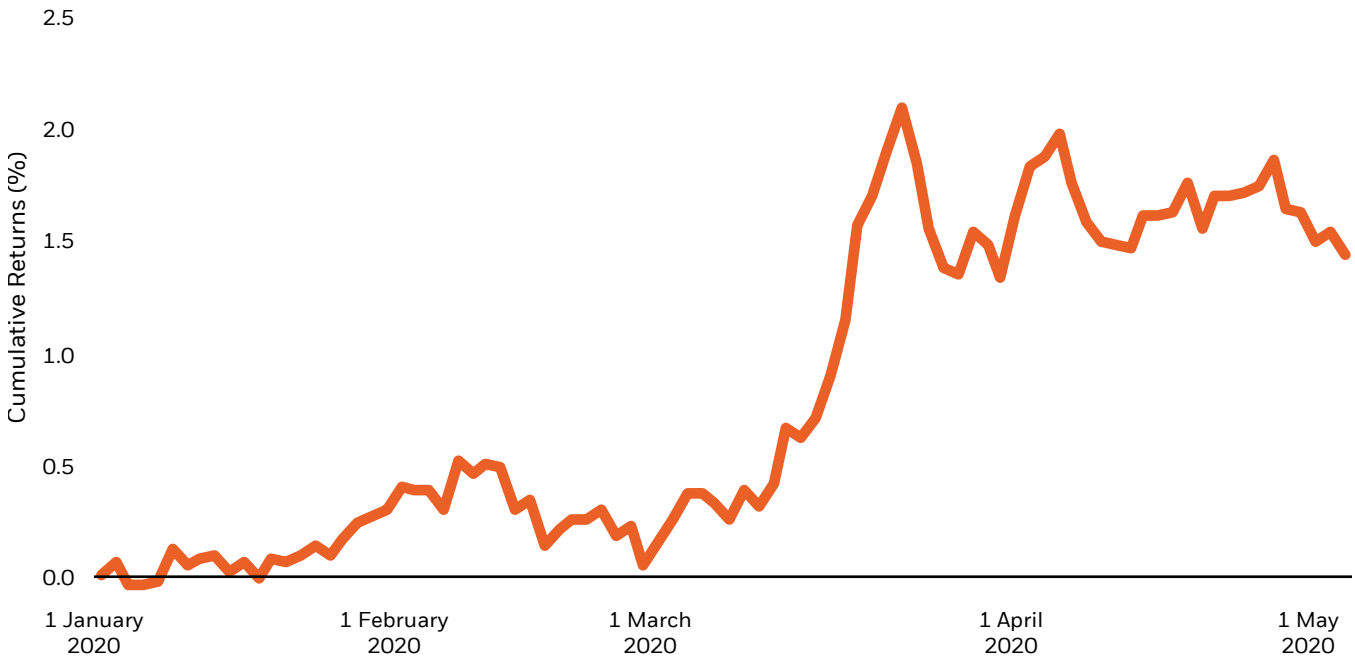
These portfolio construction considerations are necessary to ensure that the return we see can be attributable to the material issues embodied in the descriptors rather than sector/market performance or any other established style factors. We removed emerging market stocks from the analysis to focus on regions with more robust sustainability data.

Our analysis shows that:

- The "overall" sustainable portfolio generates 1.5% returns from January 1, 2020 to April 30 2020 (4.6% annualized returns at 2.1% annualized risk).
- Eleven of the 15 descriptors show positive returns over that same period, which is consistent with the past resilience of sustainable funds discussed above.
- The resilience is stronger for descriptors that are identified with issues which mattered most to companies during the downturn. Governance related issues such as Board Effectiveness (2.4 % over the period) and stakeholder related issues such as Customer Relations (1.7% over the period) show relatively higher value-add.[19]

19 Please see Appendix A for analysis of all descriptors.

Figure 04: Cumulative Returns: long-short hypothetical portfolios



Source: The performance shown does not represent an actual portfolio, and as such, is not an investible product. This is a hypothetical portfolios which is constructed as follows: Taking the MSCI World as the parent universe, creating a. portfolio that goes long securities with a highly positive sustainability scores according to our research framework score and goes short portfolios with highly negative scores. The hypothetical portfolio (and the model on which it is based) is formulated with benefit of hindsight using back tested index performance. There are frequently sharp differences between a hypothetical performance record and any actual record subsequently achieved. Therefore, hypothetical performance records invariably show positive rates of return. Another inherent limitation of these results is that the allocation decisions reflected in the performance record were not made under actual market conditions and, therefore, cannot completely account for the impact of certain risks, including financial risk, in actual portfolio management. Results may be dependent on the time period tested (1 January. 2020 to 30 April 2020) and the universe of stocks selected (MSCI World). Testing period may be too short to infer robust statistical conclusions about future downturns in general. We tested broadly across MSCI World portfolio and arrived at a combined conclusion that may average in sectors or regions where the conclusions do not hold.

We compared the returns of a hypothetical portfolio of bonds from issuers with highly positive sustainability scores versus a hypothetical portfolio of bonds from low-scoring issuers.

Resilience of sustainability extends to fixed income: a sector-by-sector analysis

We also posit that sustainable characteristics should be priced in the bond market: if our sustainability assessment helps indicate positive long-term growth prospects for an issuer's equity – and therefore its financial solvency – it should also help predict how likely that issuer is pay back its debt. As a result, we expect to see credit return differences between top and bottom ranked firms over time but especially in market crashes.

To investigate this hypothesis, we compared the returns of a hypothetical portfolio of bonds from issuers with highly positive sustainability scores versus a hypothetical portfolio of bonds from low-scoring issuers.

01 We defined the investable universe as all bonds in the Bloomberg Barclays Global Aggregate Corporate Index that: are corporate bonds, have spread duration between 5-10 years, and have coverage under our sustainability research framework. We chose the middle sector of the curve as it is more liquid.

02 We created three subsets of bonds for each Global Industry Classification Standard (GICS) sector: bonds with high sustainability scores according to our research framework, bonds with medium sustainability scores, and bonds with low sustainability scores, with all scores taken as of December 31, 2019.

- We use GICS Sectors as they are the most commonly used sector breakdown for equities. Using GICS will allow us to compare our fixed income results with our equity results.
- We removed the GICS Financial sector as these issuers will often issue bonds on behalf of other companies, which could distort our results.

03 We create two market-weighted portfolios, one with the subset of high-scoring issuers and one with the subset of low-scoring issuers. Each market-weighted portfolio was created at the end of December 2019 and held until the end of April 2020.

04 We calculate the performance of these portfolios from January 1, 2020 to April 30, 2020.

We find the performance difference between top and bottom ranking portfolios to be positive broadly across the market in terms of credit spread return. Cumulative returns over the study period show that eight sectors were positive, one was neutral, and one was negative (Figure 05).

Figure 05: Testing the impact of sustainability on hypothetical bond portfolios

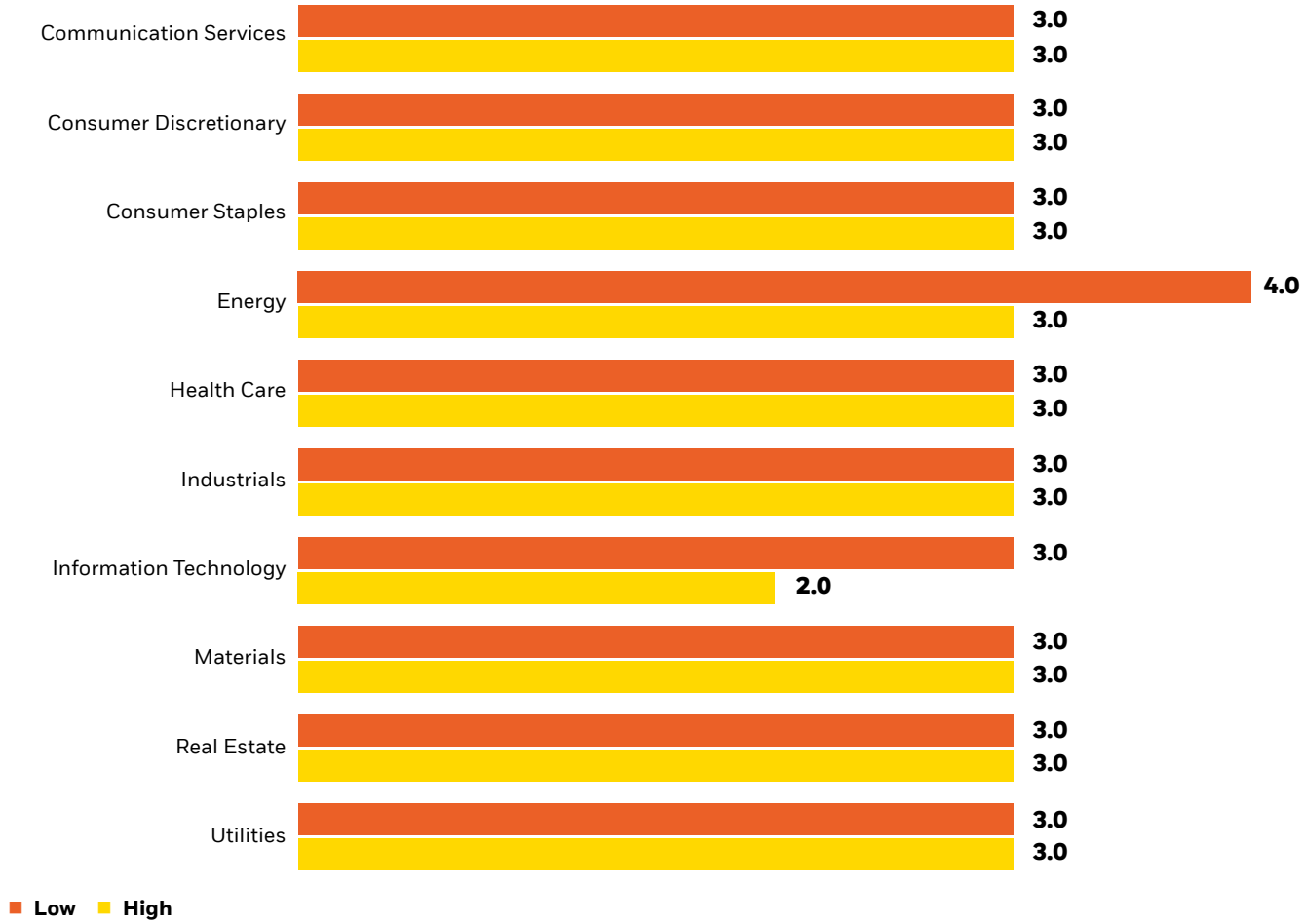
Market sector	Bottom sustainability ranked portfolio, BlackRock assessment	Top sustainability ranked portfolio, BlackRock assessment	Performance difference
Communication Services	-11%	-8%	● 3%
Consumer Discretionary	-15%	-18%	● -3%
Consumer Staples	-11%	-8%	● 3%
Energy	-29%	-23%	● 6%
Health Care	-9%	-8%	● 2%
Industrials	-14%	-11%	● 3%
Information Technology	-11%	-6%	● 5%
Materials	-17%	-11%	● 6%
Real Estate	-15%	-13%	● 2%
Utilities	-10%	-11%	● <1%

Source: BlackRock, as of May 11, 2020. The performance shown does not represent an actual portfolio, and as such, is not an investible product. These are hypothetical portfolios which are constructed by taking the Bloomberg Barclay's Global Aggregate Corporate Bond Index as the parent universe, sorting the issuers into three subsets based on their sustainability scores under our sustainability research framework, and creating three market-weighted portfolios. The hypothetical portfolios (and the model on which it is based) are formulated with benefit of hindsight using back tested index performance. There are frequently sharp differences between a hypothetical performance record and any actual record subsequently achieved. Therefore, hypothetical performance records invariably show positive rates of return. Another inherent limitation of these results is that the allocation decisions reflected in the performance record were not made under actual market conditions and, therefore, cannot completely account for the impact of certain risks, including financial risk, in actual portfolio management. Results may be dependent on the time period tested (1 January 2020 to 30 April 2020) and the universe of stocks selected (Bloomberg Barclay's Global Aggregate Corporate Bond Index). Testing period may be too short to infer robust statistical conclusions about future downturns in general. We tested broadly across the Bloomberg Barclay's Global Aggregate Corporate Bond Index portfolio and arrived at a combined conclusion that may average in sectors or regions where the conclusions do not hold.

Further, these results are not explainable by differences in credit ratings, the conventional metric of quality. The next figure shows that low and high sustainability portfolios have similar credit ratings[20] which reinforces our hypothesis that sustainability issues convey material, non-financial information for issuers.

20 S&P ratings are mapped to number AAA=1, AA=2, A=3, BBB=4, BB=5

Figure 06: Credit rating



Source: BlackRock, as of May 11, 2020. The performance shown does not represent an actual portfolio, and as such, is not an investible product. These are hypothetical portfolio which are constructed by taking the Bloomberg Barclay's Global Aggregate Corporate Bond Index as the parent universe, sorting the issuers into three subsets based on their sustainability scores under our sustainability research framework, and creating three market-weighted portfolios. The hypothetical portfolios (and the model on which it is based) are formulated with benefit of hindsight using back tested index performance. There are frequently sharp differences between a hypothetical performance record and any actual record subsequently achieved. Therefore, hypothetical performance records invariably show positive rates of return. Another inherent limitation of these results is that the allocation decisions reflected in the performance record were not made under actual market conditions and, therefore, cannot completely account for the impact of certain risks, including financial risk, in actual portfolio management. Results may be dependent on the time period tested (1 January 2020 to 30 April 2020) and the universe of stocks selected (Bloomberg Barclay's Global Aggregate Corporate Bond Index). Testing period may be too short to infer robust statistical conclusions about future downturns in general. We tested broadly across the Bloomberg Barclay's Global Aggregate Corporate Bond Index portfolio and arrived at a combined conclusion that may average in sectors or regions where the conclusions do not hold.

A sector-by-sector look at performance

In the table below, we show the performance summary across sectors for equity and corporate bond global sectors based on our internal sustainability scores. Across six sectors, the sustainable characteristics captured by our approach resulted in positive outcomes for both equity and bond investors, indicating resiliency in the down market during Q1 2020. In three sectors, equity and bond investors reacted differently. In the Real Estate sector, for example, the equity prices of REITs were inversely connected to their sustainability scores while the bond spreads were slightly inversely related (positive spread return).

Figure 07: Testing the impact of sustainability on hypothetical stock and bond portfolios

Sector	Equities	Corporate Bonds
Consumer Staples	● Positive	● Positive
Utilities	● Positive	● Neutral
Financials	● Positive	N/A
Consumer Discretionary	● Negative	● Negative
Energy	● Positive	● Positive
Industrials	● Positive	● Positive
Materials	● Positive	● Positive
Real Estate	● Negative	● Positive
Health Care	● Positive	● Positive
Info Tech	● Positive	● Positive
Telecoms	● Neutral	● Positive

Source: BlackRock, as of May 11, 2020. The performance shown does not represent an actual portfolio, and as such, is not an investible product. The "Equities" column is a hypothetical portfolio which is constructed by taking the MSCI World as the parent universe, creating a portfolio that goes long securities with a highly positive sustainability scores according to our research framework score and goes short portfolios with highly negative scores. The "Corporate Bonds" column is a hypothetical portfolio which is constructed by taking the Bloomberg Barclay's Global Aggregate Corporate Bond Index as the parent universe, sorting the issuers into three subsets based on their sustainability scores under our sustainability research framework, and creating three market-weighted portfolios. The hypothetical portfolio (and the model on which it is based) is formulated with benefit of hindsight using back tested index performance. There are frequently sharp differences between a hypothetical performance record and any actual record subsequently achieved. Therefore, hypothetical performance records invariably show positive rates of return. Another inherent limitation of these results is that the allocation decisions reflected in the performance record were not made under actual market conditions and, therefore, cannot completely account for the impact of certain risks, including financial risk, in actual portfolio management. Results may be dependent on the time period tested (1 January 2020 to 30 April 2020) and the universe of securities selected (MSCI World or Bloomberg Barclay's Global Aggregate Corporate Bond Index). Testing period may be too short to infer robust statistical conclusions about future downturns in general. We tested broadly across the Bloomberg Barclay's Global Aggregate Corporate Bond Index portfolio and arrived at a combined conclusion that may average in sectors or regions where the conclusions do not hold.

An acceleration of investor preference during the crisis

We believe that we are still in the early stages of a persistent and long-lasting shift toward sustainability – the full effects of which are not yet included in market prices, given the long transition. This is a transformation that we expect to see through the current pandemic, recovery, and long after.[20]

As explored above, we have seen investors continue to follow through on their long-term commitment to increase sustainability considerations within their portfolios. In the first quarter of 2020, global sustainable funds brought in USD40.5bn[21] in new money (41% YoY), with U.S. sustainable funds bringing in USD7.3 billion. This figure is a quarterly record for U.S. sustainable funds and is more than half of U.S. sustainable inflows for all of 2019.

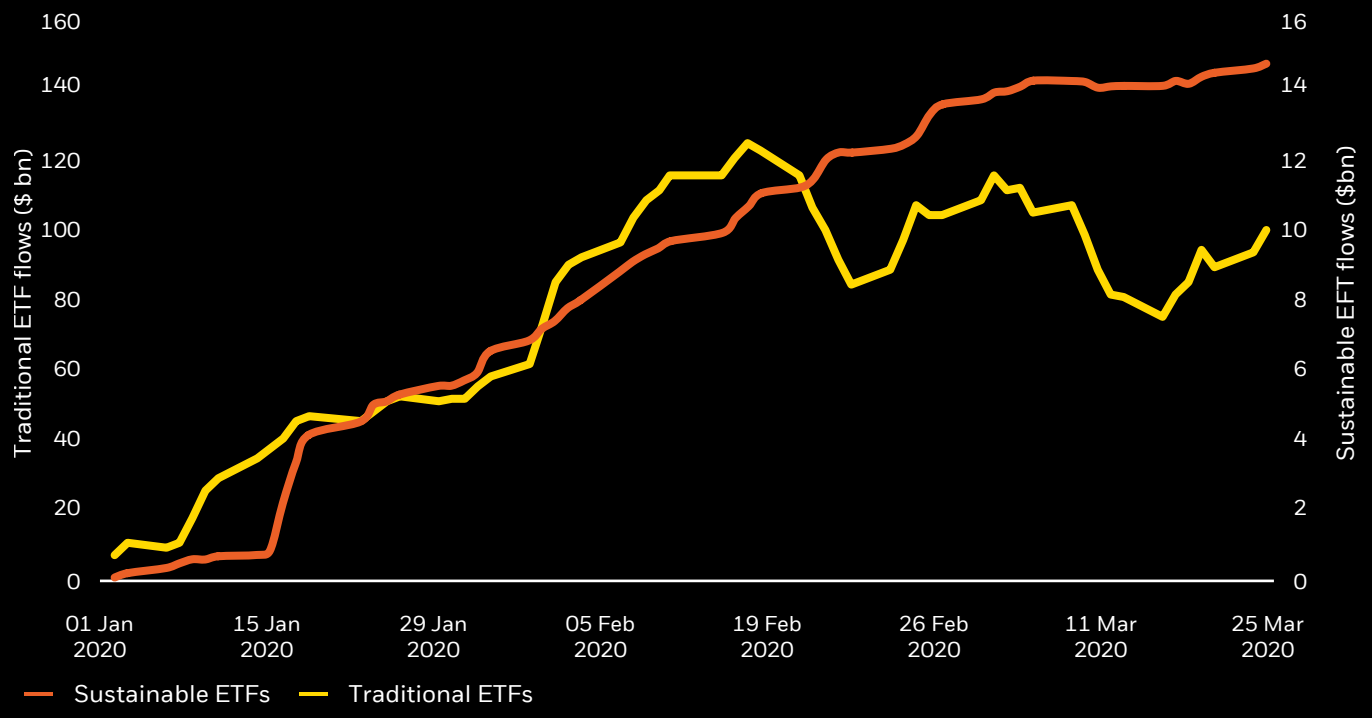
Although sustainable ETFs comprise just 1% of the total ETF industry,[22] they have had an outsized influence on overall industry inflows. Meanwhile, traditional money market funds experienced outflows of 10% for the month of March, while sustainable options benefited from inflows of 12%.[23]

20 BlackRock Investment Institute, "Sustainability: The tectonic shift transforming investing." February 2020.
21 The data for this analysis are captured from a number of sources by BlackRock, including provider websites, fund prospectuses, provider press releases, provider surveys, Bloomberg, the National Stock Exchange, Strategic Insight Simfund, and Wind. All amounts are reported in US dollars. Flows are derived using daily net asset values and shares outstanding using the most recent data we can capture at month-end. For products with cross-listings, we attribute net flows and assets to the primary listings. Data is as of March 31, 2020.
22 ibid.
23 Market Fund (MMF) data sourced from iMoneyNet, as of 4/30/2020. Selection of funds within the ESG category was determined by BlackRock, not iMoneyNet.

We believe flows into sustainable assets for the first quarter of 2020 is just a glimpse of the major reallocation to come.

The COVID-19 downturn has created an opportunity for investors to further rebalance portfolios into sustainability coming out of the crisis, given strong performance and opportunity to tax-loss harvest. We expect this gradual transition alone will carry a long-term return advantage for sustainable investors over years and decades – an added bonus to greater portfolio resiliency.

Figure 08: Global cumulative ETF flows, Q1 2020



Source: BlackRock, as of May 11, 2020. This chart depicts flows into different types of ETFs (sustainable and traditional) to illustrate the difference during Q1 2020. The analysis was limited to 1 January 2020 to 31 March 2020, and a different time period or market environment would likely result in a different outcome. This chart uses industry-accepted methodology for the labeling of sustainable vs. traditional ETFs but a different labeling framework could yield different results.

Authors

Philipp Hildebrand
Vice Chairman

Rich Kushel
Head of Multi-Asset Strategies and Global Fixed Income

Andre Bertolotti
Head of Global Sustainable Research and Data

Brian Deese
Global Head of Sustainable Investing

Carolyn Weinberg
Global Head of Product for iShares and Index Investments

Contributors

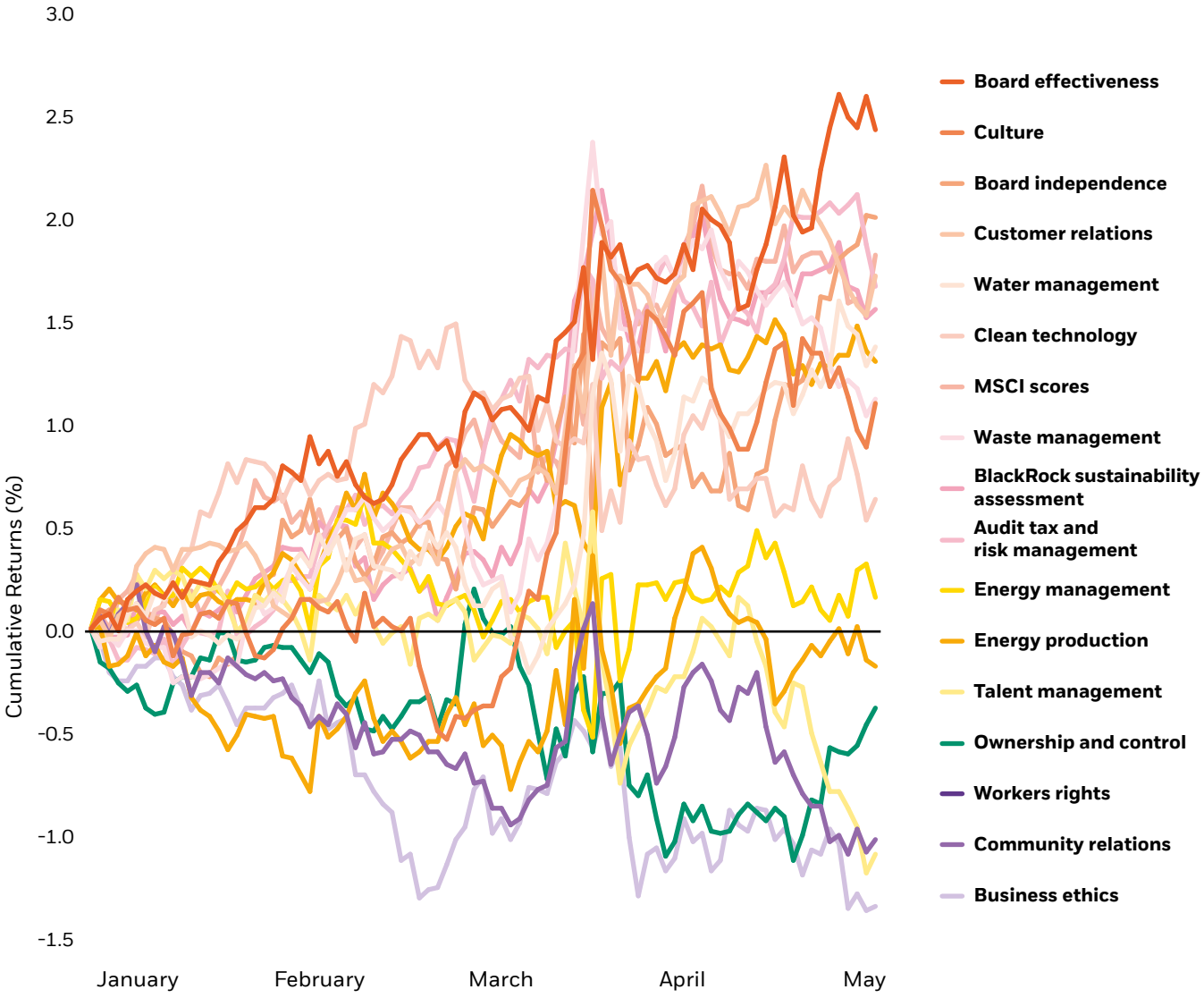
Debarshi Basu
Head of Quantitative Research, BlackRock Sustainable Investing

Jessica Huang
Head of Americas and APAC Platform Strategy and Innovation, BlackRock Sustainable Investing

Jonathan Posen
Director, Corporate Communications

Appendix A

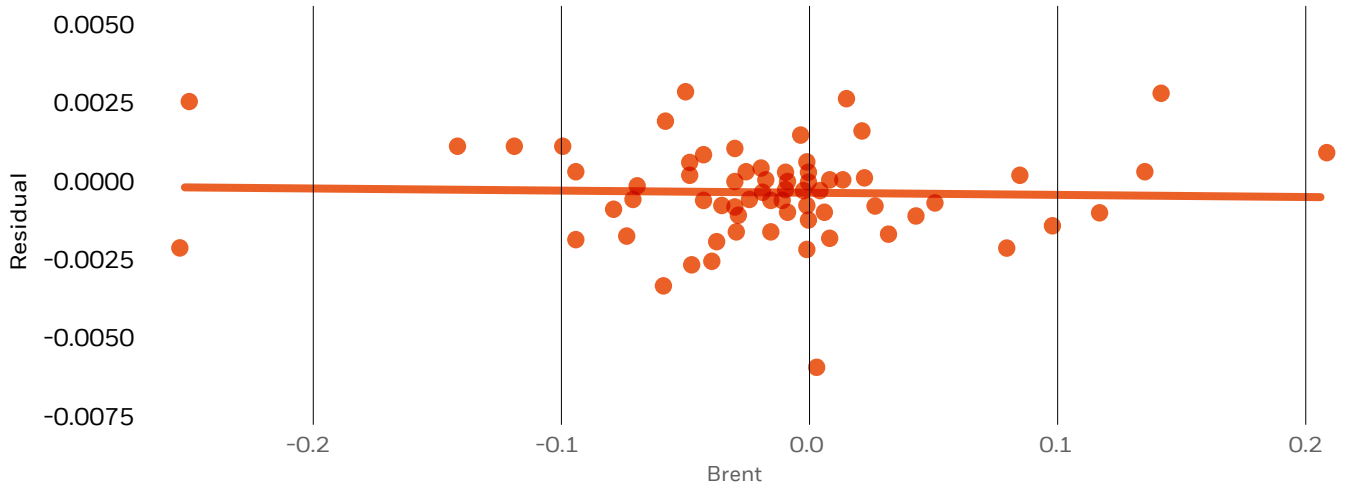
Performance of hypothetical portfolios by descriptor



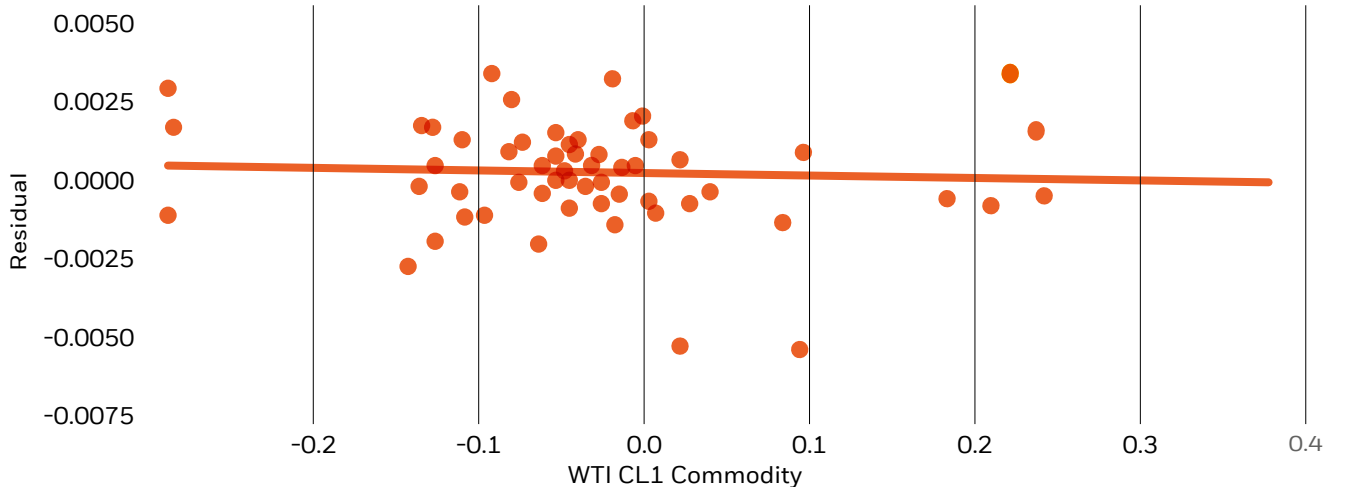
Source: BlackRock, as of May 11, 2020. The performance shown does not represent an actual portfolio, and as such, is not an investible product. This is a hypothetical portfolio which is constructed by taking the MSCI World as the parent universe, creating a portfolio that goes long securities with a highly positive sustainability scores according to our research framework score and goes short portfolios with highly negative scores. The hypothetical portfolio (and the model on which it is based) is formulated with benefit of hindsight using back tested index performance. There are frequently sharp differences between a hypothetical performance record and any actual record subsequently achieved. Therefore, hypothetical performance records invariably show positive rates of return. Another inherent limitation of these results is that the allocation decisions reflected in the performance record were not made under actual market conditions and, therefore, cannot completely account for the impact of certain risks, including financial risk, in actual portfolio management. Results may be dependent on the time period tested (1 January 2020 to 30 April 2020) and the universe of stocks selected (MSCI World). Testing period may be too short to infer robust statistical conclusions about future downturns in general. We tested broadly across MSCI World portfolio and arrived at a combined conclusion that may average in sectors or regions where the conclusions do not hold.

Appendix B
Oil price analysis

Brent price lacks correlation with performance of our portfolio



WTI price lacks correlation with performance of our portfolio



Source: BlackRock, as of May 11, 2020. The chart above compares the correlation of a hypothetical portfolio to crude oil prices (WTI and Brent) from 1 January 2020 to 30 April 2020. The performance shown does not represent an actual portfolio, and as such, is not an investible product. This is a hypothetical portfolio which is constructed by taking the MSCI World as the parent universe, creating a portfolio that goes long securities with a highly positive sustainability scores according to our research framework score and goes short portfolios with highly negative scores. The hypothetical portfolio (and the model on which it is based) is formulated with benefit of hindsight using back tested index performance. There are frequently sharp differences between a hypothetical performance record and any actual record subsequently achieved. Therefore, hypothetical performance records invariably show positive rates of return. Another inherent limitation of these results is that the allocation decisions reflected in the performance record were not made under actual market conditions and, therefore, cannot completely account for the impact of certain risks, including financial risk, in actual portfolio management. Results may be dependent on the time period tested (1 January. 2020 to 30 April 2020) and the universe of stocks selected (MSCI World). Testing period may be too short to infer robust statistical conclusions about future downturns in general. We tested broadly across MSCI World portfolio and arrived at a combined conclusion that may average in sectors or regions where the conclusions do not hold

Appendix C

Indices used for historical analysis

ESG Index	Non-ESG Index
MSCI EM SRI NR USD	MSCI EM NR USD
MSCI EM ESG Leaders NR USD	MSCI EM NR USD
MSCI EM ESG Focus NR USD	MSCI EM NR USD
MSCI EM SRI SEL RED FOSSIL FUEL NR USD	MSCI EM NR USD
MSCI EM Extended ESG Leaders NR USD	MSCI EM NR USD
MSCI EM EXTENDED ESG FOCUS NR USD	MSCI EM NR USD
MSCI EM IMI ESG Screened NR USD	MSCI EM IMI NR USD
MSCI USA ESG Leaders GR USD	MSCI USA GR USD
MSCI USA ESG Focus GR USD	MSCI USA GR USD
MSCI USA SRI SEL RED FOSSIL FUEL NR USD	MSCI USA NR USD
MSCI USA EXTENDED ESG FOCUS GR USD	MSCI USA GR USD
MSCI USA EXTENDED ESG SELECT GR USD	MSCI USA GR USD
MSCI USA ESG Screened NR USD	MSCI USA NR USD
MSCI KLD 400 Social GR USD	MSCI USA IMI GR USD
STOXX US ESG Impact TR USD	STOXX USA 900 TR USD
S&P 500 ESG TR USD	S&P 500 TR (1989)
FTSE4Good US TR USD	FTSE USA TR USD
MSCI EAFE SRI NR USD	MSCI EAFE NR USD
MSCI EAFE ESG-Leaders NR USD	MSCI EAFE NR USD
MSCI EAFE ESG Focus NR USD	MSCI EAFE NR USD
MSCI EAFE EXTENDED ESG FOCUS NR USD	MSCI EAFE NR USD
MSCI World SRI NR USD	MSCI World NR USD
MSCI World ESG Leaders NR USD	MSCI World NR USD
MSCI World ESG Focus NR USD	MSCI World NR USD
MSCI WLD SRI SEL RED FOSSIL FUEL NR USD	MSCI World NR USD
MSCI World ESG Screened NR USD	MSCI World NR USD
STOXX Global ESG Impact NR USD	STOXX Global 1800 NR USD
S&P Developed Large Mid Cap ESG TR USD	S&P Developed Large Mid Cap TR USD
FTSE4Good Developed TR USD	FTSE Developed TR USD
MSCI ACWI SRI NR USD	MSCI ACWI NR USD
MSCI ACWI ESG Leaders NR USD	MSCI ACWI NR USD
MSCI ACWI ESG FOCUS NR USD	MSCI ACWI NR USD

MKTGM0520U-1189262-24/28

Appendix D
Full list of descriptors

01 Board effectiveness

02 Waste management

03 Audit, tax, and risk management

04 Customer relations

05 Energy production

06 Culture

07 Board independence

08 Water management

09 Clean technology

10 Energy management

11 Workers' rights

12 Talent management

13 Community relations

14 Ownership and control

15 Business ethics

General disclosure: This material is intended for information purposes only, and does not constitute investment advice, a recommendation or an offer or solicitation to purchase or sell any securities to any person in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities laws of such jurisdiction. The opinions expressed are as of 18 May 2020 and are subject to change without notice. Reliance upon information in this material is at the sole discretion of the reader. Investing involves risks.

In the U.S., this material is intended for Institutional use only, not for public distribution.

In Canada, this material is intended for permitted clients only.

In EMEA, until 31 December 2020, issued by BlackRock Investment Management (UK) Limited, authorised and regulated by the Financial Conduct Authority. Registered office: 12 Throgmorton Avenue, London, EC2N 2DL. Tel: + 44 (0)20 7743 3000. Registered in England and Wales No. 2020394, has issued this document for access by Professional Clients only and no other person should rely upon the information contained within it. For your protection telephone calls are usually recorded. Please refer to the Financial Conduct Authority website for a list of authorised activities conducted by BlackRock. From 31 December 2020, in the event the United Kingdom and the European Union do not enter into an arrangement which permits United Kingdom firms to offer and provide financial services into the European Union, the issuer of this material is:(i) BlackRock Investment Management (UK) Limited for all outside of the European Union; and(ii) BlackRock (Netherlands) B.V. for in the European Union, BlackRock (Netherlands) B.V. is authorised and regulated by the Netherlands Authority for the Financial Markets. Registered office Amstelplein 1, 1096 HA, Amsterdam, Tel: 020 – 549 5200, Tel: 31-20-549-5200. Trade Register No. 17068311 For your protection telephone calls are usually recorded.

In Switzerland, this document is marketing material. This document shall be exclusively made available to, and directed at, qualified investors as defined in the Swiss Collective Investment Schemes Act of 23 June 2006, as amended.

For investors in Israel: BlackRock Investment Management (UK) Limited is not licensed under Israel's Regulation of Investment Advice, Investment Marketing and Portfolio Management Law, 5755-1995 (the "Advice Law"), nor does it carry insurance thereunder.

In South Africa, please be advised that BlackRock Investment Management (UK) Limited is an authorized financial services provider with the South African Financial Services Board, FSP No. 43288.

In the DIFC this material can be distributed in and from the Dubai International Financial Centre (DIFC) by BlackRock Advisors (UK) Limited — Dubai Branch which is regulated by the Dubai Financial Services Authority (DFSA). This material is only directed at 'Professional Clients' and no other person should rely upon the information contained within it.

In the Kingdom of Saudi Arabia this information is only directed to Exempt Persons, Authorized Persons or Investment Institutions, as defined in the relevant implementing regulations issued by the Capital Markets Authority (CMA).

In the United Arab Emirates this material is only intended for -natural Qualified Investor as defined by the Securities and Commodities Authority (SCA) Chairman Decision No. 3/R.M. of 2017 concerning Promoting and Introducing Regulations. Neither the DFSA or any other authority or regulator located in the GCC or MENA region has approved this information.

In Singapore, this is issued by BlackRock (Singapore) Limited (Co. registration no. 200010143N) for use only with institutional investors as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore. This advertisement or publication has not been reviewed by the Monetary Authority of Singapore.

In Hong Kong, this material is issued by BlackRock Asset Management North Asia Limited and has not been reviewed by the Securities and Futures Commission of Hong Kong. This material is for distribution to "Professional Investors" (as defined in the Securities and Futures Ordinance (Cap.571 of the laws of Hong Kong) and any rules made under that ordinance.) and should not be relied upon by any other persons or redistributed to retail clients in Hong Kong.

In South Korea, this material is for distribution to the Qualified Professional Investors (as defined in the Financial Investment Services and Capital Market Act and its sub-regulations).

In Taiwan, independently operated by BlackRock Investment Management (Taiwan) Limited. Address: 28F., No. 100, Songren Rd., Xinyi Dist., Taipei City 110, Taiwan. Tel: (02)23261600.

In Japan, this is issued by BlackRock Japan. Co., Ltd. (Financial Instruments Business Operator: The Kanto Regional Financial Bureau. License No375, Association Memberships: Japan Investment Advisers Association, the Investment Trusts Association, Japan, Japan Securities Dealers Association, Type II Financial Instruments Firms Association.) For Professional Investors only (Professional Investor is defined in Financial Instruments and Exchange Act).

In Australia, issued by BlackRock Investment Management (Australia) Limited ABN 13 006 165 975 AFSL 230 523 (BIMAL) for the exclusive use of the recipient, who warrants by receipt of this material that they are a wholesale client as defined under the Corporations Act 2001 (Cth). This material is intended for wholesale clients only and must not be relied or acted upon by retail clients. The material provides general information only and does not take into account your individual objectives, financial situation, needs or circumstances.

In China, this material may not be distributed to individuals resident in the People's Republic of China ("PRC", for such purposes, excluding Hong Kong, Macau and Taiwan) or entities registered in the PRC unless such parties have received all the required PRC government approvals to participate in any investment or receive any investment advisory or investment management services.

For Other APAC Countries, this material is issued for Institutional Investors only (or professional/sophisticated/qualified investors, as such term may apply in local jurisdictions) and does not constitute investment advice or an offer or solicitation to purchase or sell in any securities, BlackRock funds or any investment strategy nor shall any securities be offered or sold to any person in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities laws of such jurisdiction.

In Latin America, for institutional investors and financial intermediaries only (not for public distribution). No securities regulator within Latin America has confirmed the accuracy of any information contained herein. The provision of investment management and investment advisory services is a regulated activity in Mexico thus is subject to strict rules. For more information on the Investment Advisory Services offered by BlackRock Mexico please refer to the Investment Services Guide available at www.blackrock.com/mx

338950-EN-MAY20

BlackRock.