WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

White Paper

Embracing the New Age of Materiality

Harnessing the Pace of Change in ESG

In collaboration with Boston Consulting Group

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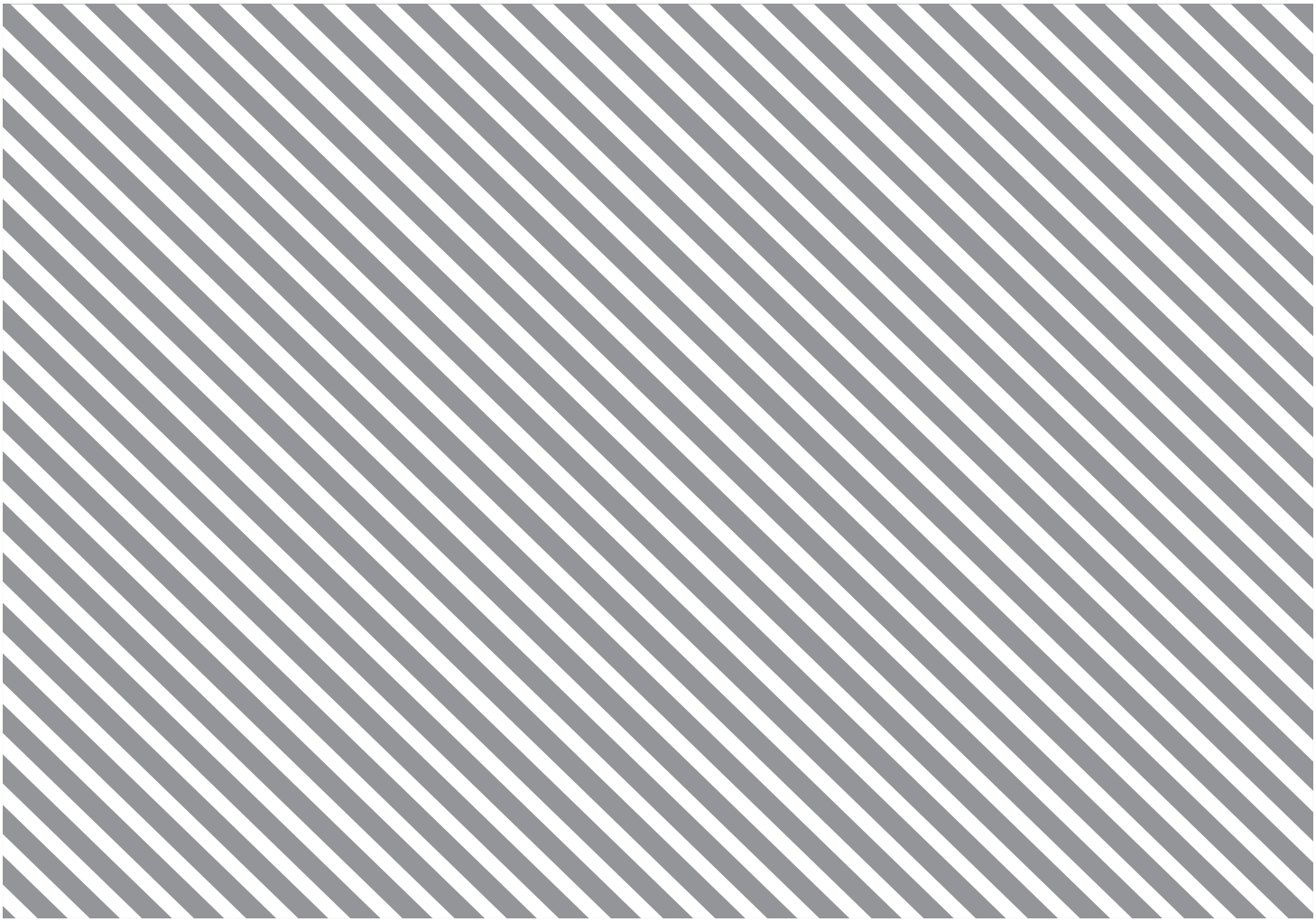

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Foreword

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At the close of 2019, the scene was set for a new era of *stakeholder capitalism* through the reinvigorated "2020 Davos Manifesto". Nearly five decades after the original was released in 1973, articulating that the purpose of business is to serve more than shareholders alone, the updated manifesto expands on this idea by stating, "A company is more than an economic unit generating wealth … Performance must be measured not only on the return to shareholders, but also on how it achieves its environmental, social and good governance objectives."

At the 50th World Economic Forum Annual Meeting in Davos-Klosters in January 2020, just one month later, there was a notable surge in the discourse around both the widespread management of environmental, social and governance (ESG) issues and in the changing nature of the *financial materiality* of these issues. This signalled a fundamental change in the way investors' decision-making processes and companies' business strategy and operations treat and even define "materiality". Much of this change has been brought on by the already tangible effects of the Fourth Industrial Revolution on people and the planet as well as by the escalation in calls to action from global decision-makers.

The January launch of a proposal for a set of universal ESG disclosures by the Forum's International Business Council was a practical step in implementing the calls to action to create a more transparent and comparable approach for companies to demonstrate their long-term value creation today. Yet this milestone also raises the question for investors of anticipating and acting on the dynamic materiality of ESG beyond just today. Investors are in fact influencers of materiality and, in a world of increasingly consolidated capital and ESG awareness, the battle of the future is not taking place on "values" but rather on "value".

In September 2019, we began a process of building an effective ecosystem for ESG aimed at advancing the state of ESG reporting. As a next chapter, bolstered by the current crescendo in ESG awareness, this paper explores the drivers of the dynamic materiality of ESG issues in a new era of corporate capitalism. Quite practically, this paper offers a framework to better understand how financially immaterial issues become material to business over time and provides a set of questions to guide investors and companies on how to better anticipate emerging issues.

Looking ahead, we can only expect that the rise in transparency, greater stakeholder activism and increased shareholders emphasis on ESG issues will intensify.

We are grateful for the support and guidance of the many Forum Members who dedicated their time, expertise and insight to this work, and in particular to Boston Consulting Group for their continued support and for taking a leading role in bringing this work to light.

Executive summary

In greater numbers and at greater speed, environmental, social and governance (ESG) issues are becoming financially material. Thirty years ago, when climate change was established as a scientific fact, most investors did not consider it as a substantial investment risk. Today, in light of mounting evidence, activism and regulation, investors are including climate considerations in their investment decision-making. For example, a group of investors managing $118 trillion in assets now expects companies to provide disclosures in accordance with the Task Force on Climate-related Financial Disclosures (TCFD).[1] While getting to this point took decades, the pace of change has accelerated. This is equally true for social issues, which almost 50% of investors believe will have a significant impact on share prices within the next 24 months.[2]

Investors are increasingly developing cutting-edge tools and capabilities to enable them to create sustainable investing strategies, spurred by the growing risks and opportunities that sustainability trends present to companies' long-term value. These capabilities include innovative ESG scoring models, more strategic approaches to stewardship and deeper integration of ESG considerations into portfolio construction. One area in which investors have begun initial explorations is anticipating how issues might become financially material either across an entire industry, or for a specific company. What is financially immaterial to a company or industry today can become material tomorrow, a process called "dynamic materiality". This paper argues that, in the coming decade, identifying the issues that are not material today that could become so tomorrow will be a capability investors cannot do without.

To win in the coming decade, investors and companies must equip themselves with forward-looking and proactive approaches to materiality. This paper offers a framework that provides investors with guidance on the signals to look for to better identify dynamic ESG issues and to incorporate them into the process of portfolio construction, security selection and stewardship. It provides examples of the kinds of signals investors need to detect and the analyses they should conduct. It also includes a set of questions that will help guide both investors and companies as they work to build their capability in these areas.

1. Developing the capability to anticipate future material issues

Investors are building a range of capabilities to enable them to pursue sustainable investing strategies with greater sophistication. Examples include building their own views of which environmental, social and governance (ESG) topics are material in the sectors where they invest, rather than relying on third party views; shifting ownership of the analysis process from generally siloed ESG teams to portfolio managers and portfolio construction teams (and deepening the level of that analysis); scrutinizing issuers' broader purpose and sustainability strategies, as opposed to relying on standard disclosures; and engaging more meaningfully with management teams on sustainability issues.

All this is encouraging. More recently, early exploration of another capability has emerged: more accurately assessing which environmental and social issues will become material over time and integrating these forward-looking perspectives into investment decisions. This paper presents a framework that can help investors to further build this crucial capability.

2. Why looking ahead matters

1. In an era of hyper-transparency, it is increasingly important to focus on disclosure. As the Fourth Industrial Revolution enables unprecedented transparency, pressure to disclose is mounting. For example, in January 2020, Larry Fink, Chairman and Chief Executive Officer, BlackRock, USA, wrote in his annual letter to CEOs that BlackRock would be expecting disclosures in line with the guidelines set by the Sustainability Accounting Standards Board[3] (SASB) and the Task Force on Climate-related Financial Disclosures (TCFD). While work is under way to consolidate and streamline the demands placed on companies (e.g. the call to action by the World Economic Forum's International Business Council), this does not lessen the amount of data companies are being asked to disclose. In fact, these demands could intensify as technology advances provide investors and others with large volumes of data about companies' operations and impact. An often-cited example is the ability of satellite imaging to provide asset-level carbon emissions data. With access to richer information about any issuer's sustainability performance, investors need to know what to factor into investment decisions – that is, ESG issues that are material today and those that are likely to become material in the future.

2. The rate at which issues that are currently immaterial become material is accelerating. As observed in recent works,[4] the combination of transparency and rising stakeholder influence is, in part, driving this acceleration. Stakeholders, such a non-governmental organizations (NGOs), activists and civil society groups, are now much better equipped to have an impact on the performance of a business, often before most investors have become aware of this. In a hyperconnected world, one in which information can be disseminated widely and immediately, movements such as #MeToo can emerge and achieve scale rapidly, creating legal, branding, recruiting, retention and other challenges for any company whose policies against harassment and discrimination are inadequate. The ability to anticipate stakeholder reactions to emerging sustainability issues and how they could affect a business and its performance is therefore critical.

> **We cannot wait for corporate reporting to become perfect; we need to become more forward-looking now and push for better corporate reporting at the same time.**

Brian Deese, Global Head, Sustainable Investing, BlackRock, USA

3. Value-creation plans must optimize performance against current and future material ESG issues. Many of today's business strategies and value-creation plans include initiatives aimed at improving performance on sustainability issues that are currently considered material. This is an important development and signals growing recognition of the contribution of strong sustainability performance to business value. The next stage in this evolution will be the introduction of initiatives that aim to improve performance on ESG issues that are likely to be material for a company in the future. Businesses that do this will gain a competitive advantage and investors that select companies taking this approach – or that encourage their management to do so – will benefit.

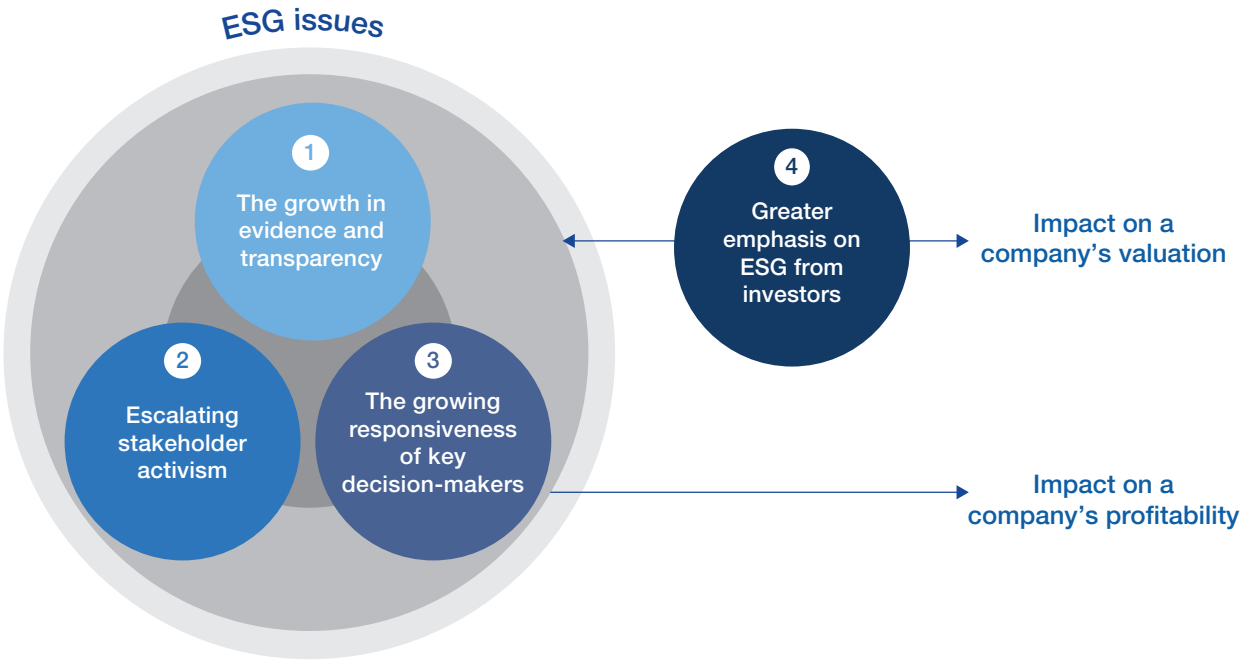
> **For businesses to thrive in the 2020s, they will need to understand the forces that will shape the next 10 years and use them to their advantage. There's no doubt that sustainability and societal impact issues will be a leading force for driving value creation.**

Rich Lesser, Global Chief Executive Officer, BCG, USA

3. Materiality as a dynamic process: A framework for action

The framework outlined in Figure 1 provides investors with guidance on the signals to look for to better identify and manage dynamic ESG issues and to incorporate them into the process of portfolio construction, security selection and stewardship. The framework builds on the depth of existing research in this field, and comprises four key drivers – each of which is gaining momentum – of the growing dynamism in the materiality of ESG issues.[5]

Figure 1: Framework on how ESG issues become financially material over time



Source: World Economic Forum and BCG

3.1 The growth in evidence and transparency

A key first step in anticipating the future materiality is to closely monitor new evidence on the environmental and social impacts of corporate practices. Three developments are driving the dynamism of materiality:

- **Robust and compelling evidence is emerging on the impact of environmental and social externalities.** Global social movements rejecting single-use plastics, for example, have been influenced by evidence from scientists and international institutions on the volume of the world's plastic waste and its negative impacts on oceans. Similarly, the growing number of scientific publications highlighting the harmful effects of air pollution in cities has prompted public and political debates on banning combustion vehicles. The investors consulted for this paper said they were more frequently using signals, such as a rise in scientific research activities or grants for research, to anticipate where evidence will emerge that could affect asset values in key sectors or markets.
- **The breadth and depth of data are expanding.** The Fourth Industrial Revolution – the rise of technologies such as artificial intelligence (AI), blockchain and virtual reality – is enabling the production of vast amounts of new information, creating inescapable levels of transparency. Blockchain, for example, enables full traceability – from source to store – and is already being used to verify products such as sustainable timber and conflict-free diamonds. Investors are now using AI to identify inaccurate reporting. Satellite technology is generating images that are being used to monitor environmental changes.[6] For example, Robeco, an asset manager, plans to pilot satellite imagery that will enable the real-time monitoring of palm plantations to verify companies' commitments to zero deforestation.[7] Armed with the transparency these tools provide, investors can rely more heavily on their own insights, making it increasingly difficult for companies to shape the narrative about what is material or to hide their externalities from the markets.

– **The dissemination of information has reached unparalleled speed and scale.** A recent petition addressed to a global company following the wildfires in Australia, reaching approximately 160,000 signatures in a week, illustrates the speed at which events can translate into the increased materiality of environmental trends, which can have an impact on a company's value. The #DeleteUber campaign resulted in more than 200,000 users deleting their accounts. This had a material impact on the company; notably, the event was referenced as a risk factor in its S-1 filing in advance of its initial public offering.[8]

Of the investors consulted, several are already tracking incidence-based information via social platforms, the media and corporate reports for negative environmental or social headlines. Furthermore, additional signals such as mounting scientific evidence of the impact of environmental or social challenges will strengthen investors' ability to detect indications that this first stage of materiality has been triggered.

> **If you feel uncomfortable about your production process or supply chain, there's probably a reason why. In a time of radical transparency, look at your products, practices and your value chain.**
>
> **Therese Lennehag**, Head, Sustainability, EQT Partners, Sweden

Matarin Capital: Incorporating a social crisis into investment and portfolio construction decisions

Citing evidence of the negative macroeconomic impacts of the opioid epidemic in the United States, Matarin Capital identified the opioid epidemic as a financial risk for investors with the potential to cause stock prices to spiral downward. Matarin Capital developed a proprietary approach to incorporate this future material risk into its investment process, recognizing that traditional financial risk models may not capture those risks. Blending qualitative and quantitative analyses (i.e. opioid news events, outstanding lawsuits, business exposure to the opioid supply chain), analysts at Matarin Capital identified a list of companies bearing significant risk. They then designed a proprietary risk constraint on its portfolio exposure that set a pre-specified and constrained total limit for exposure to the opioid risk factor. With its forward-looking approach, Matarin Capital made its investment process responsive to the emerging material risks and complemented its traditional financial risk models.

3.2 Escalating stakeholder activism

Evidence of a company's positive or negative externalities does not automatically make the underlying issue financially material. For example, evidence of the impact of carbon emissions on climate change or the negative health effects of sugar has existed for several decades. The second stage in the process, when evidence triggers materiality – sometimes in a matter of days – comes when stakeholders (including, sometimes, shareholders) apply evidence in a way that causes a significant change in societal expectations. In recent years, the ability of stakeholders to use evidence to affect business value has been growing. Three key developments are behind this increase:

– **NGOs and activists are more frequently focusing their efforts on investors**. The "Insure Our Future" campaign, representing environmental and consumer rights organizations, is pressuring the insurance industry to stop insuring coal and tar sands projects. The group creates public ratings for insurers and has called out laggards.[9] These "financially savvy eco-warriors"[10] are also providing investors with targeted information. The Global Coal Exit List, for example, was created by an NGO to provide a practical divestment tool for the finance sector.

– **Advocacy groups and activists are deploying highly professional campaigns and media strategies.** Climate activists, with more than 300 organizations involved, are planning an unprecedented number of events ahead of the 2020 US presidential election. Capitalizing on the 6 million people supporting worldwide climate strikes in September 2019, climate activists are now targeting voters with widespread voter mobilization campaigns. Following the UN climate change conference in Madrid in 2019, more than 200 climate activists organized a response called "Polluters Out", which within 20 days had established a website, a multilingual launch video, a press release in seven languages and a list of demands. The group is active in more than 40 countries and uses online tools such as Slack, Zoom and Google Drive to organize collective action and involve other actors, such as climate scientists.[11] Investors need to pay more attention to these efforts as they could, in the long term, lead to regulatory shifts, which would have sector-level effects on asset values.

– **Large funders and the general public are giving greater support to environmental advocacy campaigns.** For example, the European Climate Foundation is financing a number of environmental NGOs and initiatives, and amplifying the financial support of foundations. A recent study concluded that "environmental NGOs have never been better supported, and their concerns have never been more urgent and compelling".[12] In the past two years, new activist networks such as Extinction Rebellion have emerged, driven by growing frustration at the inadequacy of policy responses.

Several investors consulted mentioned that they regularly meet with environmental NGOs to gain an in-depth understanding of their agendas and concerns. To better anticipate what issues may become material in the future, investors can analyse the different investors and industries that advocacy groups are targeting, how successfully they are deploying media strategies and how funding flows towards different environmental and social causes are developing as a result.

3.3 The growing responsiveness of key decision-makers

Over the past three years, the developments outlined in the previous section have been having a more powerful influence on triggering the third stage in the process: influencing key decision-makers, who are able – whether through the way they shape legislation or the purchasing choices they make – to directly influence a company's profitability. Examining regulatory developments, consumer behaviour and employee expectations reveals a noticeable shift in their responsiveness:

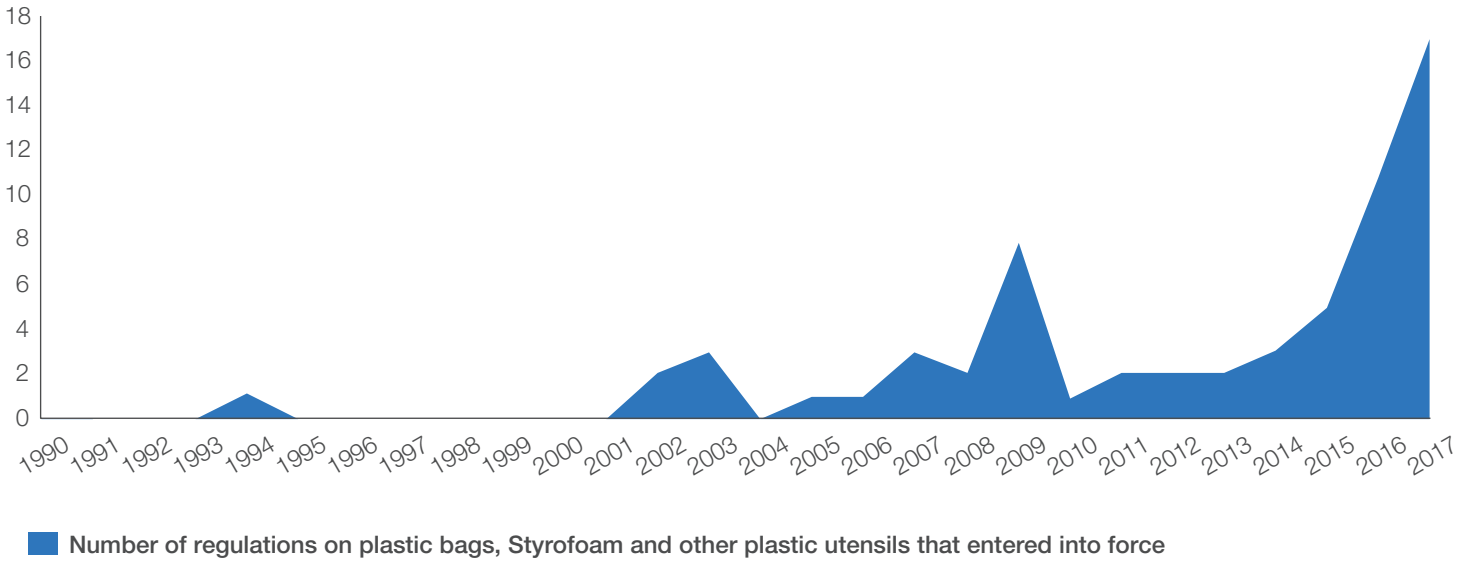
– **Policy-makers are responding to mounting stakeholder pressure and evidence.** In January 2020, the German government decided to gradually eliminate coal power by 2038. This is a significant political win for climate activists.[13] Another example is how the EU and governments in the United Kingdom, the Netherlands and Scotland are setting plastic waste reduction targets (Figure 2). Following public campaigns last year, the EU responded with stricter emission regulations for the car industry. And China, which is facing growing public pressure to tackle air pollution, developed a three-year action plan in 2018, including clean air and emission targets to achieve by 2020.

BlackRock: Gaining forward-looking insights by evaluating a company's preparedness to perform well in the future

To gain forward-looking insights into a company's performance in a future low-carbon economy, BlackRock has developed a low-carbon transition framework. The framework seeks to go beyond traditional ESG scores by evaluating companies' preparedness to minimize risks and maximize opportunities associated with a low-carbon economic transition. BlackRock has identified five "pillars" it believes to be particularly material in the future – such as energy production or carbon-efficient technology. It evaluates individual companies across these pillars using a wide range of external and proprietary ESG data. Taking the industry-specific context into account, BlackRock then calculates a transition score per company. Comparing its own assessment with ESG scores provided by third parties, BlackRock has found a low correlation and considers its proprietary framework to capture forward-looking and differentiating insights.

Figure 2: Rise of new regulations on single-use plastics, 1990-2017

Estimated number of new regulations on single-use plastics entering into force at the national level worldwide



Source: UNEP, 2018, p. 24

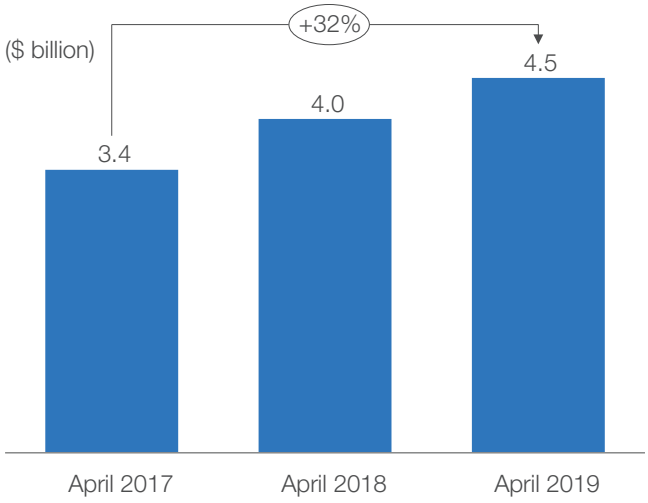
– **Consumer attitudes are shifting**. Consumer demand for sustainable products and services is reaching new peaks. A recent analysis by Boston Consulting Group shows that 72% of European consumers prefer to buy products with environmentally friendly packaging. Globally, 46% of consumers are willing to forgo preferred brand names in favour of eco-friendly products. Some 38% of global consumers also indicate the willingness to pay a premium for eco-friendly and sustainable materials.[14] Business leaders consulted from the food and agriculture sector confirmed that this shift in consumer demand is having an impact on the kinds of innovations they are making in their offerings. A recent study of consumer purchasing of consumer packaged goods (CPG) between 2013 and 2018 found that sustainable products were responsible for 50% of the market growth during that period[15] and accounted for a 16.6% dollar share of the market.

> **Consumers are increasingly using their purchasing decisions to send companies a message about the imperative to create positive total societal impact. ESG issues are the C-suite issues of today and tomorrow.**
>
> **Wendy Woods**, Managing Director and Senior Partner; Vice Chairman, Social Impact, BCG

The increase in US plant-based food sales and the flight shaming movement in Sweden (Figure 3) are seen as recent indicators of a strong shift towards eco-friendly consumer behaviour in developed economies.

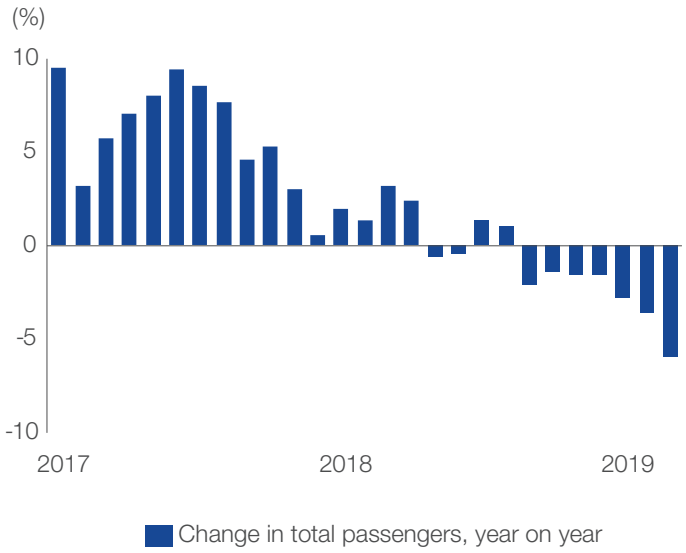
Figure 3: Eco-friendly behaviours: A driving force behind consumer trends in more developed economies

32% increase in US plant-based food sales since 2017*



* 52 weeks ending April 2019.

Airplane passengers declining month-on-month in Sweden



Sources: Plant Based Foods Association, 2019; *The Economist*, 2019

– **Talent is demanding more from employers.** Employees are increasingly voting with their feet by choosing to work for employers and in sectors that have sustainable business models. A recent Boston Consulting Group analysis shows that 67% of millennials expect employers to have purpose and want their jobs to have societal impact. With millennials and Generation Z employees making up 59% of the workforce in 2020, business needs to adapt to their demands.[16] The mining industry's ability to attract talent is diminishing, for example, because of its tarnished sustainability reputation – something that business leaders in the industry consider a growing business risk.[17] The past 24 months have also seen a sharp rise in employee activism, with employees publicly criticizing their employers on climate policies, forming advocacy groups or submitting shareholder proposals.[18]

> **Research shows that 67% of millennials expect employers to have purpose and want their jobs to have societal impact.**

3.4 A greater emphasis on ESG issues from investors

Investors can play a pivotal role in the process of dynamic materiality. If there is sufficient alignment among investors on how to evaluate the performance of companies on ESG issues (and that information is used to inform portfolio construction and security selection), investors can cause certain ESG issues to become material. More broadly, a sufficiently influential investor who places enough public emphasis on a certain issue can cause management teams to shift their attention to that issue. Both trends are playing out.

- **There are signs of convergence on how ESG performance is measured.** The general lack of correlation among rating agencies' ESG scores is well documented.[19] And given the continued reliance on such scores by many investors, capital is hindered in its ability to collectively influence trading multiples of laggards and leaders. Recently, however, some signs of convergence in scores have appeared, notably on the environmental dimension.[20] Such convergence among investors gives corporate management teams more clarity on how investors will evaluate their current sustainability performance.

- **Some investors are using their influence to emphasize certain ESG issues more openly.** In the US alone, the percentage of shareholder resolutions that included environmental and social issues grew from 33% during the 2006-2010 time period to 50% in 2017.[21] Asset owners are also placing greater emphasis on investor stewardship efforts. Some large asset owners have recently awarded passive managers higher fees for stewardship activities.[22] Leading asset managers consulted confirmed that they are significantly expanding their stewardship capabilities. A few more activist investors are also making sustainability a more important part of their agendas. For example, Trian Partners, a New York based asset manager, recently encouraged DuPont and Danone to promote workplace diversity and to reduce emissions and waste.

> **Some ESG issues today are not perceived as material enough. We put them on the table proactively to make them more material, as we know they will be long term.**
>
> **Therese Lennehag**, Head, Sustainability, EQT Partners, Sweden

These developments are welcome, particularly as they mean investors are starting to give management teams better guidance on how current ESG performance is evaluated. That said, as capital becomes concentrated in fewer and fewer hands, the ability of investors themselves to influence the materiality of ESG issues (and some of the more public tactics used) will have to be watched closely.

The Children's Investment Fund (TCI): Launching a public campaign on corporate carbon disclosures

The Children's Investment Fund, a long-term activist hedge fund, launched a public campaign to pressure all companies in its portfolio to disclose their carbon emissions, reduction targets and transition plans. In its public warning letters, which are available on the investor's website, TCI lists seven disclosure recommendations and pledges to vote against directors of those companies that do not comply with these requests. TCI seeks to influence change by remaining a holder of shares and by creating pressure via voting and "public embarrassment". Two years ago, the activist investor JANA Partners applied similar tactics – a public campaign and letter – to pressure Apple to develop solutions for children's excessive use of its products. Here, the investor addressed a social issue that could potentially impact business in the future but was not specifically related to the company's operations or disclosures.

4. Implications for companies and investors

What becomes financially material is changing faster than ever. This has clear implications for both investors and companies. Investors must build their ability to anticipate future material issues and assess corporate preparedness to address social and environmental challenges. Companies need to develop stronger processes for monitoring and proactively managing emerging issues. To be ready for this new age of materiality, investors and companies should ask themselves the following questions:

Five questions for investors in the new age of materiality:

1. Have we developed convictions about how we expect the financial materiality of ESG issues to evolve by sector or industry? Do we continuously update these based on new information?

2. Are these convictions informed by data that goes beyond the reporting and the ESG scores of companies, such as conversations with management or alternative sources of data?

3. Do we use our convictions about the outlook on the financial materiality of ESG issues to inform our security selection and portfolio construction decisions?

4. Are we, through our stewardship activities, engaging with management teams on their strategies for improving performance against the issues that we expect to become financially material in the future?

5. Are we contributing to broader efforts to understand dynamic materiality through the transparent reporting and disclosures we make about our portfolios?

> **There will be significant transition risks for certain industries that investors need to better understand. Moreover, ESG metrics are not particularly useful in measuring these future risks, given that they are too static and focused on today […] hence, developing more forward-looking measurements of climate risks and opportunities is essential.**
>
> **Mark Carney**, Governor of the Bank of England

Five questions for companies in the new age of materiality:

1. Do we have a view on which ESG issues are, and will become, material to our business?

2. Is our view informed by a sufficiently wide range of data and do we continuously update our views based on new information and environmental and social developments?

3. Do our views on current and future material issues inform our strategy-setting process at the enterprise and business unit levels? Accordingly, are we being innovative in the way we develop our products and services?

4. Are we successfully implementing the changes needed to perform well against future material issues? And is the speed and impact of our execution sufficient?

5. Are we using our forward-looking view and strategy regarding future material ESG issues to engage with investors and other stakeholders (i.e. in corporate reporting)?

> **We are looking for companies with a clear purpose position and a forward-looking plan. A company's future vision on its transition is key and needs to be integrated in its investor proposition and used in its dialogue with stakeholders.**
>
> **Henry McLoughlin**, Director, Corporate Development, Capricorn Investment Group, USA

Figure 4: 5 questions for investors and companies in a new age of materiality

Investors

1. Have we developed convictions about how we expect the financial materiality of ESG issues to evolve by sector or industry?
2. Are these informed by data that goes beyond the reporting and the ESG scores of companies?
3. Do we use our convictions to inform our security selection and portfolio construction decisions?
4. Are we engaging with management teams on their strategies for performing well against future issues?
5. Are we contributing to broader efforts to understand dynamic materiality through reporting and disclosure?

Companies

1. Do we have a view on which ESG issues are, and will become, material to our business?
2. Is our view informed by a sufficiently wide range of data and do we continuously update those views?
3. Do our views on current and future material issues inform our strategy-setting and innovation processes?
4. Are we successfully implementing the changes needed to perform well against future material issues?
5. Are we using our forward-looking view to engage with investors and other stakeholders?

5. Looking ahead: An action plan for investors

Which ESG issues become material has never been more dynamic. As the broader ESG landscape evolves, so too will how investors think about dynamic materiality. Given the expectation of continued action by regulators and other stakeholders on environmental and social issues, every industry will, to varying degrees, undergo sustainability-related transitions. As such, dynamic materiality will become increasingly important, and innovation in how investors and management teams approach this topic will be warranted and welcome.

The World Economic Forum will continue to engage on this important topic as it relates to its broader goal of supporting industry transitions to a more sustainable future. As this collective conversation continues, the Forum welcomes further engagement from the community in identifying and leading opportunities for shared action, and in advancing this important dialogue on the materiality of ESG.

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Workshops

- Building an effective ecosystem for ESG: China's outlook, July 2019, People's Republic of China
- Building an effective ecosystem for ESG: Japan's outlook, July 2019, Japan
- ESG through the lens of financial materiality: An investor's perspective, September 2019, France
- Anticipating the materiality of ESG issues, Sustainable Development Impact Summit, September 2019, USA
- The future materiality of ESG in the mining & metals industry, October 2019, UK
- Identifying value through non-financial metrics in the agriculture, food and beverage sector, December 2019, USA
- The future financial materiality of ESG issues, World Economic Forum Annual Meeting 2020, January 2020, Davos-Klosters

Endnotes

1. The TCFD develops voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to stakeholders.
2. See PRI and CFA Institute, 2018.
3. The Sustainability Accounting Standards Board (SASB) develops sustainability accounting industry standards to help businesses communicate financially material information to investors.
4. See, for example, Eccles and Klimenko, 2019; Rogers and Serafeim, 2019; Kuh, Shepley and Bala, 2020.
5. A recent analysis of historical data on sustainability issues by data provider Truvalue Labs indicates that ESG factors material to companies and industries vary over time (see the Reference section).
6. The company GHGSat, for example, pursues remote sensing of greenhouse gas (GHG), air quality gas and other trace gas emissions from any industrial facility in the world and provides GHG emissions monitoring data.
7. See Rust, 2019.
8. See Leskin, 2019.
9. The "Insure Our Future" campaign is demanding that US insurers end insurance for the fossil fuel sector. See "Insure our future, not climate change" at https://www.insureourfuture.us.
10. This term was applied by the *Financial Times* in its "Moral Money" edition of 15 January 2020.
11. See van der Voo, 2020.
12. See Berny and Rootes, 2018.
13. See Buck and Chazan, 2019.
14. Willingness-to-pay survey of 1,000 global consumers on sustainability products using data from IRI, Nielsen, SPINS; analysis by Boston Consulting Group.
15. See Whelan, 2019.
16. See Bailey et al., 2019.
17. See EY, 2018.
18. See BBC News, 2020.
19. See Berg, Koelbel and Rigobon, 2019.
20. Ibid.
21. See Eccles and Klimenko, 2019.
22. See Riding, 2019.

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