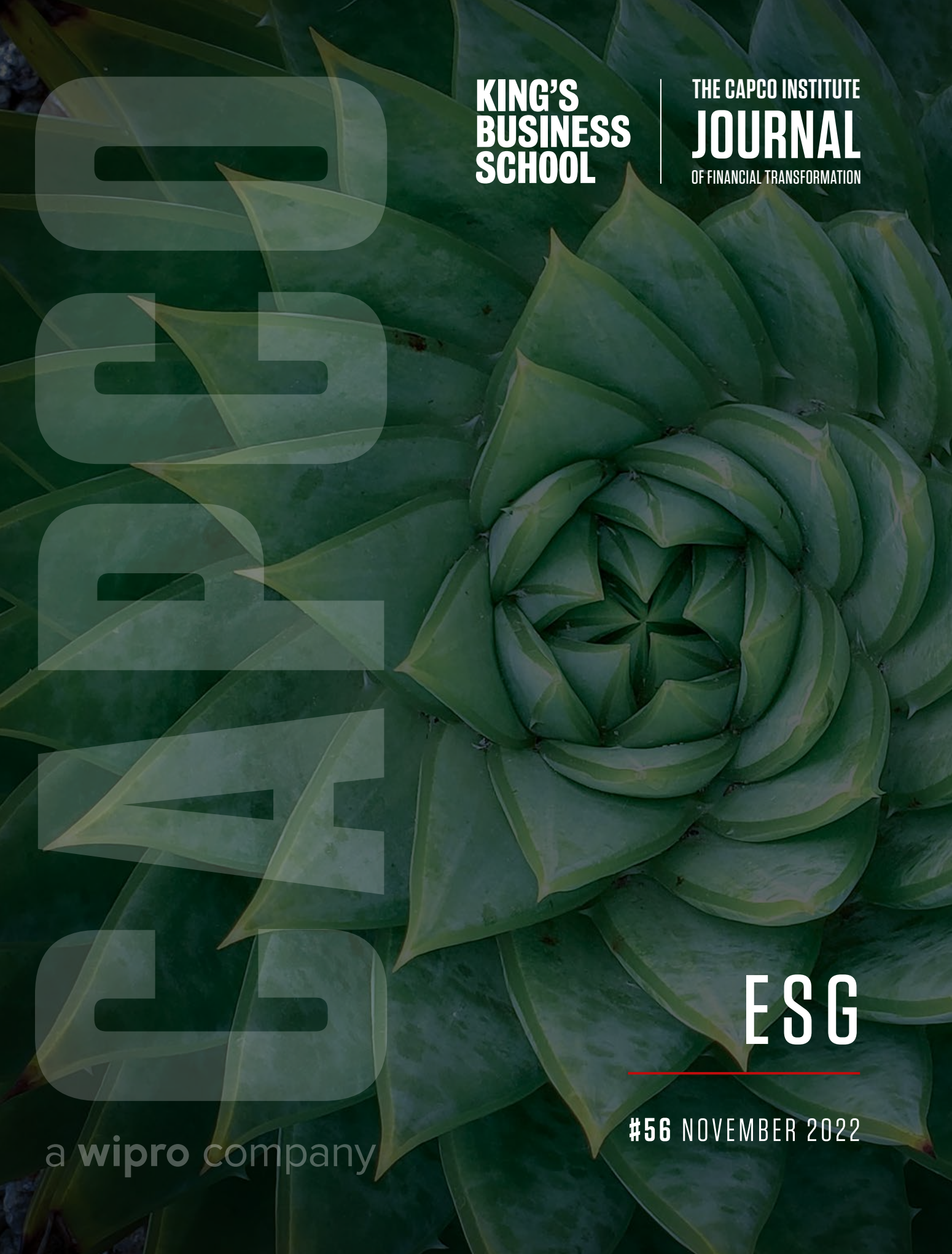

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DEAR READER,

Welcome to edition 56 of the Capco Institute Journal of Financial Transformation, produced in partnership with King's Business School and dedicated to the theme of ESG – environmental, social and governance.

We all recognize that transformation towards a green economic system via sustainable finance is needed, welcome and inevitable. Our clients have a crucial role to play here. Acknowledging the scope and complexity of the evolving ESG landscape, we are perfectly positioned to prepare them for the ESG era.

With climate change accelerating and generating physical events on an unprecedented scale, governments and societies are considering measures to mitigate carbon emissions via net zero initiatives. The focus is firmly on greater sustainability and more equitable policies in response to shifting public attitudes. ESG considerations are reshaping investment risks on the one hand, and opening the way for green financing and sustainable technologies and innovations on the other.

This edition of the Journal examines all three pillars – environmental, social, and governance, highlighting efforts by regulators and practitioners to create a unified approach.

Moving forward, compliance with emerging ESG standards will be a critical differentiator for long-term business success. Data will also play a critical role in delivering the transparency and insights required to validate the ESG credentials of businesses, and investment strategies. Advances in areas such as machine learning, artificial intelligence and cloud technologies will be key to establishing a future model of sustainable finance.

This edition draws upon the knowledge and experience of world-class experts from both industry and academia, covering a host of ESG topics and innovations including the value of tracking Return on Sustainability Investment (ROSI) and the importance of moving away from purely external risks to addressing issues that can have positive commercial and societal impacts.

I hope that that the research and analysis within this edition will prove valuable for you as you shape your own ESG strategies, policies, and innovation.

Thank you to all our contributors and thank you for reading.

Lance Levy, **Capco CEO**

ENVIRONMENTAL

THE IMPACT OF IMPACT FUNDS: A GLOBAL ANALYSIS OF FUNDS WITH IMPACT-CLAIM

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ABSTRACT

Sustainable investing has emerged as an established practice in financial markets, and it accounts for about one-third of global assets under management. Recently, impact investing, i.e., investing with the aim of contributing to real-world changes, has been receiving increasing attention. While the literature so far has focused on theoretical and conceptual considerations of impact investing, in practice it often remains unclear what the requirements of an actual impact investment are. Nevertheless, some investment products claim to achieve some form of impact. We investigate if this impact-claim is justified. We analyze 185 (so-called) impact funds based on an established classification scheme that outlines the requirements for factual impact investments. We find that only one-third of the impact funds meet the outlined impact requirements. The share is equally low for funds classified under Article 9 of the E.U.'s Sustainable Finance Disclosure Regulation (SFDR). When looking at the different asset classes, our results show that the share of funds that meet the requirements for impact-generating investments is higher for private equity and private debt than for public equity and bonds.

1. INTRODUCTION

Given the urgent need to address environmental and social challenges, such as climate change, biodiversity loss, social inequalities, and more, transformative technologies and new business models are required. The financial sector plays a pivotal role in this context because it can mobilize the required funds to finance the transition to a sustainable economy. Consequently, national and supranational policymakers have introduced regulatory frameworks to induce the financial system to integrate environmental, social, and governance (ESG) criteria. On the demand side, there is growing appetite for sustainable investment assets as well, since many investors prefer financial products that have a sustainability profile [Heeb et al. (2022)]. However, the sustainable investment field has also become increasingly complex. Today, investors can choose from a colorful bouquet of financial products (ESG ETFs, green bonds, etc.) that seek to attract investors' attention to different "shades of green". Yet, transparency about the true impact, i.e., the contributions to real-world changes, of sustainable investments is essential; predominantly, because many players in the financial markets genuinely aim to contribute to solutions to environmental and social challenges.

* This research was supported by Evangelische Bank eG and EB – Sustainable Investment Management GmbH.

In this article, we focus on investment funds that claim to achieve an impact in terms of solving social deficiencies and/or mitigating ecological degradation. We analyze the underlying investment strategies and assess whether they meet the requirements of an established impact classification scheme. For those funds that are domiciled in the E.U. or sold to E.U. investors, we also examine the self-assigned product category (Articles 8 and 9) under the Sustainable Finance Disclosure Regulation (SFDR). Overall, our motivation for this investigation is to scrutinize whether (so-called) impact funds live up to their claims or whether they merely represent an empty promise.

2. MOVING FROM ESG TO IMPACT

The sustainable finance market has evolved over the past decades [Busch et al. (2021)]. At the beginning of Sustainable Finance 1.0, the focus of sustainability-related investment practices was to avoid so-called "sin" stocks, i.e., companies that engage in unethical behavior. However, shareholder value and profit maximization continued to be the guiding principles. To the present day, investors apply exclusion criteria and divestment strategies to shun investments in companies that are involved in the production or sale of weapons, alcohol, tobacco, fossil fuels, and more.

In Sustainable Finance 2.0, investors started to incorporate the triple bottom line (people, planet, profit) into their decision making. Emphasizing the interrelation between environmental, social, and financial performance, sustainability has become increasingly relevant in mainstream financial markets. As a result, multiple ESG data and rating providers have emerged to address the growing demand for ESG performance measures. In this phase, the focus is on optimizing stakeholder value with regard to the business case for sustainability.

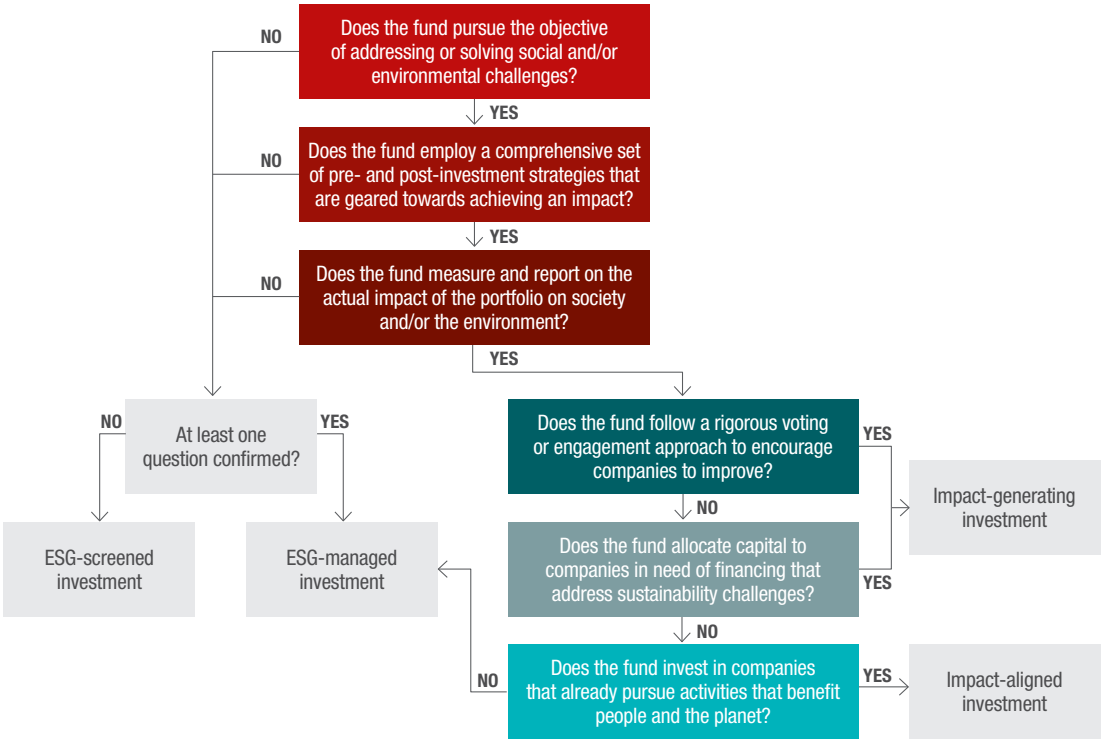
Sustainable Finance 3.0 shifts the focus from ESG risks and opportunities towards actual impact [Busch et al. (2021)]. From this perspective, finance is a means to foster the transition to a (more) sustainable economy. Hence, impact investments aim to contribute to real-world changes in terms of solving social deficiencies and/or mitigating ecological degradation. Investing for real-world impact can involve targeting an increase in the positive impact of a company or a reduction in its negative impact [Freshfields (2021)].

It is important to distinguish between the investor's impact and the company's impact. Only the company itself has a direct impact on real-world outcomes. The investors can, in turn, induce a change in the company's impact through their investment activities [Heeb and Koelbel (2020)]. There are two main mechanisms for investors to achieve this: by growing the level of a company activity and encouraging improvements in the company activity [Koelbel et al. (2020)]. Providing (flexible) capital has the potential to influence the impact of the company by supporting or incentivizing activities. Furthermore, investors can influence company behavior through stewardship activities, such as filing shareholder resolutions, voting at general meetings, and engaging in dialogue with management.

In recent years, the field of impact investing has gained considerable attention and the market has grown steadily. Meanwhile, estimates of global assets under management classified as impact investments vary between U.S.$ 352 billion [GSIA (2021)] and U.S.$ 404 billion [GIIN (2020)]. However, according to GSIA (2021), impact investment represents a relatively small percentage (1 percent) of total sustainable investment assets. Today, the most common sustainable investment strategy is ESG integration, where investment managers incorporate ESG factors into their financial analyses.

While one-third of total assets under management are currently classified as sustainable investments, they tend to have varying degrees of ambition. In the absence of harmonized sustainability-related disclosures, investors are not able to effectively compare different financial products. As a result, the E.U. adopted the SFDR, which requires financial market participants (FMPs) to disclose the extent to which they consider sustainability risks and adverse impacts, and how the sustainability claim of a financial product is being met. Furthermore, the SFDR asks FMPs to distinguish between sustainable financial products that promote environmental or social characteristics (Article 8) and financial products that have as an objective a positive impact on the environment and society (Article 9). Given that Article 9 products must pursue a sustainable investment objective, practitioners commonly infer that those products qualify as impact investments. However, the present criteria and disclosure requirements of the SFDR do not support this conclusion, which means that there is ambiguity concerning which sustainable investment strategies can or cannot qualify for which SFDR product category.

Figure 1: Classification approach



Impact investing has considerable appeal to investors who strive for positive environmental and social impacts. As described in the previous sections, the market responds to this demand and there is a wide range of financial products that attract investors by promising to solve sustainability challenges. Despite all this activity, conceptual clarity of impact investing remains a serious issue. In practice, this leads to the interchangeable use of concepts such as ESG and impact because the terminological boundaries become blurred. Thus, there is an increased risk of "impact washing", i.e., the misuse of the term "impact investing" to attract capital without pursuing an actual impact intention [Busch et al. (2021), Cohen and Serafeim (2020), Findlay and Moran (2019)]. The threat of impact washing reinforces the need for definitional discussions and for required impact measurement and disclosures by FMPs [Findlay and Moran (2019)].

3. METHODOLOGY

This article aims to contribute to a better understanding of impact investing and its current implementation in financial markets. We examine investment funds with regard to their impact claims and investigate the investment strategies they pursue. First, we screened Refinitiv's global fund database, which covers over 350,000 collective investments, including mutual funds, closed-end funds, exchange-traded funds (ETFs), hedge funds, retirement funds, and pension funds [Refinitiv (2022)]. Using a keyword search, we identify 428 funds from this population that make an "impact" claim. However, this term can also be used in an economic sense (financial impact). By reviewing key investor information documents (KIID) and fund prospectuses, we exclude funds where the impact term is only interpreted financially. Ultimately, we are left with a list of 185 funds that claim to achieve an impact in an ecological and/or social context.

Next, we build on the sustainable investment classification scheme developed by Busch et al. (2021), which was recently promoted by the G7 Impact Taskforce [ITF (2021)]. Based on this understanding, we analyze whether these 185 funds meet the outlined impact requirements. Busch et al. (2021) distinguish between four types of sustainable investments: **ESG-screened** (which generally focus on exclusion criteria and the mitigation of ESG-related risks), **ESG-managed** (which cover exclusion criteria and at least one additional investment approach, such as norms-based screening, best-

Figure 2: Domicile of funds with impact claim [Fund domicile (n=185)]

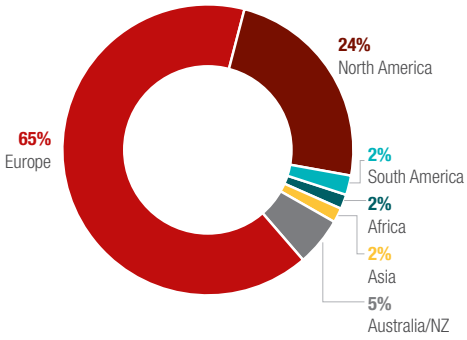
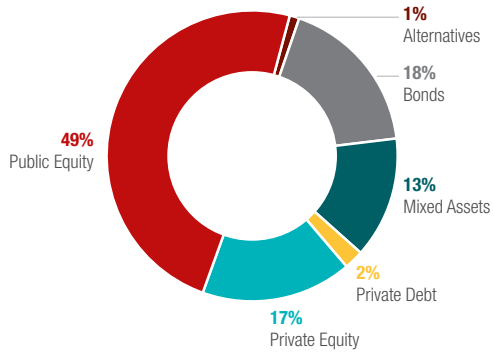


Figure 3: Asset classes of funds with impact claim [Asset classes (n=185)]



in-class, ESG integration, or sustainability themed investments), **impact-aligned** (which refer to investments in companies that are contributing to the Sustainable Development Goals (SDGs) – focus on company impact), and **impact-generating** (where investors can demonstrate that their activities enable or encourage companies to address environmental and social issues – focus on investor impact).

Impact investments go beyond the aforementioned investment approaches and place a special emphasis on active stewardship of public equity (voting and/or engagement). Furthermore, they require the measurement of environmental and/or social performance indicators.

Based on publicly available information, and using the approach described in Figure 1, we classify the 185 funds using the classification scheme described above.

4. EMPIRICAL ANALYSIS

We study 185 funds that claim to achieve an impact on the environment and/or society. The funds in our sample are mainly domiciled in Europe (65 percent) and in North America (24 percent). Furthermore, the dominant asset class is public equity investment (49 percent), including seven ETFs. In addition, our sample includes fixed-income (20 percent) and private equity (17 percent) investments.

Our analysis shows that only one out of three impact funds meet the outlined impact requirements. Consequently, 64 percent of the funds should be classified as ESG investments rather than impact investments. Although the fund name suggests otherwise (e.g., "green impact" or "positive impact"), 67 funds in our sample do not even pursue impact intentions but rather ESG-related risks and opportunities. In addition, we find that only 63 funds demonstrate any effort to measure and report on the impact that they have generated.

Figure 4: Classification of funds with impact claim [Fund classification (n=185)]

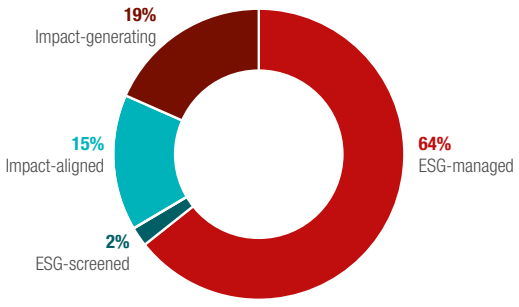


Figure 5: Classification of funds with impact claim by fund type [Fund classification by fund type (n=185)]

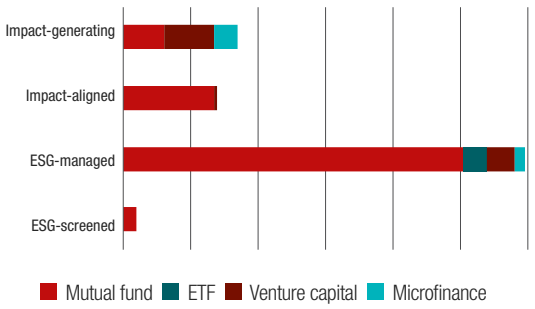


Figure 6: Classification of funds with impact claim by asset class [Fund classification by asset class (n=185)]

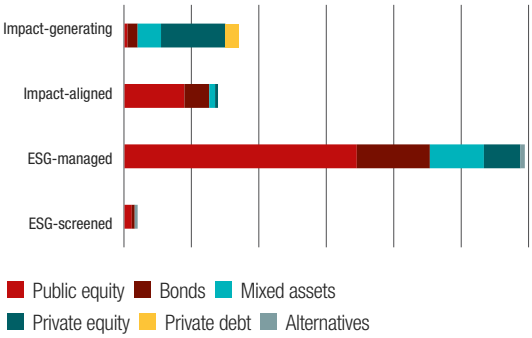
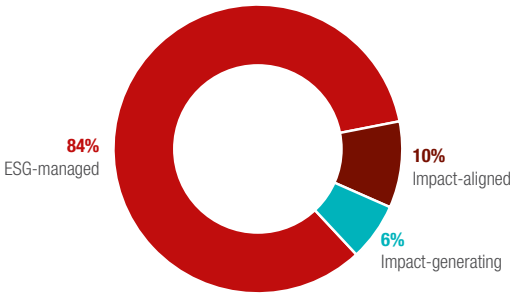


Figure 7: Classification of SFDR Article 8 funds with impact claim [Article 8 funds (n=31)]



In terms of asset classes, our results indicate that the share of funds that meet the outlined impact requirements is considerably higher for private market funds (69 percent) than for publicly traded funds (26 percent). Accordingly, we find that the share of venture capital and microfinance is larger for impact investments (37 percent) than for ESG investments (9 percent). Furthermore, no ETF in our sample is able to meet the outlined impact requirements. One possible explanation for this might be that these passively managed products do not have a detailed voting or engagement strategy in place that seeks to encourage improvement in companies' activities.

Some of the funds in our sample are neither domiciled in the E.U. nor registered for the E.U. market, which means that they are not covered by the Sustainable Finance Disclosure Regulation (SFDR). Among the funds that do fall under the SFDR, 63 percent are assigned to Article 9 and 37 percent to Article 8. This reflects the widespread perception that Article 9 products are "impact products". However, our analysis suggests that only 37 percent of the funds assigned to Article 9 meet the outlined impact requirements, whereof only 8 percent qualify as impact-generating investments. For those funds assigned to Article 8, 84 percent are in line with an ESG investment classification. 16 percent also meet the outlined impact requirements.

In summary, our empirical results raise two main issues. First, asset managers appear to have a divergent understanding of what constitutes (real) impact investment. Consequently, the term is used in connection with a heterogeneous mix of asset classes and investment strategies. In several cases, one may speculate that former ESG funds have simply been rebranded as impact funds in order to gain exposure to a new market and to attract capital, which is often referred to as impact washing [Busch et al. (2021), Cohen and Serafeim (2020), Findlay and Moran (2019)].

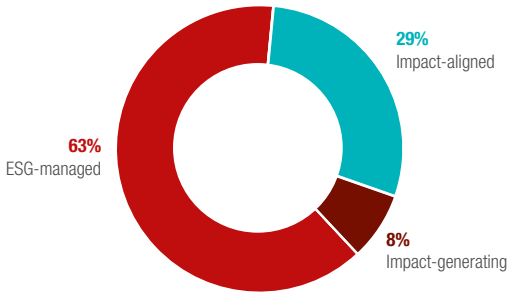
Second, while many practitioners refer to Article 9 products as impact investments, practical evidence shows that most funds do not fulfill the requirement to generate any impact. The SFDR was introduced to increase transparency and help asset owners understand and compare the sustainability profiles of different investment products. However, we find that the funds that are grouped together under Article 8 or Article 9 are hardly comparable with each other. This is likely because financial market participants themselves may be unsure of how to classify their products.

5. CONCLUSION

Without a doubt, "impact" is the latest buzzword in financial markets. The aim of this article is to examine the extent to which (so-called) impact funds refer to financial products that contribute to real-world change. For this purpose, we draw on an impact classification scheme that is also promoted by recent G7 research [ITF (2021)] and apply it to a sample of 185 funds that claim to achieve an impact. We find that only a minority of funds meet the outlined impact requirements and that an Article 9 classification alone does not qualify a fund as an impact investment.

Given the urgent need to accelerate global transformation efforts and for financial market transactions to contribute to solving environmental and social problems, we have the

Figure 8: Classification of SFDR Article 9 funds with impact claim [Article 9 funds (n=52)]



following recommendations. In the past, impact investing was perceived as an investment philosophy [Brandstetter and Lehner (2015)]. Meanwhile, impact investing has evolved into a distinct investment type – different from ESG investing – with specific impact requirements (e.g., regarding objectives and documentation). Asset managers and owners should follow these specific requirements of impact investing in order to make their claims credible and to counteract impact washing allegations.

It is obvious that different asset classes have different impact potentials. Not surprisingly, our analysis shows that the share of funds that meet the outlined impact requirements is considerably higher for private equity and private debt than for public equity and bonds. In private markets, investors can provide flexible capital to young companies that have limited access to other sources of funding. However, in public markets, investors can also influence companies through active ownership. Yet, many investors do not exercise their shareholder rights effectively because they either do not vote at all or do not vote in favor of social and/or environmental proposals. Consequently, investors should be urged to use their voices if they want to achieve an impact in secondary markets.

With the Sustainable Finance Disclosure Regulation (SFDR), the E.U. is imposing transparency requirements on sustainably declared financial products. However, the way in which financial market participants currently use the SFDR to classify their products appears in many cases to be rather arbitrary and ambiguous. There is a need for further clarification, especially with regard to the aforementioned Article 9, as it is inappropriate and misleading to label all Article 9 products homogenously as "impact products" per se. For impact generation, asset managers would have to demonstrate and measure what real-world change shall be achieved through the investment. For impact-aligned investments, it is important to demonstrate, for instance, to which extent the invested companies contribute to achieving the Sustainable Development Goals (SDGs). The former would be investor impact; the latter company impact – which are two fundamentally different considerations. Consequently, financial market participants must be self-critical in evaluating which impact claim they can actually meet.

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WHY SWITZERLAND IS ONE OF THE LEADING HUBS FOR SUSTAINABLE FINANCE AND HOW TO SUPPORT THIS FURTHER

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ALANNAH BEER | Sustainable Finance Associate, Swiss Bankers Association (SBA)

ABSTRACT

Who, or more specifically which jurisdiction, leads the way in sustainable finance? To answer this question, this article aims to define the requirements for a leading center of sustainable finance, explains why Switzerland is in a position to meet them, and sets out what proactive measures the industry has taken in support of this initiative. There is still room for further development going forward. It is also important to embed sustainable finance in a broader context and to keep in mind that, while sustainable finance is a key driver of sustainability, it ultimately cannot solve everything.

1. INTRODUCTION

Sustainable finance has attracted a lot of attention in recent years, not least since the last United Nations (U.N.). Climate Change Conference, COP26, in Glasgow. Various financial centers that previously claimed leadership in sustainable finance have done so even more since COP26. They include the U.K., Singapore, and Switzerland, the last of which will be the focus of this article.

This article does not seek to define what is sustainable and what is not. Even in the scientifically advanced field of Paris alignment of financial flows, there is still no general answer to this question. The recent debate in the E.U. about the sustainability of electricity generation from nuclear and gas-fired power plants is an example of this. "Sustainability" is a vague, ambiguous, and complex term that can be defined in a number of ways, and it is up to academia and policymakers, rather than financial institutions, to develop a more precise definition. Banks can help raise awareness and provide information on the topic, but they essentially do what the law requires and what their clients demand from them. This article aims to define what is required to become a leading center of sustainable finance and shed light on why Switzerland has a claim to leadership in this area.

2. CHARACTERISTICS OF A LEADING FINANCIAL CENTER

To claim leadership status, a financial center must differentiate itself from other centers in some way. It can do this by offering the most innovative products and services, having a long tradition and/or the greatest expertise in the field, or being the most far-reaching in terms of regulation. Apart from these, however, what are the fundamental requirements for leadership in a specific field?

First, the financial center must have a solid foundation and already be established. This means, among other things, that it already attracts enough clients and assets – both locally and globally – to be internationally and globally competitive and appeal to new clients by offering them a unique selling proposition. This may encompass experience, service, products, and professionalism, typically accompanied by expertise and know-how.

Second, the state, and thus the authorities, need an overarching strategy for taking the lead. This national strategy can be guided by global targets, such as the 17 U.N. Sustainable Development Goals and the Paris Agreement. Crucial to establishing and implementing the national strategy is a properly functioning ecosystem. This requires constructive dialogue and cooperation between the different stakeholders involved. In the case of sustainability, it is about interacting with a wide range of actors from the economy at large, public authorities, politics, NGOs, civil society, and, of course, the financial services industry, which is a driving force in this matter, especially at the national level.

Third, the financial center's actions must be embedded not only in national strategies but also in the international context and gain recognition and influence in international activities and discussions. Regardless of the strategy chosen, national and international ambitions should not contradict each other, as this leads to greater complexity in an already complex and constantly evolving field. Moreover, a financial center without reach and influence can hardly claim to be a leading hub in a particular field.

3. SWITZERLAND'S CLAIM TO LEADERSHIP IN SUSTAINABLE FINANCE

This article argues that Switzerland has a claim to leadership in sustainable finance because it fulfills the requirements described above.

Switzerland is a globally established financial center and is recognized as such. It is the leader in cross-border private banking, accounting for a quarter of all cross-border assets under management worldwide.[1] Despite being a small country and representing no more than around 0.1 percent of global emissions,[2] Switzerland has at least an indirect influence on some two to three percent of global emissions in the context of sustainability and in particular combating climate change. This is due to goods imports, the fact that numerous large, multinational corporations have their head office in Switzerland, the country's important role as a financial and trading center, as well as a production location for innovative, high-tech goods and services.[3] These figures imply that Switzerland as a whole, and its financial center in particular, can be pivotal in directing financial flows towards more sustainable economic activities. Some Swiss banks are pioneers in sustainable investments and already have decades of experience in this field.

The Swiss financial center overall has already made good progress in terms of sustainable finance over the past few years and intends to build on this going forward. This is underscored by the growth in this field over recent years. According to the annual Swiss Sustainable Investment Market Study,[4] conducted by the Swiss Sustainable Finance in conjunction with the University of Zurich's Center for Sustainable Finance and Private Wealth, the volume of assets invested sustainably in Switzerland rose from around CHF 41 billion in 2011 to over CHF 1,980 billion in 2021. Sustainable funds account for 53 percent of the total Swiss fund market.

With Switzerland already having an established financial center that has international reach and influence, in June 2020 the Swiss Federal Council released a report on "Sustainability in Switzerland's financial sector"[5] and guidelines[6] on sustainability in the financial sector. These guidelines define the objective that the Swiss financial center should be a leading global location for sustainable financial services. This requires framework conditions that allow the Swiss financial center to ensure that its competitiveness is continuously improved and to make an effective contribution to sustainability.

As Switzerland is a small, open economy, with many of its banks and other financial institutions also having cross-border activities and, therefore, already complying with extraterritorial jurisdictions, it is already embedded internationally – at least from an economic viewpoint. It, therefore, does not make sense as a rule to create separate, conflicting regulations. One recent example of the Swiss government taking internationally established criteria and methods into account are the Swiss Climate Scores, launched by the Federal Council in June 2022 to position Switzerland as an international leader in credible climate transparency. These scores consist of six indicators, which the Federal Council recommends that Swiss financial market players apply and disclose. Based on the latest international findings, they provide comparative and meaningful information on the Paris alignment of financial investments by institutional and private investors.[7]

1 https://bit.ly/3Bk6sdY
2 https://bit.ly/3Qo5hyo
3 https://mck.co/3D3C4WF
4 https://bit.ly/3D45oMB
5 https://bit.ly/3x29rFC
6 https://bit.ly/3QsckpY
7 https://bit.ly/3RGAl8u

Table 1: Representation of the Swiss financial sector in GFANZ alliances

	RELEVANT NET ZERO ALLIANCES WITHIN GFANZ	SWITZERLAND: SHARE OF ASSOCIATION MEMBERS WITH GFANZ COMMITMENTS	GLOBAL: SHARE OF RESPECTIVE INDUSTRY WITH GFANZ COMMITMENTS	KPI USED
Swiss Bankers Association (SBA)	Net Zero Banking Alliance (NZBA)	62%	38%	Total assets
Asset Management Association Switzerland (AMAS)	Net Zero Asset Managers (NZAM) initiative	62%[1]	55%[2]	Assets under management
Swiss Insurance Association (SIA)	Net Zero Asset Owner Alliance (NZAOA)	44%	n/a[3]	Own investments
	Net Zero Insurance Alliance (NZIA)	44%[4]	11%	Gross premiums

[1,2] This 62%/55% does not always represent 100% of the assets under management (AuM) of the committed asset managers yet (for more details, see chapter "Net Zero engagement for the Swiss AM industry").[3] Data not available on the Net Zero Asset Owner Alliance (NZAOA) website. [4] Swiss Insurance Association (SIA) members and other insurers. Source: Setting sail for a carbon-neutral future: Net Zero Insights 2022.

Switzerland fosters a culture of dialogue on sustainability between many different stakeholders, such as authorities, politicians, NGOs, academics, and various economic actors. For example, the Swiss financial center supports the objectives of the Federal Council and was involved in developing the Swiss Climate Scores. The Swiss Bankers Association (SBA), the umbrella association of banks in Switzerland, and its members have already implemented various measures to support the Swiss strategy and put it into action.

4. CONCRETE ACTIONS TAKEN BY THE SBA TOGETHER WITH THE INDUSTRY

As it wants to establish a leading position in sustainable finance and make an effective contribution towards sustainability, the SBA has actively engaged in various initiatives in recent years. Some focus on the broad concept of sustainability and ESG (environmental, social and governance) criteria, others are more specific to climate. In 2020, for example, the SBA and its members drew up a guideline[8] for the integration of ESG considerations into the advisory process for private clients, and in August 2021 it published a joint report[9] with Boston Consulting Group (BCG) on "Investment and financing needed for Switzerland to reach net zero by 2050." In February 2022, it also published a discussion paper[10] on climate-efficient mortgages.

To take the next step, in March 2022 the SBA and its members released an action plan with specific measures that are now being put into practice:

- **Free self-regulation:** together with its members, the SBA issued two sets of binding guidelines in June 2022 stipulating minimum requirements for integrating sustainability criteria into investment and mortgage advice. The first governs the integration of ESG preferences and risks into investment advice and portfolio management,[11] while the second encourages mortgage providers giving advice to clients to consider long-term value retention, and consequently the energy efficiency of the building to be financed.[12]
- **Net zero initiatives:** the SBA regards net zero initiatives as an effective instrument for achieving the climate goals set for 2050 and recommends that its members sign up to international net zero alliances and sustainability initiatives in the banking industry. The SBA itself joined the Net Zero Banking Alliance as a supporting institution in April 2022. In this context, a study was published in August 2022 that analyses the Swiss financial industry's participation in net zero initiatives. It shows that Switzerland and its banks, asset managers, and insurance companies are among the leaders in terms of committing to them.[13]

[8] https://bit.ly/3RqKAmQ
[9] https://bit.ly/3x4M2U1
[10] https://bit.ly/3AUM1D7
[11] https://bit.ly/3L08enV
[12] https://bit.ly/3L7XwvT
[13] https://pwc.to/3etCN9w

- **Education:** the SBA and the banks systematically integrate ESG know-how into their education and further training. The SBA has set itself the goal of ensuring that all advisors have a sufficient understanding of ESG issues and apply it successfully in the advisory process with their clients. The two new sets of guidelines also include requirements regarding training and professional development.

The action plan is not only ambitious in its scope, it also entails real adjustments and costs for the banks. For example, advisory processes and staff training as well as professional development must be adapted to meet the newly introduced guidelines. Processes and IT applications also need to be adjusted, and there are further requirements to be met in order to achieve the net zero targets.

5. MOVING INTO THE FUTURE

Although Switzerland is already in an excellent position to claim a leading role in sustainable finance, it needs to do more to build on this and differentiate itself from other financial centers now and in the future.

Digitalization and education are transversal factors that are important enablers for the transition to a more sustainable world and need to be constantly adapted and further developed to unleash their full potential. Education, initial training and professional development, are key to building expertise that can then be applied professionally, for example, to create innovative products and services or advise clients. Digitalization also offers various opportunities, notably the creation of transparency on sustainability-related data.

In terms of transparency, it is crucial to promote the disclosure of targets of sustainability strategies. In doing so, it is important to follow international initiatives and recommendations, such as those of the Task Force on Climate-related Financial Disclosures (TCFD). After all, in a globalized world with international trade, sustainability does not concern individual countries in isolation.

For the sustainable finance ecosystem in Switzerland to be used even more successfully, it must be defined through a broad-based approach to reach as many stakeholders as possible. This will make it possible to identify and address the various needs efficiently and effectively.

Both the national and international dimensions are important for sustainable finance. At the national level, a strong financial center is needed to finance the transition. At the international level, financial centers also need to compete to meet global challenges as well as to foster innovation. It is, therefore, a necessity, and at the same time an opportunity, to steer the financial centers in the right direction.

Being a fast-evolving and dynamic area, the regulatory framework in the field of sustainable finance should allow for competition and room for innovation and, therefore, not be static or only introduce minimum standards. The possibility of such dynamic legal developments is a major advantage of principles-based regulation. In contrast, the typically rules-based regulation of the E.U. is much less flexible because it only ever regulates down to the smallest details of what is already known, leaving no room for interpretation and further development. It should be possible to take new insights and innovations into account. This is only possible if there is enough scope for adaptation.

6. CONCLUSION

In summary, a leading center of sustainable finance needs an already established foundation, an overarching national strategy on the subject, and to be internationally embedded. Switzerland holds an excellent position in this respect and will strengthen this with future efforts to make an effective contribution to sustainability and position itself as an internationally leading hub for sustainable finance.

In the future, transversal factors such as education and digitalization need to be further promoted and developed to support their potential within the field of sustainable finance. Ecosystems need to be expanded and nurtured, and different dimensions of cooperation need to be considered. Last but not least, the framework conditions must incorporate a certain degree of flexibility to account for new developments, insights, and ideas.

It is worth noting that, while sustainable finance should be understood as an important driver for the transition to a sustainable society, it is not a “magic potion” that can meet the challenge on its own. Investors and clients must decide to direct their capital towards sustainable purposes, and sustainability goals must ultimately be implemented where the actual transition to sustainability can be made. The strategy for achieving a sustainable financial center must, therefore, be embedded into an overarching, all-encompassing strategy, as is the case in Switzerland with its Sustainable Development Strategy.[14]

[14] https://bit.ly/3CFc8jp

TOWARDS NET ZERO FOR APAC EMERGING MARKETS: A PROBLEM-SOLVING APPROACH FOR FINANCIAL INSTITUTIONS

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ABSTRACT

Global greenhouse gas (GHG) emissions and worries about climate risk are continuing to drive environmental, social and governance concerns to the top of the global business agenda, with emerging markets (EM) and developing economies increasingly under the spotlight. These economies represent two-thirds of global CO_2 emissions, with China alone accounting for one-third, and will generate the bulk of the growth in future emissions.[1] Their actions on climate change will determine if the global 2050 net zero target can be met. In turn, APAC financial institutions, as pipelines of capital in the region, have become a critical factor in the success of climate change action and related ESG initiatives. This paper explores some key questions faced by financial institutions (FI) with an APAC EM focus: how ready is APAC EM for the transition, in the light of the most recent climate commitments brought about by COP26; how can financial institutions establish a net zero strategy for decarbonizing portfolios that is science-led, robust and verifiable by investors and regulators; and what are the implications for establishing robust ESG data strategies and the technologies that support them?

1. RECENT CLIMATE COMMITMENTS: WHAT DO THEY MEAN FOR THE FINANCIAL SECTOR

Last autumn's COP26 left the world with a long "to-do" list that has many implications for the APAC region and for how investors and lenders make their financing decisions. Here is a snapshot of the key events and how they impact APAC EM:

- **500 FIs announced a new U.S.$130 trillion climate finance commitment** through the Glasgow Financial Alliance for Net Zero (GFANZ) to make up for the missed COP15 target.[2] While the capital amount is very large and might seem to be sufficient, what the commitments will mean in practice and whether there are enough suitable projects coming to market at the requisite speed remains questionable.
- **Extended commitments to cut methane – not just CO_2** – were made by 110 countries representing 50 percent of global methane emissions. The Global Methane Pledge aims to reduce methane emissions by at least 30 percent from 2020 levels by 2030.[3] Agriculture, energy, and waste are the largest anthropogenic source of methane.[4] Yet China, India, and Russia, who collectively account for one-third of global methane emissions, were absent from the agreement.

[1] https://bit.ly/3BwkKHF; https://bit.ly/3qJLmzM
[2] Transferring U.S.$100 billion climate finance a year by 2020 from developed to developing countries.
[3] https://bit.ly/3RWt9KS
[4] https://bit.ly/3eNEiiZ

- **Energy transition is speeding up, although there has been debate over coal "phase-out" versus "phase-down":** more than 40 countries have committed to phase out coal by 2040, including major coal-using APAC countries such as South Korea, Indonesia and Vietnam, though not China and India.[5] Beyond Oil and Gas Alliance (BOGA) was launched at COP26, backed by 11 countries, with the aim of ending national oil and gas exploration and extraction. Yet, no APAC countries have so far joined.[6]
- **There is a new commitment to end deforestation:** as 141 world leaders representing over 90 percent of the world's forests, including China, Indonesia, Malaysia and Vietnam, joined the Glasgow Leaders' Declaration on Forests and Land Use to end and reverse forest loss and land degradation by 2030.[7] Twelve donor countries are committing U.S.$12 billion of public funds alongside U.S.$7.2 billion of private investment. Over 30 financial companies are ending investments in activities linked to deforestation.
- **The Common-Ground Taxonomy (CGT)**,[8] published at COP26 analyses the commonality between the E.U. Taxonomy and China's developing taxonomy[9] in the classification of "environmentally sustainable" economic activities. Although it is not a designed to be a legal document, it will be referenced by regulators in APAC markets for local taxonomy development, and by investors who are approaching climate-themed investment in China. In Hong Kong, regulators have announced their intention to adopt CGT.[10]
- **Key discussions and advances in global emission pricing were made:**
  - A side event was hosted during COP26 to examine the global context of the E.U.'s proposed Carbon Border Adjustment Mechanism (CBAM), which will impose a levy on embedded carbon in E.U. imports in order to prevent "carbon leakage".[11] CBAM will initially cover the cement, iron and steel, fertilizer, aluminum, and electricity sectors, and is expected to increase the trading costs of some of the largest APAC EM exporters including China, India, and South Korea.
  - 200 governments have reached a conclusion on the rules governing global emission reduction trading, including a framework that tries to fix the thorny issue of "double counting" as well as a newly formed supervisory body to oversee the carbon crediting mechanism. The Glasgow rulebook makes it clear that countries where a CO_2 offset credit is generated must remove this reduction from their overall emission budget if another country uses it to reach their nationally determined contribution (NDC).[12]
- **Regulators are announcing mandatory climate disclosure regulations**,[13] to promote more transparent and consistent information about a company's impact on climate change. This is supported by increasing efforts to integrate climate change financial reporting standards. For example, the IFRS Foundation announced the establishment of a new board to help develop climate-related disclosure standards.[14]

2. APAC EMERGING MARKETS IN NET ZERO TRANSITION: ESG INVESTOR PAIN POINTS

2.1 APAC EM decarbonization commitments and readiness

The financial sector is now in agreement that examining climate change related financial risk is no longer a question of "why" or "when", but "how". Before and during COP26, a substantial number of financial industry-led pledges and initiatives[15] were formed, covering all types of financial institutions (hereafter 'FIs' or 'firms') and market players including banks, asset managers, asset owners, insurers and service providers. These share one goal: to channel more sustainable finance towards supporting the net zero transition.

[5] https://nyti.ms/3d9JxZH
[6] https://bit.ly/3U6cMgD
[7] https://bit.ly/3QJPUAx
[8] Published by International Platform on Sustainable Finance, an international forum co-chaired by the E.U. and China with 18 members including Hong Kong, launched in 2019 with the aim of increasing private capital flows to environmentally sustainable investments (https://bit.ly/3BAE1sn).
[9] IPSF refers to the Green Bond Endorsed Project Catalogue (2021 Edition) as providing the most up-to-date, unified, and clear green definitions at the activity and project level in China. China has yet to develop a taxonomy for purposes other than green bonds (https://bit.ly/3qxfJJx).
[10] Refers to Securities and Future Commission and Hong Kong Monetary Authority. https://bit.ly/3Dmx93h
[11] According to the European Commission, risk of carbon leakage arises when companies based in the E.U. could move carbon-intensive production abroad to take advantage of lax standards, or E.U. products could be replaced by more carbon-intensive imports (https://bit.ly/3DtuZyG).
[12] https://bit.ly/3QGPoTU
[13] https://bit.ly/3DmHo7I
[14] To date, 144 jurisdictions around the world require the use of IFRS Standards for all or most publicly listed companies (https://bit.ly/3U4IL0C).
[15] Including Race to Zero Campaign, Net Zero Asset Manager Initiative, Net Zero Asset Owner Alliance, Net Zero Banking Alliance, Glasgow Financial Alliance for Net Zero (launched in COP26), Net Zero Insurance Alliance, Net Zero Financial Service Providers Alliance and Net Zero Investment Consultants Initiative.

Table 1: Data coverage for companies in the world's two largest emitters remains low

	PRESENCE OF ESG DISCLOSURE GUIDANCE17	GHG EMISSION METRIC COVERED BY THE GUIDANCE	PRESENCE OF ANNUAL ESG DISCLOSURE MANDATES FOR ALL LISTED COMPANIES	PERCENTAGE OF LISTED COMPANIES PUBLISHED/ REQUIRED TO PUBLISH ESG REPORT (OUT OF ALL LISTED COMPANIES)
MAINLAND CHINA	Yes	Carbon emission covered in MEE's latest disclosure rules, but not yet in stock exchanges' guidelines	Now: No Future: Stock exchanges guidelines update in progress	24% (2021 data)
INDIA	Yes	Yes	Now: No Future: No	14% (2021 estimate)
INDONESIA	Yes	Yes	Now: Yes Future: Yes	100%
MALAYSIA	Yes	Yes	Now: Yes Future: Yes	100%

Source: Sustainable Stock Exchange Initiative ESG Disclosure Guidance Database.
https://bit.ly/3BBvrtq; https://bit.ly/3Dk4NGQ; https://bit.ly/3Bzs0Ui; https://bit.ly/3RUM74u; https://bit.ly/3d4VzDT; https://bit.ly/3BeBiUj; https://bit.ly/3RQ3q6S; https://bit.ly/3qzo1AF; https://bit.ly/3QEOrf0; https://bit.ly/3LccRLz

Table 2: Current national decarbonization actions fall short of Paris Agreement 1.5°C commitment

	EMISSION REDUCTION TARGET		HISTORICAL PERFORMANCE		PROJECTED PERFORMANCE BASED ON CURRENT POLICY AND ACTIONS		
	BY 2030 FROM 2005 LEVEL	-	2020 LEVEL VERSUS 2005 LEVEL		2030 LEVEL VERSUS 2005 LEVEL		
	2021 updated NDCs (emission intensity in CO_2e per unit of GDP, unless specified)	Pledged to go net zero by	Change in absolute emission (CO_2e)	Change in GDP (million US$)	Projected change in absolute emission (CO_2e)	Required change to align with 1.5°C ambition	Are current policies and actions sufficient to meet the 1.5°C ambition?
CHINA	-65% emission intensity in CO_2 per unit of GDP	2060	+78% (+81% for CO_2 emission)	+544%	+78%	-17%	No
INDIA	Not updated, although a new 45% target was announced	2070	+62%	+224%	+118%	-8%	No
INDONESIA	29% unconditional and 41% conditional absolute CO_2e reduction relative to 2030 projected BAU level	2060	+42%	+270%	+93%	-28%	No
MALAYSIA	45% unconditional emission intensity CO_2e per unit of GDP	2050	+140%	+235%	+187%	-44%	No

Source: UNFCCC NDC Registry, GDP data from the World Bank, historical and scenario data (policies and action, modeled domestic pathways) from Climate Action Tracker by Climate Analytics and NewClimate Institute and 1.5°C national pathway explorer by Climate Analytics.
https://bit.ly/2E3fYom; https://bit.ly/2srGZKW; https://bit.ly/3decfZl; https://bit.ly/3REcY5i; https://bit.ly/3U452f3; https://bit.ly/3Ua90Tl

Table 3: China and India have no concrete plan to phase out coal, the largest source of carbon and methane emissions

	GLOBAL COAL CONSUMPTION (PERCENTAGE OF WORLD TOTAL, 2020 DATA)	COAL POWER CAPACITY (PERCENTAGE OF WORLD TOTAL, 2020 DATA)			COMMITMENT TO PHASE OUT COAL
		OPERATING	UNDER-CONSTRUCTION	PLANNED	
CHINA	52%	55%	50%	36%	Peak consumption in 2025 and gradually phase down
INDIA	13%	13%	18%	10%	No phase out, but phase down, 50% on RE by 2030
REST OF ASIA	12%	11%	24%	29%	Indonesia – phase out by 2040s Vietnam – phase out by 2040s Singapore – phase out by 2050 Korea – phase out by 2050

Source: International Energy Agency, Carbon Brief based on data from Global Energy Monitor.
https://bit.ly/3QU5mKR; https://bit.ly/2xlRkbD; https://bbc.in/3RXQvj7

For investors with exposure to APAC EM, the question is: how ready is the APAC EM for the net zero transition; and what are the key challenges or constraints that investors face if they try to finance net zero? A quick scan of the key APAC EM markets leads us to the following two observations, based on findings summarized in Tables 1 to 3:

- **Data for fundamental ESG analysis:** availability and coverage are improving but remain questionable.
- **Commitment versus performance:** national climate action plans regarding emission mitigation are ambiguous or not ambitious enough.

2.2 Business problems that FIs need to address

The current ESG landscape gives rise to several challenges for FIs with exposure to APAC EM, regardless of the maturity of their climate and carbon strategy:

- **Problem 1:** how to monitor climate risks in relation to investment and credit?
- **Problem 2:** decarbonizing portfolios – what are the priorities and key approaches?
- **Problem 3:** how to overcome the challenge of ESG data quality and sourcing? We explore these challenges in the next section.

3. CLIMATE STRATEGY FROM INITIATION TO IMPLEMENTATION: DEFINING AND QUANTIFYING MATERIAL CLIMATE CHANGE IMPACTS

3.1 Problem 1: How to monitor climate risks in relation to investments and credit?

Defining material climate risks is fundamental, since climate change is a basket of environmental issues that imply both risks and opportunities. Materiality should consider both impact materiality and financial materiality.[16] For instance, when determining whether "energy management and transition" is a material issue to a steelmaker, an investment manager would need to address:

- How significant are the positive and negative impacts on people and the environment, as a result of the steelmakers' energy use in its operation and value chain activities?
- How likely is it that government energy transition policies will affect sector outlook or company performance, beyond what is already recognized in financial reporting?

[16] The concept of "double materiality", GRI Standards and European Financial Reporting Advisory Group (https://bit.ly/3RVAmec; https://bit.ly/3U4FsXm).

Determining the right metrics for each climate risk is the cornerstone of a well-structured materiality assessment. The most widely adopted metric is "financed emissions (intensity)", also referred to as portfolio emission or Scope 3 emission from investments. This metric is quickly becoming a prerequisite for any FI that intends to set and claim a science-based carbon reduction target[17] or net zero target.[18]

The metric is conceptually simple. It is calculated by first allocating a portfolio company's emission (hereafter "company emission") to an FI's financed emission by applying an attribution factor or weight. The sum of all allocated company emissions is the "financed emission" of the FI in tons of CO_2e, while this figure normalized by the amount of the investment or loan gives the "financed emission intensity". Various organizations have established calculation formulae for different asset classes or needs.[19]

Quantifying financed emissions by asset class, by sector, and by portfolio company can generate many insights for the investment manager or credit manager, such as:

- Which sectors are the most carbon-intensive?
- Does my firm have a concentrated portfolio in these sectors?
- Which portfolio companies are best-in-class and which are the largest emitters?
- How does my firm's portfolio emission and sector emission (intensity) compare with internal, peer, or sector benchmarks?

The answers can help FIs understand the baseline "greenness" of their portfolio, highlighting the priority sectors, companies, or stranded assets exposed to transition risks that should be the focus of attention.

Financed emission is not the only way to measure climate impact. Biodiversity loss, water stress, and vulnerability to physical climate risk, for example, offer other ways to assess the impact of investments.

Firms can, therefore, now begin to map their climate risks based on an inventory of climate change issues with their respective definitions and risk/opportunity metrics (ideally industry-specific).

Rating agencies, third-party data providers, and standard setters also have their own ESG materiality models and mapping tools,[20] which can provide good reference points. However, these may not capture the FI's ESG focus, such as the U.N. Sustainable Development Goals (U.N. SDGs) that it is prioritizing, financing themes, geographical focus, company-specific nuances, or the investment/credit managers' knowledge of the sector's business model.

Integrating these internal insights will help the FI to establish a firm-wide understanding of its material risks, which can then offer a foundation for different business lines to further develop their climate or ESG analytics for various purposes.

3.2 Problem 2: Decarbonizing portfolios – what are the priorities and best approaches?

Setting a clear strategic direction is core to the implementation of any sustainability program, including the management of material climate impact. It requires a systematic, pragmatic change management approach that evaluates the firm's entire value chain:

- Why is climate risk identification and management necessary?
- What are the businesses, processes, products, customers, stakeholders, and data involved?
- What are the changes needed to integrate climate risk in different businesses within the FI?
- What are the firm's ultimate climate objectives, and what are the targets and key performance indicators (KPIs) that are required to measure success?

There are four golden rules to remember when building out the sustainability program:

First, align the whole business with the purpose and the materiality framework and risk metrics, and how they are used, in order to fully integrate climate risk into the firm's businesses and products. This is especially important for banks that offer a wide range of financial services.

Consider the example of financed emission. It requires a firm-wide engagement process to communicate how climate-related transition risk is related to the other risk

[17] Refers to a target aligned with Criteria and Recommendations for Financial Institutions by Science-based Target Initiative (SBTI) (https://bit.ly/3DjQjqs).
[18] SBTI is planning to launch a final Financial Net Zero Standard in 2023, after a public consultation on the draft standard (https://bit.ly/3dabJf3).
[19] Taskforce on Climate-Related Financial Disclosure (TCFD), Partnership for Carbon Accounting Financials (PCAF), and Net Zero Asset Owner Alliance (NZAO) (https://bit.ly/3U3PxUp; https://bit.ly/3LbGEnR; https://bit.ly/3RG1a2p).
[20] Such as MSCI, S&P Global, SASB and Bloomberg.

Table 4: The concept of transitioning to net zero emissions

MITIGATION TACTICS	
Within the value chain of the company	**Outside the value chain of the company**
Abatement Measures that a company takes to prevent, reduce, or eliminate sources of GHG emissions within its value chain	**Beyond Value Chain Mitigation (BVCM)** Measures that a company takes to prevent, reduce, avoid or remove sources of GHG emissions outside its value chain
Neutralization Measures that a company takes, both within and outside of its value chain, to remove carbon dioxide from the atmosphere and permanently store it in order to counterbalance the impact of GHG emissions within the value chain of the company that remains unabated	

TRANSITION TO NET ZERO

Source: HKEX Advancing Corporate Climate Action Practical Net Zero Guide for Business, based on SBTI Corporate Net Zero Standard Version 1.0.

types (e.g., regulatory risk, credit risk) that various business lines already manage as risk owners; how financed emission informs climate-related transition risk; and why it should be monitored on an ongoing basis in the firm's formalized risk management process.

Such an engagement process will help users both understand and give feedback on the framework, improving its usability and the underlying calculations to ensure these reflect the FI's latest business needs and goals.

Second, set an emissions reduction target that follows a science-based decarbonization pathway to ensure that risk management actions consider forward-looking climate scenarios and are ambitious enough.

What is the firm's fair share of global decarbonization responsibilities, given its carbon budget? Where are the biggest opportunities to decarbonize? Regardless of whether a firm decides to announce the target publicly or keep it as an internal KPI, the target-setting process, if performed using a science-based approach, is itself a discovery process (e.g., through the application of data-driven scoping, baselining, and benchmarking).

Before looking into the firm-wide financed emission reduction target, it makes sense to consider setting subtargets for selected asset classes or portfolios that are likely to have high impact materiality, financial materiality, and data readiness. These pilot exercises in collecting the data required to quantify financed emission will help the firm to map its current data model, ownership, requirements, readiness, and gaps.

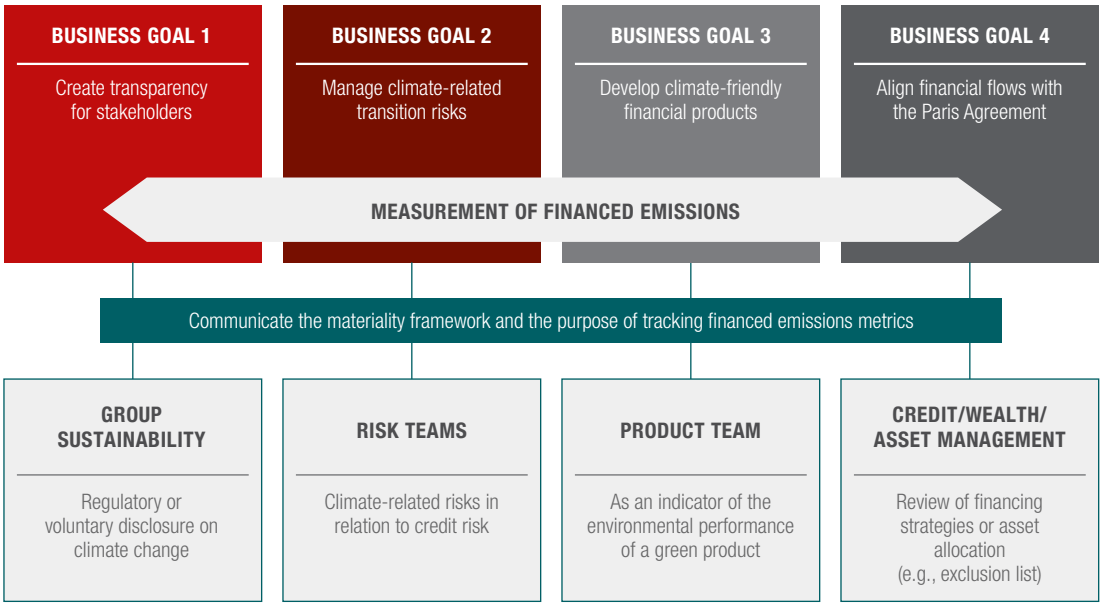
Third, evaluate the various ways of incorporating climate change action into existing investment and lending strategies. Prevailing ESG financing approaches currently adopted by FIs include, in descending order of popularity:[21]

- **ESG integration:** the inclusion of ESG factors into financial analysis
- **Negative/exclusionary screening:** applying ESG criteria to exclude certain sectors or companies
- **Corporate engagement:** driving the ESG agenda through engaging with boards, proxy voting, and shareholder proposals
- **Norm-based screening:** screening of investments against minimum standards of business or issuer practice based on international norms
- **Sustainability themed screening:** investing in themes or assets that contribute to sustainable solutions
- **Positive/best-in-class screening:** investing in ESG outperformers to achieve an ESG rating above a threshold
- **Impact investment:** investing to create a positive impact on a community.

None of the above practices are particularly new to FIs, especially in the case of negative screening. Maintaining a sector/entity exclusion list is a familiar part of regulatory compliance and client due diligence. The novelty is that, until relatively recently, climate-related risk factors have tended not to be identified as the criteria.

[21] Research by Global Sustainable Investment Alliance (GSIA) (https://bit.ly/3DIEOyD).

Figure 1: Aligning the goals of measuring financed emission



Source: PCAF, Capco

However, using negative screening to simply "avoid" financed emissions will not necessarily reduce emissions, if there are plenty of alternative financing channels – the emissions from the excluded company can end up becoming some other FI's financed emissions. This is especially important in some APAC EM, which will continue for some time to be fossil fuel dependent and to lie at the center of the world's industrial processes.

Hence it is important for FIs to develop a firm-wide strategic direction that is likely to be a hybrid of the above approaches, powered by a single consistent objective across different business lines: to mobilize money from "brown" to "green" activities.

Fourth, climate action plans need to be prioritized using business-specific KPIs to measure success, and to have proper governance. Various industry-led initiatives offer guidance that can be used to identify priorities when integrated with FI's materiality framework. Banks tend to prioritize the coal mining, electricity generation, and other sectors that make up a significant majority of bank portfolio emissions.[22] For asset owners such as insurers and pensions,[23] oil and gas, utilities, steel, and transport sectors tend to be the initial focus. The KPIs to track include metrics such as sector carbon intensity, portfolio/sub-portfolio carbon emissions (absolute and intensity), climate-positive investment, and number of engaged companies. Proper governance oversight and capability building is essential to ensure a net zero pledge is not just a one-off statement but sustained by a long-term commitment and enough resources. Lots of firms already have ESG or sustainability committees led by top management, however, effective management information and risk reporting, and communication and training on climate change, are critical to success.

3.3 Problem 3: How to overcome the challenges of ESG data sourcing and quality?

For financial institutions, the challenge of accessing, assessing and managing ESG data lies at the heart of the sustainability project. Without good quality data – or at least, data of a known quality – firms will not be able to conduct the analyses described in this paper nor validate any ESG-related claims about companies or portfolios to investors or regulators. That could lead to accusations of greenwashing and to reputational and compliance risk.

[22] https://bit.ly/3BDd4Eo
[23] https://bit.ly/3xnN6Cr

In the near future, firms may need to plan for very high-volume data processing that draws upon machine learning and artificial intelligence. For the moment, the ESG data landscape, while improving, remains complex, patchy in quality, and in need of more systematic approaches – especially in the context of APAC EM.

In another study,[24] we shared our step-by-step recommendations for FIs to start establishing an ESG data hierarchy that encompasses both financial and non-financial activities to quantify ESG-related impacts and to guide data requirements gathering, sourcing, and methodologies:

- **Level 1:** the "internal taxonomy", "thematic grouping", or "inventory" of E, S, and G issues that are assessed and/or reported on internally or externally, for example climate change transitions.
- **Level 2:** metric or sub-metric to measure an ESG issue, which can be entity, portfolio, or product level information; for example, portfolio carbon emission intensity
- **Level 3:** Key Data Elements (KDEs), or granular data, which are the building blocks of a Level 2 metric.

Here we would like to deep-dive into two ESG data issues: data quality and data management efficiency in the APAC EM context, focusing on Level 3 KDE of the hierarchy.

Corporate ESG disclosures in APAC markets – an important source of the Level 3 KDE – still have much room for improvement. Not even all listed issuers report company emissions, not to mention thousands of small-and-medium-sized and private enterprises that are not bound by disclosure rules. The data that is disclosed varies in quality, even in the case of listed companies. Meanwhile, borrowers are often small- and medium-sized companies that do not have the budget or capacity to supply the data that financial institutions might like to obtain.

There are, however, lots of third-party data providers offering China and APAC EM emission datasets, which likely include some estimates or calculations using alternative data.

One trend to note is that regulators are beginning to ask for more granular data as proof of an investment manager's sustainability claims for a product or investment strategy. For example, in Hong Kong, under the Securities and Futures Commission's latest proposed amendments to the Fund Manager Code of Conduct, "large fund managers" would be required to measure the portfolio carbon footprints associated with their funds' underlying investments.[25]

Table 5: How data quality scoring works

DATA QUALITY AND REQUIRED COST/ EFFORTS OF SOURCING VERSUS EASE OF SOURCING AND CERTAINTY						
LEVEL 1 ESG ISSUE	Climate change					
LEVEL 2 METRIC	E.g., financed emission (for listed equity and corporate bonds)					
PURPOSE OF MEASURING	Regulatory requirement? / Voluntary disclosure? / Management Information reporting? / External or internal ESG index and rating? / Screening, study or research? / Company engagement on carbon reduction?					
LEVEL 3 KDE	Company reported emission		Company physical activity based calculation		Company economic activity based calculation	
	Verified	Unverified	Energy consumption data, emission factor	Production data, emission factor	Company revenue, emission factor	Sectorial emission factor (per unit of asset or revenue) and asset turnover
	Outstanding amount in the company, company enterprise value including cash (EVIC)				Outstanding amount in the company	
DATA QUALITY SCORE	1	2		3	4	5

Source: Capco, PCAF Global GHG Accounting and Reporting Standard for the Financial Industry.

[24] https://bit.ly/3qxC5KX
[25] https://bit.ly/3U6gOWj

Increasingly, FIs not only need to understand how data providers derive a figure, but also distinguish and track the data quality of each dataset by making records of, for example, data quality scores and evaluating the need to improve data quality over time (and the cost/benefit of this). When a data reporting requirement is upgraded from "voluntary" to "regulatory", this could trigger a more in-depth data sourcing and due diligence process, or even the need to engage with the counterparties directly for data collection or checking.

Finally, it's important to streamline the process of integrating external data into the FI's internal data ecosystem. But this has a number of challenges:

- **Infrastructure and tools:** even after selecting the appropriate data vendors, there will be times when data need to be taken from various sources with different formats. It is, therefore, important for the FI to look at its infrastructure and consider it from security and compliance perspective. For example, if integration is executed at API level, is there an external gateway available or an integration point between the external gateway and the internal data stream?
- **Data extraction:** while data taken from data vendors can, in most cases, be used immediately after data ingestion, there will be times when the data required is inside various documents (such as an annual report). The FI may eventually need a tool or platform that can extract information automatically from such sources, with minimal human intervention. This can be challenging because the technology behind such tools is usually deep machine learning and requires a very different infrastructure to that of a normal data ecosystem.
- **Data aggregation and de-duplication:** data obtained from different channels will likely offer very different levels of detail. The data model will need to be flexible enough to cope with this while achieving the desired level of calculation and reporting. On the other hand, taking data in from different sources can also result in duplications so the firm will need to make sure tools are in place to prevent or remedy this problem.

4. CONCLUSION

The accelerating climate threat raises the urgency of climate transition commitments, including the important role global financial markets play in achieving net zero. Lack of strong climate policy setting, enabling tools like taxonomy and disclosure, and high-quality data, has meant that APAC EM are falling behind on their net zero goals. FIs in APAC EM need to prepare themselves to assess and monitor the impact of climate change and to decarbonize their carbon-intensive portfolios. FIs could identify the data gaps through the measurement and assessment process, understanding external data better, and integrating them into the internal ESG data system to track the climate performance.

UNDERSTANDING THE KEY CHALLENGES AND OPPORTUNITIES IN CREATING CLIMATE TRANSITION PATHWAYS

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ABSTRACT

Climate change poses an interconnected set of risks to the economy, from both the transition to a new mix of renewable energy sources and the physical hazards driven by a warming planet. The complexity of the upcoming transition requires a systems-level approach that leverages the strengths of existing modeling tools, paired with a strategy built on proactively identifying gaps and silos in out-of-the-box analytical solutions. Liberty Mutual brings a unique view from the insurance space on breaking down modeling silos, pairing the physical implications of climate disasters derived from catastrophe and climate modeling along with macroeconomic studies based on research from the Network for Greening the Financial System (NGFS). This paper details the challenges presented by this current climate risk modeling environment and suggests practical strategies for making climate risk actionable as organizations plan their transition to a low-carbon future. We find a clear mismatch between the disparate and path-dependent energy transitions expected across global economies and common climate commitments found in the financial services sector, which risks unintended adverse effects in the speed and equity of the climate transition. Developing a holistic view of climate impacts that ties physical, economic, social, and biodiversity impacts together and places them at the point of decision-making is a strategy that is broadly applicable both within and beyond the insurance sector.

1. INTRODUCTION

In June 2017, at the direction of the Financial Stability Board and following an 18-month consultation, the Taskforce on Climate-related Financial Disclosures (TCFD) published its final report, "Recommendations of the Task Force on Climate-related Financial Disclosures." This report marked one of the first moments that financial services industry leaders and policy leaders came together to publicly and definitively acknowledge that the "warming of the planet caused by greenhouse gas emissions poses serious risks to the global economy and will have an impact across many economic sectors."[1]

Five years later, the financial services sector is increasingly aligned that climate change poses a threat to the global economy and that companies and countries must do their part to mitigate risk. However, the path forward is still unclear. Regulators and standards bodies are moving to require companies to publish comparable climate-related data, but there is not yet global alignment on what should be included in these disclosures. While TCFD has become a commonly leveraged disclosure framework, adopted by both companies and countries as the foundation for climate-related disclosures, European countries are generally pushing for expanded

[1] Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures, June 16, 2017 https://bit.ly/3eqGgG7

disclosures focused on the concept of "double materiality" – covering topics that are significant to a company's bottom line, as well as broader society. Amidst this debate, there is disagreement on how to calculate climate and emissions-related metrics and demonstrate progress. Though reporting and transparency are important components for lowering global emissions, it can also increase climate litigation risk for companies due to the problems with methodologies and models, and may drive maladaptation if that reporting is not grounded in meaningful risk measurements.

With the widespread adoption of TCFD and pressure for companies to commit to "net zero" emissions, companies are also expected to develop and publish climate transition strategies that detail how they intend to address climate as a systemic risk. While TCFD recommends that companies evaluate climate-related financial risk exposure through a climate scenario analysis exercise, TCFD guidance acknowledges that there is a not a single way to conduct this exercise. Consequently, investors and other stakeholders should be cautious when using the information to compare climate risk among peer companies. Today, companies are often only evaluating risks within their own portfolios, without taking into consideration the broader system impacts – or economic forces – that could affect a portfolio.

To address these challenges and better plan for Liberty Mutual's own energy transition, in 2021, Liberty Mutual conducted an enterprise-wide climate transition scenario analysis, combining both a systems-wide assessment and a portfolio-level assessment, to inform our own understanding of climate risk and energy transition strategy. We leveraged climate scenarios from the Network for Greening the Financial System (NGFS), a group of central banks and supervisors committed to sharing best practices, contributing to the development of climate- and environment-related risk management in the financial services sector and mobilizing mainstream finance to support the transition toward a sustainable economy.[2] NGFS, established in 2017, has a dedicated Workstream on Scenario Design and Analysis, which works in partnership with an academic consortium from the Potsdam Institute for Climate Impact Research (PIK), International Institute for Applied Systems Analysis (IIASA), University of Maryland (UMD), Climate Analytics (CA), ETH Zürich (ETHZ), and the National Institute of Economic and Social Research (NIESR) to develop timely and accurate scenarios, to provide a window into different plausible futures, and allow for better future planning.

Through Liberty Mutual's analysis of the NGFS scenarios and additional data, we found that given the assumption that a global common policy scenario is unlikely, regional policy coordination is the most viable path forward for reducing the financial cost of transition risks. This means that different economies will proceed through their energy transition from different starting points and may take different amounts of time along their respective paths.

As we have seen through Liberty Mutual's own research, working with clients on their respective transition strategies, and analyzing publicly available climate data and research, the reality is that there is no pragmatic path to "net zero" by 2050 for the global economy – yet. The steps required to transition to a low-carbon economy are complex. Existing climate data, research, and modeling can help companies develop science-based and proactive strategies for the next five to ten years with some certainty, but beyond that transition plans rely on technological breakthroughs, scalability, and behavioral changes. In order to better understand the future and develop more realistic strategies, we need to look beyond individual company commitments and analysis of individual portfolios and focus on implementing systems-level thinking and pragmatic policies that support the economy through the transition.

This paper unpacks the challenges with existing climate data and modeling, outlines recommendations for how business leaders should approach thinking about climate transition risk for their organizations, and through climate mitigation and adaptation strategies, ultimately create a realistic transition pathway.

2. THE PROBLEM: UNIFORM, SIMPLISTIC TOOLS ARE A POOR MATCH FOR COMPLEX AND INTERCONNECTED CLIMATE RISKS

2.1 No single tool captures system-level risks of climate change to the economy

With over a century of experience in underwriting global property and casualty risk, at Liberty Mutual, we rely heavily on data and modeling to help inform our understanding of risk. While climate scenarios and modeling are a good place to start to explore future weather patterns and physical catastrophes, existing technology anticipates future environmental and economic conditions with incomplete models.

[2] https://bit.ly/3EyqCmM

Climate modeling for the kind of extreme physical hazards that are most material to the insurance industry is still in the early development stage, and the reliability of climate data differs by peril, geography, and time horizon. While Liberty Mutual continues to invest in technology and academic research to improve modeling capabilities, we also think it is imperative to understand the strengths and limitations of the tools in place today.

The insurance industry uses three families of models to assess climate-related risks: 1) catastrophe models, 2) physical climate models, and 3) integrated assessment models (IAMs) – explained in further detail below.

- Catastrophe models, used by the insurance sector for decades to help price physical risks, are useful tools to measure the impacts or financial losses from catastrophic events. Catastrophe models are built primarily using historical statistical distributions that describe physical hazards, and, therefore, generally do not explicitly consider future climate considerations. Their strength lies in providing probabilities of extreme event occurrence assuming current climate conditions. Catastrophe models are only well developed for geographic areas and hazards where a large percentage of the population is insured against that hazard and are less developed in geographies with low amounts of insurance coverage. This limitation affects parts of the world that may be vulnerable to climate-driven catastrophes but have limited insurance availability and uptake.
- Climate models are largely physical models that represent the Earth system and help to understand the evolution of the system over different time scales (past, present, and future). Climate models do not measure the financial or economic impact of climate events. The efficacy of data from climate models is dependent on the projected time scale of interest (e.g., from present time to 2050) and the spatial resolution of the model's data (e.g., results from a specific model may be on a ~100-kilometer grid). More model uncertainty is introduced at shorter time horizons, where the overprint of natural variability is comparatively

Figure 1: Understanding climate data and models

	CATASTROPHE MODELS	CLIMATE MODELS	TRANSITION RISK MODELS
USE	To measure the impact or financial loss from physical risks and catastrophic events.	To understand the evolution of the system over different time scales (past, present and future).	To inform economic risks arising from the transition to a zero carbon economy.
INPUTS	Historical statistical distributions that describe physical hazards; do not explicitly consider future climate considerations.	Physical models that represent the Earth system and help to understand the evolution of the system over different time scales (past, present and future); do not measure the financial or economic impact of climate events.	Incorporates two different types of information: climate data that don't measure the financial and economic impacts of climate events, and economic data that leverage historical patterns to predict a future that will look different due to intensifying climate change impacts.
BENEFITS	Provides probabilities of extreme event occurrence assuming current climate conditions.	Can produce realistic future climate conditions.	Portrays plausible scenarios or pathways to transition the economy from a predominantly fossil fuel energy perspective to one incorporating new types of fuel sources.
LIMITATIONS	Only well developed for geographic areas and hazards where a large percentage of the population is insured against that hazard. They are less developed in geographies with a low amount of insurance coverage that could be susceptible to climate change.	Struggles to predict many of the extreme events that most impact the insurance industry (such as hurricanes and wildfires). These events occur on spatial scales that are too small to be "seen" in most climate models.	Risk of misinterpreting the output of the models when making portfolio-level decisions due to the highly simplified and backward looking representation of physical hazard impacts on the economy.

Note: Here integrated assessment models is referred to as transition risk models

more important, or smaller spatial scales, below the resolution of the model. Unlike catastrophe models, climate models can produce realistic future climate conditions, but they struggle to capture many of the extreme events that most impact the insurance industry (such as hurricanes and wildfires). These events occur on spatial scales that are too small to be "seen" in most climate models. To leverage climate models effectively, the insurance industry must approach these models with a sophisticated understanding of the uncertainty represented at the shorter time horizons and smaller spatial scales where our sector operates.

- Integrated assessment models (IAMs) are tools that can inform economic risks arising from the transition to a zero-carbon economy. IAMs incorporate two different types of information: climate data that do not measure the financial and economic impacts of climate events and economic data that leverage historical patterns to predict a future we know will look different due to intensifying climate change impacts. Their strength lies in portraying plausible scenarios or pathways to transition the economy from a predominantly fossil fuel-energy perspective to one incorporating new types of fuel sources. Integrated assessment models (IAMs) include simple representations of the climate system, which could potentially result in misunderstandings or misinterpretations of the relative risk between transition and physical climate risks. Due to the highly simplified and backward-looking representation of physical hazard impacts on the economy, interpreting integrated assessment models at face value potentially risks underweighting the potential impact of physical risks on the economy. In the absence of sufficient expertise to evaluate these complex families of models, financial institutions run the risk of misinterpreting the output of the models when making portfolio-level decisions. If used in isolation, depending on these models to predict what the world will look like in 15+ years may lead to results that cannot be fully relied upon for business and supervisory decision making.

In the longer term, effective climate risk management requires incorporating the strengths of each model – extreme events modeling from catastrophe models, the forward-looking perspective gained from physical climate models, and the economic risk modeling predicted by IAMs.

In the short term, however, the strengths and limitations of each tool must be respected to ensure data created by each model are not misunderstood or misinterpreted. Likewise, when allocating capital or making financial investment decisions, caution should be exercised when evaluating quantitative risk models based on current climate science and climate models. The data can be used to evaluate probable impacts on a range of financial outcomes, to inform appetites and thresholds for climate-related risks, and to build risk management frameworks based on exposure to and probability of different climate events. Climate risk management is most effective on the organizational level when it is integrated directly into the decision-making process. Enterprises should ask themselves, "at what point would a changing climate or economy affect our risk appetite or change a decision?" This method of reverse stress testing allows for a probabilistic approach to climate impacts that respects uncertainty while incorporating the best available science.

In comparison, the financial services industry's existing approach to long-term stress testing includes static models that only represent a specific moment in time – which is equivalent to implementing 1970 models to measure 2000- and 2020-time horizons. Traditionally, models have focused on stress testing individual portfolios over five-, 10-, and 15-year periods. Yet, for many financial companies this is not reflective of how we manage our business and is difficult to integrate directly in the decision-making and risk appetite process.

At Liberty Mutual, we are taking this all into consideration in our day-to-day risk management analysis and are actively working to improve data modeling in partnership with other academic and industry partners. Understanding what models can and cannot provide is crucial for developing realistic and comprehensive transition strategies.

2.2 Climate transition plans must account for varying realities

We understand that we need to build a dynamic approach to address climate change that considers tough trade-offs across a multitude of objectives (e.g., environmental, economic, and political). However, while the technology and data improve by the day, we are beginning to understand variables beyond just emissions mitigation that need to be included in climate strategies. One of these priorities is ensuring that the climate transition is just, not significantly and negatively impacting one population while improving another. Historically, this factor has not been a large part of the conversation because, as earlier

described, the models and tools used only offer a partial view of what will be required for an equitable transition to a low carbon future.[3] Existing models do not measure the true societal or community impacts of climate change, failing to account for the trade-off of pursuing emissions reductions, the social impacts of climate change, and the challenges entities face when operating across jurisdictions with different laws and behaviors.

Furthermore, the financial services industry is just beginning to understand the interrelated nature of climate change and environmental and social impacts – recognizing that climate change impacts more than energy use and carbon emissions – and is closely connected to biodiversity, oceans, land use, and the depletion of natural resources. In fact, until recently, biodiversity and nature-related risks had been largely overlooked in climate risk calculations and solutions. For example, the increase in the use of solar panels is an overwhelmingly positive example of renewable energy, but the mining for panel materials and land use of solar farms presents dangers to biodiversity that many did not anticipate.[4] As such, we will have to consider the benefits of increasing solar energy output compared to the costs of biodiversity loss – and how to account for this in emission taxonomies.

The transition to electric vehicles (EVs) is another example of how a transition to a lower carbon economy can potentially promote exclusionary behaviors. Without policy action to lower the cost of EVs and to ensure affordable and accessible EV charging solutions, an abrupt move to EVs would impact lower income and financially vulnerable communities who do not have the means to take on these additional costs.

Figure 2: Selecting scenarios from the Central Banks and Supervisors Network for Greening the Financial System

Informed by existing tools and methodologies, we opted to develop our own approach to climate scenario analysis, leveraging the scenarios published by the Central Banks and Supervisors Network for Greening the Financial System (NGFS).

NGFS comprises leaders within the financial sector working to establish industry standard practice for climate risk stress testing and more broadly on transition risks overall. NGFS's climate scenarios provide a common reference point for understanding how climate change, climate policy, and technology trends could evolve.

Liberty Mutual opted to move forward with this framework for several reasons:

INDUSTRY RELEVANCE

As of February 2022, NGFS is a group of 108 members and 17 observers, including a number of central banks, committed to sharing best practices, contributing to the development of climate- and environment-related risk management in the financial sector and mobilizing mainstream finance to support the transition towards a sustainable economy.

TIMELINESS OF INSIGHTS

NGFS scenarios are updated in a timely manner. The first dataset was released June 2020 (v1.0) and has been updated twice since then in June of 2021 (v2.0) and September of 2022 (v3.0). Information in this analysis is based off data from v1.0 and v2.0.

ACADEMIC BACKING

NGFS is supported by an academic consortium from the Potsdam Institute for Climate Impact Research (PIK), International Institute for Applied Systems Analysis (IIASA), University of Maryland, Climate Analytics and Swiss Federal Institute of Technology in Zurich.

USED BY REGULATORS

The NGFS Framework provides a common reference point for prudential regulators and informs oversight of climate-related risks in different markets.

SUPPORT FROM NGOs

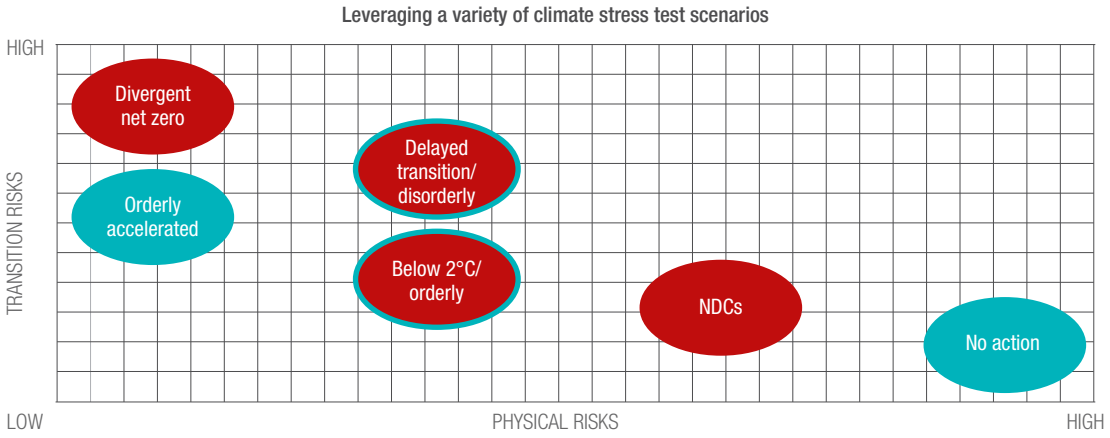
It is backed by Bloomberg Philanthropies and other organizations with a track record for helping establish industry standards and developing innovative tools to advance climate action across the financial sector.

[3] Liberty Mutual TCFD Report, 2021

[4] Dunnett, S., 2022, "Does renewable energy efforts threaten efforts to conserve biodiversity on land?" Carbon Brief, 2022, March 2, https://bit.ly/3rN2RQ5

Strategies need to consider how communities may be alienated by transition efforts. Risks to socioeconomic factors[5] like food security, livelihood security, water security, environmental health, and cultural identity are compounded by climate change. Globally, some of the most vulnerable communities are currently facing disruptions in agriculture that greatly affect their food supply as well as disruptions and damage to water quality due to contamination after heavy rain. Communities face these challenges while simultaneously dealing with extreme weather events. If we continue to ignore geopolitical risk and social impacts of climate change, we will not achieve real progress or synchroneity in the climate transition.

Figure 3: Leveraging a variety of climate stress test scenarios



Graph adapted from NGFS scenario framework[6]

Systems-level analysis scenarios

BELOW 2°C

- Assumes net zero CO_2 emissions by 2070 and limits warming to 1.7°C.
- Assumes that globally coordinated climate policies are introduced immediately, resulting in relatively low physical and transition risks.

DIVERGENT NET ZERO

- Assumes net zero CO_2 emissions by 2050 and limits warming to 1.5°C.
- Assumes considerably high transition risks, due to quickened energy transition pace and policy variation, but overall results in the lowest physical risks.

DELAYED TRANSITION

- Assumes global annual emissions do not decrease until 2030 with strong policies needed to limit warming to below 2°C.
- Assumes new climate policies are not introduced until 2030 and the level of policy action differs across countries and regions.

NATIONALLY DETERMINED CONTRIBUTIONS (NDCS)

- Assumes continued progress towards a moderate climate ambition resulting in a steady decline in emissions and warming of ~2.5° to 3°C.
- Assumes moderate to severe physical risks.

Portfolio-level analysis scenarios

ORDERLY

- Assumes climate policies are introduced early and become gradually more stringent. Net zero CO_2 emissions are achieved before 2070, giving a 67% chance of limiting global warning to below 2°C.
- Low transition and physical risk as a result.
- Significant investment is needed to transition to a carbon neutral economy.

ORDERLY ACCELERATED

- CO_2 emissions need to reach net zero around 2050 to limit global warming to 1.5°C with a 67% chance.
- This emissions reduction is much more rapid than the Orderly scenario, leading to higher transition risks.

DISORDERLY

- Assumes climate policies are not introduced until 2030.
- Since actions are taken relatively late and limited by available technologies, emissions reductions need to be sharper than in the Orderly scenario to limit the warming to the same target.

NO ACTION

- Assumes only currently implemented policies are preserved.
- Nationally determined contributions are not met; emissions grow until 2080 leading to 3°C warming.
- Severe physical risks (e.g., irreversible sea level increase).

[5] World Bank, "Social dimensions of climate change," https://bit.ly/3Cmsyfr
[6] The NGFS Climate Scenarios, https://www.ngfs.net/ngfs-scenarios-portal/

2.3 Climate planning must include a clear understanding of systems-level climate action

While many companies are turning to private sector solutions for climate scenario analysis, Liberty Mutual found that the NGFS scenarios portal[7] provided a clearer and more customizable insight into what a plausible future might look like.

NGFS uses a collection of data (economic, climate, energy, agricultural) to design a set of transition scenarios in partnership with climate experts and economists. The scenarios provide reference points for understanding climate change with consideration of upcoming policy and technology trends – as well as the various ways these trends could evolve in the future. This type of analysis is critical for helping diagnose the climate challenge and develop solutions that are fit for purpose. Businesses can leverage scenarios published by NGFS to help inform their climate strategies. These scenarios outline a range of high and low physical and transition risk outcomes.

Ultimately, analysis of the scenarios reveals that a common approach to global policy action is unlikely.

Transition goals and timelines already differ by country, meaning we can expect varying policy goals to arise at different time horizons. The pace and shape of policy development is informed by the energy and carbon intensity of the corresponding sector and region, as well as the current energy mix. This sets up different economic realities by region, as some areas rely more heavily on carbon-intensive fuels today, or may choose to skip intermediary steps in the energy transition, moving from coal or oil directly to renewables, perhaps bypassing gas. Divergent, regional energy transition pathways will impact the type of preferred renewable investments and strategy, further challenging a one-size-fits-all approach to decarbonization. Coordination, not commonality, of policy action will reduce negative economic impact.

Through Liberty Mutual's analysis of the NGFS scenarios and related research, it is clear that different countries and regions are on unique climate transition journeys. Efforts like the Inflation Reduction Act (IRA) – a move by the U.S. to invest in clean energy[8] to help meet Paris Agreement goals – represents a glimmer of hope in unifying climate change action. Although the IRA will have positive effects beyond the U.S., more action is still needed to drive synchronized climate action globally.

However, we anticipate the lack of coordinated policy approaches to continue. This will challenge companies, who will need to design their own transition pathways to meet differing economic realities, resulting in increased reputational risk from stakeholders who prefer commonality over a coordinated approach.

3. IMPLICATIONS AND PATH FORWARD

3.1 Climate commitments could potentially lead to unintended consequences absent a more fulsome understanding of system-level impacts

In today's environment, where climate science is urging the need for action, outside of the macro policy decisions that are needed to change systemic risk, companies are announcing individual steps in reducing emissions for their businesses. However, the commitments are being made at a time of significant uncertainty in terms of the path forward and when tools are not fully developed.

As society's understanding of climate and environmental impacts is still in its infancy and will continue to evolve, there are real dangers in labeling economic activities in a binary manner of being "green", which are considered low-carbon and resilient activities, or "brown", which are activities traditionally reliant on fossil fuels and other harmful materials. We should be wary of claims of zero emissions activities or products, particularly when those net zero targets are achieved through carbon emissions offsets with a decidedly mixed track record of efficacy. All economic activities have shades of brown and green. It is dangerous for us to start classifying economic activities without first fully evaluating the activities and products from the perspective of the activity's full lifecycle.

[7] https://bit.ly/3TfUVm2
[8] PBS News Hour, "What the Inflation Reduction Act does for green energy," August 2022

Differing time horizons present an ongoing challenge for companies as they attempt to define commitments and launch transition pathways. Regions are at varying stages of the energy transition, with countries making climate decisions based on the needs of their own economies and regulatory environments. Attempting to apply globally what may work in one region could undermine other jurisdictions' approaches to the energy transition and potentially lead to legal and regulatory concerns.

Despite these challenges, many of the world's most powerful businesses and governments have set climate targets and produced strategies to decrease their emissions. The consequences of this disjointed approach are already emerging. This past spring, the Net Zero Asset Owner Alliance,[9] a U.N.-convened member-led initiative of institutional investors committed to transitioning their investment portfolios to net zero GHG emissions by 2050, consistent with a maximum temperature rise of 1.5°C., asked that a slight lag be tolerated when it comes to members' decarbonization goals, given the widening gap between climate science and realistic economic pathways.

3.2 Now is also the time to invest in climate adaptation for our communities

As noted in the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report,[10] even with drastic emissions reductions, we are already seeing an increase in the frequency of extreme weather events, and there are unavoidable impacts of our warming planet affecting our risk today and in the future. According to the National Oceanic and Atmospheric Administration (NOAA),[11] the 2021 Atlantic hurricane season was the third most active in history with 21 named storms, including several that produced economic losses that exceeded U.S.$1 billion. Alongside the need for increased disaster funding, we must also take critical steps today to build more resilient communities and invest in climate adaptation.

Like climate mitigation, climate resiliency and adaptation will take a mix of public policy and private investment, and innovative collaboration across sectors and industries. From local elected officials to store managers, teachers to insurance agents, everyone has a responsibility to contribute to climate resiliency. This can mean leading the charge on stricter building codes and ensuring that all infrastructure is designed to better withstand extreme weather – and in turn making sure that our families and communities are safer and more resilient. For those debating the high costs of disasters, we know that investments in communities now prevent bigger bills later, after disaster strikes. The National Institute of Building Sciences notes that adopting the latest building code requirements can save $11 for each dollar invested and add only 1 percent to construction costs.[12]

3.3 Coordination across the public and private sectors is key for meaningful climate action

The global financial sector's current approach to addressing climate change will not meaningfully solve systemic climate risk. Today, companies look at climate impacts at the company portfolio level, but we need to recognize that reducing climate risk at the individual company level does not address climate impacts at the system level – particularly when it comes to physical damage and threats.

Widescale change will require radical collaboration across industries and sectors. At Liberty Mutual, we continue to see the importance of public-private collaboration and discussion. In late 2021, we engaged public sector and private sector leaders for a half-day workshop, in partnership with NOAA. These discussions reiterated the potential for public-private collaboration across a number of issues: including better data and modeling, a better understanding of climate hazards, and continuing to educate communities on the importance of climate resiliency. Following the workshop, we continue to invest in our relationship with policymakers, researchers, and the public sector.

As there is not a common policy approach to reducing carbon emissions across the globe, it will be important for corporate leaders to engage with government leaders across local jurisdictions – and to work towards industry transformation, not just individual business goals. For many, this will be a diversion from traditional business strategy, but it is the only way to achieve true global coordination toward a low-carbon economy.

[9] Marsh, A., 2021, "Net zero asset managers fall short of targets set by scientists," Bloomberg, November 10, https://bloom.bg/3Mr7Xva
[10] IPCC, 2022: Climate change 2022: impacts, adaptation, and vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)], Cambridge University Press
[11] NOAA 2021 Atlantic Hurricane Season Summary Table, 2022, https://bit.ly/3g2IGwl
[12] NIBS, 2019, "Natural hazard mitigation saves," https://bit.ly/3MCSUP7

4. CONCLUSION

There are many actions that will aid in the transition to a low-carbon economy – from promoting resiliency and adopting behaviors that reduce systemic climate risk to building products that support them. Yet, we must recognize that progress will not happen in a linear manner.

We need to implement systems-level thinking and pragmatic policies that support the economy through the transition. As we have seen, oversimplifying the issue has led to a binary way of thinking that fosters backlash. We must instead acknowledge the complexity and nuance that the transition will require. We also need to develop and learn from models that recognize this complexity, coordinate across sectors and geographies, and allow for varying pathways and shifting realities.

True progress will be patchy – at times moving at warp speed due to technological revolution, and at other times moving more slowly. Moreover, as much as one might like to pick winners and losers today, we do not know if the "winners" of today will make it through the finish line in 2050 and beyond.

As with any great change, we must assess new information, challenge our strategy, and be open to new possibilities. While the road to climate transition will not be easy, with strong coordination and alignment on the macro insights we can implement over long-term periods, there is a real opportunity for us to better drive sustainable change.

SEEING ESG THROUGH A U.S. LENS

MARINA SEVERINOVSKY | Head of Sustainability – North America, Schroders

ABSTRACT

It is important for asset managers to engage U.S. investors in the sustainable investing conversation in a way that will resonate with them. Across geographies, the political spectrum, and generational cohorts, the asset management industry can seek to meet American investors on their own terms, in relation to their objectives and priorities. From a risk mitigation standpoint and from the perspective of capturing better long-term returns, we believe U.S. clients, no less than those in other regions, can benefit from having ESG considerations integrated into their investments.

1. INTRODUCTION

Schroders is committed to sustainability because we believe that integrating ESG (environmental, social, governance) factors can lead to improved outcomes for all stakeholders. First and foremost, it could be used to mitigate investment risks. The strength and speed of the global shift towards sustainability creates significant risk for the companies that get left behind. As a result, rigorously assessing ESG-related characteristics is crucial to effectively managing portfolio risk.

Second, ESG could create investment opportunities. We believe that a combination of identifying opportunities for growth, and active engagement with companies, can help enhance long-term returns. Finally, we do believe that the impact of their investments is something that clients increasingly care about. In the modern, interconnected world, we are all ever more aware of the impact that our behavior, from our purchasing decisions to our investments, can have on society and the environment. Consequently, it is crucial that investments are aligned with the sustainability objectives of clients.

All of this is as true in the U.S. as anywhere else – yet there is a general perception that the U.S. has lagged when it comes to ESG or sustainable investing.

This has certainly been the case with regards to the regulatory environment, with the Securities and Exchange Commission and Department of Labor in the process of playing catch-up in 2022 with new proposed rules. The U.S., unlike other markets, does not yet have a stewardship code that addresses ESG in any systematic way, disclosure requirements are a work in progress, and fund standards or taxonomies have not yet been established.

It is also true that some elements of ESG are more controversial and divisive in the U.S. than elsewhere. We have already seen rules both proposed and adopted by various states (e.g., most notably Texas and Florida) to prevent their public pension plans from doing business with any entity that "discriminates" against or "boycotts" firearm manufacturers/distributors or energy companies, or to restrict the use of ESG considerations (other than those that are financially material) in investment decisions. There are also other states, especially those with meaningful reliance on fossil fuels, that could enact similar restrictions. Notably, the state of Maine has gone the other way and passed a law that requires the Maine Public Employee Retirement System to divest from fossil fuels, and many other states are contemplating or enacting legislation to promote ESG integration in investments or to mandate divestment of fossil fuels or firearms in their portfolios.

Hence, the U.S. is indeed different. However, our view is that U.S. investors are no less interested in sustainability than others globally – they simply need to see how ESG aligns to their own values. And asset managers must communicate with U.S. investors on their terms, finding areas of commonality. We cannot just take an approach followed in the U.K. or Europe and impose it onto the U.S. market.

Instead, we have to meet the U.S. clients where they are, and show that sustainability is certainly a broad enough discipline to address their interests as well. In short, we need to consider ESG considerations through a U.S. lens, whether that is in our thought leadership, thematic research, company engagement, or product development.

2. OUR OWN SORT OF CLIMATE

What are the top ESG issues in Europe? To say that climate is number one and number two is not much of an exaggeration. European governments, regulators, and investors have placed a strong focus on decarbonization. And the U.S., a vast land rich in natural capital resources and biodiversity, encompassing within it many different terrains and ecosystems, has good reasons to care about climate too.

The elevated physical risks of climate change, such as wildfires, hurricanes, extreme heat, and flooding have increasingly affected many Americans. The preservation and conservation of our nation's abundant natural resources is a core part of the American psyche, associated with great historical figures like Theodore Roosevelt and manifest in the expansive network of our national parks.

U.S. investors, no less than those around the world, want to preserve this natural heritage for their children and grandchildren, and U.S. companies, alongside global peers, have accelerated their net zero and other voluntary climate pledge commitments. After many years of feet dragging, governments, corporates, and investors globally are becoming more aligned on cutting carbon emissions and limiting temperature increases.

However, we must also be conscious that change does not happen in a vacuum. Many regions of the U.S. are reliant on natural resource extraction and production, and many sectors of the U.S. economy are driven by fossil fuels. A transition takes time to effect, and we must support the companies, people, and communities that are required to adapt.

Transition financing, which offers capital to high-emitting companies or industries, in order to support their shift towards a climate-neutral or climate-positive future, is needed. (Rather than excluding such industries or issuers, Schroders is committed to active ownership with companies as they navigate this path.) Moreover, we believe that regulations in the U.S., different to the approach in Europe, will focus on best-in-class instead of exclusions, and allow for transition financing to encourage engagement with problematic industries or issuers and avoid surrendering influence via divestment.

In addition, when investors assess transitioning companies, it is important to consider measures of avoided emissions, which account for the potential decarbonization contributions of companies that are seeking to adjust their businesses and developing products and services that can drive significant reductions in economy-wide emissions in the future. In this way, even companies that currently have higher carbon intensity could evolve and even become enablers of climate positive change over time.

In addition to companies, we must also support workers and communities. In the U.S., the concept of a "just transition" is especially relevant, given how climate change mitigation and decarbonization efforts affect people in various U.S. regions and industries, and the desire on the part of most Americans that these folks not be left behind. Thus, a just transition in our view means combining climate action with fair socio-economic distribution and giving impacted communities a voice. This includes engaging with workers, unions, and communities that will be affected, providing them with a plan for income support during the transition and proper training or retraining of employees to ensure they can transition to valued work in the future.

3. ESG BEGINS WITH E, BUT IT DOES NOT END WITH IT

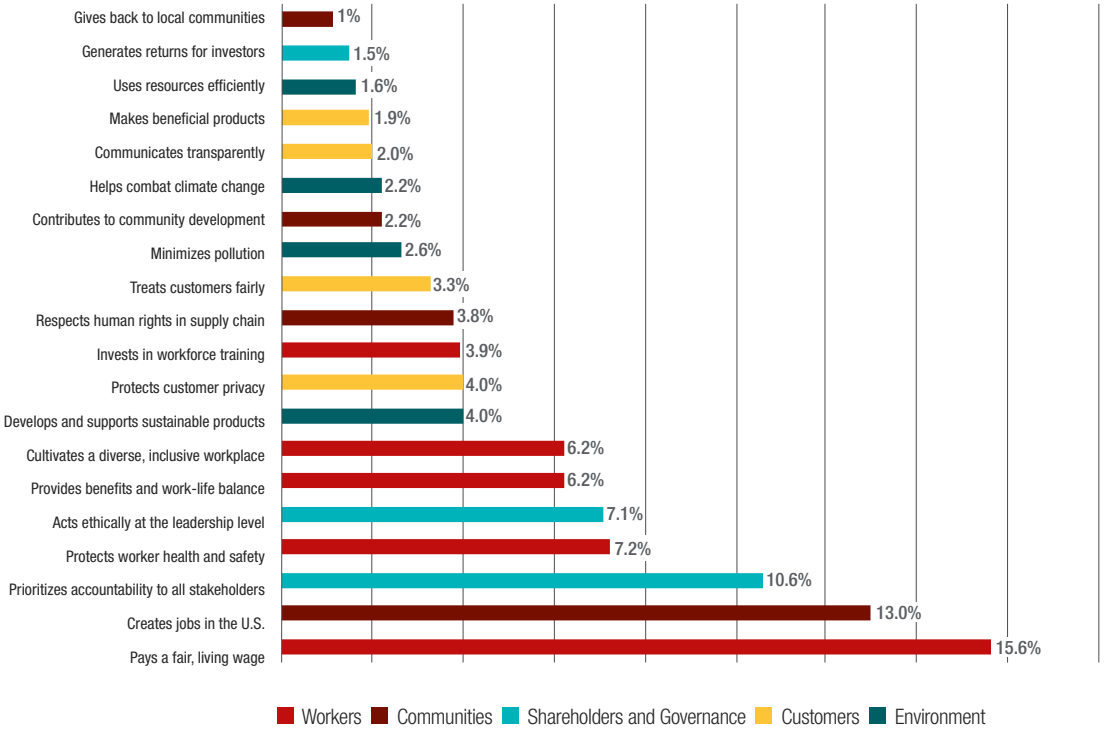
While climate is certainly a critical issue, from both a risk and opportunity standpoint, we observe that among U.S. investors, there is much more of a balance towards social considerations as well.

In the context of the COVID-19 pandemic especially, in the absence of the social safety net that exists in other parts of the world, and in the fraught political climate of recent years, U.S. investors – like all Americans – keenly feel the issues around financial inequalities, social and racial disparities, and the challenges faced by workers (see Figure 1).

Issues like economic inclusion (education and training, quality work, living wages, gender equality, workforce diversity), sustainable infrastructure, and good health and wellbeing (access to healthcare) are meaningful to a majority of U.S, investors, according to recent research from JUST Capital.[1]

[1] https://bit.ly/3dcGjER

Figure 1: What are Americans' top priorities for companies today?



Source: 2022 JUST Capital Foundation.

*Schroders proprietary tools and models are designed to enhance the research and evaluation process but do not guarantee favorable results or any intended outcomes.

It is important that these U.S. investors understand that their priorities also fall squarely within the realm of sustainability.

Social issues are very much a focus of our thematic research and our engagement efforts, and we are currently building a new research framework and testing a variety of human capital metrics to help contextualize the human leverage on capital employed, uncover the human drivers of firm-level productivity, and shed light on the possible human impact on the persistence of returns through the cycle. In addition, our firm-wide roadmap for active ownership in the coming years identifies six key priority areas/themes,[2] three of which are focused on social factors (see Figure 2).

4. FOCUS ON THE UPSIDE

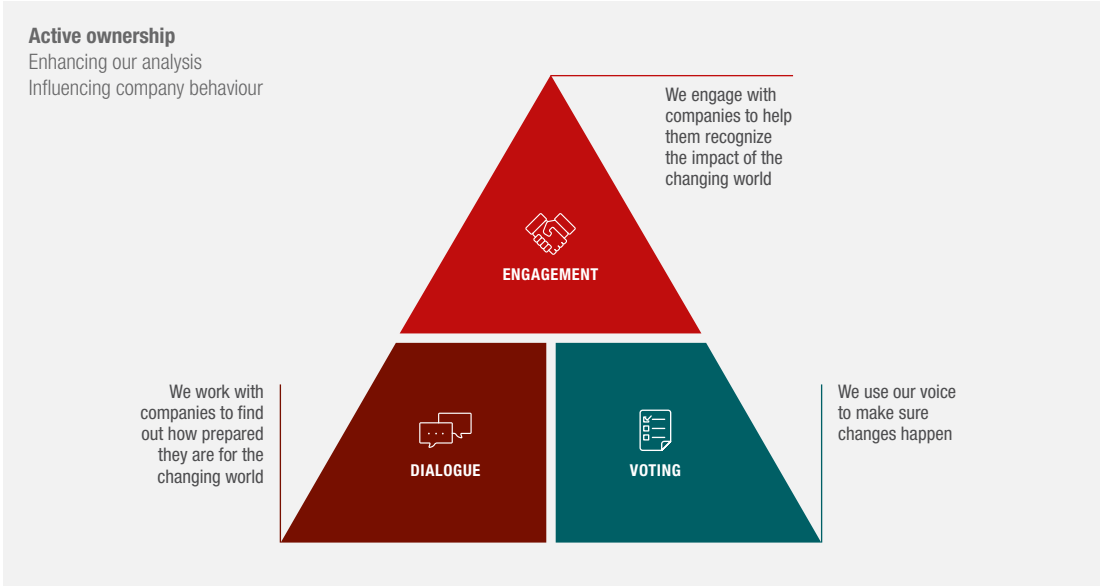
Even if there is less agreement in principle among Americans regarding certain ESG related issues, especially around climate, this need not prevent pragmatic discussion about why ESG integration matters in portfolios, purely from a better long-term risk and return standpoint, as well as from the standpoint of the impacts those investments have. The reality is that conversations do not always need to be about the sacrifices made in trying to reduce emissions in a portfolio. The other side of that same conversation can be about the opportunity to make lucrative investments in new technologies and solutions that can mitigate and even reverse environmental damage.

Also from a purely pragmatic perspective, we believe that we have a responsibility to try to protect our clients' capital from the risks that climate change poses. Given government and corporate decarbonization pledges, regulation, and public awareness of the issue, we expect that huge quantities of capital will be withdrawn from sectors that emit carbon and reinvested in those that aid transition. We, therefore, look for value in the potential opportunities created.

As investors, we believe the way we direct capital not only shapes the financial returns but also the type of impact

[2] https://bit.ly/3BBKtj4

Figure 2: Active ownership and key thematic priorities



SIX KEY THEMATIC PRIORITIES

CLIMATE	BIODIVERSITY AND NATURAL RESOURCE CONSTRAINTS	HUMAN CAPITAL MANAGEMENT
• GHG emissions • Decarbonization • Net zero • Physical risks • Renewable	• Biodiversity • Deforestation • Pollution and chemicals • Waste and circular economy • Water stress • Responsible sourcing • Plastic pollution	• Health and safety • Wellbeing • Compensation and benefits • Employee engagement • Freedom of association • Culture
INCLUSION AND DIVERSITY	**HUMAN RIGHTS**	**GOVERNANCE AND OVERSIGHT**
• Board diversity • Workforce diversity and inclusion • Impact of products and services on diverse communities • Gender and ethnic pay gap	• Child labor • Ethical supply chain • Indigenous rights • Basic access to products and services • Modern slavery	• Shareholders' rights • Executive compensation • Board composition • Governance interlinks with E+S issues

Source: Schroders

we have on the world. The relationship between these two outcomes has rapidly evolved as we see a fundamental shift in how companies are viewed and valued. Understanding the impact that they have on society and the planet could be crucial in determining their true costs and ultimately their impact-adjusted profits. Sustainable investing has become a cornerstone of building robust portfolios that may deliver long-term returns, serving the interests of both investors and society.

5. CONCLUSION

We believe that it is important for asset managers to engage U.S. investors in the sustainable investing conversation in a way that will resonate with them. Across geographies, the political spectrum, and generational cohorts, the asset management industry can seek to meet American investors on their own terms, in relation to their objectives and priorities. From a risk mitigation standpoint and from the perspective of capturing better long-term returns, we believe U.S. investors, no less than those in other regions, can benefit from having ESG considerations integrated into their investments.

STRUCTURING SUSTAINABLE FINANCE PRODUCTS

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ABSTRACT

The sustainable finance market has expanded rapidly in the past 10 years, from a fringe "movement" to a sizeable market providing significant financing and investing opportunities. We provide a definition and overview of the sustainable finance markets and seek to understand the process by which traditional financial products and instruments can be financially engineered to become sustainable finance products through two main avenues: use of proceeds and performance-based pricing. We provide some recent examples of innovative structures and conclude by showing that the sustainable finance market will continue to develop once solid foundations have been set.

1. SUSTAINABLE FINANCE MARKET DEVELOPMENT AND KEY DRIVERS

1.1 Defining the sustainable finance market

Defining sustainable finance is not as easy as it seems. Some of the most commonly used definitions – for example, as defined by the World Bank,[1] the European Commission,[2] and the Harvard Business School[3]: "Sustainable finance is the process of taking due account of environmental, social and governance (ESG) considerations when making investment decisions in the financial sector" – are focused on investment decisions and ignore other aspects of finance such as derivatives. The Impact Investor uses a broader definition: "Sustainable finance is a subset of traditional financing and investing that seeks to place capital into projects that reinforce sustainable development. The objective is to enhance mitigation and adaptation efforts to combat climate change by providing financial resources to opportunities in a variety of asset classes."[4] This broader definition is in our view more appropriate as it encompasses the whole universe of financial markets and not only the most visible part of the iceberg, capital markets. Depending on the definition, according to Refinitiv[5] and Bloomberg,[6] the size of the sustainable debt and credit finance market can be estimated to be between U.S.$1 and U.S.$4 trillion dollars, as of year-end 2021. Sustainable investing assets have been estimated to be approximately U.S.$35 trillion globally as of 2021[7] and U.S.$9.2 trillion annually for net zero transition.[8] While significant, this represents only a fraction of the universe of financial markets, and only a small part of the U.S.$50 trillion climate financing needs identified by the World Economic Forum,[9] which creates sizable opportunities.

[1] https://bit.ly/3CzdMmT
[2] https://bit.ly/3fx1guT
[3] https://bit.ly/3SWEafL
[4] https://bit.ly/3EzqF1N
[5] https://refini.tv/3MmxeGR
[6] https://bit.ly/3CaTY7I
[7] https://bloom.bg/3ruAQwz
[8] https://mck.co/3yicOZE
[9] https://bit.ly/3yEr3s3

1.2 Growth and development of the sustainable finance market

The accelerated development of the sustainable finance market has been driven by multiple factors, starting with increased acceptance of the climate change issues.

Long after Al Gore's "An Inconvenient Truth" brought climate change into the public eye in 2006, the Paris Climate Agreement (COP21) in 2015 was the first legally binding international treaty on climate change, adopted by 196 parties.[10] It boosted the growth of established organizations such as the Principles for Responsible Investing (PRI), which reached over 5,000 investors worldwide representing over U.S.$20 trillion in assets.[11]

Several countries have since announced "net zero" or "carbon neutrality" pledges, including, notably, China's commitment to reach carbon neutrality by 2060.

Building on COP21, the Glasgow Agreement announced at the COP26 conference in Glasgow in 2021 led to more pledges and actions from governments and the private sector.

While the environmental considerations drove the public discussion, the advent of the COVID-19 pandemic forced social issues to the front of the agenda, while the new technological revolution and the digitalization of the economy provided increased access to the information needed to develop databases.

New initiatives were announced to facilitate the development of the market.

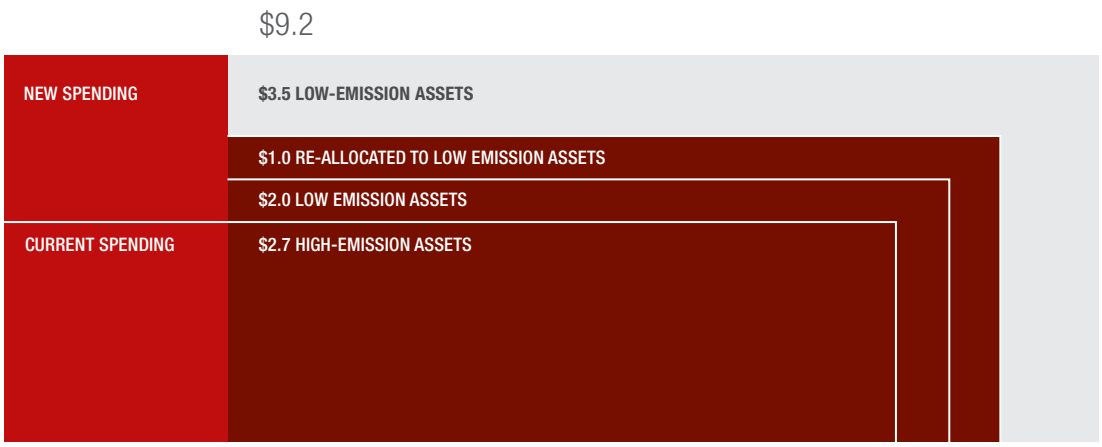
As the sustainability agenda took center stage, more developments in financial markets have helped build the momentum.

Academic and industry research have helped shift investor sentiment to positive views, with most retail and institutional investors thinking that ESG is having a positive impact on returns, according to DSW surveys.

Meanwhile, governments and corporate issuers have increasingly adopted a risk-based approach to sustainability, and regulators have pushed for a more comprehensive risk assessment reporting framework, driving firms to assess their exposure to climate change under the Task Force on Climate Disclosure (TCFD) approach. The establishment of the International Sustainability Standards Board (ISSB) announced in 2022 is a major step forward in standardizing reporting requirements.

The development of the sustainable debt and credit markets has been particularly significant, accelerating during the pandemic, reaching U.S.$1,710 million as of year-end 2021.[12]

Figure 1: Average annual spending on energy, mobility, industry, buildings, agriculture, forestry, and other land use, 2021-50 (U.S.$ trillion)



Source: McKinsey & Co.

[10] https://bit.ly/2EVSoXT
[11] https://bit.ly/3MmzSfL
[12] Based on Bloomberg data, source Standard Chartered

Figure 2: COP26 key nature-related pledges and actions

Nov 1: Ecuador opened COP26 by saying it would significantly extend the marine reserve around the Galapagos Islands in partnership with Colombia and Costa Rica, with a goal of reaching 30% marine protection by 2030.

Nov 2: More than 100 countries overseeing 85% of the world's forests agreed to reverse forest loss and land degradation by 2030. The pledge was backed by $12 billion in public funds from 12 countries.

Nov 2: The private sector committed a further U.S.$7.2 billion in funding to combat forest loss and more than 30 financial institutions managing U.S.$8.7 trillion of assets agreed to phase out deforestation from their commodities portfolio by 2025. The main commodities targeted are beef, soy, palm oil, pulp and paper.

Nov 5: More than 10 new countries, including India, Sri Lanka and Saudi Arabia signed up to the "30 by 30" target to protect 30% of the world's oceans by 2030.

Nov 5: Belize, partnering with Credit Suisse, The Nature Conservancy and others, said it closed a U.S.$36 million "blue bond" and would use the proceeds to help protect 30% of its ocean.

Nov 6: 45 governments pledged urgent action and investment to protect nature and shift to more sustainable farming methods. About 100 high profile companies including supermarkets and fashion brands, pledged to become "nature positive".

Nov 10: Fiji said it would issue its first sovereign "blue bond" in the summer of 2022. The proceeds will go to marine conservation.

Credit: CatWeeks
Sources: S&P Global Sustainable; S&P Global Market Intelligence

Figure 3: Recent policy initiatives to develop the sustainable and green finance market

ENCOURAGING CONVERGENCE OF INTERNATIONAL ESG PRACTICES	E.U.'s Sustainable Finance Taxonomy China's Green Industry Guideline Catalogue Regulators in Hong Kong explore developing a green classification framework for adoption in the local market with the aim of aligning with the Common Ground Taxonomy reported by the International Platform for Sustainable Finance
ENHANCING TRANSPARENCY AND DISCLOSURE	Certification schemes (Hong Kong Quality Assurance Agency's Green and Sustainable Finance Certification Scheme) Guidelines (U.S. SEC Climate Guidance, HKEX's ESG Reporting Guide) Platforms for ESG disclosure (Sustainable and Green Exchange established by HKEX)
CONSTRUCTING ESG INDICES	iBoxx Global Green, Social and Sustainability Bonds Index Bloomberg Barclays MSCI Green Bond Index
PROVIDING INCENTIVES	Hong Kong's Green and Sustainable Finance Grant Scheme US's Clean Renewable Energy Bonds and Qualified Energy Conservation Bonds programs The Netherlands' Green Fund Scheme
EXAMPLE SETTING	Carbon neutrality goals (Mainland China before 2060, Hong Kong before 2050) Government-affiliated asset managers prioritizing green assets (Hong Kong's Exchange Fund, Singapore's Temasek and Japan's Government Pension Investment Fund)

Source: HKIMR

2. OVERVIEW OF FINANCIAL PRODUCTS LANDSCAPE

2.1 Defining the universe

Most academic textbooks have a rather narrow definition of financial instruments. For example, Mishkin and Eakins (2005) define a "financial instrument" as a security, defined itself as a "claim on the borrower's future income that is sold by the borrower to the lender"[13], a definition that would not include derivatives or foreign exchange for example. According to Viney (2019), "financial instruments" are "issued by a party raising funds, acknowledging a financial commitment and entitling the holder to specific future cash flows,"[14] a definition narrowly focused on capital raising. Most academic books on financial markets focus quite narrowly on debt and equity capital markets.

The universe of financial instruments can be decomposed using a capital structure construct and looking at sources of capital ranging from common stock (plain-vanilla equity) to short-term liabilities including accounts payable and supply chain finance. We can also classify financial markets by distinguishing between capital markets, being financial markets where firms raise capital in the form of debt (debt capital markets) or equity (equity capital markets) and other financial markets such as commodities and currency markets. Contrary to popular perception, the debt capital markets are larger than the stock markets. Furthermore, the debt capital markets represent only a fraction of the universe of debt and credit markets, with private markets representing a large and opaque universe where firms can raise financing in many forms.

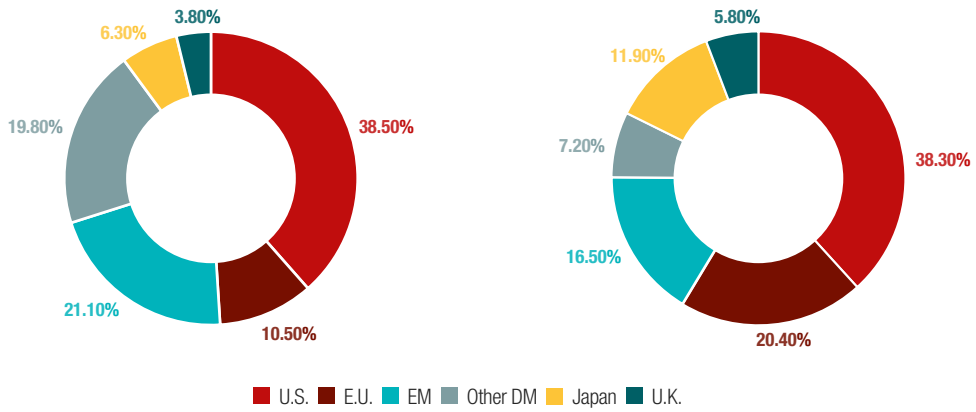
From a practitioner's perspective, according to the CFI, "Financial instruments are contracts for monetary assets that can be purchased, traded, created, modified, or settled for. In terms of contracts, there is a contractual obligation between involved parties during a financial instrument transaction."[15] They further classify financial instruments into three categories: cash, derivatives, and foreign exchange. This provides a good basis for discussion but omits commodity markets and other asset categories such as real estate and infrastructure. Furthermore, their definition of "cash" includes securities, loans, and deposits, which is a broad definition of cash.

From a retail consumer's standpoint, financial instruments can range from simple bank accounts and loans to investing products such as mutual funds and annuities and risk mitigating instruments such as insurance policies. The financial services industry, in its intermediation role, packages various products to allow retail customers to access wholesale financial markets through collective investment schemes (such as mutual funds and unit trusts) and insurance policies.

2.2 Basic asset classes and building blocks

In our view, most financial products can be decomposed into simple building blocks: basic asset classes (cash, debt, equity, currency, commodity, and real assets), derivatives (forwards and futures, swaps, options), and credit/liquidity enhancement (collateral, guarantees, SBLCs…). Insurance contracts can also be used for risk management or credit enhancement purposes.

Figure 4: Equity capital markets (ECM) versus debt capital markets (DCM) (2020)



Source: SIFMA

[13] Mishkin, F., and S. Eakins, 2005, Financial markets and institutions, 5th edition, Addison Wesley
[14] Viney, C., and P. Phillips, 2019, Financial institutions, instruments and markets, 5th edition, McGraw-Hill
[15] https://bit.ly/3SZK13l

Figure 5: Capital markets innovation

PLAYS ON MATURITY	INCORPORATING VARIOUS OPTIONS
• Perpetual FRNs • Extendable notes • Callable/puttable bonds • Variable coupon renewable notes	• Dual currency bonds • Index linked bonds • Dual coupon bonds • Pay-in-kind debentures and variable duration notes
EVENT DRIVEN STRUCTURES	**PROCEEDS BASED**
• Credit sensitive notes/bonds • Catastrophe bonds • Sustainability-linked bonds	• Green/blue bonds • Social impact bonds

Source: author

The basic components of each financial instrument can be tailored to reflect the specific needs of the parties. Financial engineering is the process of combining different building blocks to reflect the needs of the parties. For example, if we look at the basic components of any debt/credit contract, we can decompose as follows:

- **the parties to the contract:** the borrower (issuer), the lender (investor), and any other parties involved (guarantor?)
- **the length of the contract:** the maturity (term)
- **the amount borrowed:** principal, face value, notional, par value
- **when and how the amount borrowed will be repaid:** repayment or amortization schedule
- **how much the debt costs and when it is paid:** interest/coupon bearing or discount-to-yield/zero coupon; interest rate, coupon (includes reference rate and credit spread, how is it calculated and when paid – interest periods, coupon payment dates); fees to be paid and how they are calculated
- **other conditions of the contract:** representations and warranties, covenants, etc.; collateral, security, etc.; and use of proceeds.

We can then adapt each of the main components according to the needs of the parties and incorporate other financial building blocks. For example, a syndicated loan can be tied with a cross currency swap to allow the borrower the choice of currency to use. A bond can be designed with a put or call option to allow the issuer or the investors to redeem the funds early.

It is also important to realize that financial products can be used to raise sources of funds or invest funds (debt/equity), to manage/create risk (derivatives/insurance), and to exchange currencies or commodities today or in the future (derivatives). As such, a bond is a source of funds for the issuer, but from an investor the same bond is an investment, thus a use of funds.

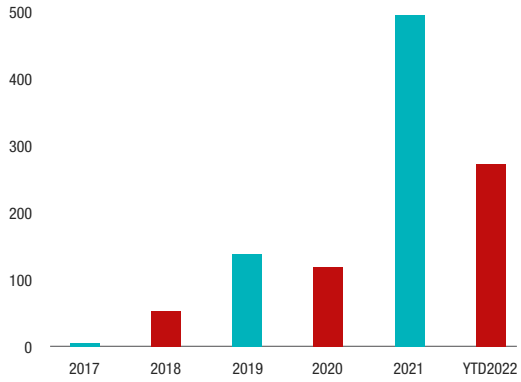
3. STRUCTURING AND OVERLAYING ESG

Applying the basics of financial engineering to ESG, we can overlay any financial instrument with sustainability principles. Basically, we consider sustainability as one more ingredient in designing our financial products.

When considering the universe of sustainable finance products so far, we have identified many examples:

- **debt capital markets:** (1) green/blue/orange/social/transition bonds and convertible bonds and sukuks; and (2) sustainability-linked bonds and convertible bonds and sukuks

Figure 6: Global sustainability-linked loans sales



Note: All full-year volumes except for YTD2022
Source: Bloomberg

- **loan/private debt markets:** (1) green/blue/orange/social loans/project/structured finance and private placements; and (2) sustainability linked loans
- **trade and supply chain finance:** sustainable trade finance
- **derivatives markets:** ESG derivatives, green interest rate swaps; debt-for-nature swaps
- **credit enhancement:** green sustainability-linked guarantee facility
- **insurance:** sustainable/green insurance
- **deposits:** green/sustainable deposits
- **funds and collective investment schemes:** ESG funds.

There are broadly two main ways to overlay ESG to financial instruments: use of proceeds and performance.

3.1 Use of proceeds approach

In the use of proceeds approach, the funds raised are exclusively used for ESG projects. For example, "green" bonds are those bonds where the proceeds are exclusively invested in environmental projects, such as building renewable energy projects, "greening" buildings, etc. Similarly "blue" bonds will be invested in water sustainability and ocean preservation.

Frameworks have been designed by industry associations to help guide the structuring of use of proceeds transactions, such Green Bond Principles (GBP)[16] and Green Loan Principles (GLP).[17]

In fund management, investments are selected according to the use of investors' money. For example, an equity portfolio will be composed of stocks of companies invested in ESG such as renewable energy producers.

Similarly, ESG deposits can be used only to finance ESG investments – a bank can isolate a portion of its deposit base to use for ESG loans, for example. ESG insurance contracts will only cover ESG projects.

This approach is popular as it is relatively easy to implement and monitor. Use of proceeds financial instruments dominate the market with green bonds representing 38 percent of total issuance in 2021, and a 100 percent increase compared to 2020.[18] As of Spring 2022, green bonds represented 42 percent of total issuance of sustainability labeled debt, followed by sustainability-linked loans at 21 percent.

3.2 Performance approach

In the performance approach, a list of indicators [key performance indicators (KPIs)] will be agreed upon, related to various aspects of ESG. These KPIs become part of the conditions of the contract between the parties, and performance is generally tied to the pricing, similar to grid-based pricing in syndicated loans that are tied to ratings or leverage ratios. Thus, if the issuer or borrower meets or exceeds the relevant KPIs, the cost of the financing becomes cheaper. In the bond and loan markets, frameworks have been designed by the relevant industry bodies, which help guide the structuring of the sustainability linked bonds and loans, such as the Sustainability-Linked Bonds Principles (SLBP)[19] and the Sustainability-Linked Loans Principles (SLLP).[20] The flexibility afforded by this approach has made it increasingly popular.[21] This approach requires two steps: first, negotiate and agree the targets or KPIs and then negotiate and agree the pricing impacts. While the performance approach provides greater flexibility, it is also more controversial.[22] One of the controversies relates to the pricing impacts: critics contend

[16] https://bit.ly/3EilmDr
[17] https://bit.ly/3rx4Zve
[18] Source: Standard Chartered presentation, 2022
[19] https://bit.ly/3SvEr9D
[20] https://bit.ly/3fMA0sk
[21] https://bloom.bg/3rth30G
[22] https://bit.ly/3UX2IXT

they are negligible and call for higher differentiation to incentivize issuers/borrowers to exceed their KPIs.[23] Other critics have also pointed out issues of timing ("sleeping" sustainability linked loans).[24]

However, the greater flexibility afforded by this structuring approach explains that the rise of sustainability-linked loans has been faster than its use of proceeds counterpart. For example, in APAC, sustainability-linked loans issuance increased 700 percent in 2021 compared to 2020,[25] fast outpacing green loans.

4. CASE STUDIES

4.1 Green bond

In April 2022, the Hong Kong SAR government issued its first retail green bond under its Retail Green Bond Program. This was the first Asian sovereign retail green bond. The issue raised HKD20 billion (approximately U.S.$2.55 billion) over three years. The coupon is the highest of 2.5 percent per annum or the six-month average CPI, providing investors with a welcome inflation protection. The issue circular[26] specifies that the bond's proceeds will be "used to fund projects that fall under one or more of the 'eligible categories' defined in the Green Bond Framework," and provides examples of projects in waste management and resource recovery, water and wastewater management, and green buildings. The bond was very well received by investors, triggering the increase from the initial issue size of HKD15 billion to HKD20 billion.

4.2 Sustainability-linked loan (SLL)

In September 2022, Bank Rayat Indonesia launched a U.S.$1 billion multi-tranche sustainability-linked loan in compliance with the SLL framework of the LMA[27]/APLMA[28]/LSTA[29]. It includes a U.S.$200 million one-year tranche A, a U.S.$300 million three-year tranche B, and a U.S.$ 500 million four-year tranche C. The spreads over SOFR are 50bp for tranche A, 75bp for tranche B, and 95bp for tranche C, with all-in pricing of 75, 100 and 110bp respectively. The spread will reduce by 2bp (step-down) if it can achieve its sustainability performance target, which is related to the percentage of micro-finance loans in the total loan book of the borrower. If the borrower cannot meet the target, the spreads will increase by 2bp (step-up).

4.3 Sustainable securitization

In June 2021, Bayfront Infrastructure Management issued the world's first public sustainable securitization deal. The Reg S-U.S.$401 million transaction consisted of five classes of notes: a U.S.$ 176.9 million Class A bonds, a U.S.$120 million Class A1-sustainability tranche, a U.S.$33 million Class B, a U.S.$ 22.1 million Class C, and a U.S.$8.8 million class D, with an additional U.S.$40.1 million preference shares retained by the sponsor. The Singapore listed bonds are backed by cash flows from a portfolio of 27 project finance and infrastructure loans for 25 projects across emerging markets.

The Class A1 was the issuers' first sustainability tranche, backed by sustainable assets. The proceeds from this tranche will be used for solar, wind, and hydropower energy as well as affordable basic infrastructure. There was strong demand from the investors, resulting in favorable pricing for the Class A1 notes, which had a weighted average life early call of 3.9 years and priced at 120bp over Libor, 5bp inside the Class A notes.[30]

4.4 Blue loan and debt for nature swap

The government of Barbados (Caa1/B-) has worked with Credit Suisse and CIBC on a U.S.$146.5 million blue loan and debt liability management exercise signed in September 2022. The loan benefits from a U.S.$100 million guarantee from Inter American Development Bank (AAA) and a U.S.$50 million guarantee from The Nature Conservancy (AA). The proceeds of the loan are used to call (prepay) a U.S.$72.9 million 8 percent local 2043 bond at par, and repurchase over U.S.$77million of the 6.5 percent international bonds at 92.5 cents to the dollar, saving U.S.$50 million annually over five years, which will be used to fund the Barbados Environmental Sustainability Fund. The funds will be used for marine conservation.[31,32]

[23] https://bit.ly/3e7S8ww
[24] https://bit.ly/3SK8Ktu
[25] Source: Standard Chartered presentation, 2022
[26] https://bit.ly/3Ee8fmV
[27] Loan Market Association
[28] Asia Pacific Loan Market Association
[29] Loan Sales and Trading Association
[30] Source: Global Capital Asia
[31] Source: Global Capital Asia
[32] https://bit.ly/3EzACMH

5. CONCLUSION

ESG and sustainable finance markets have experienced substantial growth during the past five years, and the bubble has started to deflate with accusations of "greenwashing" and the rise of regulation. As the excesses of the past few years are weeded off, the markets are developing solid foundations with increased standardization and the convergence of taxonomies. Reporting requirements are being developed and implemented in most developed markets, and the upcoming standards under development by the International Sustainability Standards Board will provide a sound basis for the regulatory framework. The notable increase in frequency and severity of natural catastrophes resulting from climate change being felt around the world results in significant material impacts on businesses, communities, and governments. For example, the insurance market in Florida is reeling from the repeated flooding brought about by a succession of storms, with the most recent hurricane, Ian, leading to loss of lives and significant damage. Businesses and governments can no longer ignore the cost of externalities, and a reassessment of materials risks arising from environment and social issues is firmly under way. Financial markets can provide the capital necessary to finance the transition to a more sustainable world through financial engineering designed to reflect the cost of externalities until now ignored by old models.

SOCIAL

BRINGING THE "S" BACK TO ESG: THE ROLES OF ORGANIZATIONAL CONTEXT AND INSTITUTIONS

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ABSTRACT

Building on research on corporate social responsibility (CSR) and institutional theory, this paper explores firms' perspectives on and approaches to the "S" (the social responsibility dimension) of the ESG framework in different institutional and organizational contexts. Building on studies grounded in institutional and organizational theories we argue that the scope and effectiveness of S strategies may differ depending on the legal system and institutional characteristics in a specific country. Our discussion suggests that researchers need to develop more holistic, institutionally embedded research frameworks to analyze organizational approaches to ESG.

"During the 'rebalancing' of the S&P 500 ESG index, Tesla has been dropped as a constituent. Elon Musk, the founder, CEO and product architect at Tesla, tweeted in response: 'ESG is a scam… It has been weaponized by phony social justice warriors.' However, Margaret Dorn, the S&P Global's head of ESG indices for North America, responded that: 'The beauty of an index is that it's transparent and rules-based, and we followed the rules of the index.' The index was intended to give 'broad market exposure', and Tesla's rating fell into the bottom quartile of the automotive sector because of claims of racial discrimination and poor working conditions at one of its factories" [Mundy and Temple-West (2022)].

1. INTRODUCTION

The term ESG was coined by a group of financial institutions, invited by the then United Nations Secretary-General, Kofi Anan "to develop guidelines and recommendations on how to better integrate environment, social and corporate governance issues in asset management, securities brokerage services and associated research functions", in a joint report, "Who cares wins", published by the United Nations (U.N.) in 2004 [UNGC (2004) (i)]. The participating financial institutions endorsed the report on the basis that "better consideration of environment, social and governance factors will ultimately contribute to stronger and more resilient investment markets as well as contribute to the sustainable development of societies" [UNGC (2004) (ii)]. Organizational theorists increasingly recognize that the quest for compliance with core principles of ESG is not only an answer to various corporate scandals and the recognition that business leaders may be acting irresponsibly with regard to the environment and key stakeholders more often than previously thought [Brown and Treviño (2006)], but also a result of the changes and new demands in the global marketplace, such as increased stakeholder activism and institutional pressures [Crilly (2011)]. Although there is a substantial and rapidly growing body of research in the fields of responsible leadership and ethical decision-making [Pless et al. (2012), Stahl and Sully de Luque (2015)], this research, for the most part, has not focused on contextual factors influencing managerial decision-making in the ESG area, and surprisingly little attention has been devoted to how institutional and organizational contexts may impact on the firm's strategy in the "S" sphere, and the way it is implemented.

Thus, while previous research has advanced our understanding of the environment ("E") and governance ("G") challenges facing executives, various concepts and research streams in the "S" field have not been well integrated into a comprehensive analysis and important research gaps remain. The case of Tesla provided above is an example that illustrates how losing focus on S-related aspects could undermine the whole ESG standing, even in companies with relatively high environmental sustainability standards. This paper aims to address this important, and yet not well-researched dimension of current ESG debates.

There is a growing consensus amongst business leaders and investors that environmental, social, and governance factors are "at the core of business" as they can "have long-term consequences on a company's financial performance" [UNEP (2010)]. Since its inception in 2004, much discussion has taken place and many initiatives have been led globally by various organizations, such as the United Nations and its agencies and other intergovernmental organizations, as well as national governments, standard setting bodies, business and professional associations, rating agencies, and NGOs [Nakajima (2021)]. Nevertheless, researchers and practitioners increasingly recognize that social responsibility is more nebulous and difficult to gauge than the other two criteria [i.e., E and G). Assessing aspects of social justice and evaluating the company's social impact without adequate data and accepted methodologies appear to be challenging. More importantly, E, S, and G policies are not orthogonal – they are interrelated: decarbonization strategies may have to recognize the need for a "just transition" that takes into account the interests of those affected. More importantly, a formal recognition of stakeholder interests increases complexity in accountability [Nakajima (2012)], a core principle of "good governance".

In this paper, we develop a multi-level theoretical framework that combines institutional theory and ESG perspective by focusing on a complex interplay between actions of corporate leaders – both the "do no harm" and "do good" dimensions of socially-focused behavior [Stahl and Sully de Luque (2014)] and external institutional pressures to engage in ethically responsible corporate behavior. As Delmas and Toffel (2008) suggest, organizational authority moderates perceptions of institutional pressures and thus managerial practices adopted. Although these arguments underpin earlier studies of responsible managerial behavior in economics and finance literatures, the main focus of this research was predominantly on issues of compliance with laws and regulations [Devinney et al. (2013)], including accounting rules and anti-fraud policies [Ball et al. (2003), Bushman et al. (2004)]. Lesser attention has been paid to the promoting of ESG policies that go beyond mere compliance and recognizing company responsibilities with regard to wider external stakeholder constituencies.

Finally, we will integrate both institutional and ESG perspectives on responsible leadership, in line with research on "institutions – pressure – firm" triplet [Eesley and Lenox (2006)], by showing how different constellations of institutional factors may lead to different "S" approaches on the firm level. As Ioannou and Serafeim (2012) argue: "Institutional theory long established that organizations are embedded within broader social structures, comprising different types of institutions that exert significant influence on the corporations' decision-making." Consequently, responsible managerial practices may be an outcome of the firm's responses to institutional pressures beyond a mere compliance with regulatory constraints, and key research questions within this framework are: where do the pressures come from; how do they drive legitimization processes, including changes in the firm's management approaches; and how do these changes, in turn, impact on the firm leaders' approach to ESG? By exploring these questions in the following sections, we intend to outline the existing approaches and discuss avenues for future research as well as some important managerial implications.

2. "S" IN THE CONTEXT OF LEGAL COMPLIANCE: BETWEEN "SOFT" AND "HARD" LAWS

Given their predominant focus on internal, organizational aspects of ESG, previous studies do not typically discuss potential roles of the firm's institutional environments in terms of their impact on the S strategy. The social dimension of the ESG framework refers to a firm's relationships with its stakeholders, both internal and external to the organization. Examples of criteria that a firm may be measured against include not only human capital management metrics (such as fair wages and employee engagement metrics), diversity and inclusion metrics, but also an organization's impact on the communities in which it operates and on supply chain partners, particularly those in developing economies where environmental, safety, and labor standards may be less stringent (Peterdy, 2022). As such, ensuring that human rights are protected throughout a firm's business operations is an essential part of the social domain in ESG, as illustrated in Figure 1.

Figure 1: Common "S" themes

Source: Twentyman et al. (2021)

The perceived importance of the issues that comprise the social pillar of ESG, and how companies respond to these issues, are likely to vary across different institutional and cultural contexts. Aguilera et al. (2007) suggest, however, that "because business organizations are embedded in different national systems, they will experience divergent degrees of internal and external pressures to engage in social responsibility initiatives." Consequently, contrary to the universalistic predictions of traditional research, different social, political, and historic macro-factors may lead to the institutionalization of very different views of firms' role in society on both individual and industry levels [de Graaf and Stoelhorst (2009)]. For example, research by Witt and Redding (2012) suggests that senior executives' views on the purpose of the firm and the meaning of social obligations vary across cultural and institutional contexts. These differences have significant implications for the choice of ESG strategies and approaches, as they affect leaders' perceptions of the legitimacy of stakeholder groups such as shareholders, consumers, employees, and the larger society. Several studies in the field of management and organization have taken a macro perspective and attempted to link firm-level corporate social responsibility (CSR) activities with national models of capitalism [Husted and Allen (2006)]. Cross-country differences in institutional arrangements are often used to explain differences in approaches to CSR [Aguilera et al. (2007)]. Specifically, researchers found that companies in the coordinated market economies (e.g., Germany and Japan) are more likely to take on board general stakeholder concerns compared to companies in the liberal market economies such as the U.S. and U.K. [Devinney et al. (2013)].

More recently, sociology-grounded research suggests that strategies are an outcome not only of coordinative demands imposed by market efficiency but also of rationalized norms legitimizing the adoption of appropriate governance practices [Bell et al. (2014)]. Legitimacy is the "generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate, within some socially constructed system of norms, values, beliefs, and definitions" [Suchman (1995)]. This perspective focuses more on theoretical efforts to understand how strategic decisions, including S strategies, affect the firm's legitimacy through perceptions of external assessors, or the stakeholder "audiences" [Deephouse and Suchman (2008)].

Research within institutional theory and social psychology fields differentiates between various types of legitimacy judgments that also include, in addition to instrumental (pragmatic), relational and moral dimensions [Aguilera et al. (2007), Bell et al. (2014), Ntim and Soobaroyen (2013)]. More specifically, institutional theorists predict that regulative, normative, and cognitive institutions put pressure on firms to compete for resources on the basis of economic efficiency. However, institutional pressures may also compel firms to conform to

expected social behavior and demands of a wider body of stakeholders. As Ntim and Soobaroyen (2013) summarize this approach: "A major underlying assumption within an 'overarching' neo-institutional perspective is that the actors are not only competing for resources ('efficiency'), but they are also seeking ultimate legitimacy and social acceptance ('legitimation')." In other words, the ability of organization to achieve social acceptance will depend, in addition to efficiency concerns, on its ability to demonstrate moral and relational responsibility by committing to stewardship management practices, stakeholders' interests, and societal expectations [Aguilera et al. (2007)].

Research on "institutions – pressure – firm" triplet [Eesley and Lenox (2006)] suggests that these arguments may have far-reaching implications for firm-level ESG approaches and strategies. First, the firm's quest for moral and relational legitimacy may lead to changes in its approaches to corporate governance ("G") practices and processes. For example, some firms, in addition to enhancing monitoring capacity of boards, may also incorporate stakeholder engagement mechanisms into their formal governance structures by assigning responsibility for sustainability to the board and forming a separate board committee for sustainability. In this regard, in Germany co-determination system of corporate boards ensures that representatives of key stakeholders, including employees, have a direct say in governance matters [Raelin and Bondy (2013)]. A system of remuneration that involves not only financial performance benchmarks but also factors associated with longer-term sustainability may be another governance factor contributing to moral legitimacy [Filatotchev and Stahl (2015)]. Second, some companies introduce wider performance criteria and definitions of risk in their risk-movement systems that use non-financial indicators. Third, institutional and cultural factors may explain differences in ESG approaches among countries that we outlined above. The three types of legitimacy judgments are not applied universally, and their balance may differ depending on the specific institutional environment in a particular country. Devinney et al. (2013), for example, argue that in a shareholder-focused corporate environment, such as the U.S. and U.K., directors' and managers' obligations are mainly to the company and its shareholders, whereas in stakeholder-oriented societies, such as Germany and Japan, managers have to consider multiple stakeholder constituencies when making decisions. Witt and Redding (2012) in their comparative analysis show that while Japanese business leaders stressed the need for firms to contribute more broadly to society, U.S. executives were unanimous in assessing societal concerns as secondary to shareholder interests. This creates challenges in terms of compliance with "hard" and "soft" regulations associated with S factors.

More recently attention has been paid to the role of global institutions such as U.N.'s Global Compact and the institutionalization process of codes of conduct for global businesses and their value chains [Ioannou and Serafeim (2012), Kostova and Zaheer (1999)]. This exposes companies to what Bell et al. (2014) call "multiple institutional logics", and it is unclear how this exposure affects legitimation process and its implications for ESG. While corporations face a heightened level of institutional complexity resulting from heterogeneity and fragmentation of formal and informal rules, the recognition of the importance of ESG as a matter of public policy among inter-governmental organizations [Petkosky and Twose (2003)] has produced a plethora of international and regional agreements which, in turn, have encouraged governments to introduce national legislation. The resulting laws and regulations, imposing on corporations increasing and wide-ranging obligations concerning environmental, social, and governance issues, have formalized what were once corporate voluntary actions to legal requirements. In areas, identified by Cragg and McKague (2003) as issues covered by voluntary industry or business standards – namely environment, labor, corporate governance, money laundering, bribery and corruption, human rights, and corporate reporting – national legislation can now be found rendering protection, prevention, and control of these issues. Equally, it has been observed that legislation influences the substance, implementation, and communication of ESG, and that current normative ESG may constitute "pre-formal law" [Buhmann (2004)]. Furthermore, in many instances, laws may impose sanctions, regardless of culpability, when breached (e.g., environmental protection). It is also the case that many of the legislative developments have extra-territorial application, whereby one country's laws may have jurisdiction over individuals and corporations outside of the country [Filatotchev and Nakajima (2014)].

Consequently, in the context of "multiple institutional logics" the firms face heterogeneous and often ambiguous institutional pressures, and previously accepted standards of behavior, such as legal rules or self-regulation principles, become fragmented or outright ineffective. This may explain the growing heterogeneity of firm-level approaches to corporate governance and ESG despite a growing trend for harmonization through various governance codes and principles of "good practice" [Frederick (1991)].

3. "S" IN THE GLOBAL INSTITUTIONAL CONTEXT

Academic studies of the impact of informal institutions and culture indicate that companies pursue regulative legitimacy in order to demonstrate compliance with rules and regulations, but they also need to obtain socio-cultural legitimacy in order to reduce stakeholders' uncertainty and to secure their support [Bell et al. (2012)]. An organization possesses legitimacy within the socio-cultural sphere when stakeholders see the company acting in ways that are comprehensible, recognizable, and culturally supported. The meaning and effectiveness of S policies are, therefore, embedded in the very fabrics of informal and cognitive institutions that demonstrate a great degree of difference around the world. This creates significant challenges for global companies regarding their "S" approaches.

Specifically, the global environment in which multinational enterprises (MNEs) operate dramatically increases the complexity of the ethical dilemmas confronting MNEs and their leaders, as well as the diversity of stakeholders whose interests must be considered. Filatotchev and Stahl (2015) argue that, in this context, MNEs face a perennial dilemma: how to balance the need for global consistency in corporate responsibility and sustainability approaches and standards across the organization with the need to be sensitive to the demands and expectations of a diverse set of stakeholders spread across the globe. Building on the framework of "transnational CSR", these authors provide a systematic analysis of socially focused approaches in MNEs in the diverse cultural and institutional contexts. Although the authors discuss CSR approaches in general, their focus is on the S aspects, highlighting the tensions and possible trade-offs between globally integrated and locally adapted strategies. They discuss the constraints that they impose on MNE activities at both headquarters and subsidiary levels. Their argumentation is summarized in Table 1.

When MNEs emphasize global CSR consistency and integration in every country where the company operates, as opposed to giving priority to the concerns of local stakeholders, they are utilizing the globally standardized approach to CSR and stakeholder management. The perceived advantages derived from the global integration of CSR activities must clearly outweigh the perceived benefits of meeting the needs of local stakeholders. MNEs that follow the global approach to CSR tend to establish universal guidelines or codes of conduct and

Table 1: Approaches to corporate social responsibility in MNEs

	GLOBAL APPROACH	LOCAL APPROACH	TRANSNATIONAL APPROACH
EMPHASIS	Global integration/standardization	Local responsiveness/flexibility	Global integration and local responsiveness
DESCRIPTION	Headquarters' perspective and demands for consistency prevail over local concerns	Local concerns take precedence over demands for global consistency	Attempts to reconcile the tensions between global and local concerns
BENEFITS	Ensures consistency in managerial decision making and CSR activities; establishes clear rules of conduct; facilitates transfer of CSR best practices; helps to prevent and manage financial and reputational risks; and helps build trust and goodwill among global stakeholders	Ensures responsiveness to local conditions; greater flexibility in terms of CSR strategies and activities; and helps build trust and goodwill among local stakeholders	Provides a global "template" for coordinating the firm's CSR activities to ensure consistency, but allows executives of local subsidiaries to adapt that template according to their needs and circumstances; and may lead to high CSR performance at both headquarter and subsidiary levels
DANGERS	May lead to cultural arrogance and "ethical imperialism"; neglect of local stakeholder interests; and entice managers to blindly apply the firm's global policies without considering local circumstances	May promote a naïve form of ethical relativism ("When in Rome, do exactly as the Romans do"); make it difficult to determine what is morally right; lead to neglect of global stakeholder interests; make it difficult to create or apply universal norms and standards; and may promote tolerance for rogue states and corrupt regimes	Often difficult to strike an appropriate balance between global consistency and local adaptation; and high coordination costs and difficult to implement

Source: Filatotchev and Stahl (2015)

apply them to every cultural context in which they operate. Implicit in this approach is the assumption that universal principles of responsible conduct exist that transcend values and norms of particular societies. Business ethics scholars Thomas Donaldson and Thomas W Dunfee (1995) refer to such universal principles as "hypernorms" and assert that they are based on values "acceptable to all cultures and all organizations." Examples of such universal norms and values appear in the U.N. Global Compact and the U.N. Sustainable Development Goals.

Filatotchev and Stahl (2015) outline the evident benefits of a global approach to CSR. It establishes clear rules of behavior, increases trust in the firm's leadership and control mechanisms, helps the company prevent and manage risk, fosters a culture of responsibility within the global organization, and ensures global consistency in managerial decision making and behavior. However, such global consistency comes at a price. A global CSR approach can lead to cultural arrogance and ethical imperialism, which induces executives to act everywhere in the world in the same way as "things are done at headquarters". A global CSR approach also makes it more likely that managers use their companies' global policies to legitimize actions that are detrimental to the interests of local stakeholders or turn a blind eye to human rights abuses in the countries where they operate.

The locally-oriented approach to CSR is in some ways the mirror opposite of the global approach. It highlights the need for responsiveness to local conditions and sensitivity to the needs and demands of stakeholders in the countries where the company operates. Executives of companies that have implemented a local CSR approach thus aim to behave in a socially desirable manner, as defined by the local majority for each country where they conduct business. The locally adapted CSR approach, therefore, requires that subsidiary managers work as cooperatively as possible with local stakeholders.

The main benefit of this approach compared with the global CSR approach is its greater responsiveness to the concerns of stakeholders in the countries in which a multinational company operates. The greater flexibility and responsiveness with respect to CSR derived from a local approach is not without problems though. In practical terms, this approach makes it very difficult to create or apply any universally accepted norms or standards, or even to determine what is ethically right or acceptable. Moreover, in combination with weak institutions, inadequate regulations, and ineffective law enforcement in the countries where MNEs operate, a local CSR approach may promote unethical practices and lead to disastrous decisions at the local level.

Filatotchev and Stahl (2015) advocate for a transnational approach that adopts a hybrid strategy, based on the assumption that global and local approaches to CSR are not mutually exclusive. In many cases, economic needs, political pressures, and stakeholder expectations demand that companies respond to both global issues and local concerns simultaneously, thereby acknowledging that diverse contexts and multiple stakeholder interests require complex CSR strategies. In essence, a transnational CSR approach demands that companies develop a global template for their CSR activities to guide managerial decision making and ensure consistency across the organization, but at the same time allows executives of local subsidiaries to adapt that template according to their specific needs and circumstances. Global policies and codes of conduct may thus be enacted in different ways, depending on local cultural norms and stakeholder demands. Although the transnational approach is not without problems – in particular, it is often difficult to strike an appropriate balance between global consistency and local adaptation – this approach appears best able to guide managerial decision making, as well as to help executives address the CSR challenges in the global arena.

4. CORPORATE ATTEMPTS TO PUT THE "S" BACK INTO ESG: AN EXERCISE IN WINDOW-DRESSING OR CORPORATE SOCIAL RESPONSIBILITY IN ACTION?

As evidenced by the growing number of companies that have adopted "profit-with-purpose" business models [Levillain et al. (2019)], the emergence of dedicated ESG departments in many companies and the proliferation of voluntary codes like the U.N. Global Compact, many companies have taken some form of action to align their activities with the needs of stakeholders inside and outside the organization, with the goal of addressing some of the societal challenges we face and creating "shared value" [Porter and Kramer (2011)] through their business activities. An example is Unilever and its "Sustainable Living Plan" aiming to fully decouple growth from its overall environmental footprint and to increase its positive social impact. This was followed by an even more ambitious plan, the Unilever Compass, which lays out a number of multi-year priorities that cover the full spectrum of Unilever's business and wider ecosystem, including climate change,

gender equality, human rights, and fair value. Unilever's CEO, Alan Jope, is convinced that "[t]he pressures on the planet are getting worse, and social inequality has reached a critical point. … As the world is changing increasingly quickly, our employees, our customers, our suppliers, our partners expect more from us. We know that we can continue to lead the charge, but we need to be better, bolder, and faster" [Unilever (2021)].

Studies show that firms may benefit economically from incorporating social responsibility and sustainability principles into their strategies and core business processes [Eccles et al. (2014)]. At the same time, however, many firms continue to engage in tendencies of "greenwashing" – demonstrating symbolic social or environmental responsibility while leaving the core business untouched [Crilly et al. (2012), Wright and Nyberg (2017)]. CSR still fundamentally serves as a compliance and risk-management function in most companies and is largely decoupled from the strategy, playing a predominantly ceremonial role in response to legitimacy pressures, as opposed to a substantive (i.e., tangible, measurable, and impactful) role. In the former case, firms are merely seeking to appear to be committed to the "S" in ESG to placate various stakeholder groups or avoid legal problems (e.g., discrimination lawsuits) and other negative consequences; in the latter, firms make genuine attempts to incorporate sustainability and social responsibility into their business models, cultures, and operating processes.

A glaring example of "greenwashing" is Volkswagen. Volkswagen was a member of the U.N. Global Compact until shortly after the scandal (they were delisted in the wake of the scandal) and their core values, as stated on the corporate website, included social responsibility and sustainability – all the while lobbying governments to cut back environmental regulations and cheating on emissions testing results.

Volkswagen is an extreme example, but this sort of misalignment between a company's policies and stated values and the lived values – what is actually practiced in the organization – is common. A recent study of 100 of the largest global companies that have committed to advancing the U.N. Sustainable Development Goals (SDGs) found that "the commitment of almost every company appears to be merely cosmetic; existing CSR initiatives were simply relabeled with the relevant goals. … Hardly any companies are doing anything new or different in their core business activities to advance the goals." The authors also observed that "in many cases, companies' core business activities even seem to contradict their commitments," citing ExxonMobil and Philip Morris as examples [Kramer et al. (2019)]. Thus, the fundamental challenge for companies is to fully integrate social responsibility into their business models and core operating processes and to build cultures that support the necessary transformation that will allow them to put the "S" back into ESG.

5. DISCUSSION

Our analysis outlines an emerging agenda for companies and investor community. Clearly, an effective S strategy requires recognition of complex impacts of the company's industry and institutional environments. Specifically, the integration of the "S" factor goes beyond legal and regulatory compliance, which, as observed earlier, is becoming increasingly complex due to an expanding number of international treaties and resulting national laws and regulations. Equally, what cannot be ignored is a growing body of best practice, codes of conduct, international standards, and such like – what is generically referred to as soft law. While it is not backed by the force of law, disregarding soft law may lead to negative consequences for corporations, such as shareholder actions; the loss of investors, customers, and staff; the collapse of share prices; and reputational damage. Furthermore, an increasing trend in some countries, such as the U.K., to introduce criminal liability in regard to companies failing to prevent certain actions taken by their employees or anyone acting on their behalf, such as bribery, tax evasion and fraud, has necessitated corporate leaders to consider more nebulous and harder to gauge aspects of management, such as corporate culture, and places under the microscope ethical behavior of companies and, therefore, their leaders.

As we have alluded to earlier in this article, there are various interdependencies, tensions, and trade-offs both among the social, environmental, and governance dimensions of the ESG framework and their relationship with economic outcomes such as shareholder returns, and it is a major management challenge to reconcile these tensions. When leaders are confronted with tensions such as shareholder value maximization versus serving the interests of other stakeholders, they tend to have one of two choices. They can either frame the seeming conflict in "either/or" terms, whereby the needs of one set of stakeholders take precedence over another; or they can view these tensions in "both/and" terms, looking for a resolution that meets the needs of seemingly disparate stakeholder groups [Waldman et al. (2020)].

There is a growing body of research that suggests that a "both/and" approach that follows an integrative logic and considers the needs and interests of a broad group of stakeholders, including the shareholders, is the most beneficial for the company. This approach seems to serve the needs of shareholders better than a narrow focus on profits and shareholder value maximization. For example, a study involving more than 500 CEOs and their organizations spread across 17 countries on five continents found that executive decision making that gives equal priorities to satisfying the needs of multiple stakeholder groups (e.g., shareholders/owners, employees, customers, and the greater society) resulted in stronger firm financial performance, as compared to decision making that focuses more narrowly on financial goals (e.g., costs, market share, and profits) [Sully de Luque et al. (2008)]. This more integrative orientation that attempts to reconcile economic imperatives with social and/or environmental considerations is exemplified by business leaders who have attempted to run their corporations with multiple objectives and potentially conflicting bottom lines in sustainable ways.

A prime example is former Unilever CEO Paul Polman, who initiated the "Sustainable Living Plan" – Unilever's blueprint for addressing the ecological and social challenges of our time. Polman is convinced that "if we focus our company on improving the lives of the world's citizens and come up with genuine sustainable solutions, we are more in synch with consumers and society and ultimately this will result in good shareholder returns." Polman insists that "we shouldn't talk about purpose over profits. We truly believe that by positioning our brands on doing real good, by running our supply chain in a sustainable way, by being a responsible employer and creating great opportunities for people, …then our shareholders will be well rewarded" [Massar (2020)]. The results bear him out: Unilever created twice the market growth and 300 percent shareholder return in the 10 years after implementing its Sustainable Living Plan.

As the Unilever example illustrates, purpose-driven companies and leaders recognize that making profits and creating shareholder value are prerequisites for pursuing a broader social mission. This implies that engagement in corporate responsibility and sustainability should not become an excuse for underperformance. Perhaps the biggest governance challenge in many multinationals today is making sure that purpose and profits are aligned [Pucik et al. (2022)]. In 2021, Artisan Partners, a long-term investor in Danone, issued a statement indicating that "on almost every measure, Danone's performance has lagged. Revenue has underperformed relevant category growth rates, margins are below its peer group, and return on equity and capital have stagnated or

declined" [Segal (2021)]. While Artisan acknowledged that the chairman and CEO Emmanuel Faber, the force behind Danone's ESG strategy, had transformed Danone into a more environmentally sustainable and socially responsible company (the E and S in ESG), it argued that he had neglected the G of corporate governance. After several weeks of public debate, Faber was ousted from Danone. Thus, bringing the "S" back into ESG (or the "E", for that matter) cannot be achieved at the expense of the "G".

The debate surrounding the categorization of ESG and the quest for acceptable metrics continue, and the broad nature of the "S" factor poses a challenge to the business and investment sectors alike. While an agreement on at least some of the core elements that constitute the "S" might be helpful, it is arguable that businesses should strive "to do the right thing" for all stakeholders, instead of defining ESG categorization and metrics [Twentyman et al. (2021)]. However, doing "the right thing" ultimately requires human judgment. As Charkham and Simpson (1999) observe, "There is a relentless pressure to replace judgement with formulae... This rests in part on the fallacy that numbers are more precise and accurate than words. As anyone who has compiled a set of accounts knows, almost every number is a judgement."

To conclude, our discussion indicates that the changes and new demands in the global marketplace, such as increased stakeholder activism and institutional pressures, require timely and effective strategic responses from modern business and their leaders. While previous research has advanced our understanding of the environment ("E") and governance ("G") challenges facing executives, various concepts and research streams in the "S" field have not been well integrated into a comprehensive analysis. Our paper makes a call to researchers and practitioners to develop multi-level theoretical frameworks that combine the institutional theory and ESG perspective by focusing on a complex interplay between actions of corporate leaders and external institutional pressures to engage in ethically responsible corporate behavior.

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HOW COULD SOCIAL AUDITS BE IMPROVED? A PROBLEM WITH THE "S" IN ESG REPORTING

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ABSTRACT

Every year, major brands commission hundreds of social audits to check conditions in their supply chains. Yet, unsafe or unethical labor practices persist. Work to address this problem has tended to focus on developing a framework for social sustainability or creating ever more different audits, codes of conduct, and checklists, rather than engaging with the people affected by working conditions – the factory workers themselves. In this article, we review a case where digital diaries were used to understand what matters to factory workers, considering how our insights might be used to improve the quality of social audits.

1. INTRODUCTION

With the increasing emphasis on environmental, social and governance (ESG) reporting, more companies now face the prospect of reporting to investors on the social conditions in their global supply chains. Consumers have been voicing concerns about global working conditions for more than 30 years, with scandals ranging from New York Times revelations in the 1990s of abusive labor practices in Indonesian factories in Nike's supply chain [Porter and Kramer (2006)] to the tragic collapse of the Rana Plaza factory complex in Bangladesh in 2013. Growing media interest in these issues has led to many other reports of unsafe working conditions or unethical labor practices. In December 2021, U.S. NGO China Labour Watch reported multiple violations in a factory manufacturing printer consumables for major brands. Violations undermined workers' rights, their wellbeing, and their physical health and safety. Amazon, an organization employing an in-house social responsibility team and very frequently conducting audits in supplier factories, has recently faced allegations of poor wellbeing among under-aged workers pressured to work excessive hours in the already notorious Foxconn factory [China Labor Watch (2021)]. That the government was complicit in the use of these alleged interns and the whistleblower was subsequently imprisoned [China Labor Watch (2022)] illustrates an additional layer of complexity to issues in Chinese factories, where the imbalance of power and threat of retaliation can be severe. This has led to a focus on managing the reputational damage caused by poor conditions in supply chains.

Yet, we should aspire to more than simply a reduction in harm. U.N. Sustainable Development Goal 8 (SDG8) commits us to the pursuit of "decent work and economic growth". Creating socially sustainable supply chains is an important step toward this goal. Academic work on the topic has focused on creating an ethical framework [Beamon (2005), Manners-Bell (2017)] to encourage social as well as environmental sustainability in supply chains, but much has been stymied by a lack of accurate information about factory conditions [Köksal et al. (2017), Egels-Zandén et al. (2015), Locke et al. (2009)].

Finding out what is happening in remote and complex supply chains is difficult. Data on factory conditions is generally collected using a combination of surveys and observation. While these methods are well-established, they are problematic because they simply do not give an accurate picture of what is going on. A factory is a living system. Most audits work by focusing on single points of observable data, meaning they often miss critical information at this systemic level, particularly about the social sustainability of that factory. To look inside the **black box** of a Chinese factory, we need to develop alternative methods.

Both in the development of theory and in industry benchmarking, the concerns of Chinese factory workers have been omitted from discussions of social sustainability. Although they are both most affected by their own working conditions and in the best position to provide insights, little research has engaged with them directly. We, therefore, set out to listen to these workers and to explore their working conditions from their own perspectives. By adapting a proven longitudinal, qualitative research technique, which had already been found useful at scale and with people who would otherwise be hard to reach, we were able to overcome the barriers to hearing from and about these workers. Our combination of traditional diary research techniques with a social media platform produced a large volume of rich data, enabling us to hear their authentic voices.

In this paper, we contrast typical audit methods with this novel approach to data collection to consider how we might improve our understanding of conditions in complex supply chains. We present a case study showing how our method was used to reveal the concerns and frustrations of factory workers, then comment on its suitability as an alternative to audits, concluding with three concrete suggestions for improving supply chain transparency.

2. WHY DON'T AUDITS WORK?

While there is a growing body of academic literature pointing out the failures of audit-based monitoring [LeBaron et al. (2017)], most academic attention has focused on trying to create frameworks for social sustainability [Beamon (2005), Manners-Bell (2017)]. Meanwhile, there are significant methodological problems associated with uncovering the day-to-day realities of conditions in Chinese factories. Consequently, companies tend to use social audits, often via third parties, to understand the risks they face from poor factory conditions [Egels-Zandén et al. (2015), Freise and Seuring (2015)]. Typically, an audit is conducted on a single site visit, using a checklist and observation to see whether a factory is meeting some agreed criteria. For example, an auditor might check that fire doors or fire extinguishers are installed, or that the factory temperature is within a specified range.

These audits – although well-intentioned and to an extent useful – are necessarily limited in their ability to create a real understanding of a factory's working conditions. An array of different standards and codes of conduct have been created by individual buyers, auditing firms, and industry groups. With no agreed code of employee wellbeing to form a standardized baseline for social observations [Locke (2013)], data from third-party auditors may be based on any of these. While not unreasonable, their criteria also tend to favor objective data that can be collected through simple observation.

This is understandable. Wellbeing is difficult to observe or rank. There are also structural barriers to collecting reliable data. To truly understand a worker's wellbeing, auditors would need to enquire about personal matters – such as feelings of safety – about which it may be difficult for workers to be honest. Given the imbalance of power between the observer and observed [Sinkovics et al. (2016)], interviewees are unlikely to feel comfortable accurately describing any negative effects of their workplace. Alternative methods such as ethnography or covert observation might uncover this information but are difficult and time-consuming, and so are rarely used by researchers and not at all by auditors.

Another significant limitation of audits' attempts to understand factory life is that survey and observation methods are both time-limited: they tend to take a measurement at a single point in time. Wellbeing is an ongoing process. A factory is a dynamic system and single point observations of physical characteristics cannot always tell us much about that system and its effects on individuals. Having a fire door and a fire extinguisher would count as positives in a conventional audit. But if the fire extinguisher is habitually used to prop open the fire door, the system will still fail in the event of a fire.

This combination can lead to a "ritual of compliance" [Locke (2013)] in which management focuses on providing auditors with acceptable data. Managers may coach interviewees to provide certain specific information [Sinkovics et al. (2016)], creating a situation where a factory can receive a satisfactory audit report while remaining an unsafe working environment. Only more qualitative, longitudinal data would provide an understanding of the actual conditions in a factory [Egels-Zandén (2014)].

Finally, there is a problem with reading audits. Companies' compliance departments will focus on a factory that fails an audit, taking urgent remedial action. This approach is not useful for identifying near misses or developing good practice; it perpetuates the emphasis on compliance rather than supporting improvement. Factories achieving very good results will be overlooked, despite the fact that these may have been achieved by **gaming** the system on audit day or might even be the outcome of bribes or other compliance failures.

These factors produce a system in which decisions are based on superficial observations, rather than a deeper systemic understanding. Furthermore, the people social audits are designed to help – the factory workers themselves – are not involved in either defining what constitutes a good factory or providing the data to help their factory to improve. Audits, while they have certainly uncovered severe safety issues or illegal labor practices, leading to substantial improvements in many cases, were not designed to promote decent work. We, therefore, set out to find a research method that would allow us to provide a more useful understanding of factory conditions, by capturing workers' daily experiences direct, in real time but away from the influence of researchers, managers, or auditors.

3. ADAPTING DIARY RESEARCH FOR A CHINESE FACTORY SETTING

Chinese factories are difficult research environments. They can be noisy or crowded. Migrant workers are often housed in dormitories with colleagues so there is relatively little quiet or privacy. Levels of literacy are variable. We had to bear all these factors in mind when planning our research. After reviewing a range of data collection methods (including surveys, interviews, focus groups, and ethnography), one that seemed particularly promising was diaries. Diaries are self-report instruments that can be used to "examine ongoing experiences" and "to investigate social, psychological, and physiological processes within everyday situations" [Bolger et al. 2003)]. Elliott (1997) describes diaries as "a substitute for accurate scientific observation, in settings from which the scientist is absent." We, therefore, decided to explore their potential to address some of the problems identified with conventional audits and to provide a more accurate insight into life in a Chinese factory. We sought to gain a far deeper understanding of what working in a factory is really like by replicating real diaries, like those documenting the medical histories of patients, "the throes of adolescent angst, literary legacies of writers [or] private worlds of politicians" [Taylor and Taylor (2003), Patterson (2005)].

3.1 Potential benefits of diary research

Existing studies have used diaries in the work environment to seek to understand emotions [Bono et al. (2007)], social interactions [Tschan et al. (2005)], and work-life balance stress [Ilies et al. (2007), Jones et al. (2007), Sonnentag et al. (2008)]. However, to our knowledge, diary research had not previously been used with Chinese factory workers. **Digital diaries** have specific characteristics that we thought would also be relevant in that setting.

These include:

- **Longitudinal data:** one limitation of existing studies on Chinese factory workers is that they tend, like audit reports, to be based on data gathered at single points in time. Diaries are by definition longitudinal. Diary analysis is popular in the healthcare industry, where chronological data is necessary to understanding the development of an illness or the process of recovery. We believed that by providing longitudinal data, diaries, unlike audits, could potentially provide useful insights into gradual changes in a factory.
- **Close to real time:** unlike interviews, which tend to rely on remembered incidents, diaries can supply qualitative data on current experiences. Traditionally, interviews discuss events from a past that may be far removed. Daily diaries limit the hindsight to the previous day. New technologies have moved diary reporting even closer to real time. In a clinical study using mobile phones and diary research methods with those at risk of HIV or STIs, Hensel et al. (2012) emphasize that one of the strengths of digital self-report for hard-to-reach populations is the ability of the participant to "self-administer" a survey or diary entry, "in their own environment, as close to the occurrence [. . .] as possible." By allowing reporting in real time, mobile phone data collection can remove retrospective recall error [Reid et al. (2009), Sternfeld et al. (2011)]. Jacob et al. (2012) found that mobile phone diaries had higher rates of completion than paper diaries. Reid et al. (2009) emphasized the real-time capabilities of mobiles by having subjects in their study answer four brief surveys at random times throughout the day. The random timing kept the diary from becoming so habit-forming that answers became uniform regardless of daily stimulation. As well as moving the recording closer to real time, electronic methods can move the research analysis closer to the actual events being recorded. One drawback of paper diaries is a need for the researcher to receive the diary from the diarist in order to commence analysis, meaning it cannot begin until the end of the study. With e-diaries, all data is immediately available, allowing a researcher to analyze the data while it is being collected, and so respond to any problems arising during the process.
- **Candid disclosure:** because diary methods do not involve direct interaction with a researcher, people may find it easier to share sensitive data. Diaries are often used in healthcare settings for this reason. Although factory workers do sometimes speak to social-compliance auditors, they may self-censor in these discussions,

fearing repercussions if they share negative information or views. Our own experience of interviewing factory workers was that they were nervous and not particularly forthcoming. Diaries do not involve this direct interaction and can be completed by the diarist in their own time and choice of space. This can lead diarists to open up and share more candidly. Gibson et al. (2016), who gained new insights into the lives of teenage cancer patients using video diaries, found that "studying at a distance allowed [them] to enter more fully the world of young people through observations in the field." It became clear to us that there were deliberate choices to be made in our research design with implications for the relationship between the observer and the observed.

- **Alternative data types:** the choice of data type can also improve inclusion in diary studies. Written diaries, even if electronic, are only useful for researching literate populations. Photo diaries are often used in social research, particularly in communities facing sensitive social issues [Padgett et al. (2013), Allen (2011), Keremane and McKay (2011)]. Our use of audio recordings meant people who would have been unable to participate in traditional diary research could be included.
- **Hard-to-reach populations:** sometimes known as hidden populations, these are populations requiring sensitive research methods. They can be difficult to access through surveys [Muhib et al. (2001)]. In some cases, a particular diary method is not feasible because of illiteracy or the inability of the participants to use the technology. New technologies, such as smartphones, can make it easier to reach out to these populations [Murray (2014), Kayrouz et al. (2016)], allowing diaries to become a multifaceted tool, both facilitating access to hard-to-reach populations and offering them more control over their representation in research.
- **Effect on the diarist:** the practice of reflecting regularly has a therapeutic impact on the diarist. Bartlett (2012) who used diaries to track the progress of dementia, found the act of keeping a diary to be edifying to the patient's personal identity and sense of self. It also allowed them to participate in her study first-hand [Bartlett (2012)]. Engin (2011) reports on a study that incorporated such qualitative information as "reflection" and "inner dialogue" to indicate changes in belief and practice.
- **Relatively low cost:** using digital diaries minimizes field study costs by enabling the researchers to remotely access the population studied [Palen and Salzman (2002), Bolger et al. (2003)].

These combined properties would directly address the weaknesses in the information collected through conventional audit in Chinese factories, enabling us to gather longitudinal data, direct and in confidence, from a hard-to-reach population, without incurring excessive costs. We, therefore, decided to experiment to see how diary methods could inform us about their real experiences at work.

4. OUR METHOD

We developed and applied our new protocol across two phases of research, both following the same essential design principles. During the first, a 100-day pilot at a single factory, we gathered 1,920 digital diary entries from a group of 82 workers to test the basic protocol. The second phase was a year-long study that included three more factories. This produced 16,390 diary entries from 466 workers.

4.1 Recruiting the diarists

This research was only possible with the cooperation of the owners and management of our host factories. All four factories were producing consumer goods for international brands. Two were in Tier-1 cities, and two in rural villages. All routinely audited, they were chosen because they did not appear to have significant issues such as safety violations or use hazardous materials. This meant the research could focus on the wellbeing, rather than the basic physical safety, of their workers. The factory managers understood the research and had agreed to allow workers to participate freely, without any worker-level data or identifying information being shared with them. However, to create an incentive for management to give permission for this work, we agreed to share broader insights about how they could improve their efficiency, worker retention, and social risk management.

All the workers in each factory were invited, using a workplace poster, to participate in the study, which was entirely voluntary. Anyone expressing an interest was allowed to participate. Workers were genuinely surprised that researchers would be interested in their wellbeing. They were almost shocked that they might be asked about their feelings, only expecting such enquiries from their mother or a grandmother or teacher. A Chinese labor rights NGO would consult on the research throughout, helping to bridge any such cultural divisions between researchers and diarists. Role-play was used to help workers become more comfortable with the idea, and we ran a 20-day start-up program at each factory in the main study to get them used to the process and iron out any problems. Volunteers were interviewed face-to-face at their factory to explain the approach to confidentiality and ensure they were

giving informed consent. This also enabled us to ensure that participants were genuine factory workers and reasonably representative of the factory's population. Since workers would continue to volunteer throughout the year-long study, each new diarist was sent a short electronic survey allowing them to sign up via WeChat, and later interviewed by the researcher during a visit to their factory to ensure the integrity of this process.

4.2 Collecting the data

Although literacy rates were variable, all our participants had smartphones, which are ubiquitous in China. We asked them to leave a daily voice message sharing what had made them happy or unhappy that day, or anything else they wanted to share about their wellbeing. Messages were left using WeChat (Chinese: 微信; literally: micro-message), a Chinese multi-purpose social media application. We chose WeChat because it is the most popular method of communication, shopping, and information sharing in China, with more than a billion active users monthly. We were, therefore, confident that the diarists would find the technology easy to use. As well as handling voice (and other) messages, WeChat also allows users to create communities where they can post information. Its built-in instant translation tool allows an English-speaker to chat to someone speaking one of China's many languages. Like similar platforms, it is censored and monitored in China.

Diarists were asked to contribute daily, even during holidays and days off, both for continuity and in the hope that diary-keeping would become a normal ritual, leading to more open and useful content. They were allowed to leave their messages whenever they felt like it, so that they could choose moments that were convenient or private. They found it relatively easy to find a suitable time and place to talk briefly into their phone, making the research protocol inclusive and very direct.

4.3 Training and engagement

Throughout both studies we held check-ins at each factory to ensure continued engagement with the process. During the initial interviews we had asked the diarists about their interests. We visited the factories regularly and held group meetings during these visits, working with local partners to provide activities that would be of interest to the diarists, such as training sessions on childcare, personal care and health, cooking, and tailoring. We also created a WeChat group to create a sense of community and keep interest high. There were daily posts for workers to read and comment on, with subjects including advice on personal care, nutrition or health, motivational messages, and general interest topics. This became a very active part of the study.

4.4 Data management and analysis

This research process provided a significant volume of qualitative data, more than 18,000 diary entries across the two studies. This gave us a very rich, largely unfiltered, insight into the lives of the factory workers, including their thoughts and feelings, joys and sorrows. Many of the diary entries were about issues that are not relevant from a managerial point of view: people told us about what they had been eating, about the weather, and – to our surprise – about their romantic hopes. Excluding these entries still left us a very large volume of data about factory life to classify. For the main study we developed automated analysis that tracked themes emerging as significant and also monitored worker sentiment. This allowed us to build a picture of what mattered to the diarists in their work and how they were feeling from day to day.

4.5 Safeguarding

Working with diaries is sensitive, confidential work in any setting, and we needed to pay this particular attention in designing our research. In any diary study there is an ethical question about whether to intervene if a diarist reveals that they are at risk or could be a risk to others. In particular, we were concerned about the government monitoring of WeChat and previous suicides in other Chinese factories.

We took multiple steps to manage this risk. First, we worked with factories where we knew that basic safety precautions were already in place, which limited the risk of our having to act as whistleblowers. Second, we made sure that diarists had all given informed consent for the recording and analysis of their diaries, and understood their right to leave the research at any point (many diarists did withdraw for a range of reasons including changing jobs or simply not enjoying the process). Third, we had a rigorous data-management plan, including a protocol for separating information about diarists from their diaries. Each was given a number and an animal name so that they could chat in the social media group without confidentiality concerns.

We also worked closely throughout with a Chinese labor rights NGO. Diarists consented to the NGO confidentially reviewing their diaries to ensure their safety, and contacting them if necessary, without that information being disclosed to anyone else. The NGO's head office is within four hours' travel from any of the factories, meaning they could provide immediate support in any emergency. While making these adjustments to a typical diary study allowed us a unique insight into life in a Chinese factory, it also made us confront the realities of researching in this environment.

5. LEARNINGS AND LIMITATIONS

Our approach was almost diametrically opposed to that of a conventional audit in three critical ways. First, it was intimate and relational. Audits are designed to be objective and employ relatively unobtrusive observation processes. Our study was deeply embedded in the daily life of the factory over an extended period. Second, it was trying to find an unknown. While audits are designed to look for specified things – a missing fire extinguisher, evidence of safety protocols being followed – diaries are based on the fundamental question of grounded theory: "What is going on here?" [Strauss (1967)] and so are open-ended in their approach. Third, it was holistic. By immersing ourselves deeply in the lives of workers, we began to understand what was important to them, rather than checking for what might be important to factory managers or consumers. Our method brought the voices of the workers into the discussion about their own wellbeing rather than focusing on limiting risk to their customers.

While our findings from this study are reported in more detail elsewhere [Bellingan et al. (2020)], our most important finding was that if they were not in immediate danger, the diarists were less concerned about the physical conditions in their factories than about smooth working relationships and the efficient operation of factory systems.

But could this approach replace audits? We see some fundamental barriers to adopting diary methods as a routine way of monitoring the wellbeing of factory workers. Critically, this approach required high levels of trust between the researchers and factory management, and the researchers and diarists. If we had not invested significant time in relationship-building, we would not have obtained either access or honest data. Such relationships cannot be built through the transactional, arm's length approach of a traditional, third-party audit. Diary research requires a much more cooperative, long-term working arrangement. This method also requires people to learn. Our diarists had to learn how to record their diary entries, and we noticed that over time their reports offered more insights into factory life (and included fewer observations about the weather).

The authors of other diary studies report that the process of reflection changes people. This was our experience, too. As one diarist said: "It's improved my ability to face challenges as I feel I can talk about my frustrations. It's been really helpful, interesting, and enjoyable. Mostly, I feel I'm not alone."

"By immersing ourselves deeply in the lives of workers, we began to understand what was important to them, rather than checking for what might be important to factory managers or consumers."

The diary method can, therefore, be an intervention as well as a diagnostic.

We were fortunate that our research did not raise any serious safeguarding issues, but this work is not risk-free for a researcher, either. There is a degree of emotional labor involved in developing a trust-based relationship with people who are separated from you by time, space, and language. There is also a paradox: by adopting an approach that is deliberately distant from the research participants, we became much more intimately acquainted with their lives [Gibson et al. (2016)]. Regular exposure to other people's personal lives creates pressures. It challenges the role of the researcher as an independent observer and makes unexpected emotional demands on top of the day-to-day operational demands of data management and analysis. Despite these challenges, we did find that the process – though imperfect – was extremely enriching and produced data not accessible to us through any other means.

Finally, we believe this approach could be ethically problematic for a conventional audit organization. We were able to obtain privileged access because all parties saw us as on their side, and indeed, we were prepared to act that way. For example, no factory was at risk of losing a substantial contract based on our findings. However, auditors are necessarily employed to act on behalf of a client, and to provide an objective inspection regime. This seems incompatible with our highly relational approach.

6. CONCLUSION – WHAT NEXT FOR AUDITS?

How can this experience advance us toward U.N.'s Sustainable Development Goal 8 (SDG8)? Both our method and findings were in stark contrast to those of the usual factory audit. The research process was essentially cooperative: our findings helped the factories to reduce rework and improve worker retention, while also improving the overall mood of our diarists. Thus, we were able to demonstrate that there are win-wins to be had for factories that work effectively on worker wellbeing [Bellingan et al. (2020)]. Diarists who were safe at work were concerned much more about the efficient operation of the factory and smooth working relationships than about physical conditions. Audits designed to limit the risk to customers are not focusing on what matters to create decent work in factories.

What, then, can we draw from this to improve audits? Based on our insights, we propose three changes to social audit procedures that would benefit workers, factories, and customers. These work in concert: they address systemic aspects of the problem, and so adopting individual recommendations may not achieve the required effect.

First, auditors need to move away from their tick-box culture. As we have seen, simply having the components of a fire-prevention system – the extinguisher, the fire doors, and so on – does not protect workers from fire unless they are effectively used together. This means that we need to develop auditors who can view the factory and its workers as a socio-technical system and consider not only the presence or absence of critical elements, but also their interaction.

Second, we need to change the questions that are asked. Despite the fact that demand for audits grew following the suicides at Foxconn [Chan (2022)], these are still largely focused on physical safety and do not attempt to assess psychological wellbeing or quality of life at work. The diaries we collected suggest that social interactions are a very important aspect of factory life [Bellingan et al. (2020)]. Changing the approach to audit to consider the quality of these interactions could make a significant improvement to the wellbeing of workers. Indicators could include levels of staff attrition and staff training, or evidence that supervisors have been trained in effective management.

There might also be opportunities to do more to integrate the true voices of workers into audits. We recognize that diary methods create a huge analytic burden, but we see the potential to simplify this method to allow for pulsechecks to see how the workers are experiencing factory life. With participants' anonymity and voluntary status preserved, diary frequency could be reduced to weekly or monthly, perhaps with more frequent mood-checks in which workers simply choose from a preset range of emojis to instantly indicate a sentiment. By using push messages to prompt this input, the responsibility for cadence could be moved to the auditor. The technological aspects of our approach could perhaps be developed to further automate translation, keyword analysis and some coding, data consolidation and analysis. This would lose the richness of the diary data and the depth of understanding gained from our more qualitative analysis, effectively producing only more limited, quantitative data, but an overall sentiment could be captured and processed to easily highlight spikes, while diary content might illuminate the nature of the change. Insight quality might be improved by starting with more in-depth diary-keeping and analysis during an initial six months, after which a factory could graduate to this lighter pulse check as a permanent mechanism.

Third, companies could reconsider the ways in which they use audits. At the moment, the typical approach is deficit-based: the audit is there to limit potential damage, rather than to create improvements. While, of course, it is important to act immediately to remove labor abuses or physical harm, we believe that factory audits can also be used to improve workers' wellbeing and a factory's performance. Companies could potentially use their monitoring mechanisms to build stronger working relationships with supplier factories, who in turn might find it easier to retain workers in a shrinking labor market. There are opportunities to turn audits into a benefit for everyone.

Supply chains can never be socially sustainable while the people working in factories are ignored as stakeholders and excluded from the debate. Unless businesses learn what impacts the wellbeing of the workers in their suppliers' factories, they will continue to overlook the social impacts of global supply chains on the people within them. After decades of auditing, they will still be unable to meet their commitment to providing the transparency required by stakeholders. By implementing these changes, and listening to the voices of workers, companies can build a much stronger understanding of their social impact and develop pathways to improve it. This not only produces good outcomes for factories, brands, and workers, it also enables better transparency and progress towards SDG8. All factory workers have a right to decent work: changing the way in which we conduct social audits could make this an achievable goal.

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THE RISE OF ESG AND THE IMPACT ON THE TRADE LIFECYCLE

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ABSTRACT

Using a reverse engineering approach, we seek to map the impact of the rise of ESG products along the trade lifecycle and the functional architecture of financial institutions. We find that ESG does not change the trade lifecycle per se, but shifts the focus to the pre-trade phase due to regulatory and risk considerations, disclosure and verification of KPIs, as well as data management requirements. As a result, ESG provides an impetus to improve front office performance, integrate sustainability risk into risk management, and credibly redirect capital flows to sustainable investments. ESG is thus a lever for synchronizing front to back office systems, particularly with respect to ESG-related client data gathering, rating tools, and downstream systems. Our analysis of the functional architecture shows a marginal impact on the throughput-relevant functions, however, the enrichment of different data models has to be ensured from the beginning in order to effectively serve the output-relevant functions, especially with regard to ESG-relevant functions like reporting.

1. INTRODUCTION

Sustainability is top of the agenda in the corporate world. Issuers are increasingly facing demands from investors, stakeholders, and regulators to proactively consider environmental, social, and governance (ESG) issues in their business operations. The increased focus on ESG has implications for how issuers, underwriters, and lenders participate in the capital raising process. Following the Paris Agreement, significant progress has been made across the spectrum of capital raising instruments, by significantly upscaling the financial resources available for reallocating capital towards sustainable investments.

In this paper, we focus on the ongoing implementation of ESG as a core principle in various capital raising instruments and the central role it plays in accelerating the transition to net zero. Rather than conclude with measurable impacts, we aim to provide a point of view on the current situation and highlight some major implications that ESG will have on each step of the trade lifecycle. Using a reverse engineering approach, we seek to map the impact of the emergence of sustainable and sustainability-linked products along the trade lifecycle and the functional architecture of financial institutions. Overall, we find that ESG does not change the trade lifecycle per se, but shifts the focus to the pre-trade phase due to regulatory and risk considerations, disclosure and verification of KPIs, as well as data management requirements. As a result, ESG provides an impetus to improve front office performance, integrate sustainability risk into risk management, and credibly redirect capital flows to sustainable investments. ESG is thus a lever for synchronizing front-to-back office systems, particularly with respect to ESG-related client data gathering, rating tools, and downstream systems. In addition, ESG data gathering, management, and system implementation require clear workflow definition, IT interfaces, and staff training. Moreover, the centralization of ESG-related data is key to further supporting and improving the entire trade lifecycle process. Finally, our analysis of the functional architecture shows a marginal impact in the throughput-relevant functions, however, the enrichment of different data models has to be ensured from the beginning in order to effectively serve the output-relevant functions, especially with regard to ESG-relevant functions like reporting.

2. MARKET OVERVIEW

Global equity and debt capital markets constitute by far the most important sources of funds for the transition to a low-carbon society, bringing about substantial reallocation of financial resources within the economy. In 2021 alone, the global volume of issued debt securities that were categorized as being sustainable amounted to more than U.S.$1.6 trillion, resulting in a total volume of U.S.$4 trillion by the of the year.[1] In contrast, the volume of sustainable-labeled equities raised in 2021 is significantly lower, at U.S.$48 billion, though its importance to the ESG transition is immense and is expected to increase over the next decades.[2]

2.1 Sustainable debt market

The sustainable debt market comprises two main types of financial assets: bonds and loans. While the sustainable bond market reached about U.S.$1 trillion in 2021, total bond issuance was around U.S.$9 trillion,[3] meaning that it accounted for about 10 percent of the total global bond issuance. The largest region for issuance of sustainable bonds was Europe, at 54 percent, followed by the Americas, at 22 percent, and Asia-Pacific, at 18 percent.

When discussing the sustainable bond market, it is important to distinguish between the different types of bonds currently being offered on the market. Leading the way in sustainable bonds are the so-called green bonds, whose proceeds must by definition be used to finance environmental projects. The green bond market has seen strong growth, reaching a 2021 record high of U.S.$489 billion, almost double that of 2020. Social bonds, whose proceeds must be used to finance social projects, came second with a market value of U.S.$193 billion. Finally, while the volume of sustainability bonds[4] is similar to that of social bonds, their proceeds must be used to finance a combination of environmental and social projects.[5]

Sustainability-linked bonds are characterized by the fact that they are linked to a sustainability target. If progress is made toward the goal, the bond's interest rate drops, and vice versa if no progress is made (in the latter case, the coupons would increase).[6] To measure such progress, key performance indicators (KPIs) are needed, which are usually agreed between the counterparties and tailored to the issuer's overarching sustainability strategy (for example, reduction of emissions to a certain level, achieving a certain rank in specified sustainability rating, etc.).[7] This is applicable to any sustainability-linked product, not only bonds. Sustainability-linked bonds reached a record U.S.$92 billion in volume in 2021, growing nearly 1,000 percent compared to 2020. According to S&P Global Ratings, sustainability-linked bonds still have plenty of room for growth and will continue to be the sustainable bond product with the highest growth rate.

Similar to the sustainable bond market, the sustainable loan market can also be divided into two main categories, namely green loans, whose proceeds must be used for environmental projects, and sustainability-linked loans, whose interest rate is linked to a specific sustainability target and is adjusted depending on the borrower's achievement of that target.[8] The development and diversity of sustainable debt instruments and the subcategories of bonds and loans are shown in Figure 1.

2.2 Sustainable equity market

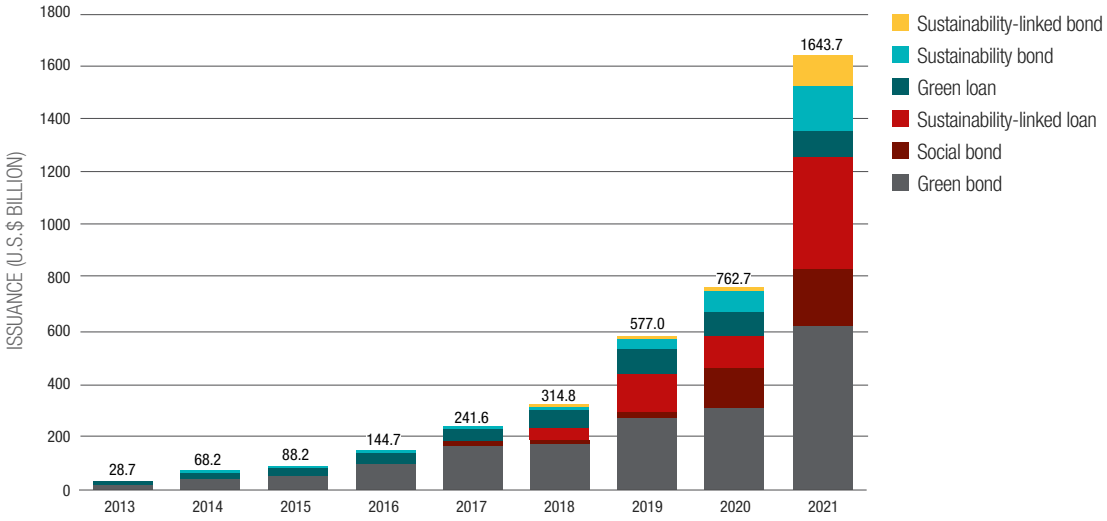
Although the sustainable public equity market is significantly smaller than the overall stock market, with a share of only about 5 percent, it has grown much faster than the overall stock market, with a difference of 26 percentage points. This indicates a growing importance of the sustainable stock market and suggests that its size as a subclass of the overall stock market will continue to increase in the coming decades.

The sustainable equity market reached a record U.S.$48 billion in 2021, growing by 43 percent compared to 2020. The dominant market was the Americas, with U.S.$26.6 billion in equity raised, followed by Asia-Pacific and Europe, with U.S.$12.3 billion and U.S.$7.9 billion, respectively. In comparison, the global equity market in 2021 was U.S.$1.05 trillion, up 17 percent from 2020.[9]

Despite the volume of sustainable equity issued by global ESG companies in 2021 being significantly lower than sustainable debt, the importance of equity is essential for a successful ESG transition, as raising shareholder equity can be an effective tool for companies to make necessary early-stage investments in new and unproven technologies. It also signals an ongoing and

1 https://bit.ly/3DesXSN
2 https://refini.tv/3gon3Wj
3 Ibid, https://bit.ly/3yVlqpa
4 https://bit.ly/3EZxdqu
5 https://refini.tv/3MMwGKi
6 https://bit.ly/3MLQHk8
7 https://bit.ly/3gr7ux3
8 https://bit.ly/3TI1h47
9 https://bit.ly/3VBVrNk

Figure 1: Annual sustainable debt issuance, 2013-2021



Source: BloombergNEF, Bloomberg L.P.

permanent commitment to sustainable investment, implying that a company's business strategy is linked to sustainable impact. Overall, ESG is playing an important role in the equity, bond, and credit markets.

2.3 Sustainable derivatives

Sustainable derivatives are still considered as niche products,[10] but a progressive development of the market volume can be observed.[11] Among sustainable derivatives, there are two main kinds of products: derivatives tied to ESG benchmarks, especially equity indices, and sustainability-linked derivatives (SLD).

The functioning of the first type is no different from derivatives on conventional indices or benchmarks, only the underlying is different. On the other hand, SLDs create an ESG-linked cashflow as part of a traditional derivative. Here, KPIs are used to monitor progress or compliance with ESG targets similar to sustainability-linked debt assets. However, both the KPIs and their linkage to pricing or cash flows vary significantly, as they are typically agreed between counterparties and traded over the counter. This practice creates a standardization and information problem[12] for SLDs, which is currently being addressed by the International Swaps and Derivatives Association (ISDA).[13]

These problems also make it difficult to get a market overview of the open interest in SLDs. Returning to ESG benchmark derivatives: EUREX, as the world's largest provider of such derivatives, indicates a record value of almost U.S.$5 billion in 2021[14] – almost three times the value in 2020. However, compared to the previously mentioned figures, the volume is rather small.

3. REGULATORY PRESSURES

In addition to investor demand for sustainable financial products, mirrored by mounting volumes of sustainable-labeled debt, equity, and derivative instruments, regulators are also putting pressure on financial market participants and companies to incorporate ESG considerations into their business.

[10] https://bit.ly/3THL6OI
[11] https://bit.ly/3gdfZLR
[12] https://bit.ly/3zkH7Q3
[13] https://bit.ly/3VGUDXz
[14] https://bit.ly/3CSbkGQ

The European Union has introduced its Sustainable Finance Disclosure Regulation (SFDR), which aims to improve transparency in the market for sustainable investment products, prevent greenwashing, and increase transparency around sustainability claims made by financial market participants.[15]

The U.S. Securities and Exchange Commission (SEC) is also considering introducing ESG-related regulations. In May 2022, the Commission proposed requiring additional information about ESG investment practices.[16] The SEC has also established a Climate and ESG Task Force within its Division of Enforcement.[17] It is expected that the SEC will follow the path of the European Union, making it likely to adopt reporting standards that make it easier for investors to compare companies' sustainability efforts, creating a level playing field.

In Asia-Pacific, the regulatory landscape for ESG is not yet as advanced as in Europe, but in recent years ESG information disclosure has increased in many countries.[18] For instance, in July 2022, the Monetary Authority of Singapore released its disclosure and reporting guidelines for retail ESG funds, with the goal of enhancing the comparability of retail ESG fund's disclosures to support investor decision making and to prevent greenwashing.[19]

The recently published ECB climate stress test results for banks, the U.S. methane reduction plan, and the final report on an E.U. social taxonomy are further regulatory actions that indicate ESG, and climate-related issues, are here to stay and will affect all economic agents and financial market participants.[20]

With the growing number of reporting requirements, such as the Sustainable Finance Disclosure Regulation (SFDR), or the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), cruciality grows for every company to integrate ESG into its business model and proactively address the issue.[21] For many companies, however, this presents a significant challenge. Besides additional data requirements on ESG-related activities, which is particularly difficult for the example of Scope 3 (supply chain) emissions of companies with a large and diversified value chain, companies also need to integrate climate risks into their risk management processes and ensure they meet changing reporting requirements, to name just a few of the challenges ahead.

4. Trade lifecycle

After a brief market overview of sustainable and sustainability-linked products and their product-specific characteristics, as well as the regulatory burden they impose on firms, the question arises as to how these products might impact the classic trading lifecycle of conventional financial products. To this end, we first outline a simplified trading lifecycle with typical front, middle and back office functions before going into detail about the potential impact associated with the emergence of sustainable and sustainability-linked products.

In simple terms, the front office handles all the processes that must take place before a transaction can be executed. These include, among others, customer onboarding, KYC, product structuring, pricing, documentation, and labeling. In the middle office, product orders are then captured, routed, confirmed, and executed. Finally, in the back office, deals are settled, and processed through other supporting back office functions. Some functions, however, cannot clearly be allocated to one of those. For instance, risk management activities, including the managing of sustainability risks, which can be located in the middle office while having some touchpoints in the front office as well. Due to the regulatory focus on reporting of sustainability risk, however, the back office currently also plays a major role as it merges and edits the output from preceding adaptions to ESG. This focus is also reflected in following sections.

4.1 Front office

The central question is whether and which adjustments are necessary at all in the front office to trade sustainable or sustainability-linked products. To find an answer to this, we start from the regulatory requirements in a reverse engineering approach. The regulatory concerns mentioned are primarily common standards that need to be communicated to customers, as well as disclosed and reported to regulators and customers. Since disclosure and reporting requirements affect the end of a trade lifecycle, all preceding activities

[15] https://bit.ly/3yW4j6K
[16] https://bit.ly/3Cloar2
[17] https://bit.ly/3eNlMX6
[18] https://bloom.bg/3SeU0Bz
[19] https://bit.ly/3SiF6ua
[20] https://bit.ly/3Sh4Mr1; https://bit.ly/3TA0pZa
[21] https://bit.ly/3Silsyk

must be aligned to meet these requirements. Consequently, sustainable products are a prime example of the need for synchronization between front to back office systems.

The first touchpoint in the front office is the origination and labeling of sustainable or sustainability-linked products. Furthermore, an indirect implication for their pricing is given by greater willingness to pay higher prices for such products.[22] Since the SFDR requires all financial market participants and financial advisors to disclose information on whether and how ESG criteria are applied to products prior to sale, this information must either be available or collected from the outset. Only if this is the case is it possible to adequately disclose and report at the end of the trade lifecycle whether the product does not materially affect any of the sustainability objectives of the E.U. taxonomy, and/or what are the principal adverse impact indicators (PAIs) associated with the origination of a product.

This means that product-related ESG data and KPIs must already be available to, or collected by, customer-facing employees. For bank-wide reporting, conventional products must also be provided with ESG data in the future. Another example of data to be fed into the data management system is the customer's green investment preferences under MiFID, which need to be assessed at the time of onboarding a new customer. MiFID preferences then need to be categorized to enable (automized) matching with products that fit the respective preference category. Besides such preferences, KYC should assess ESG-related risks of the counterparty itself too. The importance of a centralized internal data management and processing architecture enriched with the ESG data required by regulation is obvious. It supports all downstream processes throughout the trade lifecycle.

This also refers to the documentation of sustainable product transactions. For example, if trading is important to the business model, it must be possible to trace which parts of the transactions in the trading book consist of sustainable products. The requirement stems from the Capital Requirements Regulation (CRR, amendment to the E.U. taxonomy). In the future, credit institutions will have to track and disclose their green asset ratio (GAR). This is defined as the ratio of assets financed or invested in taxonomy-aligned activities to total assets. The bottom line is that the classification of a product as sustainable determines what information and data must ultimately be disclosed and how the "pass-through" functions in the middle to back office processes must enrich the documentation. In the longer run, similar consequences might unfold for brown, unsustainable assets, if regulation expands its scope of increasing transparency to this countertype of products.

4.2 Middle office

In the middle office especially, data-related issues need to be addressed in the context of sustainable products. Having in mind the functioning, definitions, and requirements of products as outlined above, internal models for KPI, index, or rating monitoring need to be developed and kept up to date. This is elementary, especially in the context of sustainability-linked products, as progress towards an agreed sustainability target must be closely monitored throughout the entire trade lifecycle. The internal effort needed for this is immense since relying on external data and evaluations creates exposure to well-known ESG data issues[23] and hence to risk of greenwashing accusations. The resulting value of investing in data management functions for, for example, report creation to feed front office and risk teams is considerable as well.

While scoring, KPI calculation, data modeling, or report creation is a greater topic concerning sustainability-linked products, in general limit and position management in the middle office are supposed to check potential limits (e.g., defined by the respective fund policies) of sustainable products. However, both the ESG data- and limit/position-related tasks are required along the whole product lifecycle.

4.3 Back office

We now turn to the back office functions involved in ESG, starting with the clearing and settlement functions. Here, too, ESG-related changes can be observed; for example, due to the ECB's new rules on collateral eligibility for green/sustainable products, which have been in force since 2021.

A well-known ESG consideration is the integration of sustainability risks into risk management functions. In general, the European Banking Authority (EBA), mandated to elaborate on ESG risk inclusion into the three pillars of the banking prudential framework, does not yet provide specific guidance

[22] Riedl, A., and P. Smeets, 2017, "Why do investors hold socially responsible mutual funds?" Journal of Finance 72:6, 2505-2550

[23] Avramov, D., S. Cheng, A. Lioui, and A. Tarelli, 2022, "Sustainable investing with ESG rating uncertainty," Journal of Financial Economics 145:2, 642-664; Dumrose, M., S. Rink, and J. Eckert, 2022, "Disaggregating confusion? The EU Taxonomy and its relation to ESG rating," Finance Research Letters 48, 102928

on the adaption of traditional risk management processes at credit institutions or investment firms.[24] However, it is required to "report" on how ESG-related risks are integrated (e.g., MiFID II, SFDR, or SEC disclosures).[25] This current reporting focus of risk considerations is why those are largely located in the back office in this section. Of course, and as discussed above, the input for this is also gathered along front and middle offices. Regarding the associated methodological integration approach, there has long been discussion in the U.S. about treating ESG risks separately from credit risks, market risks, and operational risks.[26] However, the EBA believes that ESG risks materialize through traditional financial risks (i.e., credit, market, operational, reputational, liquidity, and funding risks). According to EBA, material ESG risks should be embedded in the internal capital adequacy assessment process (ICAAP) and internal liquidity adequacy assessment process (ILAAP) frameworks as part of the risk appetite and as drivers of financial risks.[27] In addition, the development of ESG risk monitoring metrics at the receivable, counterparty, and portfolio levels is recommended. In order to verify the resilience and adequacy of the ESG-integrated risk framework, the EBA considers back testing and stress testing to be crucial.

In this context, reference can be made to the results of the 2022 ECB climate stress test, which highlights significant shortcomings when it comes to preparedness for climate-related shocks. Considering that climate risk and the E-dimension in ESG have probably enjoyed the most attention among ESG risks, the structural unpreparedness of capital markets in this regard is alarming, with 60 percent of institutions having no internal stress testing framework in place at all.[28] Such prudential, but also internal ESG-related stress tests are furthermore recommended by the Basel framework.[29]

The bottom line of all recommended ESG risk practices and related regulatory frameworks is the same: financial risk is lower when exposure to sustainable investments is higher.[30] In Europe, KPIs to monitor this exposure are already defined in the Capital Requirements Regulation (CRR) based on the E.U. Taxonomy and the Task Force on Climate-Related Financial Disclosures (TCFD), and will soon be required to be reported. For credit institutions, the "green asset ratio" (GAR) is complemented at different levels of granularity by other taxonomy alignment ratios, such as at the level of the banking book, fees and commissions, financial guarantees supporting debt instruments, and counterparties.[31]

These KPIs from the CRR move into disclosure and reporting as the last activities in the trading lifecycle that are affected by sustainability. The KPIs from the CRR mentioned in the previous paragraph provide input to risk management – but also, as mentioned above, to the required disclosure content. The SFDR contributes to this – for example, financial market participants must disclose at the product/asset level whether it is (not) sustainable. More than 30 sustainability indicators and PAIs have been defined to support the required information. They are intended to show how the sustainable products as presented earlier in this paper contribute to the sustainability goals of the taxonomy and why they do not harm any of these goals. As noted earlier, the capital markets-related rules are intended to be complementary, as their various disclosure requirements have different audiences and levels of granularity. Adequately addressing these differences and aligning them with European sustainability reporting standards significantly complicates reporting.

The need for additional disclosures and the data required to support them continues to evolve with regulatory developments. Consequently, the regulatory department should support the post-trade functions by continuously monitoring the regulatory landscape. In this way, it can make a valuable contribution to the sustainable development of the ESG data management architecture. Compared to Europe, regulation in the U.S. and Asia-Pacific is not as advanced. However, the ASEAN Committee on Capital Market Development is working on a taxonomy for sustainable finance with similar objectives as in Europe; the U.S. Financial Stability Oversight Council has published 2021 recommendations on climate risk management and disclosure similar to the EBA Pillars 3 ITS.[32]

[24] https://bit.ly/3ShpqHG
[25] https://bit.ly/3geaFb4
[26] https://bit.ly/3Tc31wB
[27] https://bit.ly/3ThULep
[28] https://bit.ly/3s8qa7n
[29] https://bit.ly/3EZxHgj
[30] https://bit.ly/3eKIKiS; https://bit.ly/3EYEjf1
[31] https://bit.ly/3CQ4GAZ
[32] https://bit.ly/3SnYzto

Figure 2: Typical trade lifecycle process

A. PRE-TRADE SALES/INITIATION: (FRONT OFFICE)	B. TRADE CAPTURE/ EXECUTION: (FRONT OFFICE)	C. CONFIRMATIONS & RECONCILIATIONS (MIDDLE OFFICE)	D. CLEARING & SETTLEMENT: (BACK OFFICE)	E. OPERATIONS & ACCOUNTING: (SUPPORT)
Client onboarding which includes: • KYC (know your customer) process • Client information capture • Client ruleset.	An investor/client willing to buy/sell securities typically places an order through an intermediary, known as a broker or agent (the market makers) where: • Automatic matching of the orders takes place based on price and quantities • New issue/when issued securities market is originated.	• Successful execution will generate a confirmation by the institutions/brokers. • Further, institutions/ brokers will send these details with fees and charges to their custodians who will validate whether: – The trade has happened on desired securities – The trade is correctly processed – Prices and charges are as per the agreement.	Normally, a trade gets cleared and settled in the client's account in T+2 days. It is typically the responsibility of the clearing corporation to either clear: • Funds (buy transactions) or • Securities (sale transactions) This process informs all members of their obligations and nets all obligations from cash transactions and sales of securities.	Includes firm maintenance of end-of-day margins/ collaterals, reporting and cash management of daily transactions.

Source: Capco

Finally, we return to the simplified representation of the trade lifecycle. As described, the disclosure-focused regulation requires output at the end of the lifecycle. However, this output must be made compliant through some reverse engineering – starting with pre-trade ESG adjustments such as customer onboarding or product development. Subsequently, transactions must be accompanied by ongoing documentation of the new criteria, for example, to identify which are sustainable and which counterparties are engaged. As these documentation requirements arise from regulatory requirements, aligned and centralized data management and processing along the various "offices" is key. The next section shows how the outlined activities associated with the lifecycle of sustainable products translate to functional units in the financial institution and process-related changes.

5. FUNCTIONAL ARCHITECTURE

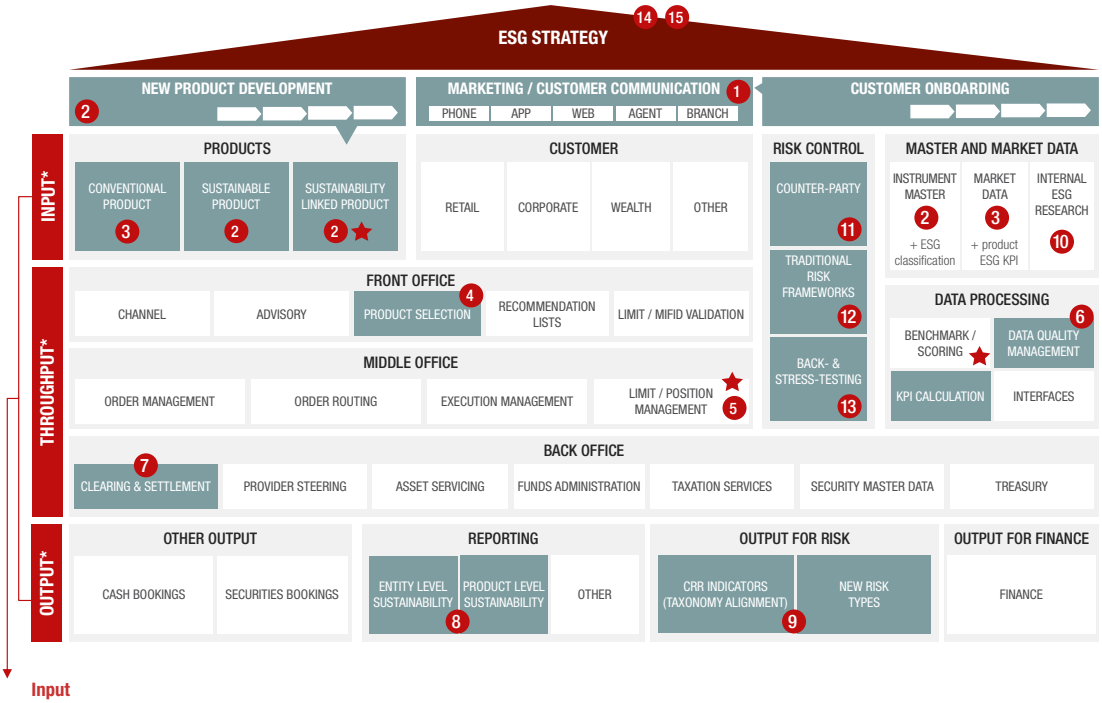
In this section, another perspective is embodied to further break down the ESG-induced implications onto the organizational functions bearing the trade lifecycle covered before. Figure 3 shows an exemplary representation of the functional architecture of a trade lifecycle. Of course, the "technical" architecture, one level deeper, may vary from institution to institution. Compared to the trade lifecycle illustration in Figure 2, Figure 3 provides a more nuanced view of where ESG measures are needed. The impact of the throughput functions, apart from data processing, is rather marginal compared to the other functions. The enrichment of various data models must be ensured from the very beginning in order to effectively serve the throughput- and output-relevant functions.

5.1 Input stage

We are starting with customer onboarding. It is expected that banks will soon be formally required to produce ESG scores for customers, suppliers, and partners. In itself, this is expected to change existing KYC processes. Typically, questionnaires are used to assess the risks associated with counterparties or issuers. For entity-level ESG scoring and potential risk resulting from this, another questionnaire needs to be added. The main finding of information should be the alignment of the counterparty taxonomy.[33] As mentioned above, MiFID II requires green investment preferences to also be assessed in these questionnaires. Thus, if retail customers are served who have communicated their ESG/green investment preferences in some form, these ESG considerations must be included in the new product process. Specifically, this

[33] https://bit.ly/3sfDImZ

Figure 3: The ESG-impacted functional trade lifecycle architecture



Input
The "input" stage of the functional architecture refers to activities and adjoined functions that are no immediate part of the trade in the strict sense. Rather, they are responsible for providing essential input, thereby enabling the trade kick-off in the front office and its client-facing functions.

Throughput
The "throughput" stage, in turn, refers to activities and adjoined functions that indeed are direct part of the trade lifecycle. From front to back office, involved functions contribute to finalizing what is commonly understood as "the trade"

Output
The "output" stage refers to functions that process trade-related information from input and throughput functions and generate required output for their superordinated departments (e.g., finance, risk management, reporting).

DEPARTMENTS | FUNCTIONS | ESG-AFFECTED FUNCTIONS

1. Assessment of customer green investing preferences
2. Sustainability/ESG information, categorization and setup (especially SFDR-required)
3. Conventional product data enrichment (to comply with entity level non-financial reporting (NFR) requirements)
4. Product selection based on customer preferences
5. Limit checks for sustainability products and green funds
6. Proactive data quality management (to address ESG data issues and process accurate information)
7. New collateral eligibility rules for sustainable/ sustainability-linked products
8. New regulatory reporting on product and entity level (e.g., SFDR, NFRD)
9. New risk-related quantitative and qualitative disclosure requirements (Taxonomy, its CRR amendment, Pillar 3 EBA guidance)
10. Inhouse research to assess ESG criteria and complement external vendor data
11. ESG-scoring and risks assessment of customer/counterparty
12. Integration of material ESG risks as drivers of traditional risks (e.g., into ICAAP, ILAAP)
13. Back- and stress-testing against ESG-related shocks to assess preparedness
14. Employee ESG knowledge building
15. Inclusion of ESG into organization overarching strategic endeavors
- ★ Additional sustainability-linked product-specific impacts

Source: Capco research
Disclaimer: Due to the constantly evolving ESG-related regulation, this depiction of impacts should be perceived as non-exhaustive

means that banks must first create inventories and categorize MiFID II products and determine how sustainability goals will be achieved to enable matching with preferences. For non-MiFID products, it is essential to explain and document why they qualify as such. This general product- and customer-related information will serve as the basis for data management functions.

These data management functions must determine whether additional data needs arise from this new information. The E.U. Benchmark Regulation and the SFDR RTS communicate specific data requirements and indicators, particularly at the product level. If additional data is required, the question is how to source and process them. One way is to obtain the corresponding data from third-party vendors. However, in order to find the "right" data, measures and indicators from selected external providers should first be evaluated in terms of content and underlying methodology. The concern about different data providers is that the data provided may differ greatly in terms of content and methodology, even for the same indicator.[34]

Obtaining the right data is essential for the product design mentioned above. Even for emissions of "conventional" products, a minimal set of ESG data must be collected to meet the Non-Financial Reporting Directive's (NFRD) entity-level reporting requirements. For sustainable and sustainability-linked products, data on appropriate KPIs and PAIs must be available from the outset to fulfill the aforementioned pre-contractual documentation. The specific content this documentation should contain depends on the product in question and can be derived from various sources.[35] In any case, the KPIs must be specific, objective, quantifiable, and verifiable.[36]

Especially for sustainability-linked products, these KPIs can vary widely – ESG objectives and KPIs are usually defined in discussions with the counterparty. In order to be prepared for the increasing market demand for sustainability-linked products, it is recommended, for example, by the ISDA, to establish a common KPI framework for counterparties on the buy- and sell-side.[37] This will increase efficiency across all products, since in this way variations of actually standardizable product characteristics due to bilateral agreements are supposed to decline.

5.2 Throughput stage

Figure 3 shows that product selection based on customer preferences is the first affected front office task of the "pass-through" phase. In order to find and select products that meet the customer needs, the employees involved must understand the differences in KPIs and how "good" performance contributes to the specific sustainability goals. Consequently, training is critical as they are also the first line of defense against greenwashing. The goal is to synchronize front office expertise with middle and back office data processing skills.[38]

One reason is that data processing capabilities are required to continuously calculate and evaluate the ESG KPIs of products. This task becomes particularly challenging for sustainability-linked products. ISDA points to a low level of standardization,[39] and the U.N. PRI notes a low level of detail in contract information.[40] However, tracking such KPIs may be the least negligible task in an ESG-adapted functional architecture. How else can deliverables or events relevant to contract termination and payments be verified?

To ensure that all downstream processes are equipped with the necessary data, the initial spotlight could be laid on identifying key data elements (KDEs). To identify such KDEs, PAI formulas defined by SFDR can be examined for the data elements required to calculate them. Following sustainability-related products, this can also be applied to agreed-upon KPIs and their calculation. Once these KDEs are identified, data availability and inherent complexity should be assessed to assign some processing simplicity score to identified KDEs. Low scores would indicate data that is rather unavailable, requiring alternative approaches to sourcing and processing. This means that, for example, sustainability-linked products that require such low-scoring ESG KDEs are difficult to track.[41] Looking at limit and position management, overcoming such ESG data challenges is not a problem. For example, if a critical threshold of sustainable assets is defined here at the fund level, "only" the performance needs to be tracked. No ESG performance data is required for any readjustments.

[34] https://bit.ly/3F6HQHU
[35] For the example of fund vehicles as most recently targeted by SFDR RTS, ESMA Supervisory Briefing to NCAs: https://bit.ly/3eOnSXY
[36] https://bit.ly/3eKITCl
[37] https://bit.ly/3CRaWbA
[38] https://bit.ly/3CMB6fP
[39] https://bit.ly/3yZ6shY
[40] https://bit.ly/3eUH0mW
[41] Source: Capco research

The same applies to collateral management in clearing and settlement functions. Here, the new ECB rules from 2021 must be considered: since then, sustainability-oriented bonds have been eligible as central bank collateral in Eurosystem credit operations and Eurosystem outright purchases for monetary policy purposes. In this context, the coupons of the bonds must be linked to either environmental targets of the E.U. Taxonomy Regulation and/or to the SDGs of the United Nations.[42] For the end of 2024 and beyond, institutions may also consider and adjust to a cap on the collateralization of debt issued by high-carbon companies.[43]

5.3 Output stage

Since 2021, ESG-related reporting and disclosure obligations are already in place in Europe. The E.U. is ahead of other regions in developing ESG regulations. For the output stage, we now outline steps to comply with, e.g., SFDR-required website and regular periodic disclosures. Those present regulatory pieces that receive major attention recently. The reporting content already described in the previous section is omitted from this section.

Regarding website disclosures, a separate website section titled "sustainability related disclosures" should be created. Here, the products are clearly presented with their sustainability characteristics. Articles 24 and 37 of the SFDR Delegated Regulation provide further instructions on structure and content. For regular periodic reporting, a special annex to the annual report must be prepared (following the templates of Annexes IV and V of the SFDR Delegated Regulation). In the report itself, reference to this annex must be made in a prominent place. Obviously, extensive elaboration is possible on the content of this paragraph alone.[44]

The actions to be taken by the risk management functions are multifaceted. To avoid overlap with the previous section, only some credit risk-specific recommendations are added here. There is a shared vision among credit raters to improve the consideration of ESG factors in credit ratings. To this end, the extent of materiality of ESG issues should be assessed for different issuers. The Sustainability Accounting Standards Board's (SASB) materiality map provides some guidance in this regard. Based on the (harmful) business activities of issuers, some institutions exclude certain issuers in advance. In general, risk teams should engage in dialogue with investors to identify and understand ESG risks to creditworthiness, and to derive information for their own assessment methodologies in the context of credit ratings.

6. CONCLUSION

ESG is playing an increasingly important role in equity and debt capital markets. Significant growth rates of sustainable and sustainability-linked products suggest how the market will change in the coming decades. With the financial services sector playing a pivotal role in the transformation to a more sustainable economy, the question is how to integrate ESG into the capital raising process. Using a reverse engineering approach that aims to map the impact of the emergence of sustainable and sustainability-linked products along the trade lifecycle and identify the affected divisions within a financial institution, we find six key considerations. First, ESG does not change the trade lifecycle per se, but shifts the focus to the pre-trade phase due to regulatory and risk considerations, disclosure and verification of KPIs, and data management requirements. Second, ESG provides impetus to drive front office performance, to credibly redirect capital flows towards sustainable investments, and embed sustainability in risk management. Third, ESG levers the synchronization of front to back office systems, particularly with respect to ESG-related client data gathering, rating tools, and downstream systems. Fourth, ESG data gathering, management, and system implementation require clear workflow definition, IT interfaces, and staff training. Fifth, the centralization of ESG-related data is key to further supporting and improving the entire trade lifecycle process. Finally, our analysis of the functional architecture shows a marginal impact in the throughput-relevant functions, nevertheless the enrichment of different data models has to be ensured from the beginning in order to effectively serve the output-relevant functions, especially with regard to ESG-relevant functions like reporting.

[42] https://bit.ly/3TGushJ
[43] https://bit.ly/3Srpncs
[44] https://bit.ly/3DfieYj

ESG: RIGHT THESIS, WRONG DATA

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ABSTRACT

In this article, we argue that there is a need to move away from the outdated ESG regime that focuses on external risks for a corporation to one that addresses intrinsic issues that can have positive commercial and societal impacts. The current ESG inputs reflect administrative data points or checklists that align with socially responsible standards, policies, and codes of conduct. However, when corporations focus on societal impacts that are **intrinsic** to their business, ESG can be a powerful predictor of financial return. The future of ESG depends on producing a new generation of **ESG 2.0** data that reliably measures the link between societal impacts and corporate **intrinsic** value. To get there, three key innovations are needed: (1) adoption of a standardized taxonomy of societal impacts, (2) establishment of an ESG 2.0 "intrinsicality" map, and (3) extension of measurement, reporting, and verification (MRV) to "S".

1. INTRODUCTION

ESG has been called "socialist" by Milton Friedman,[1] a "scam" by Elon Musk,[2] a "mirage" by Bloomberg,[3] and an "unholy mess" by the Economist.[4] Friedman argued that corporations sacrifice their bottom lines when they focus on purely "extrinsic" social responsibilities. That may be true.

But what Friedman and other critics fail to realize is that not all social and environmental impacts are purely extrinsic to business. When corporations focus on societal impacts that are "intrinsic" to their business, ESG can be a powerful predictor of financial return.

The controversy around ESG stems not from a flawed investment thesis but rather from flawed data. What ESG investors want is data that measures the impact of ESG factors on corporate financial performance. Instead, what investors have today is a list of perfunctory ESG statistics regarding management policies, operating principles, and adherence to codes of conduct.

2. ESG 1.0

Today's ESG reporting frameworks (let's call it "ESG 1.0") were conceived in the mid-1990s by activist organizations like RobecoSAM, KLD, AccountAbility, and GRI. These frameworks were designed to disclose evidence of bad corporate behavior (e.g., damaging the environment, inhumane employee treatment, mishandling personal data). ESG 1.0 data covers issues like child labor, human rights violations, anti-bribery and corruption policies, waste disposal, and board diversity.

As a result, most ESG data focuses on compliance with codes of conduct and ethical guidelines. The ESG "inputs" are administrative data points or checklists that align with socially responsible standards, policies, and codes of conduct. Rating agencies typically derive an "ESG score" from these data, aggregating a company's results on different dimensions of ethics compliance and sustainability disclosures.

[1] https://nyti.ms/2l0pRDe
[2] https://bit.ly/3f72BZe
[3] https://bloom.bg/3dBLTkn
[4] https://econ.st/3fbGhOb

ESG 1.0 data was never designed to help investors and analysts improve financial returns or evaluate societal impact. Since it was intended to help watchdogs assess whether companies were doing bad things, trying to advance sustainable investing with ESG 1.0 data is like trying to bake bread with stale yeast. As HBR puts it: "Many ESG measures already very effectively capture inputs, but they presume causality – that adding women to top management teams, say, will produce better outcomes. But measures that capture inputs (such as the numbers of women on those teams) don't capture outcomes (such as decision making that reflects diverse perspectives) and impacts (such as the social value created by such decisions)."[5]

In other words, where ESG 1.0 falls short is its focus on "input" data instead of "impact" data. The controversy arises when investors try to stretch ESG 1.0 input data to evaluate whether ESG strategies have a material impact on the business or society.

3. IMMATERIAL MATERIALITY

For the past 20 years, the ESG data industry was built on a concept called "materiality", which is a fancy way of saying "what really matters". Materiality governs the scope and content of how ESG data is collected and ratings are constructed. Yet it has become somewhat of an existential crisis for ESG, resulting in a conceptual tug-of-war between two different versions of materiality: what matters to auditors and what matters to investors.

Auditors are more risk-oriented and think of materiality in terms of regulatory compliance, legal exposure, employee conditions, executive compensation, anti-bribery and corruption, ethical violations, and the like. On the other hand, investors are typically more impact-oriented and care about risk and **positive** value creation data. The SEC defines investor materiality: as "a substantial likelihood that [key facts] would have been viewed by the reasonable investor as having significantly altered the total mix of information made available."[6] In other words, what is "material" is what investors say matters to them.

Yet over those 20 years, ESG investors have been evolving their views of "what really matters". While some investors view ESG materiality primarily in terms of risk, most are now focused on impact – both financial and societal impact. As a result, the total mix of information that investors demand must evolve too.

Financial returns are still paramount for most investors. But what ESG has taught us is that "non-financial" factors are increasingly driving financial performance. In fact, according to Ocean Tomo research, intangible factors now account for 90 percent of the market value of S&P 500 companies (up from 17 percent in 1975).[7] And a big part of that type of intangible value these days derives from ESG strategies such as: sustainable innovation, employee productivity, social equity, corporate partnerships, license to operate, supply chain productivity, competitive advantage, customer-brand purpose connection, economic stability, financial inclusion, etc.

McKinsey researchers identified five key linkages between ESG and corporate value creation:

- **Top-line growth:** attracting customers with more sustainable products
- **Cost-reductions:** lower energy consumption
- **Regulatory and legal interventions:** great strategic freedom and subsidies
- **Productivity uplift:** attract better talent and boost employee motivation
- **Investment and asset optimization:** better capital allocation for long-term return on investment (ROI).[8]

All of this really has nothing to do with socialism, political agendas, or "woke" thinking. It has to do with data that directly and quantifiably impact a company's bottom line. Much of the controversy around ESG can be boiled down to the problems inherent with the ESG 1.0 data regime: it does not measure impact (either on society or the bottom line) and it is too distal, or long-term oriented. The ESG movement is handicapped by its data. Another way to interpret the criticism from those that argue that ESG is "too political" or "activist" is that ESG 1.0 data is falling short of making a true business case for environmental, social, and governance impacts. And they are not entirely wrong.

[5] https://bit.ly/3C260li
[6] S.C. Industries v. Northway, Inc., 426 U.S. 438, 449 (1976); see Basic, Inc. v. Levinson, 485 U.S. 224 (1988) (as the Supreme Court has noted, determinations of materiality require "delicate assessments of the inferences a 'reasonable shareholder' would draw from a given set of facts and the significance of those inferences to him...." TSC Industries, 426 U.S. at 450).
[7] https://bit.ly/2l5xZog
[8] https://mck.co/3LyB3rO

According to Andrew Ang of Blackrock: "ESG data that do meet [certain] criteria can be incorporated in signals alongside more traditional financial data … The frontier of factor research is to incorporate ESG data into the factor definitions themselves."[9] For example, Ang points out that green patents are patents filed under fields corresponding to U.N. Sustainable Development Goals: "If a company can deliver clean water or renewable energy, these goals are not only for society but also represent attractive commercial opportunities. We can incorporate green intangible value (falling into "E" of ESG) alongside more traditional value measures (like earnings yields or cashflow-to-enterprise value) to construct an ESG-friendly portfolio capturing the value factor."[10]

4. ESG 2.0: FROM MATERIALITY TO "INTRINSICALITY"

There may be a better standard than materiality to govern ESG data.

In 2011, Dartmouth Professor Kusum Ailawadi tested "intrinsic" and "extrinsic" ESG value propositions with a sample of retail grocery store customers. Ailawadi defined extrinsic ESG benefits as "related to broader social good but not related to the customer's direct exchange with the firm (such as environmental friendliness or community support)." In contrast, intrinsic ESG benefits were defined as those that "pertain to the customer's direct exchange with the firm (such as fair treatment of employees and locally-sourced products)."[11]

Not surprisingly, the researchers found that the largest segment of customers (60 percent) financially rewarded retailers for intrinsic ESG benefits, while extrinsic ESG benefits decreased their likelihood of shopping at that store.

That is because consumers perceived extrinsic ESG benefits as taking up company resources that could otherwise improve customer value. In other words, customers respond positively when ESG is directly tied to their commercial experience (i.e., the store employees serving them or the locally sourced products they purchase). Whereas their response is negative when the ESG is not directly relevant to their shopping experience (i.e., general environmental friendliness or charitable support by the retailer).

Many investors feel the same way about ESG. A reasonable investor would expect corporate ESG activities with strong intrinsic value to benefit the company financially. In contrast, companies that score high on extrinsic ESG ratings may not perform as well. And research backs this up.

A study by Mozaffar Khan, George Serafeim, and Aaron Yoon found that companies with strong ratings on strategically "material" (i.e., intrinsic) sustainability issues significantly outperform firms that have poor ratings. Unsurprisingly, they found that "environmental issues tend to be more material for the nonrenewable resources and transportation sectors, governance and product-related issues tend to be more material for the financial sector, and social issues tend to be more material for the healthcare, services, and the technology and communications sectors."[12]

The evidence is clear: companies that do well at disclosing extrinsic ESG risks (meaning score higher on today's ESG 1.0 ratings) do not perform better financially. This does not necessarily prove that ESG is a flawed investment strategy. It proves that ESG 1.0 data is not correlated with financial performance. Indeed, it is a tough argument to make that "not having child labor in your factories" is a good predictor of whether your company will outperform the market. If, instead, companies were able to report data on their intrinsic ESG impacts, this might be more relevant to investors and more fulfilling to the promise of ESG as an investment thesis.

The trouble is that measuring "intrinsic value" is not easy.

5. HOW DO WE GET TO ESG 2.0?

The future of ESG depends on producing a new generation of ESG 2.0 data that reliably measures the link between societal impacts and corporate intrinsic value.

So, what will it take to realize an ESG 2.0 data regime? To get there, the field needs three key innovations:

Step 1: Adopt a standardized taxonomy of societal impacts

ESG 1.0 has lots of data taxonomies – primarily using "inputs" or administrative data. In ESG 2.0, what matters are outcomes – changes in status, condition, or behavior for employees,

[9] https://bit.ly/3DGxz4z
[10] https://bit.ly/3LxN7JM
[11] https://bit.ly/3dz6Hsl
[12] https://bit.ly/3C0o2nV

customers, and the community. Companies need to report their contributions to these outcomes – social determinants of health, racial equity, financial inclusion, education, housing, improved water access, etc. While these may seem hard to define and measure, many concepts we never thought were quantifiable are now widely accepted as measurable.

We can do the same on the social side. Granted, there are far more outcomes to standardize, but as we have done it for issues like healthcare, measuring the quality adjusted life years (QALY), we can do that across all social outcomes, and indeed we have.

A standardized taxonomy of societal impacts will enable all companies to tag and report their ESG activities by outcomes, which investors can use to determine the overall societal impact of a firm and the intrinsic value of those impacts. One example is the Impact Genome Project – a publicly funded initiative to standardize the coding for all of the world's social outcomes.[13]

Step 2: Establish an ESG 2.0 "intrinsicality" map

Today's ESG 1.0 data agencies like the Sustainability Accounting Standards Board (SASB) and S&P ratings use "materiality maps" to evaluate the relative importance of ESG data to companies (see Figure 1).[14] Unfortunately, these materiality maps are almost exclusively focused on extrinsic value (i.e., according to S&P, the most financially material ESG impacts are "climate transition risk" and "waste transparency").

To get to ESG 2.0, we need "intrinsic value maps" that identify the environmental, social, and governance impacts that significantly contribute to corporate value creation. As McKinsey noted above, intrinsic value is defined as ESG strategies that contribute to value creation in one of five ways: top-line growth, cost reductions, regulatory and legal interventions, productivity uplift, and investment and asset optimization.[15] An intrinsic value map would chart the range of social and environmental impacts against those five value-creating outcomes.

> *"In the ESG 2.0 world, intrinsic value for firms is only created if impacts are verifiably achieved."*

Step 3: Extend measurement, reporting, and verification (MRV) to "S"

Currently, the only reliable (i.e., third-party verified) data in the ESG 1.0 world is in the "E" column.

For example, there is broad acceptance of how to measure carbon removal. And there is an infrastructure for the "E" or environmental world where environmental impacts are standardized, reported, and verified by carbon registries (e.g., Verra and the Gold Standard). And even that could use some better standardization and data integrity.

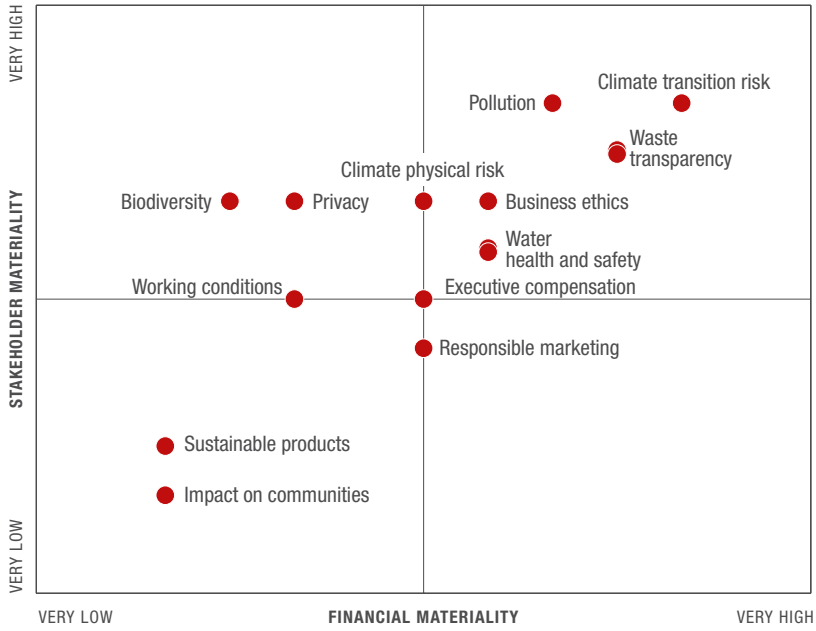
In the ESG 2.0 world, intrinsic value for firms is only created if impacts are verifiably achieved. Simply donating money, operating "feel good" programs, and producing glossy "SDG" reports cannot prove to investors that outcomes were achieved. Without verifying societal impacts, investors cannot bank on any potential intrinsic value that would flow from those activities. ESG 2.0 requires the level of rigor used for "E" to be extended to cover impacts in "S".[16]

ESG investment analysts and rating agencies can then assess the materiality and strategic value of each company's impact data (going far beyond the binary approach of ESG 1.0 materiality). In addition to ESG 1.0 data, investment analysis need data that informs these questions:

- Are the company's ESG impacts extrinsic or intrinsic?
- How significantly do the ESG impacts contribute to corporate performance?
- How credible are the ESG impact claims?
- How does this company's ESG impact compare to its competitors?

[13] www.impactgenome.org [note: one of the authors, Jason Saul, is the co-founder of this initiative]
[14] https://bit.ly/3f3ZYY2
[15] https://mck.co/3SkQm9R
[16] See "Fixing The "S" in ESG," published in SSIR – https://bit.ly/3qTN6ql

Figure 1: Example of an ESG materiality map for the ABC sector



Source: S&P Global Ratings, Materiality Map, May 18, 2022

ESG 2.0 may seem futuristic, but we are closer than you think. ESG 2.0 is happening now.

One of the big advances in the field of impact is in the area of impact data standardization and verification. The Impact Genome Project has created a global coding standard for 132 common societal outcomes. The Impact Genome also serves as the world's first impact registry. Companies, nonprofits, and government agencies can report their impacts to the Impact Genome using a standardized taxonomy and have their impact claims independently verified, priced, and benchmarked.

Analysts, assurance firms, investors, and other stakeholders can review these impacts and factor them into decision-making and investment models to explore positive commercial benefits.

This is only just the beginning.

There are many other exciting ESG 2.0 developments afoot, including the G7's Impact Task Force Report on Impact Accounting,[17] the World Wellbeing Movement, Harvard Business School's Impact-Weighted Accounts initiative,[18] and its affiliated International Foundation for Valuing Impacts,[19] to name a few.

The power of ESG as a force for making a measurable positive impact on society while improving a corporation's value is inevitable. But without the right data, the virtue of this movement is being called into question. The right call to action for ESG advocates is not to fight the criticism with indignancy, but to embrace it and evolve with more credible and compelling data.

[17] https://bit.ly/3dt5q6F
[18] https://bit.ly/3DNzLHA
[19] https://bit.ly/3UtbbSgmake

6. CONCLUSION

ESG 1.0 is under fire – which is not entirely unjustified. The time has come to evolve and harness the true power of ESG for both companies and society.

What ESG 1.0 taught us is that non-financial issues, such as societal ones, play a critical role in a company's financial performance. Yet, until we stop focusing solely on extrinsic factors and prioritizing only internal policies and procedures, we will not capture the value ESG has to offer.

Study after study shows us that the extrinsic ESG factors may in fact negatively affect the bottom line, whereas intrinsic efforts that are relevant or material to a company result in better performance. That is where ESG 2.0 comes in.

But to get to where ESG 2.0 can take us, we need to shift from the current box-ticking exercise to developing robust and reliable data that enables companies to report their actual societal outcomes and assess that impact on corporate performance. That means, we need a common taxonomy of societal impact, to replace extrinsic materiality maps for intrinsic value maps, and highlight the "S" in ESG.

This is all eminently possible. And we are closer than we think.

ESG – THE GOOD, THE BAD, THE UGLY

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ABSTRACT

If there is one buzzword that current strategic discussions across all industries have in common, it is ESG. Even though sustainable investments initially started as a niche investment class, they are slowly reaching mass adoption. While environmental concerns like climate change previously seemed to be non-urgent, COVID-19 rewrote that narrative, and we are observing a massive disruption in public consciousness. With the wealth transfer taking place, demand for sustainable investments skyrocketing, and regulations and public scrutiny tightening, banks are under immense pressure to steadily fulfill growing demands for ESG products. However, this flight to green is increasingly considered as a cause for concern. The "why" in relation to ESG is undebatable, we now need to focus on the "how" – or rather "how not to". This is where greenwashing comes into focus. Based on recent large-scale scandals, it has become apparent that greenwashing can occur across the full investment value chain. Due to lack of global cooperation and adoption of what is really considered sustainable, greenwashing can be committed intentionally or unintentionally, if there is lack of proper due diligence at product, company, and/or point of sale level. This article provides a framework for greenwashing prevention through the five key pillars of strategy, target operating model (TOM), governance, risk management, and data and reporting. Ultimately, key guidelines are provided to help financial institutions avoid the greenwashing trap, no matter where they are on their individual ESG journeys – be they laggards or frontrunners.

1. INTRODUCTION

If there is one acronym shaping strategic discussions across industries like no other, it is ESG. Sustainability moved from street protests of climate activists to the boardroom and is considered one of the main growth opportunities of the 21st century. Given the immense pressure of the investor revolution, banks are rushing to ensure sustainable product supply is satisfying demand so as to not leave any money on the table. At the most extreme, asset managers are repurposing existing assets by simply changing product names. The ESG bubble has grown so rapidly that it is hard to ascertain whether all the institutions that market themselves as sustainable investors have invested sufficient effort to ensure a genuine ESG transition, and to guarantee that portfolios are really ESG friendly.

Sceptics are also making sure that their voices are heard, with many suggesting that ESG labels are in many instances nothing more than the paper straw of investing, which is served inside a plastic cup. Are ESG investment vehicles really what they claim to be or are they simply a marketing tool to repackage existing assets and sell them at a green premium? A number of hedge fund managers are of the view that they are overpriced, with some short-selling shares they believe are wrongfully inflated by ESG promises. Whenever there is information asymmetry, greenwashing can easily occur – at product, company, or point-of-sale level. This translates into the following statistics:

- More than 70 percent of executives lack confidence in their organization's own ESG reporting.[1]

[1] https://bit.ly/3Skdxkz

- 42 percent of the green claims are "exaggerated, false, or deceptive", according to the European Commission.[2]
- Even though 95 percent of European corporate lending comes from banks that claim to be committed to the Paris Agreement, less than 10 percent of companies have Paris-aligned targets defined (European Commission).

A globally accepted, stringent framework and audit for non-financial statements is still missing and ESG rating processes are mostly a black box. ESG performance is not black or white and should be evaluated on a sustainability continuum. This did not go unnoticed by the regulators and a number of newsworthy investigations are taking place, with some impacting internationally renowned fund management brands. As a result, overselling green claims is no longer considered within the grey zones of a creative marketing strategy, but a crime, which may also be penalized on a personal level.

This article provides guidance on what banks can do to ensure that they can effectively integrate ESG within their corporate strategy, translate ESG strategy into operational processes and controls, and review risk management and governance, as well as data requirements and marketing considerations, to fully embrace ESG and give confidence to investors that their investments are truly sustainable.

2. MANAGING THE ESG TRANSITION

What can banks do to not commit greenwashing, intentionally or by falling into the greenwashing trap of their investment targets, regain investor trust, and ensure they are really having the impact that they are promising and aiming to achieve?

ESG-related regulations that are trying to tackle greenwashing concerns are increasing and transitioning globally from voluntary recommendations to legally binding legislations. However, there remains a lack of harmonization on global sustainability reporting standards and multiple competing frameworks and methodologies exist. Furthermore, national interpretations regarding soft or hard laws still vary, with hard laws being legally binding and soft laws not.

With the E.U. being at the forefront of initiatives and action plans, emerging regulations have primarily targeted disclosures (e.g., NFRD[3] and SFDR[4]) and climate risk (E.U. Climate Transition and TCFD[5]), with certain regulations directly trying to challenge greenwashing through, for example, the E.U. Taxonomy Regulation and the E.U. Ecolabel for Financial Products.

The launch of the SFDR also introduces the disclosure concept of Principal Adverse Impacts (PAIs) into the E.U. regulatory landscape, which are negative externalities resulting from investments on sustainability factors. There are also two different categories of sustainable financial products that are defined and differentiated (Article 8 and 9 products).

The E.U. recently announced that there will also be requirements for sustainability reporting audits, which means that banks' sustainability reporting will receive even more attention.

While these regulations are all helpful, as long as ESG disclosures remain voluntary, and not integrated globally into hard law, the risk remains that companies will cherry pick what they want to report and omit what they don't want the public to know. Consequently, banks should expect increasing regulatory demands and proactively define bank-wide standards that adhere to the most stringent ESG regulations globally.

3. INTEGRATING ESG INTO THE STRATEGIC MANAGEMENT PROCESS

ESG considerations like climate risk do not only constitute investment risk, but also investment opportunity. If sustainability is a core component of the organizational culture, and if "doing good" is aligned with "doing well" (i.e., superior financial performance), the risk of greenwashing can be reduced. There is less intrinsic motivation for bank employees to engage in greenwashing if tampering with the sustainability reporting numbers does not translate into a better bottom line.

"Purpose is the engine of long-term profitability," according to Larry Fink, CEO of BlackRock.[6] For a bank, the starting point is to re-think how purpose and profit can be combined alongside the three Ps – people, planet, and profit. Sustainability efforts need to translate into a win-win – for the bank and the planet/people by incorporating it into every aspect of the strategic management process, as illustrated in Figure 1.

[2] https://bit.ly/3Ly4rhN
[3] NFRD: Non-Financial Reporting Directive
[4] SFDR: Sustainable Finance Disclosure Regulation
[5] TCFD: Task Force on climate-related financial disclosures
[6] https://bit.ly/3S4pKtQ

Figure 1: Integrating ESG into strategic management progress

PURPOSE AND VISION

- Re-baseline the company vision and statement of purpose to encompass sustainability
- Re-think how the company can produce solutions to problems of people and planet and in the process produce profits

Does our statement of purpose address all stakeholders, not only shareholders?

OBJECTIVES

- Perform a materiality assessment to identify company-specific material ESG issues that directly impact firm value
- Incorporate metrics into the company objectives and financial goals

Are our nonfinancial objectives SMART (specific, measurable, achievable, reasonable and time-bound)?

ENVIRONMENT ANALYSIS

- **Incorporate ESG factors into environment analysis:**
  - **External:** Opportunities, threats, PESTLE analysis (political, economic, social, technological, legal, environmental), Porter's Five Forces
  - **Internal:** Assess internal ESG resources and capabilities along the value chain

Which ESG opportunities do we see in the next 1, 2, 5, 10 years?

Can we capitalize on existing tangible or intangible assts or easily transform them in a sustainable way?

STRATEGIC CHOICE

- **Business level:** Reconsider the strategic choice (cost leadership versus differentiation) in line with ESG opportunities and risks
  - **Cost leadership:** Determine how ESG opportunities can be exploited to compete on costs
  - **Differentiation:** Determine ESG opportunities for:
    - Product/service attributes (product features, product complexity, product mix, location, timing)
    - Relationship with customers (customization, marketing, reputation, service, distribution channel, etc.)
- **Corporate level:** Identify how the bank can gain a competitive advantage in several businesses through ESG opportunities via vertical integration, strategic alliances, diversification, M&A, or internationalization activities

- Is the current strategic direction contradicting the ESG trend?
- Business level – Cost leadership: Is a focus on cost efficiency still viable in the long term?
- Business level – Differentiation: Does our current product mix unite value and purpose? How can we use ESG to position ourselves in a unique way? How can we integrate ESG for a unique customer service? Are there any unserved niche markets?
- Corporate level: Which green targets would support our strategy?

IMPLEMENTATION

- Implement vision enterprise-wide and front to back, along the customer lifecycle
- Refine organizational structure, control processes and compensation policy in line with ESG strategy

- Does our organizational structure support ESG?
- Do we have a robust control environment in place?
- Are internal KPIs and culture in line with company objectives?

STRATEGIC OUTCOMES

- Measure the competitive advantage in line with competitor moves and customer acceptance

- Do we need to adjust our objectives?
- Do we need to adjust our strategic positioning due to a competitor move?

What does this look like in practical terms? A bank that is trying to expand its market share in payments, for example, might launch an app that improves financial inclusion and making payments more accessible to the underbanked in developing countries – an integrated approach that would be also credible to shareholders since the core banking services are simultaneously solving a pressing issue in developing countries while generating a profit.

4. TRANSLATE ESG INTO A MODIFIED TARGET OPERATING MODEL

Due to the weaknesses of external ESG ratings, internal processes and procedures receive even more investor attention. To unlock the strategic value of ESG, it cannot be considered a one-off checkbox activity. After ESG has been integrated into the company's strategy and DNA, it needs to be deeply embedded into operational practices that are audited and quality controlled. The bank's target operating model needs to include ESG – on both an enterprise-level and the functional/(fraud) risk management level.

- **People:** ensure that the right people are hired, roles and resources aligned, job descriptions and organizational structure updated, and training adjusted.
- **Processes:** translate changes in strategic direction to modified operational processes and procedures (front, middle, back office) with a specific consideration for the fraud risk management unit.
- **Technology:** utilize advancements in technology and artificial intelligence to create new solutions, innovate processes, and generate material ESG data.

5. INSTITUTIONALIZE ESG INTO THE RISK AND FINANCIAL CRIME GOVERNANCE

Regulatory bodies already understood the importance of reporting on the governance of ESG, e.g., national interpretations of the TCFD demand disclosure of the governance of climate risks and opportunities. The current financial crime governance of AML, KYC/PEP, payment fraud, merchant fraud, internal fraud, bribery and corruption, application fraud, loan fraud, and cybersecurity need to be enhanced by a dedicated greenwashing team. Likewise, reporting lines are required for standing committees to oversee greenwashing, as well as ad-hoc committees for severe cases and damage control and whistleblowing incidents. In addition, banks should proactively address greenwashing through the classic three lines of defense framework and managerial oversight.

The first line of defense (business owners) needs to detect and raise risks where they emerge and proactively report them to the second line. Consequently, an understanding of all internal ESG policies, controls, and regulations is critical to be able to engage in continuous risk monitoring and self-assessment.

The second line of defense (control functions) defines the bank-wide minimum control requirements and country-specific interpretations of regulations, and with that baseline establishes targets and KPIs that the performance can be benchmarked against. It is also within their level of responsibility to perform a periodic review of the risk governance framework against pre-defined performance targets (front-to-back risk assessment and management of residual risk). Finally, they identify training requirements for the first line.

The third line of defense (internal audit) engages in independent oversight and testing of control activities to ensure comprehensive risk oversight and to provide assurance to senior management. A lookout for greenwashing red flags is critical:

- Vague reporting without clear evidence or actions (goals rather than achievements)
- Achievements that seem too good to be true – use common sense and assess viability
- A significant portion of funding related to access to financing (e.g., government grants for clean energy consumption)
- High overlap between ESG reporting and external rewards (e.g., specific awards or inclusion in indices)
- Weak internal control environment and governance in relation to sustainability in general
- Reporting and marketing with focus on positive stories
- Lack of critical view regarding shortcomings and points or "path to green".

6. INCORPORATE ESG INTO THE RISK AND FRAUD RISK MANAGEMENT FUNCTION

Whether a bank is more susceptible to actively engage in greenwashing or to become a victim of greenwashing, establishing a sustainability (fraud) risk management program is a critical step. Greenwashing needs to be logged as an official risk category and be incorporated into the overall risk framework.

6.1 Assessment of risk exposure

The periodic (fraud) risk exposure assessment needs to incorporate greenwashing. Banks need to properly assess its risk exposure (impact/likelihood) based on size/geographic scope, business model, service/product offering, and operating model. It is critical to determine which products and processes (front, middle, back) along the value chain are most at risk of greenwashing and treat them with priority.

6.2 Current state analysis

Once the key risks have been identified and categorized, potential loopholes for greenwashing need to be analyzed. An evaluation of the status quo and effectiveness of the bank's anti-fraud/greenwashing control environment should include, but not be limited to, the following focus areas:

- **Know your partner:** assess whether adequate due diligence is undertaken for all partners, contractors, and service providers, like rating agencies.
- **Evaluate your M&A target:** which due diligence procedures are currently in place, in addition to the standard financial statement analysis? For all types of inorganic growth (mergers/acquisitions), an in-depth assessment of ESG practices (and greenwashing prevention measures) needs to be incorporated into the decision-making process.
- **Know your employee:** understand key HR practices for permanent and temporary employees (recruitment, onboarding, employee monitoring, exit) and internal incentives/KPIs that would encourage greenwashing.
- **Establish an ESG culture:** conduct an ethics survey (culture, fraud attitude, fraud practices awareness, reporting willingness) to understand the average employee sentiment regarding sustainability and internal fraud.
- **Think like a fraudster:** apply the fraud triangle to your organization (opportunity, rationalization, pressure) to understand potential internal weak spots.

A potential checklist of questions would include (non-exhaustive):

- How is ESG and greenwashing fraud governed within the bank?
- What are current opportunities for employees to engage in greenwashing?
- Which controls are in place to prevent those? Are these adequate? Are they regularly audited?
- What are potential incentives of individuals/functions to engage in greenwashing?
- Are there any apparent conflicts of interest that would incentivize employees to engage in greenwashing? Do KPIs need to be adapted?
- What is the attitude of employees towards sustainability and unethical behavior? Are employees willing to report wrongdoing? Are sufficient trainings in place?
- Would there be reasons for specific employees to rationalize a committed fraud due to their (personal or professional) circumstances?

To actively prevent greenwashing from happening, banks should put themselves into the shoes of a fraudster. The fraud triangle (pressure, opportunity, rationalization) can be used as an insightful tool to assess fraud risk through the likelihood of an individual engaging in a fraudulent act.

6.2.1 PRESSURE

Shareholder activism: ESG is gradually becoming a focus of interventions and at the heart of asset managers' investment strategies.

- **Product innovation:** possibility to be considered for screened investment products such as green bonds.
- **Contributions:** recovery plans around the world favor sustainable companies in their funding.
- **Government procurement:** public authorities increasingly demand compliance with ESG criteria in their selection process for public contracts.
- **Growth requirements:** a strong ESG value proposition is increasingly required of companies to enter new markets or geographies.
- **Compliance with regulations:** regulations around ESG are increasing, specifically with regards to climate risk and disclosure.
- **Compensation tied to ESG performance:** company performance incentives are progressively tied to ESG metrics.
- **Talent attraction:** a strong ESG positioning positively impacts a company's ability to attract and retain high-quality employees.

6.2.2 OPPORTUNITY

- **ESG wave:** ESG is a trend and customers are willing to pay a premium for financial products in line with ESG criteria.

- **Lack of global ESG regulations:** even though ESG regulations exist locally, there is still a lack of globally adopted international standards specifically in relation to the definition of financial products and respective investment strategies.
- **Move towards retail investing:** the new generation of retail investors who are investing in ESG products by themselves lack solid sustainable investing expertise.
- **Transparency in ESG reporting:** a lack of external controls and verification from auditors on ESG reporting may not incentivize companies towards full transparency.
- **Numerous ESG rating agencies:** companies can cherry-pick the rating agency that is the most favorable to them, and the correlation between ratings of different agencies is low.
- **Subjective nature of ESG ratings:** difficulty of comparing the ESG rating of, for example, a company that is scoring well on climate risk metrics to one that is trying to enhance labor conditions in developing countries.

6.2.3 RATIONALIZATION

- **Survival of a business:** companies with economic difficulties could be tempted to market themselves as ESG compliant in order to obtain financial incentives tied to ESG integration.
- **Following ESG leaders:** a financial institution that is a laggard in ESG might be tempted to create false ESG financial products or KPIs to keep up with the leaders in the ESG domain.
- **Greenwashing in the financial industry as accepted behavior:** some companies may think greenwashing is widespread amongst competitors, which persuades them to copy that behavior.
- **Marketing as grey zone:** the lines between marketing as a differentiation factor and greenwashing are blurring, so banks might justify their misconduct as "creative marketing strategy".
- **Fear of job loss:** ESG performance are becoming a top priority for companies and can push employees to commit greenwashing with the fear of losing their job in case the objectives are not reached.

6.3 Target state definition

To define the future state of (fraud) risk management, greenwashing needs to be factored into prevention, detection, and response processes.

6.3.1 PREVENTION: REDUCTION OF OPPORTUNITIES

To prevent greenwashing, leadership commitment, tone from the top, and adherence to values foster the right ESG culture. The risk appetite statement needs to also include greenwashing and the level of risk the bank is willing to accept. Greenwashing needs to be incorporated into the fraud governance, with dedicated ownership established. Fraud policies, processes, and standard operating procedures should also address greenwashing. Ensure the right people are trained and have an awareness and understanding of new processes/procedures across the three lines of defense and third-party networks.

6.3.2 DETECTION: ESTABLISHMENT OF CONTROL ACTIVITIES

Financial crime screening data needs to include ESG parameters – rely on data/analytics monitoring tools to detect potential greenwashing activities. Controls need to be established for key risk processes identified in the risk assessment, with measures like segregation of duties and 4-eyes principle. Reporting channels like whistleblowing need to also specifically include wrongdoing in relation to ESG (greenwashing). Employees in the first line need to be educated on the red flags that they should be on the lookout for and what they should report and to whom.

6.3.3 RESPONSE: DETERMINATION OF APPROPRIATE REMEDIATION ACTIONS

Communicate a zero-tolerance attitude for any misconduct in relation to greenwashing. That also includes the establishment of adequate remediation actions for key greenwashing risks identified. An emergency plan needs to be in place in the marketing/PR department for immediate disclosure of wrongdoing – report any discovered greenwashing misconduct proactively and openly.

6.4 Change management and progress monitoring

The (fraud) risk management practices (for both internal and external fraud) need to be constantly aligned with industry trends to prevent and/or detect new, evolving fraud schemes. Depending on the outcome of the current state analysis, the bank should launch an internal task force and reserve a specific budget/resources to manage the transition towards bulletproof sustainability. Organizations do not change until people do, and change takes time. If employees are intrinsically motivated to act in a way that is aligned with the business strategy, which now also includes sustainability, controls and frameworks will eventually become less relevant.

7. INTEGRATE ESG INTO THE DATA LIFECYCLE

The ESG data industry is said to have become a U.S.$1 billion industry in 2021 (Techmonitor)[7]. Technology is acting as ESG enabler through improvements in online brokerage platforms, zero commission trades, and advancements in the sourcing and provisioning of ESG data itself.

7.1 Data governance and data quality

To ensure financial reporting data is trustworthy, comparable, reliable, high-quality, and safeguarding consumer protection rights, regulations like BCBS 239[8] and GDPR[9] forced banks to invest in data governance, data ownership, and data quality initiatives. An extension of past data governance initiatives with non-financial (ESG) data needs to be on top of the chief data officer's agenda. Data owners and stewards need to be nominated from both business and IT to determine an approved source for material ESG data, sign off on data quality, and establish a common data glossary, enterprise-wide.

7.2 Investments in artificial intelligence

As the saying goes, you can only manage what you measure. Investors increasingly seek to measure their impact. On top of the sustainability movement, we are also in the middle of a data transformation. With evolving fintechs, analytics, and AI, it is possible to collect and analyze non-financial data via various sources like weather and satellite imagery or social media posts, and report on resource usage, emissions, workforce composition/diversity, executive pay, etc. Some banks have even incorporated this within remote working and are measuring homeworkers' carbon footprint anonymously through an app on the end user's device.

7.3 ESG performance metrics

Based on the strategic direction, suitable key performance indicators (KPIs) need to be determined that fulfill the triple bottom line (profit, people, and planet) – ESG issues that have a material impact on firm value. As social and environmental issues are dynamic in nature and reflect shifting priorities of society, banks need flexible reporting processes and practices that can move quickly. While climate change has been established as a long-term key concern, other areas like diversity have only recently emerged through viral campaigns like Black Lives Matter, the me-too debates, or the gender pay gap discussions. Also, in Europe, investments in weapons have been assessed through a different lens since the start of the war in Ukraine.

7.4 External reporting/marketing

So far, banks' sustainability efforts have targeted non-profits and policymakers and reported in absolute terms (e.g., number of trees planted, money donated, hours volunteered, etc.). However, impact investors have a different incentive – they want to understand how a corporation is simultaneously fulfilling the triple bottom line of profit, people, and planet. Reporting recommendations like the TCFD already expect disclosure on actual and potential impacts of climate-related risks and opportunities on the strategy. ESG reporting must be targeted to investors that want to see how material ESG issues are integrated into the strategy to obtain a comprehensive overview of firm value – artificial intelligence can help in establishing this linkage. Clear rules need to be established and communicated concerning which investment strategies and practices an organization considers as sustainable and which not, with clear internal definitions of ESG products. If, for example, a best-in-class strategy is followed, the investor needs to be properly educated that this could result in investments in the so-called sin industries like tobacco, gambling, etc. Those need to be made readily available to all stakeholders and in a language that is precise and understandable.

Given the rapid transformation of sustainable investments, from a niche investment class to mainstream retail products heading towards mass adoption, the target group is no longer only sustainability experts, but average retail investors. This new class of investors has access to the capital market and is financially literate enough regarding investment classes in general, but does not necessarily have the detailed sustainable investing knowledge to understand the difference between investment strategies like, for instance, impact investing, sustainable and responsible investing, best-in-class screening, norms-based screening, ESG integration, or negative exclusionary screening. The same rules need to be applied consistently, and also communicated through all documents and all kinds of verbal and written communications – marketing material, fact sheets, contracts, etc. Furthermore, stakeholders prefer honesty and transparency in achieving sustainability goals. Focus should be on outputs and outcomes instead of intentions and goals. The French luxury brand Chanel, for example, launched a green bond linked to environmental targets. In case those are not reached, a voluntary penalty will be paid to the bondholders.

[7] https://bit.ly/3SoYfv1
[8] Basel Committee on Banking Supervision's standard number 239 has established principles for effective risk data aggregation and risk reporting.
[9] General Data Protection Regulation safeguarding personal data and privacy

7.5 Internal communication

Employees need to be addressed in the same common language as all other stakeholders. Whereas external communication should be centralized to ensure a unique and controlled branding and messaging that is not contradictory, internal communication requires a decentralized approach to foster co-creativity and create shared sustainability commitment. Tone from the top, internal newsletters, townhalls, and trainings should help employees internalize sustainability values and foster an ESG mindset that discourages greenwashing.

8. CONCLUSION

With all the perceived benefits of ESG investments, corporations and individuals might have an incentive to sugar-coat their internal practices and present themselves as "greener" than they actually are. Change is inevitable for all stakeholders in the financial services industry. The sustainability process is complex and does not offer any shortcuts or quick fixes, especially not for those banks that are still in the early stages. ESG can be a competitive advantage only if financial institutions are able to talk the talk and walk the walk. Sustainable banking is at an inflexion point, driven by consumers who demand sustainable change but are at the same time suspicious of the truthfulness of labels, ratings, and disclosures. With increasing regulations and pressing deadlines that lack clear implementation guidance and product definitions, greenwashing might continue to increase until bank-wide standards are adapted as well. The way forward is being proactive in embracing sustainability along all described dimensions rather than reactively waiting for emerging regulations. For both ESG leaders and laggards, the risk of greenwashing deserves growing attention and clear action items for strategy, target operating model, governance, risk management, and data and reporting.

The next steps vary depending on the current position on the ESG journey. Banks that are already at the forefront of ESG need to take a step back and reassess the inherent ESG opportunities and greenwashing risks, to then put adequate controls and audits in place. Laggards that are just jumping onto the ESG bandwagon should not follow a wait-and-see approach and reactively comply with regulations, since this is likely to translate into a competitive disadvantage. They need to proactively define their future strategy in ESG terms, while ensuring a sound control framework and governance is in place from day one. We are witnessing a once-in-a-century transition, and now is the time to do it right from the start. While the risks of greenwashing are slowly becoming understood in the financial services industry, emerging questionable activities, such as socialwashing, bluewashing, pinkwashing, etc. are just around the corner.

However, a considerable regulatory aftermath is expected from the latest greenwashing scandals and allegations. Pascal Durand, a member of the E.U. Parliament, recently stated: "From now on, having a clean human rights record will be just as important as having a clean balance sheet." Consequently, front runners will be those financial institutions that are a step ahead.

FINDING THE RETURN ON SUSTAINABILITY INVESTMENTS

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ABSTRACT

Managing for the material environmental and social issues affecting business today requires new strategies, practices, and tools. Our research explores how to best understand and track the financial return on sustainability investments, to assist companies with their decision making, and improve their bottom-line as well as their societal impact. In this article, we explore the strategies and benefits associated with sustainable agriculture and provide case studies of how companies and farmers have benefited from sustainable sourcing, biodiversity protection, water conservation, and regenerative agriculture practices. We see consistent benefits in the form of operational efficiencies, risk mitigation, innovation and growth, customer loyalty and sales, employee retention, and productivity, amongst other drivers. In fact, sustainable business practices throughout the value chain could be characterized as driving the next wave of total quality management, and the methodology can be useful to most industry sectors.

1. INTRODUCTION

Investments in sustainability can pay dividends – but only if corporate leaders are implementing robust and embedded sustainability strategies as well as tracking and managing the returns on their sustainability investments. Our research into the Return on Sustainability Investment (ROSI)[1] is demonstrating that sustainability is the next wave of total quality management – driving operational efficiency, market demand, innovation, employee productivity and retention, risk mitigation, and supplier resiliency. Yet most companies, even those that have credible sustainability programs, are measuring ESG and financial returns separately and have no idea how the two connect, thereby losing the opportunity to improve returns.

We have studied this for the automotive sector,[2] apparel,[3] and utilities, and are currently finalizing a food and agriculture framework and a related set of cases. We will provide examples for the agriculture sector[4] in this article but emphasize that the process used applies to all industry sectors. The findings are also relevant for investors, who tend to rely on process-based ESG metrics to make investment decisions; ROSI can help better analyze the efficacy of a company's embedded sustainability strategy and its management, market, and financial benefits.

[1] https://bit.ly/3TbyJKb
[2] https://bit.ly/3TbyTBh
[3] https://bit.ly/3CszUzd
[4] https://bit.ly/3Cw4JmA

2. HOW TO UNDERSTAND ROSI

For all sectors, we begin with assessing the material ESG issues that will impact the industry, understanding that corporate strategy must focus on material topics. In food and agriculture, that includes topics such as climate change, water quality and quantity, chemical and energy use, food waste, packaging, worker wellbeing, animal welfare. and so on. Climate change is already affecting productivity and worker wellbeing – a company dependent upon resources that are in turn dependent on the weather needs to manage for the negative impacts of climate change. How well that company works with its suppliers to improve climate change resiliency and reduce its value chain carbon emissions is likely to be material to its success.

Having identified the material ESG topics for a given industry, which are well documented by the Sustainable Accounting Standards Board (SASB)[5] and the Global Reporting Initiative (GRI)[6], we then assess the sustainability strategies available to effectively address them. Figure 1 lays out the 12 sustainability strategies we have identified for the food and agriculture sector, based on interviews of corporate leaders, company engagement, and desk research.

Prioritization of the strategies for different companies will vary – some companies will have no exposure to animal welfare issues, for example. But, other topics, such as climate change and worker welfare, affect all companies throughout the agriculture and food value chain. Prioritizing the strategies should be based on the company's assessment of ESG risks and opportunities throughout its value chain. Just because a brand does not control the treatment of workers on the farms from which its suppliers source, for example, does not mean that child labor on those farms can be ignored as someone else's problem (witness the negative publicity for chocolate companies regarding child labor in West Africa).

Following the prioritization of sustainability strategies, the company must then design the practices it plans to implement as well as the key performance indicators (KPIs) it plans to track. At this point, the finance team can also design aligned financial metrics. Sustainability practices are the specific steps taken to implement a sustainability strategy, such as climate change or diversity, equity, and inclusion (DEI). As with any corporate strategy, some practices will work well (both to tackle the ESG issue and drive better financial performance) and some will not. If the company focuses on process-based metrics (e.g., a tracking the existence of a DEI policy versus creating programming that results in improved diversity and inclusion) it is less likely to drive better performance, which is why identifying the best practices, as well as tracking their impact and financial performance, will be key.

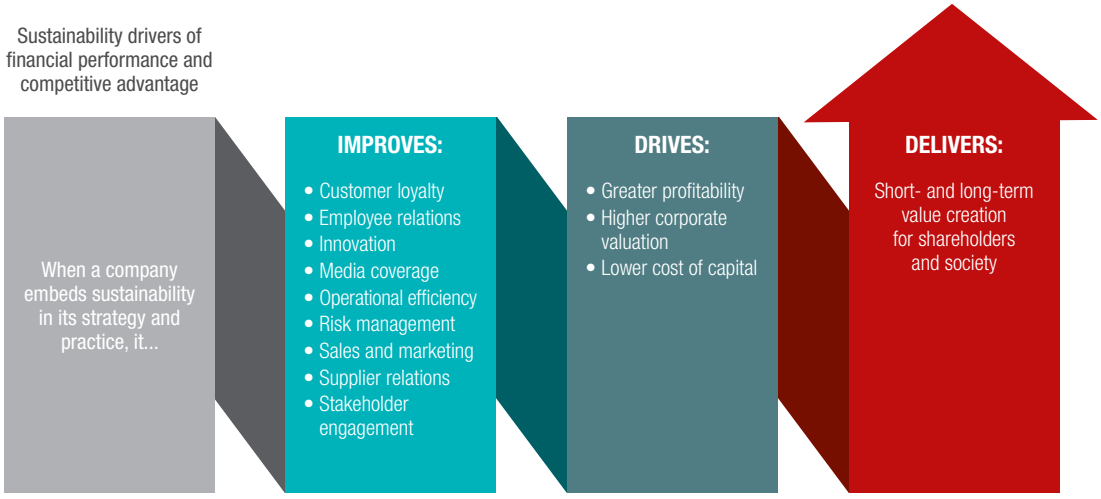
At the practice level, we can monetize the returns by assessing which of the nine ROSI mediating factors might drive improved financial performance for that practice – operational efficiency, reduced risk, improved sales, employee engagement, etc. Figure 2 presents a full listing of the mediating factors.

Figure 1: Sustainability strategies in agriculture

*These strategies are subject to change
Center for Sustainable Business, NYU Stern (2022)

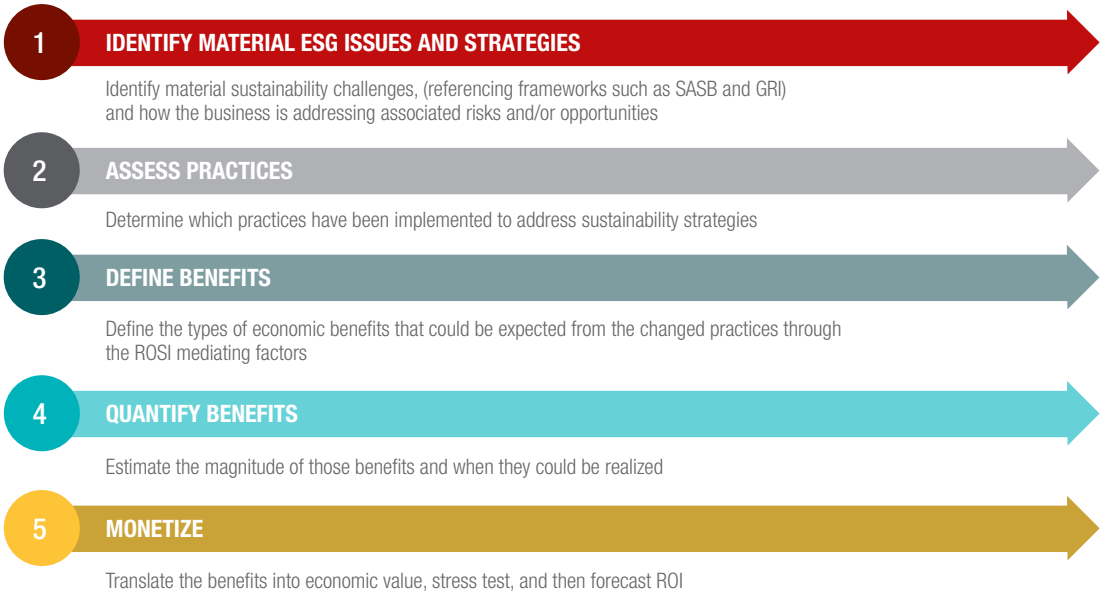
[5] https://bit.ly/2yzkhaj
[6] https://bit.ly/3fF11ya

Figure 2: Return on Sustainability Investment (ROSI) drivers of financial performance and competitive advantage



Center for Sustainable Business, NYU Stern (2022)

Figure 3: ROSI methodology and collaboration process



Center for Sustainable Business, NYU Stern (2022)

In summary, companies and investors can improve their financial performance by implementing and/or monitoring embedded sustainability practices that drive the ROSI mediating factors. Currently, the finance team and investment analysts are not tracking ROSI. Figure 3 demonstrates the steps we have developed to better track and manage for the financial impacts of sustainability strategies.

To help bring this to life, we will provide examples from our food and agriculture research, which we have been working on for several years with a variety of companies and partners. The final food and agriculture ROSI framework should be completed by early 2023.

Figure 4: Climate change practices

	ON-FARM	MANUFACTURING/ PROCESSING	DISTRIBUTION	RETAIL/ FOOD SERVICE	CONSUMER ENGAGEMENT
Reduce GHG emissions	Reduce livestock-related GHG emissions (diet, wellness, technology)	Transition to low emissions vehicles/transport			
	Reduce direct and indirect emissions from machinery use				
	Ensure no deforestation of primary forest with monitoring and/or certification programs		Purchase or require certified and zero-deforestation products		Use low- or no-carbon labeling
Transition to low-carbon alternatives	Use bio-based fertilizer	Develop animal feed for improved digestibility		Change product recipes or switch to low-carbon impact commodities	
	Adopt soil health				
	Optimize energy efficiency (LED, automated monitoring, etc.)				
	Implement monitoring and tracking systems for energy usage				
		Replacement of obsolete refrigeration equipment with newer, more efficient equipment and/or low-carbon and natural refrigerants			
Sequester carbon	Plant trees/ grasslands where possible	Improve land management to minimize cutting			
	Introduce anaerobic digesters to farming practices	Conservation cover crops, no-till or reduced tillage			
Sell / purchase offsets	Participate in public-private partnerships to maximize carbon offset buy-trade				

Center for Sustainable Business, NYU Stern (2022)

3. CLIMATE CHANGE STRATEGY, PRACTICES, AND ROSI

Let us take a look at a few sustainability strategies for food and agriculture, starting with climate change. Agriculture both generates emissions (through deforestation, livestock-related emissions, chemical use, soil erosion, transportation and distribution, and manufacturing) and is affected by climate change, which can reduce accessibility, productivity and quality amongst other negatives. Figure 4 presents a mapping across the value chain of climate-related practices and sub-practices commonly used in agriculture.

The four primary practices to address climate change are on the left: reducing greenhouse gas (GhG) emissions, transitioning to renewables, sequestering carbon, and selling or purchasing carbon offsets. For each practice, there are sub-practices depending on where one sits in the agricultural value chain. The next question is: how might these practices improve financial performance? We undertook a project with McDonalds and Carrefour (major French supermarket chain) looking at rancher uptake of sustainable agriculture and deforestation-free practices for beef production in Brazil and found that the improved sustainable agriculture practices increased rancher profitability seven times, driven by a 2.3X increase in productivity, lower input costs, and higher quality (resulting in premiums). This also drove better returns for the slaughterhouses and the retailers, in the form of lower operational, regulatory, and market risk, as well as higher premiums in some cases.

4. SUSTAINABLE SOURCING CHANGE STRATEGY, PRACTICES, AND ROSI

Sustainable sourcing is another strategy employed in the food and agriculture sector. Figure 5 demonstrates practices and sub-practices, with the major practices being supplier sustainable sourcing requirements, supply certification, sustainable sourcing projects, and supply chain partnerships/ incentives. Sustainable sourcing has become a strategy of choice as it improves transparency in the supply chain, identifies supplier risks in the form of problematic labor or environmental practices, and creates a marketing opportunity.

Figure 5: Sustainable sourcing practice map

	ON-FARM	MANUFACTURING/ PROCESSING	DISTRIBUTION	RETAIL/ FOOD SERVICE	CONSUMER ENGAGEMENT
Companies execute sustainable sourcing requirements for their suppliers (non-certification)	Compliance with supplier code of conduct or standards				Communicate sustainable sourcing in messaging and/or certification labels at point of sale
		Releasing information about traceability of suppliers			
		Company or third-party auditing of value chain partners, reporting and disclosure			
Commitment to one or more sustainability certifications for all or part of supply chain		Include certification requirements in supplier contracts			
	Work with third parties and/or supply chain partners to ensure uptake of certification practices				
Investment in sustainable supply chain sourcing projects	Environmental and social responsibility trainings funded and implemented with key partners, including conservation projects to protect biodiversity, water, etc. and community projects to improve quality of life				Engage consumers in conservation and community improvement projects
Companies develop supply chain partnerships	Long-term contracts				
	Implementation of preferred supplier status and premiums as related to sustainability practices				

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Figure 6: Improving biodiversity practice map

	ON-FARM	MANUFACTURING/ PROCESSING	DISTRIBUTION	RETAIL/ FOOD SERVICE	CONSUMER ENGAGEMENT
Partnerships to protect biodiversity	Partner with farmers, civil society, academics, foundations, and/or government to protect important conservation areas and species (e.g., within soil health, water stewardship)				
Protect and restore critical habitats	Map and protect high conservation value/high ecological value/ high carbon stock areas in and adjacent to production areas to prohibit conversion to agriculture	Monitoring supply chain compliance related to deforestation and nature conservation requirements		Monitoring supply chain compliance related to deforestation and nature conservation requirements	Label products with conservation attributes
	Conserve and manage important watersheds and water bodies				
	Map and protect endangered and threatened species in and adjacent to production areas				
	Reduce chemical use (including applying integrated pest management)	Change product recipes or switch to low-biodiversity impact commodities		Change product recipes or switch to low-biodiversity impact commodities	
	Set aside important conservation areas for full protection				
	Commitment to no deforestation/ pursue sustainable agriculture certifications				
Regenerate degraded agricultural lands	Areas unlikely to provide economic return should be identified & taken out of production & managed to improve biodiversity				
	Transition to organic				
	Adopt cover crops				
Protect/restore endangered species	Map and implement protection of endangered and threatened species in and adjacent to production areas				
Pay ecosystem service benefits	Adopt cover crops				

Center for Sustainable Business, NYU Stern (2022)

To better understand the ROSI of sustainable sourcing, we partnered with McCormick to assess the returns on their sustainable sourcing of several iconic spices. Their sustainable sourcing program provided technical assistance to farmers. We identified four categories of ROSI benefits: improved sales, positive and free media coverage, risk reduction, and lower cost of capital. The total was U.S.$6 million in net annual benefits after including the costs of the program – pointing toward the benefits of increasing the sustainable sourcing investments.

5. BIODIVERSITY AND ECOSYSTEM CONSERVATION STRATEGY, PRACTICES, AND ROSI

Biodiversity and ecosystem conservation is a strategy of growing focus as we increasingly recognize the negative impacts of agriculture due to chemical use, deforestation, and soil depletion (amongst other impacts) on pollinators, aquatic habitats, birdlife, microfauna, and other forms of biodiversity. This can also negatively impact agriculture as pollinators are critical for many crops, birds eat pests, and so on. The four major practices are: protect and conserve natural habitats, restore degraded lands, protect/restore endangered and threatened species, and pay for ecosystem services. The related sub-practices include mapping and inventorying conservation habitats and threatened/endangered species, creating conservation set-asides, planting diverse flora on degraded lands, and so on.

To explore the ROSI benefits of biodiversity conservation, we partnered with a mid-sized food company, selling baby foods, jams, and snacks globally that is working with farmers within the jams business to protect pollinators and their habitats. We modeled the benefits of expanding the program (currently funding research and training, installing bee hotels, and offering a promotional product with a portion of sales funding a tree planting program) into a sustainable sourcing relationship with monitored and comprehensive uptake of pollinator conservation (e.g., compliance with a "bee-friendly" standard). The farmer benefits of adopting "bee-friendly" practices includes improved yields, lower input costs, and increased opportunities for incentives. Working with farmers to achieve these outcomes could help them address rising labor and fertilizer costs as well as increased cost associated with new regulations.

The benefits for the company we identified included: a more stable supply chain (reliable access to locally produced product and price stability), improved sales related to sustainably marketed product offering (drives higher customer loyalty, increased penetration of consumer segments, and potential premium pricing), reduced Scope 3 carbon related to adoption of select farming practices (i.e., tree and hedgerow plantings, reduced fertilizer use, and converting to organic fertilizer), and improved employee engagement (due to improved overall sustainability profile of the company). Overall engagement with the farmer, while difficult to measure, could improve supplier loyalty.

We estimated average annual operating income potential improvements of approximately U.S.$650 thousand for the company, with the majority of benefits being sales-related given conservative assumptions being used for price stability, value of carbon, and impact on employees. After including an estimate of program costs, the project ROI exceeded 30 percent.

6. WATER STEWARDSHIP STRATEGY, PRACTICES, AND ROSI

Agriculture is highly water-intensive, currently using about 60 percent of the world's freshwater supplies. Unfortunately, depleted groundwater supplies, combined with climate-induced extreme weather events, is causing extreme water scarcity, while flooding is also creating challenges for water quality and accessibility. Food and agricultural companies are, therefore, focusing on reducing water use and improving water quantity and quality. Water use in the sector is embedded in farming, manufacturing, and packaging. Ignoring water constraints creates significant risk for companies in terms of competition with other water users, regulation, reputation, and social license to operate. For example, consumers are increasingly concerned about the massive amount of water used to create bottled beverages. Practices include watershed conservation projects, buffer zones planted along waterways on farms, and water-efficient technology in manufacturing.

The Center for Sustainable Business at NYU Stern School partnered with Arca Continental, one of the largest bottlers of Coca-Cola products in the world, and ALO Advisors (a sustainability consulting firm that works with NYU Stern to develop/deploy ROSI) to assess the potential economic

Figure 7: Improving water security practice map

<table>
<tr><th></th><th>ON-FARM</th><th>MANUFACTURING/ PROCESSING</th><th>DISTRIBUTION</th><th>RETAIL/ FOOD SERVICE</th><th>CONSUMER ENGAGEMENT</th></tr>
<tr><td rowspan="5">Reduce water use</td><td colspan="5">Installation of water meters and monitoring of water use</td></tr>
<tr><td colspan="3">Installation of more efficient water technologies</td><td></td><td rowspan="3">Use sustainability messaging/ certifications on product labels</td></tr>
<tr><td>Incorporate native/drought tolerant landscaping</td><td colspan="3">Water management as part of green building guidelines</td></tr>
<tr><td>Convert irrigation systems to high efficiency equipment</td><td colspan="3">Account for real price of water (i.e., set internal price)</td></tr>
<tr><td colspan="2">Implement community- and/or NGO-based conservation projects to conserve important sources of water and watersheds including water access and water rights</td><td colspan="2">Identify critical watersheds to preserve</td></tr>
<tr><td rowspan="5">Improve water quality</td><td>Land management (e.g., reduced till) and green infrastructure (e.g., filter strips)</td><td colspan="4">Stormwater management (includes: rain gardens, permeable pavements, rainwater collection and reuse)</td></tr>
<tr><td>Reduce pesticide/herbicide (IPM) and fertilizer (four Rs on farm – right place, time, amount, rate)</td><td>Reduce chemical use in operations</td><td colspan="3"></td></tr>
<tr><td colspan="3">Ensure community access to safe drinking water</td><td colspan="2"></td></tr>
<tr><td>Protect waterways from livestock incursion and provide them alternative sources of water</td><td colspan="4"></td></tr>
<tr><td>Ensure best-in-class manure management to avoid run off into water bodies (including technology applied)</td><td colspan="4"></td></tr>
</table>

Center for Sustainable Business, NYU Stern (2022)

implications of climate change on a key agricultural commodity, particularly with regard to future water availability, yield/productivity, and commodity price changes. Under the premise that no actions are undertaken – referred as the "business as usual" scenario (BAU) – possible business exposure was calculated at several million U.S. dollars during periods of drought by 2040. With the ROSI methodology, Arca Continental was able to translate these challenges into key initiatives and potential financial benefits.

7. SOIL HEALTH STRATEGY, PRACTICES, AND ROSI

Better soil health improves productivity as well as carbon sequestration. Conventional farming tends to strip the soil of nutrients, which then requires the extensive application of synthetic nutrients such as nitrogen or phosphorus-based fertilizer. It also depletes the soil's ability to sequester carbon. The current focus on regenerative agriculture is very much soil health related, with the major practices being soil management (e.g., conservation tillage), improved nutrient management, rotating crops, and having continuous soil cover. Famers can put in place better soil management practices, while brands and first-tier suppliers can provide incentives to farmers to embrace those practices and reduce their Scope 3 emissions.

We worked with Cargill, a multinational commodity trader, to understand the ROSI for soy farmers in the Midwest who were rotating crops (which slows the depletion of soil nutrients), practicing conservation tillage (which minimizes soil disruption), and providing continuous cover of the soil (which improves soil structure and soil organic matter, and reduces erosion). We found that soy farmers were realizing incremental value of between U.S.$49 and 87 per acre because of those soil management practices. Approximately half of the benefit came from a reduction of direct costs, i.e., less use of equipment, fuel oil, and chemical inputs such as fertilizer. Other benefits included higher yields due to more resilience to extreme weather, lower insurance premiums, and incentive payouts by various U.S. states for the better practices. Programs for farmers to realize ecosystem

Figure 8: Soil health practice map

	ON-FARM			MANUFACTURING/ PROCESSING	DISTRIBUTION	RETAIL/ FOOD SERVICE	CONSUMER ENGAGEMENT
Improve long-term land productivity	Minimize equipment and fuel usage to avoid soil disturbance	Adjust herbicides and pesticides to improve biodiversity	Measure carbon sequestered/ reduction in carbon emissions to identify opportunities for reduction	Incentivize the farmer to adopt regenerative soil health practices			
	Provide habitats for beneficial organisms						
Soil management landscaping	Installation of buffer zones to reduce soil erosion						
	Adjust livestock grazing intensity and manure management						
Improve nutrient management	Use more natural fertilizer						
	Implement periodic soil testing and adjust fertilizer usage; 4Rs						
Rotate crops	Identify useful/ naturally fertilizing crops across seasons						
Continuous cover	Maintain healthy, perennial plant cover						
	Leave roots in the ground						

*Soil health practices also appear across other strategies, including water stewardship, climate change, chemicals, and biodiversity
Center for Sustainable Business, NYU Stern (2022)

payments for carbon sequestration were relatively new. But applying a research-based estimate of value was placed on the future environmental outcomes (reduction in nitrogen and phosphorus run-off and carbon sequestered) expected for each farmer, resulting in an additional U.S.$45 in value per acre. Cargill itself also saw operating efficiencies due to more stable supply as well as modest sales and marketing benefits as their clients are increasingly asking for regenerative agriculture sourcing. Cargill has since established RegenConnect™, a voluntary market-based regenerative agriculture program that helps farmers access the carbon marketplace, representing a new line of business for the company.

8. ROSI AND CONSUMER DEMAND

In the consumer-packaged goods (CPG) sector, which is where most agricultural products are found, the Center For Sustainable Business at NYU Stern School has done extensive research into consumer purchasing of sustainable products, working with IRI, a market research firm which collects all bar code data for consumer packaged goods (CPG) products in all retail and ecommerce outlets in the United States. We began reviewing the consumer purchasing data in 2019, looking backwards five years in order to understand the trends.

In 2021,[7] sustainability-marketed products in CPG were responsible for 31 percent of CPG growth, at a 30 percent price premium, on average. U.S.$3.4 billion of carbon labeled product was sold and one of every two new CPG products introduced in 2021 had some type of sustainability attribute. Since 2019, we have seen market share of sustainability-marketed products grow in many categories, from skincare to dairy. Clearly, both consumers and brands are driving demand for sustainable products, another key element of the return on sustainability investment.

9. CONCLUSION

Stakeholders such as regulators, consumers, employees, suppliers, investors, and civil society are placing pressure on companies to be more sustainable. Some companies have embraced sustainability as a pathway toward improved management and competitive advantage. However, some question whether sustainability can really create financial value. In fact, some (including most recently conservative policymakers) see sustainability as reducing financial value, despite many studies to the contrary, including our own meta-analysis[8] of more than a thousand academic studies on the correlation between financial performance and sustainability performance.

This is because companies are not tracking the return on their sustainability investments, and you cannot value what you do not track. ROSI provides the C-suite, and especially the finance function, the approach and tools to incorporate an assessment of the intangible and tangible financial benefits of a given set of sustainability strategies and practices, delivering the insights to determine where more funds should be invested. We have found that not all practices utilized under a given strategy will deliver net positive financial returns. However, when viewed as a whole, most of the practices will drive financial benefit, which can subsidize practices that may be necessary, but do not have a positive return.

Much of a company's value today lies in intangibles such as reputation and intellectual property. Sustainability drives tangible benefits such as operational efficiencies, but it can also provide important intangible benefits such as innovation and risk mitigation, as we saw in some of our examples. Sustainability is not only transforming production, manufacturing, distribution, and consumer engagement, but it is also likely to transform traditional accounting processes.

[7] https://bit.ly/3SRLtVZ
[8] https://bit.ly/3TbzzXI

SEC HUMAN CAPITAL DISCLOSURES AND DEI IN FINANCIAL SERVICES

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LINDSAY MOREAU | Social Impact Advisor

ABSTRACT

Human capital disclosures and diversity, equity, and inclusion (DEI) are top of mind for investors and companies given today's social climate. Human capital management (HCM) disclosures are next on the SEC's ESG agenda, and these disclosures will require companies to describe their human capital resources. Currently, both regulatory requirements and reporting frameworks and standards are not prescriptive when it comes to these topics, allowing companies flexibility in how they interpret and report their data. The proposed HCM rules are likely to be more prescriptive than existing requirements and could transform the kind of data companies disclose. Human capital management and DEI are significant components of ESG, and specific disclosures would support investors to make better-informed long-term investment decisions.

1. INTRODUCTION

The greater emphasis on the "social" aspect of "environmental, social, and governance" (ESG) arises after a tumultuous few years in the face of marches against social injustices, a global health pandemic, and the Great Resignation. Investors are more interested than ever in how a company treats the workforce they employ and what they do for the community in which they reside. Over the past few years, companies have increasingly expanded the way in which they disclose human capital metrics, whether it is through regulatory fillings or voluntary sustainability reports.

In today's economy, a company's human capital is responsible for the management and innovation of the technologies, physical products, and services companies provide to their consumers. For companies, human capital is also responsible for their competitive edge and the products they bring to market. In alignment with the growing interest in ESG standards for stakeholders and investors, the current chairman of the Securities and Exchange Commission (SEC), Gary Gensler, announced in 2021 the SEC's intention to propose new rules regarding human capital management as part of the SEC's plan to intensify its overall ESG agenda.[1] This comes just a year after Gary Gensler's predecessor, Jay Clapman, put into place amendments to the rules around human capital management (HCM) disclosures that modernized the requirements with a broader principles-based approach. The amendments, which impacted Items 101, 103, and 105 of Regulation S-K, went into effect in November of 2020, and adjusted the description of the business, legal proceedings, and risk factor disclosures, respectively.

2. TENSIONS AND THE EVOLUTION OF HCM

There is growing demand for HCM disclosures across companies from investors and stakeholders alike; however, achieving this goal has created tension between investors and companies. Investors are looking for a baseline of standards to be set that will allow them to easily value companies across

[1] https://bit.ly/3rPyDvY

consistent standards. Companies, on the other hand, say that creating standards run the risk of not being applicable across industries, absorbing resources, increasing compliance burdens, and exposing a certain amount of competitive edge a firm might have in their market. In summary, the concern is that the time, costs, and resources spent trying to report on HCM metrics to comply with standards might distract from the actual advantage of discussing HCM. However, both sides agree that HCM is important to a company's overall profits and purpose.

2.1 The evolution of HCM

Since the creation of the SEC in 1934, there have only been a few major overhauls of the rules that are meant to protect investor interests by regulating and requiring companies to release pertinent information that investors would find useful in making investment decisions. Prior to the financial markets of the early 2000s, the last major update from the SEC was in 1977, when the Commission published a list of 12 items that, along with financial statements, registrants would be required to disclose in the 10-k report. Item number 12 on this list was the requirement to disclose the number of employees.[2]

The amendments of 2020 significantly expanded on HCM requirements by requiring registrants to disclose more than just the total number of employees. In a press release from the SEC regarding the amendments of 2020, the then Chairman, Jay Clayton, stated, "Today we modernized our public company business disclosure rules for essentially the first time in over 30 years. Building on our time-tested, principles-based disclosure framework, the rules we adopt today are rooted in materiality and seek to elicit information that will allow today's investors to make more informed investment decisions. I am particularly supportive of the increased focus on human capital disclosures, which for various industries and companies can be an important driver of long-term value. I applaud the staff for their dedication and thoughtful approach to modernizing and improving these rules and adding efficiency and flexibility to our disclosure framework."[3]

Preceding the amendments made in 2020, the SEC historically viewed human capital as a cost on a business rather than an asset, which was not in line with how financial markets viewed human capital in valuation of firms.

2.2 But how did we get here?

The Jumpstart Our Business Startups (JOBS) Act, signed by President Obama in 2012, stated that the SEC was required to issue studies and write rules on registration requirements, disclosures, and capital formations. Section 108 of the Jobs Act specifically required a review of Regulation S-K to analyze current requirements and determine necessary updates to simplify the registration process and make it more efficient and cost-effective.[4] Just two years prior, in 2010, the SEC created an Investment Advisory Committee within Section 911 of the Dodd-Frank Act, which would, among other things, advise the SEC on regulatory priorities, the effectiveness of disclosures, and on initiatives that would promote investor confidence and protect investor interests in the marketplace.[5] The JOBS Act, the Investment Advisory Committee, and the SEC's S-K review led to the HCM disclosures currently on the docket.

In 2017, a group of large institutional investors convened to form the Human Capital Management Coalition (Coalition), which issued a rulemaking petition to the SEC requiring human capital disclosures for public companies. The Coalition cited that human capital was essential to long-term value creation and material to evaluating a company's prospects, and that the current requirements, which only required the listing of number of employees in the 10-K report, were not adequate to serve the SEC's core mission of providing investor protection. The Coalition then proposed key categories, new rules, and amendments to existing rules for registrants to disclose their HCM data. In the letter to the SEC, the Coalition included the following categories:

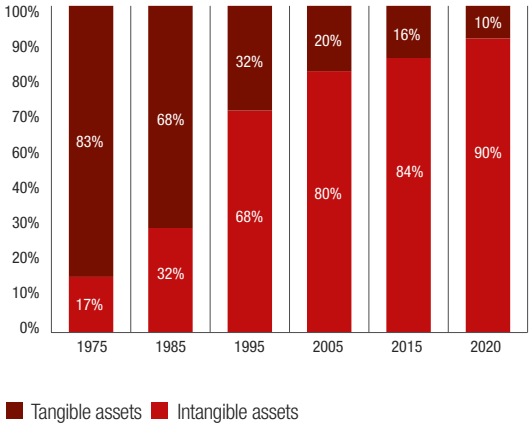
- Workforce demographics
- Workforce stability
- Workforce composition
- Workforce skills and capabilities
- Workforce culture and empowerment
- Workforce health and safety
- Workforce productivity
- Human rights
- Workforce compensation and incentive.[6]

[2] https://bit.ly/3yyxsEK
[3] https://bit.ly/3Ti46Cv
[4] https://bit.ly/3Vm2CsT
[5] https://bit.ly/3MnjgnX
[6] https://bit.ly/3g08dFg

These initiatives led to February 2019, when SEC Chairman Jay Clayton held a conference call with the Investor Advisory Committee, formed to advise the Commission on regulatory priorities, to discuss the current human capital disclosure requirements and how the requirements could evolve to meet the demands of the marketplace. Paraphrased below, Clayton stated, "Current human capital disclosure requirements date back to a time when companies relied significantly on plant, property, and equipment to drive value. Today, human capital and intellectual property often represent an essential resource and driver of performance for many companies." He later went on to state that within each industry, and possibly each company, were different circumstances in which a company utilized its human capital, and, therefore, rigid metrics for all public companies would not serve the registrants or the investors trying to understand the company. Instead, Clayton proposed the following, "I think investors would be better served by understanding the lens through which each company looks at their human capital. Does management focus on the rate of turnover, the percentage of their workforce with advanced degrees or relevant experience, the ease or difficulty of filling open positions, or some other factors?"[7] This was followed up in August of the same year when the SEC proposed the amendments to modernize the disclosure requirements that were then finalized in November of 2020.

Further evaluation of the disclosures is back on the agenda for the SEC, along with other ESG initiatives.

Figure 1: Components of S&P 500 Market Value



Source: Ocean Tomo, a part of J. S. Held, Intangible Asset Market Value Study, 2020[8]

3. WHAT IS PROMPTING THE CHANGE?

The changes made in 2020, and indeed what will be coming next from the SEC, have been prompted by several market indicators. In this section, we will we highlight three major themes currently applying pressure on the need for more thoughtful HCM disclosures.

3.1 The shift in the economy

Since the 1970s, there has been a dramatic change in the way companies view their workforce, as well as an increased interest in human capital and "diversity, equity, and inclusion" (DEI) within the social climate of the world we live in today. In a study completed in 2020 of the components of the S&P 500 market value, the data revealed that the intangible asset market value of the S&P 500 grew to 90 percent by 2020, from under 20 percent in 1975 (Figure 1).

The data illustrates the shift of our economy from being industrial based to technology and services based and a focus on intangibles such as human capital and intellectual property. The rising interest in how a company manages their, arguably, most valuable asset, workforce, has incentivized regulators to take a closer look at how companies disclose HCM.

3.2 Impact of COVID-19

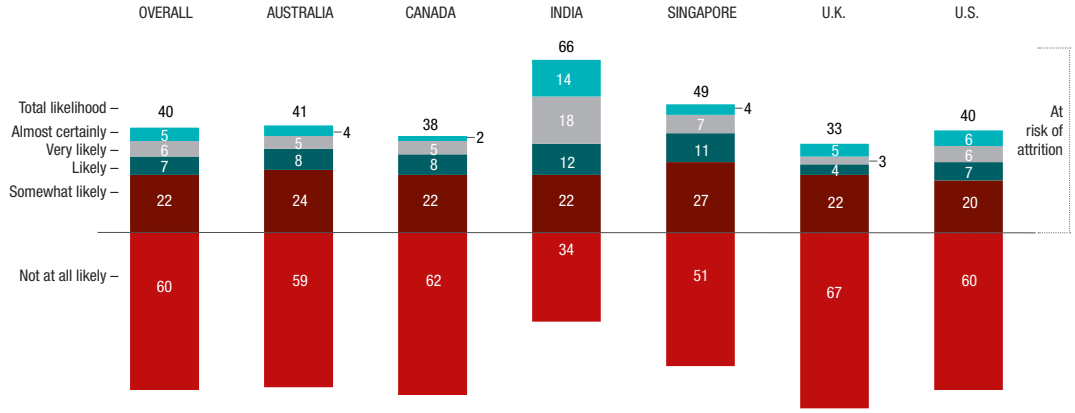
To further highlight the shift from tangible to intangible assets, the outbreak of the COVID-19 pandemic highlighted how essential it has become to the public for companies to disclose what steps they are taking to ensure the health and safety of their workforce. It is important to acknowledge here that health and safety also refers to the company's ability and willingness to protect the employee in and out of work. As the pandemic raged, child and other healthcare concerns rose. In fact, some of the leading causes of employees quitting their jobs during the pandemic were poor responses to COVID-19, to care for children or elderly relatives during the pandemic, the ability to have a flexible schedule, the ability to have a work-anywhere schedule, and vaccination requirements.

3.3 The Great Resignation

However, the pandemic is not the only reason the U.S. market is experiencing the Great Resignation or the Great Reshuffle. Earlier this year, the U.S. Bureau of Labor Statistics Job Openings and Labor Turnover survey (JOLTS) revealed a new record was set for nonfarm sector (nonfarm excludes farm

[7] https://bit.ly/2BrenHg
[8] https://bit.ly/3fYinpK

Figure 2: Likelihood that respondents will leave their current job in next 3-6 months (%)



Note: Figures may not sum to total because of rounding.
Source: Subset of respondents from McKinsey's 2022 Great Attrition, Great Attraction 2.0 global survey who were employed at the time of the survey, which was conducted between Feb 2022 and Apr 2022 (n = 12.378).[9]

workers, some government workers, private households, proprietors, and non-profit employees) quits rate as 4.53 million people voluntarily left their jobs, beating the previous record of November 2021 when 4.51 million people quit their jobs. The quit rate stayed at around 3.0 percent.[10] To put these numbers in perspective, the JOLTS data, which were first reported in December of 2000, reveal that, excluding times of extreme financial events (i.e., when the stability of having a job outweighs any concerns with that particular job), the rate of quits, or voluntarily separations made by employees, is generally below 2.5 percent and varies month by month. With the onset of the pandemic, we saw the rate fluctuate quite a bit while trending upwards to the 3.0 percent we are still seeing today. In the June publication of the JOLTS, the quits reported were at 4.2 million, with a rate of 2.8 percent. In addition, the number of job openings as of the June report were at 10.7 million while the number of hires was at 6.4 million, indicating that there are more job openings than are being filled.[11]

Since the start of the pandemic, the quits rate has been on a steady incline. When surveyed regarding the reasons behind the Great Resignation, results revealed nine factors: toxic corporate culture, job insecurity/reorganization, high levels of relentless innovation, failure to recognize person, poor response to COVID-19, better work-life balance, higher pay, new career path, and child or elder care.[12] In a market in which a company's greatest asset is their people, few companies can sustain high levels of employee attrition. To gain an edge with employee recruitment and retention companies need to consider what is important to their workforce which includes, pay and benefits, an inclusive culture, community engagement, and flexibility in time and location.[13]

The impact of the Great Resignation is being felt globally. In the U.K. the labor market experienced an all-time high of 4.4 vacancies for every 100 jobs in the first quarter of 2022. In a survey from McKinsey & Company, found that "40 percent of workers globally say that they might leave their jobs in the near future" (Figure 2).[14]

4. CURRENT STATE

The amendments of 2020 were a part of a much larger effort from the SEC to modernize registrants' disclosure requirement. In November of 2020, the SEC, under Chairman Jay Clayton, announced that they voted three to two to amend Item 101 of Regulation S-K regarding the description of the business, legal proceedings, and risk factor disclosures pursuant to Regulations S-K, respectively. That following June, Chairman

[9] https://mck.co/3r0iKWx
[10] U.S. Bureau of Labor Statistics, 2022, "Job openings and labor turnover," March, https://bit.ly/3D0afyh
[11] U.S. Bureau of Labor Statistics, 2022, "Job openings and labor turnover," June, https://bit.ly/3CRc2FJ
[12] Sull, D., C. Sull, and B. Zweig, 2022, "Toxic culture is driving the Great Resignation," Sloan Review, January 11, https://bit.ly/3yvptsc; The Adecco Group, 2021, "Resetting Normal: defining the new era of work 2021," https://bit.ly/3MrBm8h; Tappe, A., 2022, "A record number of Americans quit their jobs in 2021," CNN, https://cnn.it/3RThWdM
[13] https://mck.co/3yA3CzY
[14] https://cnn.it/3CQOmkJ

Gary Gensler, announced his agenda regarding additional rules around ESG and HCM. Revisions to Item 101 resulted in adjustments to the reporting timeframe as well as a reframing of human capital disclosures.

4.1 Amending Item 101(a)

A summary of the revisions to Item 101(a) stated that the revisions were to be, "largely principles-based, requiring disclosure of information material to an understanding of the general development of the business, and eliminating the previously prescribed five-year timeframe."[15] Effectively letting a company decide what it believes warrants a disclosure, or is material to their business operations, that a reasonable investor would find important when making their decision on whether to buy a company's stock. The previous rule required that a company provide a general development of the business over the previous five years, or however long the business had been in operation if less than five years. The amendment removed the five-year time-period, with the intent to provide registrants the ability to choose a time-period that is perceived as relevant in describing their business to investors.[16] When the SEC proposes amendments to existing rules or new rules, there is a period in which it must receive comments on the ruling before it is final. Comments received on proposed amendments to Item 101(a), the removal of the five-year timeframe, were reported by the SEC to be generally supportive, citing comments such as, "the one-size-fits all, fixed time period under the current rule may discourage registrants from providing relevant disclosure relating to periods outside of the five-year timeframe or result in an inadequate discussion of meaningful recent developments."[17] Other comments in support were similar in that they believed the five-year time frame was too prescriptive and might inadvertently limit companies from disclosing relevant updates that were outside of the five year time frame. Comments that opposed the elimination of the five-year time frame stated that, "the current five-year timeframe is appropriate because it corresponds with other financial reporting requirements in Regulation S1K that have similar five-year disclosure timeframes, such as the selected financial data required by Item 301."[18] Those opposed to the elimination of the five-year time frame felt that elimination of the five-year time frame unnecessarily complicated the reporting process by not being prescriptive enough. It was felt that the removal of the prescriptive timeframe will allow businesses to disclose the most relevant information.

4.2 Amending Item 101(c)

In addition, Item 101(c), was amended to "including, as a disclosure topic, a description of the registrant's human capital resources to the extent such disclosures would be material to an understanding of the registrant's business";[19] Item 101(c)(1)(xiii) requires that registrant disclose the number of persons employed. This requirement has resulted in a variety of responses, including disclosing just the total number, distinguishing between full-time or part-time, or specifying the number of employees within each department. The SEC published a Concept Release to solicit feedback on whether this disclosure requirement was useful to investors and if any improvements could be made. The Human Capital Management Coalition rulemaking petition was received after the issue of the Concept Release and received a significant number of comments supporting increasing HCM disclosure. Incorporating the feedback the SEC received, it proposed to amend Item 101(c) "to replace the current requirement to disclose the number of persons employed by the registrant with a requirement to provide a description of the registrant's human capital resources, including in such description any human capital measures or objectives that management focuses on in managing the business, to the extent such disclosures would be material to an understanding of the registrant's business taken as a whole."[20] The amendment removed the lone human capital requirement of stating the total number of employees with the intent that the changes would require companies to expand upon human capital reporting by allowing registrants the freedom to disclose what they perceive as being material to their business when considering HCM. For investors, information on HCM is a valuable metric in making their investment decisions. For companies, deciding what is material to their business operations in reporting would cut down on unnecessary reporting costs and resources, removing the need to comply with a strict guideline, which might have requirements in reporting that would not be material to their business.

[15] https://bit.ly/3g0KrZl
[16] ibid
[17] ibid
[18] ibid
[19] ibid
[20] ibid

Comments received regarding the proposal to make the disclosures more principles-based were favorable. Those who opposed did so because they believed that the proposed amendment would not "elicit meaningful information about human capital practices, or provide sufficiently comparable disclosure, unless grounded in standardized metrics."[21] In addition, much of the feedback was related to concerns regarding the fact that companies might disclose human capital differently, making it impossible to compare the information across companies for investors.

The final amendment was adopted largely as proposed and requires within the disclosure a description of human capital resources, including any measures or objectives for managing the business. The final amendment included examples of material measures and objectives that included addressing the attraction, retention, and development of personnel, while also acknowledging that each registrants' disclosures must be personalized to their business. The SEC also stated that prescriptive requirements were intentionally not included as "the exact measures and objectives included in HCM disclosures may evolve over time and may depend, and vary significantly, based on factors such as the industry, the various regions or jurisdictions in which the registrant operates, the general strategic posture of the registrant, including whether and the extent to which the registrant is vertically integrated, as well as the then-current macroeconomic and other conditions that affect human capital resources, such as national or global health matters."[22] Effectively stating that having prescriptive disclosure requirements may become outdated quickly, and may not be material across all industries and registrants; even a prescriptive framework to follow might still not produce comparable results. Critics argue that by being more principles-based and excluding prescriptive requirements, the amendments have not considered the needs of investors to be able to compare companies more easily across investor values.

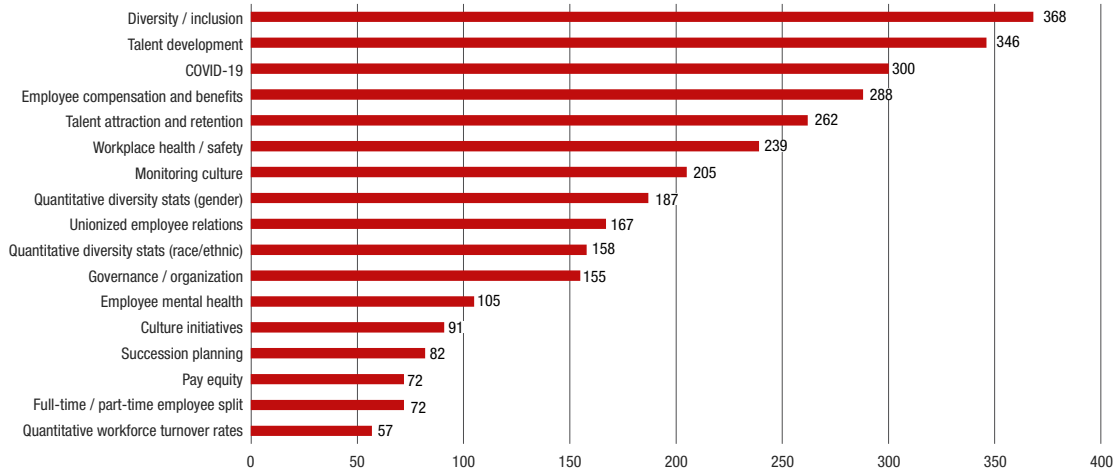
5. SIGNIFICANCE OF THE AMENDMENT AND EVOLUTION OF STANDARDS

While the current amendments from the SEC offer flexibility to the disclosure framework for registrants, critics argue that the changes are less prescriptive than previous requirements, making compliance to the disclosures vague. This results in a variety of interpretations from registrants, making it challenging for comparative analysis across companies.

In 2021, Gibson Dunn surveyed 451 S&P 500 companies' annual reports filled between November 9, 2020 and July 16, 2021.[23] The survey examined how companies addressed the topics, materiality, and format of human capital disclosures following the amendments from the SEC. As predicted, the results were varying. The survey broke down the responses into 17 topics (Figure 3).

Diversity and inclusion, and COVID-19 were among the most popular categories of disclosures with turnover rates and workforce composition the least.

Figure 3: Companies' human capital disclosures



Source: Gibson Dunn (2022)

[21] ibid
[22] ibid
[23] Gibson Dunn, 2021, "A survey of the S&P 500's compliance with the new SEC disclosure requirement one year after adoption," November 10, https://bit.ly/3EviNOG

In addition, disclosures varied by word count, metrics, and graphics. Disclosure lengths varied greatly. Other findings concluded that 25 percent of companies did not choose to include quantitative metrics beyond headcount – the original requirement. The study found that while 82 percent of companies chose to disclose DEI commitments, only 41 percent and 35 percent disclosed metrics related to gender and racial diversity, respectively.

Investors are looking for standards to be set that enables access to data that is easily comparable across companies and regions. Companies are pushing for required disclosures to align with accepted standards to streamline data collection and reporting efforts. Without prescriptive requirements from regulatory bodies, like the SEC, the quality and comparability of data is further challenged by existing disclosure frameworks and reporting guidelines, which have historically varied in recommendations. As the SEC explores its requirements, companies and investors have started to team up to create organizations that will help drive the global standards of self-reporting. Focusing Capital in the Long Term (FCLT) Global was created by CCP Investments, McKinsey, BlackRock, Dow, and Tata Sons. In October of 2019, FCLT Global published research on human capital metrics that would be universally relevant for companies to report on across countries, sectors, and context. These metrics are, "personnel turnover, leadership diversity, gender pay gap, employee health and safety, employee training, and monetary losses from legal proceedings."[24]

In addition, the International Sustainability Standards Board (ISSB) is simultaneously building a global set of ESG standards. The ISSB was created in June of 2022 as a result of a merger between Climate Disclosure Standards Board (an initiative of CDP) and the Value Reporting Foundation (which housed the Integrated Reporting Framework and the SASB standards). The mission of ISSB is to deliver a globally recognized baseline of sustainability disclosures.

As part of those efforts, SASB has already launched research initiatives to explore the evolution of its standards, with a particular focus on "S" issues including DEI and HCM data. In 2021, the Rights CoLab, in partnership with SASB, completed a study on standard-setting within corporate financial fillings. The study had two objectives, which it outlined as two workstreams: **the extension workstream**, to support the extension of SASB's existing DEI metrics to the standards for industries that currently do not contain them, and **the addition workstream**, to define new DEI metrics to incorporate as standards in relevant industries. In the study's October 2021 update, the findings were particularly focused on "diversity" and "inclusion" through the lens of disclosing workforce composition details, which SASB defines as, "Percentage of gender and racial/ethnic group representation for executive management, non-executive management, professionals, technical staff, and all other employees."[25] SASB currently considers diversity and inclusion as material to only 12 industries, which means the remaining 65 industries are not currently required to disclose diversity and inclusion metrics under SASB's guidelines. Within the extension workstream, the study reviewed 10-K fillings, proxy statements, and earnings calls for how often diversity was mentioned from 2014 to 2020. The study explored companies within industries where the topic is currently deemed material as well as industries where the topic is not yet identified as material by SASB's standards. The findings reported that mentions of diversity and inclusion within 10-Ks increased noticeably in 2020 across nearly all industries. This indicates that the topic of diversity is material to far more industries than the nine SASB currently requires, also evidenced in the Gibson Dunn survey of the S&P 500 companies.

In addition to the research project with Rights CoLab, SASB is continuing to invest in research across other human capital topics and issues as it (as part of the ISSB) seeks to create a comprehensive baseline of global disclosures. In addition to the ISSB standards, the Workforce Disclosure Initiative, created by ShareAction and the U.K. Government's Foreign, Commonwealth, and Development Office, "allows companies to demonstrate to their investors, clients, and other stakeholders how they manage their staff and supply chain workers and show how their approach to workforce management is aligned with their business strategy."[26] Investors and companies can participate in the survey and actively engage in addressing workforce issues. Alignment with ISSB and Workforce Disclosure Initiative standards could help the SEC gain more support when its new HCM disclosure requirements are first released for review.

[24] https://bit.ly/3RTSB3h
[25] https://bit.ly/3EyqzY0
[26] https://bit.ly/3MpA25S

In December of 2020, the Nasdaq Stock Market filed a rule proposal with the SEC to amend the current standards around board diversity for Nasdaq listed companies. The proposal, which was accepted by the SEC on August 6, 2021, if approved, will require companies listed on Nasdaq to annually disclose board diversity statistics and explain why a company does not have a minimum of two diverse board members. The proposal itself cited over two dozen studies demonstrating the impact a diverse board can have upon a company's performance.[27]

6. WHY NOW? HOW THE SEC PROPOSED HCM DISCLOSURES SUPPORTS THE SEC'S OVERALL AGENDA FOR IMPROVED ESG DATA

In the spring of 2021, the SEC released their regulatory agenda that included almost 50 items that it would prioritize over the coming months and years. On the short-term agenda this included ESG related rules regarding HCM, corporate board diversity, and climate change. In an interview with CNBC in February of 2022, Amy Lynch, President of Frontline Compliance and former SEC compliance officer, said of Gensler's agenda, "This is one of the largest regulatory agendas we have seen from the SEC in many years."[28] Regarding HCM, proposed rules would possibly expand the amendments of 2020 to include more specific topics around, "workforce turnover, skills and development training, compensation, benefits, workforce demographics including diversity, and health and safety."[29] Two congressional representatives in favor of expanding mandated HCM disclosure, Congresswoman Maxine Waters and Senator Sherrod Brown noted several topics in a letter sent to Gensler in May of this year.[30] Waters and Brown encouraged consideration of enterprise-wide HCM disclosure, from board and executive leadership to the broader workforce and supply chains. Their letter discussed the nuances of diversity data, noting that in addition to disclosure on race, gender, and ethnicity across a workforce, the SEC should consider disclosure of disabilities, as well as diversity across suppliers and procurement. The SEC's Investor Advisory Committee dedicated a panel to the topic of HCM at its recent meeting held on September 21, 2022. The panel's speakers, which included academic and industry researchers, an investor, and a corporate executive, presented an even broader set of topics, including employee wage data, contractors and gig workers, and a restructured approach to HCM accounting costs verses investments that would more fully represent human capital expenses in today's overweighted intangible asset market. Gensler sees the discussion and exploration of HCM disclosure, and broader ESG data, as an important element of the SEC's mission – to protect investors and maintain efficient markets through "full, fair, and truthful disclosure, transparency, and market integrity."[31]

7. CONCLUSION

As of August 12, 2022, the SEC's ESG agenda has been limited to proposing rules on climate change. There is a notable amount of interest in the market for more regulatory requirements around the "social" aspects of ESG, which could mean that proposed rules around HCM and DEI is next on the SEC's docket. In the interim, registrants will continue to comply with the SEC's rulings to the best of their abilities, ultimately producing a variety of results for investors to shift through when looking to align their investments to their evolving values. Values that continue to trend towards ESG and DEI concerns. If the SEC continues to allow companies to identify what is most material to their company, then it will likely result in less pushback from the registrants. However, the issue will remain that investors will continue to have data that is not consistent across companies, industries, and sectors. As noted earlier, the market's shift from physical goods and physical capital to intellectual capital and innovation (i.e., 90 percent of S&P 500) is proof that a company's human capital is, and will remain, a vital asset. The financial services industry, which is heavily reliant on HCM for its success, should prepare for, at minimum, one of the following scenarios: either more prescriptive HCM metrics to be proposed through Gensler's aggressive SEC agenda or prepare for increased investor demand for HCM metrics that align to global reporting frameworks.

[27] https://bit.ly/3TjMczD
[28] https://cnb.cx/3fU4zMR
[29] https://bit.ly/3S30R16
[30] https://bit.ly/3yBRPkK
[31] https://bit.ly/3Tdn50D

WEALTHY INDIVIDUALS: NOT TO BE OVERLOOKED WHEN THINKING ESG INVESTMENT STRATEGY

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ABSTRACT

Philanthropy has a long-standing tradition among wealthy individuals. Their donations have the potential to make important positive contributions to a range of causes. We argue that the philanthropic efforts made by this powerful demographic in part correspond to the common definition of environmental, social, and governance (ESG) or sustainable investment practices more broadly. The wealthy, therefore, cannot be overlooked when we think about sustainable investing. We describe the philanthropic attitudes and giving behavior in a sample of 417 wealthy individuals with at least U.S.$5.5 million to invest. We focus on the motivations behind their donations, and more specifically giving to environmental causes, which can inform sustainable investment intentions. Our findings are relevant to the wealth management industry that seeks to increase its understanding about this demographic and for organizations as they develop their ESG strategies.

1. INTRODUCTION

Our world faces rapidly increasing sustainability challenges. These include combating climate change, reducing economic inequalities, eliminating poverty, and slowing the rapid loss of biodiversity – all of which require substantial financial resources and investments [Cunha et al. (2021)]. The financial services industry is positioned as fundamental and critical in this struggle [E.U. Commission (2018)].

Channeling financial resources towards sustainable activities is commonly referred to as sustainable finance, i.e., "the process of taking ESG considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects".[1] Practically, the environmental, social, and governance (ESG) umbrella encompasses an extensive set of issues ranging from, for example, climate change to financial equality. Organizations are increasingly under pressure to realign their operations to meet the requirements and regulations such as the Paris agreement, the E.U. Taxonomy, the Sustainable Finance Disclosure Regulation, and the E.U. Climate Benchmarks Regulation.

The role of the financial services industry in the transition is also apparent in numerous large-scale private and public initiatives.[2] Heightened awareness contributes to a broader shift towards ESG targeted practices in financial services. Recent estimates show how assets that are invested in sustainable strategies that apply ESG criteria exceed U.S.$30 trillion [Christensen et al. (2022)]. Environmentally oriented financial investments are receiving specific attention. As set out in the Intergovernmental Panel on Climate Change (IPCC) report on climate change [IPCC (2022)],[3] there is a global

[1] https://bit.ly/3Sso8dN
[2] These include: the Corporate Forum on Sustainable Finance, The Global Green Finance Council (GGFC), The Loan Principles (GLP & SLLP), The Green Bond Pledge, Network of Central Banks and Supervisors for Greening the Financial System (NGFS), Financial Stability Board – Task Force on Climate-related Financial Disclosures (Task Force), G20 Sustainable Finance Study Group, The Sustainable Banking Network (SBN), The Sustainable Stock Exchanges (SSE), The Global Investors for Sustainable Development Alliance (GISD), The International Platform on Sustainable Finance (IPSF), and The Coalition of Finance Ministers for Climate Action.
[3] https://bit.ly/3BTnE9v

ambition to utilize the financial services industry to channel funds towards more environmentally sustainable activities. To ensure that the financial system leverages its transformative power to advance sustainable investing for the benefit of our climate, biodiversity, and human prosperity, there is undoubtedly a need to assess and challenge existing financial decision-making processes.

However, despite its focus on investment decisions, the sustainable finance debate has paid little attention to the contributions of philanthropy. This lacuna extends to knowledge about how philanthropic efforts relate to sustainable investing, something that is important as we continue to develop sustainable investment strategies. While the long history or philanthropy among the wealthy is well documented [see Smeets et al. (2015) for a description of how millionaires account for a substantial fraction of charitable donations], less is known about the motivations behind their investments or the link between philanthropy and sustainable investing. Understood as personal donations to public causes [Barman (2017)], we argue that there are many crossovers between philanthropy and sustainable investment practices in that both aim to make positive contributions to society and people in the areas of ESG considerations. It is, therefore, important to understand philanthropic behavior and its links to sustainability among the powerful wealthy demographic. This helps us place philanthropy within a context of sustainable investing more generally to aid sustainable investing in reaching its full potential. The recent attention to environmental causes motivates a focus on the environmentally oriented part of philanthropic giving.

Surveying a sample of 417 millionaires, we therefore investigate: a) what causes the wealthy donate to and, b) the underlying triggers to give (the feelings associated with giving and the potential barriers about future and larger donations). Our participants have a median net worth of between U.S.$8-9 million and, therefore, belong to the 1 percent most wealthy individuals globally. Our results show how philanthropists draw on a range of motivations when making their donations to health-related, socially-related, disaster relief, and environmental causes. While the smallest group of donors give to environmental causes, we note that their donations are largely motivated by external crisis awareness through media, encouragement by family and friends, and visits to other countries. These donors also tend to experience delight after making their donations. However, they also report worrying about whether their donations are too small to make an impact and not having control over how their money is spent.

We contribute by bringing more thorough understanding about philanthropic behavior among the wealthy demographic of investors. Our findings are important for financial services firms as they plan their ESG investment strategies, the wealth management industry that seeks to increase its understanding about this demographic, and for organizations as they develop their ESG strategies.

2. BACKGROUND ON PHILANTHROPY

Philanthropic giving among the wealthy continues to rise rapidly. We witnessed a surge in the number of donations valued at least £1 million (approximately U.S.$1.2 million) in the 10 years from 2006 to 2016 [Coutts and Co. (2017)]. Such large donations, i.e., exceeding U.S.$1 million, are seen to benefit a wide array of causes, such as universities and colleges; arts; culture and heritage; healthcare; community welfare; education; religion; wildlife; conservation; and the environment [Maclean et al. (2021)]. Recent trends in large donations include a rise in donations to social, health, and environmental causes [Barman (2017)].

With giving motivation often framed as altruism, self-interest, or reciprocity [Barman (2017)], donors have been criticized for prestige seeking associated with large donations that do little to narrow the wealth gap [Maclean et al. (2021)]. However, philanthropy plays an important part in economic development. Its support for specific local economic development projects can promote wider reach and encourage public and private co-investment [Giloth (2019)]. Furthermore, altruistic endeavors among the rich are growing rapidly. This includes the recent “effective altruism” (EA) movement, which sees wealthy individuals and experts collaborating with the aim of using evidence to figure out how wealth can be utilized for the benefit of others and society. Altruistic spend within the EA community is estimated to have grown from under U.S.$50 million in 2014 to over U.S.$600 million in 2021.[4]

[4] https://bit.ly/2RNNX99

Traditionally, humans have been concerned with what gains can be derived from nature rather than their harmful impact on nature, however, during the 1960s and 1970s awareness of environmental issues came to the forefront. Books such as "Silent Spring" [Carson (1962)] and "The limits to growth" [Meadows et al. (1972)] brought environmental damage and resource scarcity to the attention of a larger audience. Such publications contributed to three major shifts in our perception about the environment [Martin (2008)]. Firstly, a move from a general fear of the external risks of nature to the manufactured risks caused of human modifications of nature. Secondly, public preferences gradually switched from exploration and exploitation towards preservation and conservation. Finally, environmental concerns were awarded a global status, evidenced in the development of organizations such as Greenpeace.

While philanthropic donations to, for example, culture and education can be traced back far in history, the emergence of environmental philanthropy is a relatively new phenomenon [see Martin (2008) for an overview]. More recently, philanthropic endeavors have turned their focus on conservation and preservation. In a comprehensive empirical study of environmental philanthropy, Craig et al. (2017) collected data from grants to U.S. environmental member organizations (EMOs) between 1961-2000. While only 507 grants, totaling U.S.$5.07 million took place in 1961, grants had grown to 20,795, totaling more than U.S.$676 million, by 2000. Using data from the Million Dollar List [The Center on Philanthropy (2010)] between 2000-2010, Cunningham and Dreiling (2021) found that U.S.$10 billion of large donations (i.e., exceeding U.S.$1 million) were targeting environmental causes. Despite the shifts in public perception, the growth in EMOs, and the sizeable donations to environmental causes, environmental philanthropy is critiqued for being elitist, self-serving, and aimed at producing only modest social change [see Craig et al. (2017) for an overview these arguments]. The critique suggests that the wealthy are primarily interested in maintaining their social status, with environmental philanthropy used as brand management by donors improving perceived value on donations and maintaining their social standing [Du (2015)].

While studies identify a conflict between altruism and narcissism in philanthropic endeavors, e.g., donations, current understanding about the underlying motivations among the wealthy for giving and the feelings derived from making donations is limited. This is important as giving motivations and feelings may dictate the future direction of philanthropic giving.

We address this in the current paper by exploring the causes to which the wealthy donate to, and the differences between the underlying motivations and feelings about donations to environmental and other philanthropic causes.

3. FINDINGS

3.1 To what do the wealthy donate?

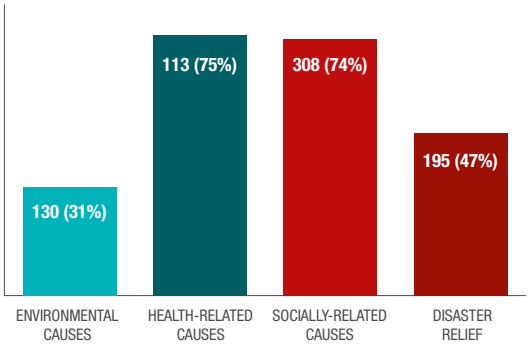
Our analysis is based on data collected data from 417 millionaires in March 2019 with the specific purpose to investigate philanthropic behavior. The sample contains respondents from ten countries in Asia, Europe, the Middle East, and North America. The average age of the respondents was 49.6 years and 66 percent were male. Participants had a net worth of at least U.S.$5.5 million, the median net worth was U.S.$8-9 million and 15 percent had wealth in excess of U.S.$11 million. The median amount of charitable donations made over the last five years was between U.S.$55 and 77 thousand per participant.

We begin our analysis by investigating the causes philanthropists donate to, as depicted in Figure 1. The largest benefactor is health-related causes, to which 313 of the 417 philanthropists donate. This is followed by socially-related causes (N=308), disaster relief (N=195), and finally environmental causes (N=130). Although receiving donations from the fewest number of donors, we note that environmental causes play an important part in the giving behavior of the very rich, with 130 of our respondents, or 30 percent, making donations. However, the more traditional causes, such as health-related and social causes, still dominate. Most respondents donate to several, or all four, causes. In our sample, 75 respondents (18 percent) donate to all four causes, 107 respondents (26 percent) to three causes, and 120 respondents (29 percent) donate to two of our defined causes. Of the remaining 115 respondents, 85 (20 percent) donate to one cause only, with the remaining 30 describing their donation cause as "other".

3.2 Feelings associated with donating

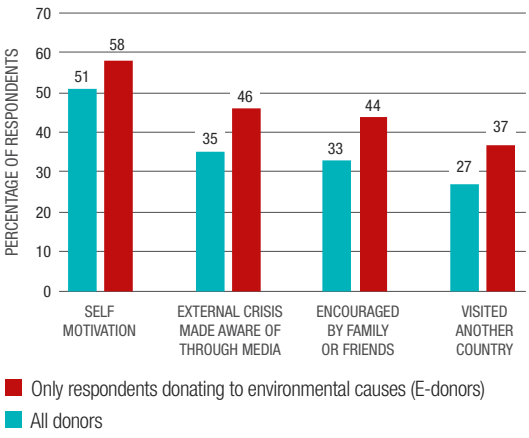
We investigate three stages of the donation process, i.e., "triggers for giving", "feelings induced by giving", and possible "barriers to giving". Initially, we discuss the overall picture based on the full sample, for all four causes described above. Second, we show the relative importance of the feelings for the full sample and the subsample of environmental donors (E-donors). Finally, we identify participants who donate to a specific cause and compare them to a group that does not. We term these groups, donors and non-donors.[5] This method enables us to specifically measure the possible difference between the respondents who donate to environmental causes (E-donors) and respondents who do not donate to environmental causes (non-E-donors). We create the same two groups for health-related causes (H-donors and non-H-donors), socially-related causes (S-donors and non-S-donors), and finally disaster relief (D-donors and non-D-donors). We analyze the difference between the groups of donors and non-donors (for each separate cause) in terms of "triggers for giving", "feelings induced by giving" and possible "barriers to giving" using an independent samples t-test.

Figure 1: Distribution of donations to each cause by respondent



Note: The figure shows how many respondents, out of the sample of 417, who donate to environmental causes, health-related causes, socially-related causes, and disaster relief respectively. The majority of respondents donate to several causes as described in the text.

Figure 2: Triggers for philanthropic giving, all donors versus environmental donors (E-donors)



Note: The relative importance for the full sample is based on 417 respondents whereas the environmental donors (E-donors) are comprised of 130 respondents.

3.2.1 WHAT TRIGGERS PHILANTHROPIC GIVING?

As for the main trigger behind philanthropic giving, Figure 2 depicts how several factors collectively contribute to motivate philanthropists. First, considering the full sample (blue bars), self-motivation stands out as the most important reason to give, followed by external crisis awareness through media. Philanthropists are also triggered by encouragement by family and friends and visits to other countries. We then compare the full sample of donors with E-donors (orange bars) and note that all triggers appear more important for E-donors compared to the full sample of donors. E-donors thus appear to be markedly more influenced by external triggers including the media, friends, and family.

Next, we consider whether there are differences between triggers to give among donors and non-donors in each cause using an independent samples t-test along with effect size (using Cohen's d) with results reported in Table 1. We note several similarities between the philanthropic causes and donation triggers. For example, encouragement from family and friends reveal statistical differences between donors and non-donors for each philanthropic cause. Witnessing an external crisis or visiting another country are also linked to several differences among the donating and non-donating groups, whereas self-motivation only has this impact on donations oriented towards disaster relief.

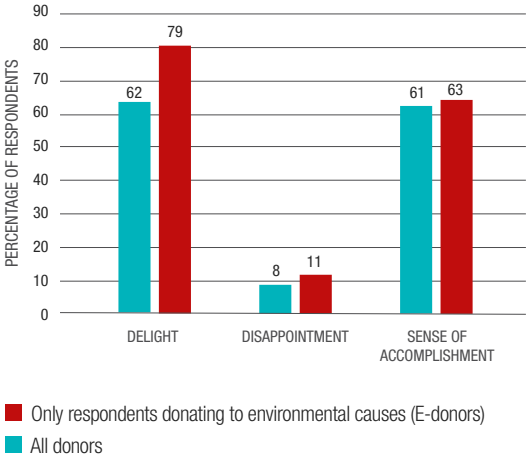
[5] While all participants are donors to at least one cause, they do not all donate to all four causes, as described in Section 3.1. A donor who does not donate to the specific cause investigated is termed a non-donor.

Table 1: Relationship between triggers and donations to each cause by donors and non-donors

NON-DONORS VERSUS DONORS TO EACH CAUSE	ENVIRONMENTAL	HEALTH ORIENTED	SOCIALLY ORIENTED	DISASTER RELIEF
Self-motivation	.089[c] (.180)	.147 (.172)	182 (.155)	<.001[a] (.442)
Awareness of external crisis through media	.004[a] (.318)	.089[c] (.194	.033[b] (.238)	<.001[a] (.600)
Encouraged by family and friends	.004[a] (.319)	.004[a] (.313)	.033[b] (.236)	.003[a] (.302)
Visited another country	.005[a] (.111)	.002[a] (.333)	.102 (.180)	<.001[a] (.354)

Notes: The table shows the association between the four triggers and donations to each of the four causes among donors compared to non-donors. Significance level for two-sided independent sample's t-test and (Cohen's d) are reported. [a] Significant at the 1% level, [b] significant at the 5% level, and [c] significant at 10% level.

Figure 3: Relative prevalence of feelings after making donations, all donors versus environmental donors (E-donors)



Note: The relative importance for the full sample is based on 417 respondents whereas the environmental donors (E-donors) are comprised of 130 respondents.

3.2.2 WHAT FEELINGS ARE INDUCED BY PHILANTHROPIC GIVING?

We now investigate the feelings induced by making donations by considering feelings of delight, accomplishment, and disappointment. As depicted in Figure 3 (blue bars), most feelings are positive, i.e., donors feel delight and accomplishment following making their donations. We note that also for environmental donations, most feelings perceived are positive (orange bars). As can be seen in Figure 3, the amount of delight perceived is markedly higher among E-donors than for the full sample of philanthropists.

As before we now compare the groups of donors and non-donors for each philanthropic cause, reported in Table 2. Compared to non-donors, all donors experience significantly stronger feelings of delight. For disappointment the picture is again similar across philanthropic causes, with no significant difference between donors and non-donors. However, only H- and D-donors feel a sense of accomplishment after making their donations compared to non-donors to health and disaster relief causes.

Table 2: Relationship between feelings induced and donations to each cause by donors and non-donors

NON-DONORS VERSUS DONORS TO EACH CAUSE	ENVIRONMENTAL CAUSE	HEALTH ORIENTED CAUSE	SOCIALLY ORIENTED CAUSE	DISASTER RELIEF
Delight	<.001[a] (502)	.004[a] (.357)	.028[b] (.264)	<.001[a] (.370)
Disappointment	.212 (.143)	.108 (.222)	.652 (.050)	.063[c] (.188)
A sense of accomplishment	.795 (.028)	<.001[a] (.631)	.197 (.152)	.005[b] (.282)

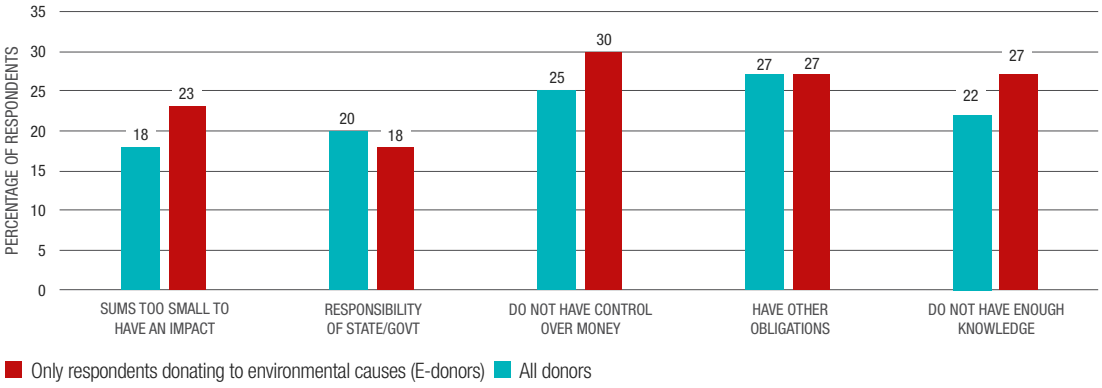
Notes: The table shows the association between the three feelings induced and donations to each of the four causes among donors compared to non-donors. Significance level for two-sided independent sample's t-test and (Cohen's d) are reported. [a] significant at 1% level, [b] significant at 5% level, and [c] significant at 10% level.

Table 3: Relationship between barriers to future and larger donations to each cause by donors and non-donors

NON-DONORS VERSUS DONORS TO EACH CAUSE	ENVIRONMENTAL CAUSE	HEALTH-ORIENTED CAUSE	SOCIALLY-ORIENTED CAUSE	DISASTER RELIEF
Sums too small to impact	.115 (.176)	.159 (.154)	.004[a] (.285)	.599 (.052)
Responsibility of state	.387 (.090)	.120 (.170)	.399 (.101)	.416 (.081)
Do not have control	.149 (.159)	.097[c] (.184)	.265 (.124)	.291 (.105)
Have other obligations	.737 (.035)	.862 (.021)	.851 (.022)	.600 (.052)
Do not have knowledge	.169 (.152)	.945 (.008)	.483 (.084)	.103 (.163)

Notes: The table shows the association between the five barriers to future and larger donations to each of the four causes among donors compared to non-donors. Significance level for two-sided independent sample's t-test and (Cohen's d) are reported. [a] significant at 1% level, [b] significant at 5% level, and [c] significant at 10% level.

Figure 4: Barriers to making future or larger donations, all donors versus environmental donors (E-donors)



Note: The relative importance for the full sample is based on 417 respondents whereas 130 respondents are environmental donors.

3.2.3 WHAT FACTORS COULD IMPEDE FURTHER DONATIONS?

We now turn to possible barriers to making future or larger donations. We ask our philanthropists whether factors such as believing that their donations are too small to make a difference or not having control over how their money is spent matter. Figure 4 (blue bars) show how philanthropists draw on a range of factors when deciding about making future donations. Our relative comparison between the full sample and the subsample of philanthropists who donate to environmental causes (orange bars) yields a few differences. Feeling of not being able to make a difference, not having control over how donations are spent, and lack of knowledge are more marked among E-donors than for the full sample of donors.

Our comparison between donors and non-donors within each cause shows how donors to socially oriented causes are more concerned about their sums being too small to have an impact compared to non-S-donors. Noteworthy here is how small the differences between the donating and non-donating groups are, as depicted in Table 3.

4. SUMMARY AND CONCLUSION

We postulate that the philanthropic efforts made by the powerful demographic of wealthy individuals correspond, in part, to the common definition of environmental, social, and governance (ESG) or sustainable investment practices more generally. In the strive towards channeling financial resources towards sustainable activities we ought not to overlook the

wealthy. Our study brings more thorough understanding about the philanthropic behavior among a sample of 417 wealthy individuals in Asia, Europe, the Middle East, and North America.

We show that philanthropists tend to donate to four main causes: health-related, socially-related, disaster relief, and environmental causes. Donations are triggered by self-motivation, external crisis awareness through media, encouragement by family and friends, and visits to other countries. Within each cause, the relative importance for the triggers is generally higher among donors compared to non-donors. Seeing as we associate philanthropic giving to sustainable investing, we focus specifically on the triggers and feelings associated with giving to environmental causes.

We note that the group of environmental donors are motivated to donate by external crisis awareness through media, encouragement by family and friends, and visits to other countries when compared to the full sample of donors. Furthermore, this group of donors tend to experience delight after making their donations but worry that their donations are too small to make an impact, feel that they do not have control over how their money is spent, or express not having sufficient knowledge. Experiencing delight after giving is more important to donors compared to non-donors, for each cause.

While outside influences are important for all philanthropists, we find evidence that E-donors may be more sensitive than others. Furthermore, those philanthropists who give to environmental causes worry about not having sufficient knowledge. This may indicate that firms need to carefully consider their communications policy in relation to their sustainable investment practices that relate to the E in ESG. This information is useful, as the impact of environmentally geared investments can have a long payoff time and it is, therefore, more difficult to notice the impact of such giving compared to other sources. These problems are shared by sustainable investing more generally and ESG investing more specifically. Firms may, therefore, face similar struggles in their investment activities as do wealthy individuals. Our findings are important for finance services firms as they plan their ESG investment strategies, the wealth management industry that seeks to increase its understanding about this demographic, and for organizations as they develop their ESG strategies.

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GOVERNANCE

ENABLING SYSTEMATIC ENGAGEMENT THROUGH INDEX INVESTING

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ABSTRACT

Passive investing and sustainability engagement were historically deemed to be at best challenging, at worst incompatible. There is a growing realization that combining index investing and sustainability engagement is not only possible but can reinforce and mobilize significant global assets under management to enable collaborative engagement. By linking engagement to transparent capital re-allocation, passive investing has the ability to influence and achieve changes in corporate practices and strategies, leading to real world impact. This paper explores the evolution of ESG engagement and passive investing and demonstrates that sustainability index design can lead to scalable, efficient, and impactful corporate engagement across entire markets. The use of such indexes to steer investment flows provides clear incentives for companies to improve sustainability performance and deliver outcomes sought by asset owners and society at large.

1. INTRODUCTION

Sustainability and climate indexes offer through their design the potential to have an efficient and impactful "virtual" engagement across entire markets, offering a way to systematize and scale corporate engagement. As capital continues to flow into climate and sustainability indexes, their inclusion, or exclusion, of particular companies can in turn drive meaningful investment flows into sustainability leaders, and away from laggards.

This paper explores the evolution of ESG engagement and passive investing and demonstrates that sustainability index design can lead to scalable, efficient, and impactful corporate engagement across entire markets.

2. APPLICATION OF ACTIVE OWNERSHIP TO PASSIVE INVESTMENT

An important element of responsible investment is active ownership, or stewardship. The U.N. Principles for Responsible Investment's (PRI) second principle commits signatories to be "active owners and incorporate ESG issues into [their] ownership policies and practices." These practices are commonly understood to include voting at company AGMs and engaging with company management on material sustainability issues.

Active ownership is critical in a well-functioning market. It warrants that managers of companies are held accountable by their owners (shareholders) and lenders (debt providers). Active ownership can help ensure that individual companies develop effective governance structures and act in a responsible manner. Examples include developing robust climate transition plans, or reduce the risk of environmental pollution, human rights abuse, or executive corruption.

There is increasing evidence that engagement can reduce risk and enhance returns. One of the best-known examples is the co-called "CalPERS[1] effect" where engagement by the U.S. pensions giant on corporate governance with underperforming companies registered excess cumulative returns of 13.72 percentage points above the benchmark over five years [Wilshire (2013)].

Similar findings were reported by academic researchers [Dimson et al. (2015)]. They analyzed more than 2,000 ESG engagement processes within U.S. companies from 1999 to 2009 and found that engagements produced an average abnormal return of 2.3 percent (adjusted for company size) over the year, following the initial engagement. This figure increased to 7.1 percent for successful engagements.

2.1 Perceived barriers to bringing engagement and passive investment together

There is a strong case for investors undertaking active ownership of their passive investments. However, combining passive investment and active ownership presents challenges. Here are several perceived challenges and potential misconceptions:

- **An inability to divest:** the fundamental issue for passive, rules-based, investors is that if engagement fails, they lack the ultimate sanction provided by selling shares. Many investors argue that, for engagement to be effective, an investor must be prepared to walk away if a company's management refuses to respond appropriately. Because passive investors need to match the returns of their selected index, such divestment is not typically an option. To borrow the language of the economist Albert O. Hirschman, companies are likely to give less weight to engagement from investors who are all "voice" and no "exit" [Hirschman (1970)].
- **The sheer number of stocks involved:** in contrast with active investors, who often favor concentrated exposure to a small number of companies backed by in-depth research, passive investors typically own shares in a large number of companies. This can make it difficult, or impossible, for investors to adequately research portfolio holdings and engage regularly with management. Indeed, the influential Kay review[2] of the functioning of the U.K. equity market explicitly advocated that active investors move toward more concentrated portfolios to allow a greater involvement in the day-to-day management of those companies.
- **Resources and research:** as a related issue, passive investors are unlikely to be able to justify the resources needed to engage individually with the very large number of companies in a typically passive portfolio. Effectively, engaging with companies usually requires in-depth industry knowledge and a good understanding of their internal operations. Furthermore, the increasingly lower margins that some passive investment managers operate within may make it difficult for them to resource effective management programs.
- **Free riding:** the large number of holdings in a typical passive investor's portfolio means that it is likely to have a small proportion of each company's shares. The economic benefits of engaging with a company may, therefore, be limited to each end-investor, making it easy to "free-ride" on engagement by others.
- **Acting-in-concert rules:** issues around resources and the small proportions of companies owned by individuals have encouraged investors to collaborate. However, in some markets, including the U.S., some investors believe that acting-in-concert rules – designed to protect the rights of small shareholders – prevent investors working together to engage with companies.

2.2 ESG stewardship in 'traditional' passive investment

Many of these challenges can – indeed should – be overcome by investors. First, the clients, i.e., the asset owners, expect it. In a survey of how pension funds use passive investments, 127 pension funds in 20 countries, with combined assets of €2.2 trillion, were polled and found that almost all considered stewardship either "very important" (60 percent) or "important" (38 percent) [CREATE-Research (2019)]. However, the survey also found that only 19 percent of funds felt that their passive managers had met their stewardship goals to "a large extent".

Second, the inability of passive investors to divest the securities of individual companies makes engagement even more important. Many passive investors are, effectively,

[1] The California Public Employees' Retirement System (CalPERS) provides health benefits and manages the largest public pension fund in the United States. See https://www.calpers.ca.gov/ for further information

[2] Kay Review is an independent review of the U.K. equity market from Prof. John Kay published in July 2012. In his review, "UK equity markets and long-term decision making," Prof. Kay sets out a clear vision and a set of principles to ensure that equity markets support their core purpose of enhancing the performance of U.K. companies, and providing returns to savers. https://bit.ly/2M19UBZ

> *Voting can be a potent tool in the hands of passive managers.*

"universal owners", who own small percentages of most (or all) listed companies across an economy (or, in many cases, across many economies). As a result, they are not only forced to remain invested in companies with poor sustainability track records, but they are also subject to sustainability "externalities" that any one company is able to offload onto society and which may also impact other investments across the economy. The typical example is that a chemicals company might avoid costs by dumping untreated waste into a river – but a downstream water utility company or brewery would face additional costs to treat the water to the necessary standard. A passive investor will be broadly invested across the economy and is likely to be invested across both entities.

Indeed, this universal ownership incentivizes passive investors to engage in a manner that is ultimately more sustainable, argues Lionel Paquin, the chief executive of Lyxor Asset Management [Paquin (2020)]. Because they remain invested in stocks, while they are in the index, "voting can be a potent tool in the hands of passive managers, because the act of voting is by nature for them disconnected from that of portfolio management per se." An active investor may be disinclined to vote for a shareholder resolution that imposes costs on an individual portfolio company, but which would benefit the broader economy, whereas it would make sense for a passive investor to do so, he argues.

Collaborative engagement – regardless of whether participating investors invest actively or passively – can help address several of the other challenges. Investors can pool resources and collectively engage with a greater number of companies than would otherwise be the case. As for acting-in-concert rules, for the E.U. at least, the European Securities and Markets Authority has published a list of issues where investors are permitted to collaborate – including those around corporate social responsibility. PRI commissioned Linklaters[3] to provide legal guidance on this topic, which focuses on the status primarily within the U.K. and E.U. and sets out how investors can navigate any perceived or potential legal risks.

3. BUILDING ESG ENGAGEMENT INTO INDEX DESIGN

In this last section, we set out some of the barriers to stewardship and engagement in passive investments. However, there is an additional mechanism for investors; they can use indexes and index providers as engagement tools. By developing indexes that have clear and transparent rules on sustainability issues, and engaging broadly with investee companies so they understand the index rules and criteria, index providers can do much of the heavy lifting of engagement on behalf of passive index investors. If the indexes have significant assets following them, or there is a particular "prestige" to being included, then there can be a high level of motivation for companies to improve their sustainability practices to gain inclusion or additional weight in the indexes. Companies often also want to avoid the negative implications of being removed (deleted) from such indexes and the media and analyst interest it creates. This can complement, rather than replace, the type of shareholder engagement carried out by investment managers. In addition, by applying "factor" or weighting index construction practices to these passive indexes, providers can also reward or penalize companies through index over and underweighting.

Numerous examples exist of sustainability index design helping to drive improved corporate performance among index constituents and companies aspiring to join or remain in ESG indexes. Using a range of case studies, we examine approaches to index design that combine active ownership and passive investment.

First, we review the origins of engagement through ESG indexes via some of the first inclusion indexes such as the Domini Social 400 Index, the Dow Jones Sustainability Index, and the FTSE4Good Index, where companies are included in the indexes on the basis of ESG criteria. Second, we consider "smart sustainability" methodologies, which employ tilt methodologies to determine constituent weights, and how those can be used for engagement purposes. Third, we look at the recently introduced E.U. defined environmental benchmark categories. Finally, we explore an approach that brings together collaborative climate engagement and index design – providing an indication for future mechanisms to deliver systematic investor engagement at scale.

[3] Linklaters' consultation paper Principle 2 of the Principles for Responsible Investment encourages signatories to be active owners and to incorporate environmental, social and governance ("ESG") issues into their ownership policies and practices. Principle 5 states: "We will work together to enhance our effectiveness in implementing the Principles." Active ownership, or stewardship, is generally regarded as one of the most effective mechanisms for responsible investors to have a positive impact on society and the environment, and in turn reduce risks and maximize returns.

3.1 The origins of ESG indexes and associated corporate engagement

3.1.1 DOMINI SOCIAL 400 INDEX

The first sustainability index was launched in 1990 by a U.S. firm called KLD Research & Analytics and was named after Amy Domini, one of the founders. There was no explicit engagement with the companies and selection in the index was made on the basis of analyst judgement. The index is now calculated by MSCI and has been re-named the MSCI KLD 400 Index.

3.1.2 DOW JONES SUSTAINABILITY INDEXES

The Dow Jones Sustainability Indexes (DJSI), launched in 1999, were the first global sustainability indexes. The Dow Jones calculated the indexes, while the sustainability assessment was conducted by the pioneering Swiss asset manager, Sustainability Asset Management (SAM), and was based on a questionnaire that was, and in 2022 is still, sent to companies. After the index business came together with S&P, and Robeco acquired SAM, the sustainability research was transferred to S&P Global, which is currently responsible for calculating these indexes.

Companies that provide information through the survey are assessed relative to one another and to other companies in their sector. The starting universe of stocks for the index is the 2500 largest companies in the Dow Jones Global Total Stock Market. To create, and subsequently re-balance the Dow Jones Sustainability Indexes (DJSI), each industrial sector is taken in turn and the top 10 percent are selected based on the sustainability assessment of these companies.

This assessment creates an incentive for leading companies in each sector to compete with one another to be included in the indexes. This leads to a competitive pressure to improve their sustainability assessments each year and creates a form of index engagement. A potential limitation is that, while it leads to a competition between the leading companies that respond to the survey, this approach may have had less impact on the sustainability performance of the wider market, and companies ranked in the lower three quartiles.

3.1.3 FTSE4GOOD INDEX SERIES

A different approach to the DJSI is the FTSE4Good Index Series, which includes around half of the underlying market, referred to as the eligible universe.[4] Launched in 2001, these indexes are calculated by the London Stock Exchange Group's FTSE Russell and include companies from the relevant parent benchmark index, which meet a variety of sustainability thresholds that form a set of inclusion criteria, creating a different form of "best-in-class" methodology.

These criteria have been developed through market consultation, drawing from established standards and are reviewed by an independent committee of experts, the FTSE Russell ESG Advisory Committee. Stakeholders have helped shape them, which has included NGOs, government bodies, consultants, academics, the investment community, and the corporate sector.

Like the DJSI, there is an ability to influence corporate behavior through the thresholds set for index inclusion. However, a key difference is that the inclusion thresholds for FTSE4Good are set on an absolute, rather than a peer-relative basis. The requirements for each company differ depending on their sector and geographical footprint, and the precise threshold is set by clear rules. This means companies know what to aim for to gain inclusion or avoid index deletion. FTSE Russell analysts communicate with companies globally about the sustainability methodologies and index entry requirements, and there is a dedicated communication and engagement program with companies that no longer meet the index inclusion hurdle as the thresholds rise over time. This can involve engagement with several hundred firms each year. Companies are given a grace period of usually 12 months to improve their practices, and hence their scores; if they fail to reach the new thresholds, they are removed from the index.

This process has created a lever to improve corporate ESG performance. The experience with FTSE Russell provides several examples of real-world outcomes linked to FTSE4Good engagement [FTSE Russell (2018)].

[4] The FTSE4Good Developed Index represented over 60 percent by market capitalization and 50 percent by the number of constituents of the FTSE All-World Developed Index, as of August 31, 2022.

3.1.4 BREAST MILK SUBSTITUTE MARKETING

The marketing of breast-milk substitutes (BMS), especially in developing countries, has been a subject of controversy since the 1980s. According to the World Health Organization (WHO), babies that are breastfed are 14 times less likely to die than babies who are not [WHO (2020)]. The two sides of the debate – food industry giants and NGOs – have been in conflict for decades, which has been well documented over the years (Baker et al. (2021)].

In 2010, FTSE4Good introduced BMS marketing criteria to attempt to bridge the divide which required companies to adhere to more stringent responsible marketing standards than were followed at the time. Initially, Nestlé was the only one of the five large BMS manufacturers to move to meet the criteria, but an engagement process encouraged Danone and RB (formerly Reckitt Benckiser) to follow, creating momentum and corporate progress on a thorny ESG theme.

This example illustrates how a transparent approach to assessing companies against the sustainability criteria built into an index can support and incentivize corporate change and influence market norms.

3.1.5 THE JAPANESE PENSION FUND: GPIF

Japan's Government Pension Investment Fund (GPIF) – the largest pension fund in the world – aims to help improve stewardship and corporate governance practices among listed companies in its portfolios. The fund is so large that it is invested across a very broad spread of companies worldwide and has a very long investment horizon. By improving sustainability practices in companies, GPIF expects to help improve the long-term global stability and economic growth; therefore, helping their returns.

At the FTSE Russell Climate Finance and Investment Summit – held in New York in 2019[5] – Hiro Mizuno, the Chief Investment Officer at the time said "What are the fundamental traits of an asset owner? One is universal ownership. The second one, at least for us, is cross-generational investment. Those that are skeptical about the investment relevance of ESG are probably not thinking long-term enough."

He added "Passive [investment] is the most important for engaging on long term issues. We really count on the use of benchmark; we try to affect the whole system, so we need to affect the benchmark. We are shifting the money from the conventional market-based benchmarks to these ESG weighted indexes."

GPIF has selected sustainability indexes from a number of index providers, including FTSE Russell, Morningstar, MSCI, and S&P.

One of these indexes is the FTSE Blossom Japan Index, an industry-neutral benchmark that comprises Japanese companies that demonstrate strong sustainability practices. The index encourages improvements in corporate disclosure and sustainability performance, with companies required to meet certain sustainability standards to gain inclusion.

Given its level of visibility in Japan, the Blossom Japan Index generates significant engagement and dialogue with Japanese companies and, importantly, catalyzes action from companies seeking to improve their practices to qualify for inclusion. The recent announcement in December 2020 that small-cap Japanese companies are now eligible is expected to further extend this engagement.

3.1.6 PARTNERING WITH LOCAL STOCK EXCHANGES

A number of national stock exchanges have created domestic sustainability indexes, sometimes in partnership with global index providers. Both S&P and FTSE Russell have a number of these relationships.

For example, S&P has partnered with the Egyptian Stock Exchange (EGX) in 2010, and it also established the B3 Brazil ESG Index in 2020 and the Japanese S&P/JPX 500 ESG Score Tilted Index Series in 2022.

In addition, FTSE Russell has developed a number of partnerships with various exchanges to develop local-market versions of the FTSE4Good Index. This includes partnering with Bursa Malaysia in 2014, which followed the launch of the FTSE4Good Bursa Malaysia Index. That was followed by South Africa's Johannesburg Stock Exchange's FTSE/JSE Responsible Investment Index series, launched in 2015. Two years later, the Taiwan Stock Exchange helped develop the FTSE4Good TIP Taiwan ESG Index.

Membership of such indexes can help companies improve their ESG practices and their disclosure, potentially attracting international capital. If a significant domestic asset owner also allocates capital to such an index, the incentive to comply with index requirements becomes greater.

[5] https://bit.ly/3diavyt

3.1.7 ACADEMIC INVESTIGATION INTO INDEX ENGAGEMENT

Academic research has found that the FTSE4Good Index Series has had a material impact on the sustainability practices of companies within the index through raising the inclusion requirements over time.

For example, research by the University of Edinburgh Business School found that engagement by FTSE and the threat of expulsion from the FTSE4Good Index doubled the probability that a firm failing to meet the environmental management criteria would comply within a three-year period if they were engaged [Mackenzie et al. (2013)]. Another study, from the University of Nottingham, found companies adjusting their behavior in response to the index criteria. This study found that engagement based on index inclusion criteria was a catalyst for internal sustainability champions within the investee companies to advance the agenda [Slager (2012)].

3.2 The potential for "smart sustainability" or tilted indexes to be used for engagement

The growth of smart-beta investing has been a clear theme within asset management over the last decade. This is an approach to passive index construction that weights or selects index components on metrics – such as size or value – other than market capitalization to achieve diversified portfolios with exposure to historically rewarded risk premia. Smart sustainability refers to the integration of objectives concerned with exposure to rewarded factors with sustainable investment considerations via the index or portfolio construction process. A natural evolution of this approach is to apply such techniques to the construction of portfolios that are solely concerned with sustainable investment outcomes. This is in contrast to exclusionary approaches and has important implications for preserving essential engagement links between a companies' actions and its representation in any resulting index.

FTSE Russell's annual survey of institutional asset owners found that 58 percent of asset owners globally anticipate applying sustainability considerations to smart beta strategies, up from 44 percent in 2019 [FTSE Russell (2020b)]. Of particular note was the survey finding that respondents are increasingly viewing smart-beta allocations as more akin to traditional active rather than passive strategies, as the weighting process allows for divergence from the benchmark, based on predefined rules.

For example, FTSE Russell's Smart Sustainability Index Series takes account of a number of sustainability factors in its index design.[6] Specifically, it weights constituents according to their carbon efficiency, fossil fuel reserves, and green revenues in addition to traditional style factor exposures.

Transparency around these rules and engagement with companies within the underlying benchmark index provide a means by which smart-beta index construction can help drive improved corporate sustainability performance.

3.3 Using the E.U. climate transition and Paris-aligned benchmarks for engagement purposes

Ultimately, while investors can encourage improved corporate ESG performance, it is policy and regulation that set the context in which businesses operate and which define minimum standards on issues such as climate change, plastics pollution, or labor rights. With its Sustainable Finance workstream, the European Commission is taking a broad approach to regulatory intervention, using financial markets tools and techniques to influence investment flows.

Its taxonomy for sustainable activities, published in June 2020, builds on industry classification techniques used by investors to categorize the economic activities in which companies participate.[7] The taxonomy identifies those activities that are deemed to contribute to the E.U.'s environmental objectives, with the goal of encouraging investment towards those activities. There is significant alignment with certain global market-based classification systems such as the FTSE Russell Green Revenues Classification System [FTSE Russell (2020a)].

Similarly, the E.U. has produced minimum requirements for climate change benchmarks in an attempt to impose some consistency and rigor on an important part of financial market infrastructure, initially relating to taking action on climate change. In a regulation adopted in June 2020, it sets out minimum standards that two benchmarks – E.U. Climate Transition benchmarks and E.U. Paris-aligned benchmarks – should meet.[8]

The Paris-aligned benchmark is the more ambitious of the two, requiring a 50 percent carbon-intensity reduction compared with the investible universe, while the Climate Transition benchmark must deliver at least a 30 percent reduction. In addition, the

[6] See Ground Rules, FTSE Smart Sustainability Index Series v.16.
[7] Regulation (E.U.) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (E.U.) 2019/2088.
[8] Commission Delegated Regulation (E.U.) of 17.7.2020 supplementing Regulation (E.U.) 2016/1011 of the European Parliament and of the Council as regards minimum standards for E.U. Climate Transition Benchmarks and E.U. Paris-aligned Benchmarks.

index constituents should collectively deliver an average 7 percent year-on-year annual reduction. To avoid the creation of climate indexes that deliver reductions by simply excluding large-emitting sectors, the weights of highly climate-exposed sectors must reflect those of the investible universe.

The benchmark design process includes a number of elements that should help drive improved performance. It provides a four-year grace period before companies need to phase in measurements of their Scope 3 emissions. It allows for increased weighting towards companies based on their decarbonization objectives. And the minimum requirements for inclusion will be reviewed every three years to take into account market developments and technological and methodological advances [Yang et al. (2020), SSGA (2020)].

The E.U.'s approach is designed to encourage capital to flow towards companies that are aligned with its environmental objectives and, implicitly, away from those that are not, thus impacting their cost of capital. However, to have a meaningful impact on capital costs, those flows will have to be substantial. To what extent these indexes can achieve this alone is perhaps questionable.

To achieve real world impact, there is a need for corporate engagement to be a fundamental part of these processes. Companies need to understand the criteria for inclusion and exclusion; if they do not, the potential for any of these indexes (whether designed by policymakers or index providers) to exert influence on corporate behavior is reduced.

3.4 Taking collaborative engagement and index design to the next level – the Transition Pathway Initiative

The Transition Pathway Initiative (TPI) offers just such an example of combining corporate engagement with index design. The TPI was set up in 2017 by asset owners to help assess the alignment of their portfolios with the goals of the Paris Agreement and to drive emissions reductions from portfolio companies. As of November 2020, it comprises 90 investors globally who have pledged their support, jointly representing U.S.$22.8 trillion in combined assets under management/advice. In addition, it provides a central part of the data and analysis for the Climate Action 100+ initiative, which brings together investors managing more than U.S.$50 trillion in assets in a collaborative engagement to encourage the world's largest corporate emitters to take action on climate change.

Using publicly disclosed corporate information sourced and provided by FTSE Russell, the TPI's data partner, the TPI evaluates and tracks the companies' carbon management, their risks and opportunities related to the low-carbon transition, and their alignment with the reductions needed to meet national and international climate targets. This analysis is distilled into a tool that provides a transparent, comparable assessment of a company's preparedness for the low-carbon transition.

The analysis is made publicly available via the TPI's academic partner, the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science. This is important in that it allows companies to easily see and understand how they, and their peers, are ranked. It also provides the wider market with access to the TPI data.

To supplement this tool, FTSE Russell, in partnership with TPI, launched the FTSE TPI Climate Transition Index. The index, which at launch the U.K.'s Church of England Pension Board announced it would use for its core passive equity fund, uses TPI data to adjust the weights of companies in the underlying FTSE Developed Indoex, according to their performance against five criteria: (1) fossil fuel reserves, (2) carbon emissions, (3) green revenues, (4) TPI management quality, and (5) TPI carbon performance.

The index does not exclude entire sectors, and it offers a pathway for inclusion if companies improve their performance – providing a platform for engagement and creating a lever for change. As Adam Matthews, Director of Ethics and Engagement for the Church of England Pensions Board and Co-Chair of the TPI said at the launch of the index: "The message is clear to all publicly listed companies: put in place targets and strategies aligned to Paris and be rewarded with inclusion in the index, or work against the long-term interests of beneficiaries and wider society, and be excluded … The index leaves open a path for any one of these excluded companies to transition in line with the Paris Agreement and claim their place in the index at a later date."

4. CONCLUSION

With increasingly joined up global investor engagement through initiatives like the CA100+[9] and Transition Pathway Initiative, there is a real potential to reinforce corporate engagement with associated indexes. In such indexes, companies can be rewarded for improving their climate strategies with index inclusion, or greater index weights, so greater investment flows are generated through positive responses to engagement in passive portfolios following the indexes.

By clearly, and transparently, communicating both inclusion and weighting criteria, such indexes can encourage companies to improve their sustainability performance. As more investors back indexes, which link to and reinforce established corporate engagement initiatives, real-world outcomes can be generated in ways that were unimaginable only a few years ago.

Indeed, such engagement can generate measurable environmental (and social) impact, potentially on a much larger scale than can be achieved by more targeted impact investment strategies.

Clearly, passive investment is no longer incompatible with corporate engagement. We would go further. Passive investment may become one of the most important mechanisms to drive market-wide changes towards a more sustainable world.

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[9] Climate Action 100+ is an investor-led initiative that ensures the world's largest corporate greenhouse gas emitters take necessary action on climate change.

IMPLICATIONS OF SUSTAINABLE FINANCE DISCLOSURE REGULATION (SFDR) IN EUROPEAN PRIVATE MARKETS STAKEHOLDER CONVERSATIONS

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ABSTRACT

The European Union's Sustainable Finance Disclosure Regulation[2] (SFDR) aims to make the sustainability profile of investments better understood by end investors. The extent of required product-level disclosures depends on the sustainability profile. The SFDR defines three different potential categories for products, depending on their sustainability profile and the characteristics defined in Articles 6 (non-ESG), 8 (ESG promotion) and 9 (Sustainable Objective) of the SFDR. SFDR applies to "financial markets participants" including private markets and private equity fund managers or general partners ("GPs"). According to our experience from stakeholder conversations, GPs generally embrace ESG, if not for intrinsic (perhaps altruistic) motivation, then certainly through the lens of value creation, i.e., companies acquired today should become more sustainable in order to be sold successfully in the future. This paper provides an insight into the growing expectations of our stakeholders on ESG and sustainability and conversations with third parties in the private markets investment space.

1. INTRODUCTION

In times of crises, regulatory environments may change at a pace that is faster than expected. The COVID-19 pandemic has shown us not only how quickly public policy can change, but also how quickly we, as a society, can respond and adapt to extreme situations. The sudden drop of greenhouse gas (GHG) emissions experienced during the opening months of the pandemic was impressive. The sharp increase in emissions, when the pandemic receded, shattered the hopes of many that the subsequent economic recovery could be decoupled from the emissions of the past; illustrating, once again, how difficult it is to predict climate transition pathways.

Such effects may come with transition risk for companies and investors. Urgent action is needed by policymakers, companies, and individual citizens, and a clear role can be seen for financial institutions and investors to help enable the changes that are required by our society. At the same time, the financial services sector has to safeguard a fiduciary duty and act accordingly. Although our clients' ESG (environmental, social, governance) and sustainable investment portfolios have performed well on a historical, long-term basis, we have seen a challenging start to 2022, where, for the first time in years, many ESG and sustainable investment portfolios financially underperformed traditional portfolios.

[1] Special thanks to Karin Bouwmeester, Senior Manager ESG Reporting and Stewardship, ABN AMRO Bank N.V. The views expressed in this article solely represent those of the authors and are in no way representative of the views held by the ABN AMRO Bank N.V., or any of its subsidiaries or affiliates.
[2] Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector

At a time of increasing ESG expectations from our stakeholders, including changing regulatory expectations, we need, as investors, to balance expectations between financial returns, risk, and sustainability preferences. In addition, we need to widen our scope in terms of asset classes – where investor engagement used to focus more on public markets investments (due to larger holdings and thereby more greenhouse gas emissions),[3] "private markets" lag in terms of ESG implementation.[4] We, therefore, expect an increase in private markets engagement with ESG.

This paper provides insights into the growing expectations of our stakeholders regarding ESG and sustainability and in conversations with third parties in the private markets investment space.

2. SUSTAINABLE FINANCE REGULATION IN THE EUROPEAN UNION

The "Action Plan on Sustainable Finance", as initiated by the European Commission (E.C.) in 2018 to support the implementation of the sustainable development goals (SDGs) and the Paris Agreement, defines disclosure requirements for financial market participants [see Sustainable Finance Disclosure Regulation (SFDR)], an E.U.-wide taxonomy on environmentally sustainable activities, and a regulatory change on client's sustainability preferences by including ESG in the MiFID II regulation.

2.1 Sustainable Finance Disclosure Regulation

The SFDR aims to make the sustainability profile of investments better understood by end-investors. This is achieved through various mandatory disclosure requirements, such as (1) entity-level principal adverse impact disclosure, (2) remuneration policy disclosure, (3) sustainability risk integration disclosure, (4) product pre-contractual disclosure, (5) product website disclosures, and (6) product-level periodic disclosures. The extent of product-level disclosures required depends on the sustainability profile. The SFDR defines three different potential categories for products depending on their sustainability profile and the characteristics defined in Articles 6, 8 and 9 of the SFDR:

- **Article 6:** financial products with no binding or only legally required ESG characteristics
- **Article 8:** financial products promoting environmental and/or social characteristics, provided that the companies in which the investments are made follow good governance practices
- **Article 9:** financial products with sustainable investments as their objective, whereby sustainable investments are defined as: "an investment in an economic activity that contributes to an environmental objective, as measured, for example, by key resource efficiency indicators on the use of energy, renewable energy, raw materials, water and land, on the production of waste, and greenhouse gas emissions, or on its impact on biodiversity and the circular economy, or an investment in an economic activity that contributes to a social objective, in particular an investment that contributes to tackling inequality or that fosters social cohesion, social integration and labor relations, or an investment in human capital or economically or socially disadvantaged communities, provided that such investments do not significantly harm any of those objectives and that the investee companies follow good governance practices, in particular with respect to sound management structures, employee relations, remuneration of staff and tax compliance."

Implementation of the SFDR is being carried out in phases; the first set of disclosure requirements, Level One, came into effect on March 10, 2021. After several extensions, Level Two disclosure requirements are to be implemented on January 1, 2023. The next section provides a summary of some of the disclosure requirements, though it is by no means exhaustive.[5]

2.2 Reporting requirements for alternative investment fund managers

SFDR applies to "financial markets participants" including GPs and investment advisors and managers, as defined in the AIFMD and MIFID regulations. The regulation also applies to non-E.U. market participants that enter the E.U. and may also apply to private placements.[6] The regulation ensures that both firms and funds disclose ESG information in consistent ways by means of using standardized reporting templates that have been designed to report on a 1) a firm and 2) a fund level.[7]

[3] https://bit.ly/3EcMLH2
[4] https://bit.ly/3CemBkK
[5] A full list of all disclosure requirements can be found in the Official Journal of the European Union's legislative act and in related guidance documents – https://bit.ly/3C8072K
[6] https://bit.ly/3V4Y622
[7] Invest Europe, 2022, "SFDR and the Taxonomy regulation," July

2.2.1 FIRM LEVEL DISCLOSURES

Firm level disclosures disclose policies and practices that apply to the entire firm, regardless of the fund, strategy, or level of ESG integration or sustainability. These reporting requirements also apply to investment advisory services and customized discretionary investment management mandates. For all these services, clients should receive similar information based on the standardized templates.[8] They should consist of the following elements that should be published on the market participant's website:

- **ESG policies:** from March 2021 onwards, market participants should disclose information on their sustainability-related policies, including, but not limited to, the integration of ESG risks into investment considerations and decisions, risk models, and remuneration policies. This should include sustainability risks that could directly affect the firm and its clients and/or LPs.
- **Principal adverse impacts:** from January 2023 onwards, market participants need to report on principal adverse impacts of investment decisions on sustainability factors (principal adverse impacts or "PAIs") – on a firm level. It needs to disclose how the market participant could potentially have harmful social and/or environmental effects on society (provided in English and the local language of the relevant E.U. member state). An overview of the relevant PAIs has been included in Table 1. In some cases, market participants with less than 500 employees may explain why they do not consider certain PAIs[9]. Invest Europe (July 2022) mentions that PAIs require GPs to systematically assess ESG with their portfolio companies. According to this guidance, GPs have some freedom in the way that they should "consider PAIs", and that they are not prohibited from investing in portfolio companies that might potentially be exposed to PAIs.

2.2.2 FUND LEVEL DISCLOSURES

GPs should also disclose specific information on funds and strategies regarding, amongst others, sustainability-related risks, sustainability objectives, and PAIs, depending on the respective SFDR classification. Different reporting templates apply for Article 8 and 9 strategies. GPs need to explain in their pre-contractual information where they do and do not consider certain sustainability-related risks and/or PAIs for certain strategies or funds. In addition, GPs have the obligation to meet "good governance standards" and to consider "do no significant harm" criteria for strategies that classify as Article 8 (or higher).[10] The European Securities and Markets Authority (ESMA) also provides guidance on the naming of funds, in particular when using definitions like "sustainable" and "impact".[11]

- **Pre-contractual information:** an abstract of the GP's consideration of PAIs (if and how these are being considered) and assessment on good governance practices

Table 1: Principal adverse impacts overview

CORPORATES (TABLE 1)
1.GHG emissions
2. Carbon footprint
3. GHG intensity of investee companies
4. Exposure to companies active in the fossil fuel sector
5. Share of non-renewable energy consumption and production
6. Energy consumption intensity per high impact climate sector
7. Activities negatively affecting biodiversity sensitive areas
8. Emissions to water
9. Hazardous waste ratio
10. Violations of U.N. Global Compact principles and Organization for Economic Cooperation and Development (OECD) guidelines for multinational enterprises
11. Lack of processes and compliance mechanisms to monitor compliance with U.N. Global Compact principles and OECD guidelines for multinational enterprises
12. Unadjusted gender pay gap
13. Board gender diversity
14. Exposure to controversial weapons (antipersonnel mines, cluster munitions, chemical weapons, and biological weapons)
SOVEREIGNS (TABLE 1)
15. GHG intensity
16. Social violations

PAIs (https://bit.ly/3fJ3lPf) are defined in the Regulatory Technical Standards of SFDR (Table 1 RTS). Additional PAIs from Tables 2 and 3 have not been included in this overview (market participants should choose at least one additional PAI from each of these tables).

[8] RTS 6.4.2022 supplementing Regulation (EU) 2019/2088 of the European Parliament and of the Council
[9] https://bit.ly/3EgidnS
[10] https://bit.ly/3dZPIQJ
[11] https://bit.ly/3RzXGgU

of investees should be included in the pre-contractual information for LPs.[12] For Article 8 classified funds, information needs to be disclosed on the environmental and social characteristics that are being promoted and the indicators used to measure these. Information on the proportion of the fund (the asset allocation) that the GP plans to align with the environmental and social characteristics in the investment decision-making process and binding elements in the strategy need to be disclosed by means of disclosing minimum proportions and minimum safeguards. For Article 9 classified funds, the sustainability objective of the fund needs to be specified, information needs to be disclosed on the proportion of the fund (the asset allocation) that the GP plans to align with certain sustainability objectives, and the GP should mention how it prevents doing "significant harm" from a societal point of view.

- **Ongoing periodic investor reporting:** on an ongoing basis, GPs should report according to the relevant templates for Article 8 and 9 classified funds, including a historical comparison with previous reference periods. Among others, this means that the GP needs to disclose the sustainability-related performance of the fund (based on the ESG indicators that were mentioned in the pre-contractual information), the actual asset allocation (based on the minimum proportions and relevant ESG characteristics or sustainability objectives), and minimum safeguards of portfolio companies. GPs also need to describe their specific actions to meet the pre-contractual ESG characteristics or sustainability objectives, how PAIs were addressed, and how the investment did not cause significant harm to society.[13] Specifically, GPs need to describe how the investments were aligned with the "OECD guidelines for multinational enterprises" and "U.N. guiding principles on businesses and human rights".

2.3 Fund level disclosure: practical challenges

According to the experience that we have gained through stakeholder conversations, GPs generally embrace ESG, if not for intrinsic (perhaps altruistic) motivation then certainly through the lens of value creation – i.e., companies acquired today should become more sustainable in order to be sold successfully in the future.

> *"The industry is moving and several initiatives are trying to coordinate monitoring and reporting efforts. Most initiatives, however, will not cover the full scope of the reporting obligation under SFDR."*

Providing pre-contractual information may be challenging for GPs from our perspective. Typically, GPs launch a new fund on the basis of commitments from investors, LPs, and do not know beforehand exactly what investments they will pursue. Sector-focused managers are most likely to have more insight into their expected portfolios, compared with generalist investors, secondary investors, or fund-of-funds managers. Overarching targets will help them focus on ESG-supportive investments and with measuring key performance indicators (KPIs); however, uncertainty and perceived lack of flexibility might result in GPs opting for SFDR Article 6 classification.

Ongoing periodic investor reporting requires GPs to collect specific data from all portfolios and aggregate data on a fund (and firm) level. This might be a challenge, especially for more diversified funds, such as secondaries and fund-of-funds. Aggregating data on a fund-of-funds level will be especially challenging when underlying funds use different KPIs. This will require, in most cases, dedicated resources (or full integration in the investment monitoring process). At this moment, we observe that especially the larger (often global) firms with dedicated ESG teams take the lead in international initiatives to harmonize data collection and reporting across the industry. Dedicated impact funds often target specific investments that by definition contribute positively to ESG KPIs, but that are not covered by such initiatives. Benchmarking these KPIs for SFDR Article 9 funds is still a developing field and will often require support from dedicated consultants.

[12] Questions related to Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector (SFDR)
[13] JC 2022 23 Clarifications on the ESAs' draft RTS under SFDR, June 2022

The industry is moving though, and several initiatives try to coordinate monitoring and reporting efforts. Most initiatives will, however, not cover the full scope of the reporting obligation under SFDR. The "data convergence initiative"[14] is a joint effort from the Institutional Limited Partners Association (ILPA) and a growing group of GPs, LPs, and investment advisors. By agreeing on a limited number of currently fifteen KPIs across six ESG categories, the initiative aims to bring a more standardized approach to the industry. This should improve the comparison and exchange of data and lower barriers to monitor and report on ESG performance. Arguably, improved standardization might also simplify the reporting duties under SFDR Article 8 or 9.

Other initiatives, such as the U.N. convened Net Zero Asset Owner Alliance,[15] aim to mobilize the industry to commit to lowering GHG emissions by engaging with companies and funds and reporting on carbon emissions. At this moment, the focus is still on listed equity, private loans, and infrastructure, but other asset classes will follow and private equity will be included in the next revision of the protocol, which is expected in 2023.

2.4 SFDR classification dispersion and flows

Analyzing SFDR classifications comes with the challenge that there is limited publicly available data for private markets flows and transactions. Some exchange traded funds (ETFs are securities that track a particular index, sector, or commodity and can be traded on stock exchanges) have been classified SFDR Article 8 and 9, allowing analyses on some funds and flows, as traded in financial markets. When comparing ETFs based on this limited dataset, excluding non-E.U. ETFs, ABN AMRO Group Economics[16] (July 2022) concluded that the universe of SFDR Article 8 classified funds is much higher than the SFDR Article 9 universe and that the range of fixed-income or debt-based ETFs that have been classified Article 8 or 9 is much smaller than equity-based ETFs. With approximately 60 percent of total new funds incepted in the E.U. being classified as Article 8 or 9 funds, and with more than 700 funds upgraded from Article 6 to 8 or 9, Article 8 and 9 SFDR classification categories have surpassed 50 percent of total market share (Morningstar, July 2022).[17] Based on a sample of 2,476 Article 6 funds, 1,764 Article 8 funds, and 268 Article 9 funds, 84.7 percent of the Article 8 funds report on PAIs, while 94.8 percent of all Article 9 funds report on PAIs.[18]

3. IMPLICATIONS OF SUSTAINABLE FINANCE REGULATIONS ON FINANCIAL INSTITUTIONS

As part of the Sustainable Finance Regulation roll-out, MiFID II regulation has been amended per August 2022 to include ESG preferences of clients in their suitability profiles, with the intention of creating a fit with SFDR reporting requirements.[19] In addition, the AIFMD regulation has been amended to include sustainability risks and factors by alternative fund managers.[20]

3.1 Sustainability considerations in private markets investment advisory

In a private markets advisory context, there may be clients with certain sustainability preferences, corresponding with the SFDR environmental and social characteristics, sustainability objectives, PAIs, and the E.U. Taxonomy for environmentally sustainable activities. Financial markets participants need to take these sustainability preferences into consideration when advising clients and when selecting suitable investment funds. For this reason, we are investigating the offering of SFDR Article 8 and 9 classified funds within a private markets context, particularly the private equity industry. Over the last few months, we spoke with multiple GPs to understand their approach towards SFDR classification and reporting.

3.1.1 FUND SELECTION UNIVERSE AND SUSTAINABILITY PREFERENCES

In our conversations with GPs, it has become clear that most funds that are being offered (in Europe) are funds that have been classified SFDR Article 6 – this means that there is limited sustainability reporting and that such funds potentially may not be suitable for clients with high sustainability preferences. In our conversations with advisor Stepstone Group LP, we discovered that although many GPs have sustainability policies and guidelines in place, the classification of funds as Article 8 and 9 is still nascent, due to the reporting requirements and, specifically, to the availability of data with portfolio companies (July 2022). LGT Capital Partners mentions in its 2022 ESG

[14] www.esgdc.org
[15] United Nations Environment Programme, 2022, "U.N. Net-Zero Asset Owner Alliance: target setting protocol," second edition
[16] Larissa de Barros Fritz, ESG Strategist ABN AMRO Group Economics, July 2022
[17] Morningstar, July 2022
[18] https://bit.ly/3UUWV57
[19] https://bit.ly/3UTUwrc
[20] https://bit.ly/3SDoApq

Report that only 13 percent of the GPs opt for an Article 8 or 9 classification, based on a survey of around 200 GPs.[21] The New York based private equity firm Clayton, Dubilier & Rice LLC mentioned that regardless of its funds' SFDR classifications, it continues to focus on enhancing the ESG profiles of its portfolio companies. For the moment, its funds are classified as SFDR Article 6 (August 2022). There are also some exceptions where GPs focus on SFDR Article 8 or 9 classification as a unique feature of their funds. EQT has classified all applicable funds in scope for reporting disclosures at least as SFDR Article 8 funds, according to SFDR, and to consider PAIs where this is material. Also, according to EQT, there remain challenges on reporting, for example, with the PAIs on biodiversity; however, it does not refrain the company from classifying funds according to Article 8 and 9 (July 2022). The Dutch Venture Capital manager Innovation Industries focuses on investing in technology companies that potentially contribute to the SDGs, as an overall sustainability objective. It has invested in dedicated staff to work on related ESG and SDG measurement and reporting; and its investment committee will only approve investments where there is a clear case of societal benefit linked to ESG and/or the SDGs (August 2022).

3.1.2 SFDR PRIVATE MARKETS DEVELOPMENTS AND RECLASSIFICATION OF FUNDS

We have also noticed that there are GPs that consider upgrading or downgrading the SFDR classification of their funds. In our conversations with Brookfield Infrastructure, it became clear that they were considering upgrading its flagship infrastructure fund from SFDR Article 6 to SFDR Article 8 classification, pending research of the required reporting indicators (May 2022). In June 2022, the company decided to classify the fund according to Article 8. With this decision, the fund may potentially be suitable for a wider audience of investors given their sustainability preferences. In our conversations with GPs, it was also mentioned that there are examples of managers downgrading funds from SFDR Article 8 to Article 6. We were, however, unable to find such examples or to verify the cases that were mentioned.

4. CONCLUSION

Being aware that we only spoke to a limited number of GPs, making these conclusions far from statistically relevant, we believe that we were able to provide some insights in our stakeholder conversations on SFDR, in particular with GPs. In general, we see a growing interest from GPs with a fundraising focus on Europe in classifying (or reclassifying) funds as SFDR Article 8 and 9. Except for some examples in the "venture capital" and "impact investing" space, reporting requirements can be a reason for GPs to opt for SFDR Article 6 status for the moment. Our general feeling is that this does not slow down ESG initiatives and that, over time, GPs are slowly moving towards more SFDR Article 8 and 9 classifications, especially when there is more clarity on regulation and market consensus regarding the reporting and data requirements. However, this does create a difficult situation for advisors of clients who prefer to invest in ESG funds that are classified as SFDR Article 8 or sustainable (impact) investment funds, classified as SFDR Article 9.

[21] LGT Capital Partners, 2022 ESG Report, page 16

CLIMATE CONDUCT AND FINANCIAL SERVICES: TOMORROW'S MIS-SELLING SCANDAL?

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ABSTRACT

In recent years, due to increasing awareness of the risks – and opportunities – provided by climate change, products marketed based on their strong environmental, social, and governance (ESG) credentials have exploded. In conjunction with this "gold rush" of new green products is the potential to misrepresent their true underlying nature; subsequently such claims made to consumers are not always credibly evidenced, which could lead to long-term legal ramifications. This paper introduces climate conduct and highlights ways in which products can be mis-sold through marketing. It further outlines the actions that regulatory bodies are taking to mitigate this, including the implementation of legislation and guiding principles for firms. Some risks and pitfalls for firms treading this "green-line" are given using case study evidence. Guidance is also provided for how firms should operate moving forward in this environment.

1. INTRODUCTION

In recent years, growth in products marketed on the basis of their strong environmental, social, and governance (ESG) credentials has exploded. According to the Association of the Luxembourg Fund Industry (ALFI), which represents Europe's biggest fund market, more than half the money that flowed into European funds in 2020 went into sustainable products,[2] totaling €1.4 trillion. Globally, ESG assets are expected to exceed U.S.$53 trillion by 2025, representing more than a third of the U.S.$140.5 trillion in projected total assets under management.[3]

Due to the increasing awareness of the risks – and opportunities – presented by climate change, pressure from investors for responsible investments is growing at a steady rate and ESG has come to dominate the agenda at board level meetings and on investor calls. Consequentially, an increasing number of financial institutions are either selling directly or partnering with third parties to offer green products to customers – a trend that is expected to continue and is generally welcomed in the context of climate change mitigation.

A 2021 survey by IResearch[4] reported that 63 percent of the 550 global financial service professionals surveyed said their products are green friendly, and 64 percent said their upcoming products have been designed to be socially, environmentally, and economically friendly. However, what comes with this "gold rush" of new green products, this clamor to seize upon a new opportunity, is the potential to misrepresent the true underlying nature of these green products.

Consequently, the potential risk of mis-selling cannot be understated as firms look to enhance perceptions of their environmental credentials and products. One can draw parallels with the U.K.'s payment protection industry scandal as a cautionary tale, and a marked nervousness is already becoming apparent within the financial services industry. In

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[2] https://bloom.bg/3BQFqtL
[3] https://bloom.bg/3UDBYLX
[4] https://bit.ly/3xZiibv

a 2021 survey from market researcher Cicero,[5] almost all financial advisers (97 of 100) polled were "very" or "fairly" concerned about the potential for allegations of mis-selling of ESG-badged investments.

Accusations of mis-selling outside of the financial sector are also growing rapidly,[6] with episodes such as the Dieselgate scandal making headlines, and regulatory bodies are increasingly aware of the need to mitigate against so-called "greenwashing" of products and services. These regulators are now moving towards legislation to make existing initiatives and frameworks binding to mitigate these risks for both firms and consumers. Frameworks such as the Taskforce on Climate-related Financial Disclosures (TCFD) highlight the need to identify transition liability risks, but firms should be aware of the potential harm from mis-selling at both company and sector-wide levels.

2. CONSIDERING CLIMATE CONDUCT

Conduct has been high on the U.K. regulatory agenda since the July 2006 introduction[7] of Treating Customers Fairly (TCF) by the Financial Conduct Authority's (FCA) predecessor, the Financial Services Authority (FSA). The intense scrutiny on banks' wider conduct since the financial crisis in 2008 has seen a doubling down by the regulator on its commitment to wholesale cultural improvements. As part of the focus on cultural improvements, annual data on conduct fines is published by the FCA on their website in a "name and shame" exercise.[8] Similar changes have also been instituted in jurisdictions outside of the U.K., most recently in Australia and New Zealand following the findings of their 2019 Royal Commission.[9]

On top of these "headline" conduct activities, there is a more subtle but still powerful conduct imperative running beneath the surface of the financial services sector. Across the industry it is clear to see that cultural enhancements are becoming ever more deeply ingrained throughout organizations, for instance:

- A broader focus on customers obtaining the right outcomes for their unique individual circumstances
- Explicit guidance around market abuse and annual attestations required by employees that they are adhering to requirements
- A greater focus on personal and transactional conflicts of interest – for instance, through the disclosure of personal account dealings
- An increased focus on who firms do business with, including indirect interactions, commonly referred to as "non-client counterparties".

The gap that currently exists is around whether firms have considered their "climate conduct" to be as important as other parts of their culture. Figure 1 covers four key areas of climate conduct.

Firms may be exposed to climate conduct risks because of the actions of individuals or the organization. Below we look at each of our four key areas in turn. Firms face reputational, financial, and regulatory repercussions where they fall short in their climate conduct.

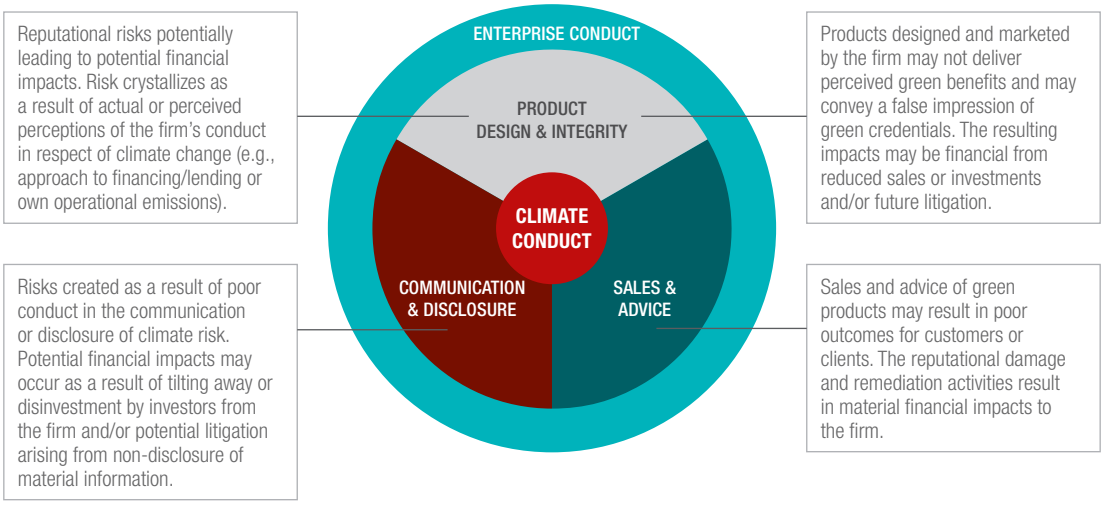
3. ENTERPRISE CLIMATE CONDUCT

Now more than ever, firms face unprecedented challenge and scrutiny over the way they operate and who they lend to, with the implication that "wrongdoers" and "laggards" run the risk that customers and investors will vote with their feet and wallets. Over recent years, several challenger banks have entered the market, each with a unique selling point: amongst these challengers are so-called "socially conscious" banks (such as B-Corps, certified Sunrise Banks,[10] and Aspiration[11] in the U.S.) predominantly focused on green financing and fighting climate change.

Especially among the younger generation, who are more likely to be both environmentally conscious and change providers if dissatisfied, those firms financing high emissions companies or failing to adapt their own operations to minimize carbon impact can expect a loss of their customer base to these greener operators. A 2019 report by Morgan Stanley[12] found that 84 percent of millennials cite investing with a focus on ESG impact as a central goal. Those companies that fail to

[5] https://on.ft.com/2HlvaAV
[6] https://bit.ly/3LKn16J
[7] https://bit.ly/3ShXUun
[8] https://bit.ly/3Ulxzas
[9] https://bit.ly/3yk3WTt
[10] https://sunrisebanks.com/
[11] https://www.aspiration.com/
[12] https://mgstn.ly/3LJVPF7

Figure 3: Key areas of climate conduct



adapt or respond face financial impacts to growth, and even liquidity, as new sales and customer or investor deposits are potentially reduced.

4. MARKETING PRODUCTS

Growth in green products has accelerated significantly, with firms offering increasingly different options across a range of product suites, both retail and investment. On the retail side, banks have launched green mortgages, electric vehicle loans, green savings accounts, asset-backed rooftop solar loans, and green current accounts. On the investment side, a plethora of green funds exist for people seeking a sustainable selection, along with bonds and covered bonds for institutional investment.

The third quarter of 2020 saw a record U.S.$76.5 billion raised[13] from 170 new green issuances, driven by sovereign wealth funds, multi-laterals, and banks. However, with this rush to "green-up" firms' product suites comes accusations of greenwashing, and an increased risk of compliance failures as green benefits sold to customers or investors cannot be credibly evidenced. The reputational and financial impacts arising from potential litigation in this area should not be underestimated.

In November 2020, the CMA began investigations into whether "eco-friendly" and environmental claims made to consumers could be misleading and breach consumer protection law.[14] The first investigation launched concerned claims made in respect to products and services. Final guidance was published in September 2021, hinging around the following principles:

- Claims must be truthful and accurate
- Claims must be clear and unambiguous
- Claims must not omit or hide important relevant information
- Comparisons must be fair and meaningful
- Claims must consider the full lifecycle of the product
- Claims must be substantiated.

Following this publication, in January 2022, the CMA commenced a further review concerning environmental claims in respect to the fashion and retail sector, identifying businesses suspected of greenwashing. This resulted in the opening of an investigation into three fashion brands, ASOS, Boohoo, and Asda, to scrutinize their green claims. The CMA plans to look at other sectors in due course.

[13] https://refini.tv/3rc4s1J
[14] https://bit.ly/3SCUWAI

The FCA have drawn their own line in the sand via the Feedback Statement 19/6, citing the need for transparency and trust when designing and marketing sustainable products. Their trust in the market for ESG/sustainable investments consumer research paper is due imminently and will follow close on the heels of their Authorized ESG & Sustainable Investment Funds Guiding Principles.

The Guiding Principles note that it is essential that products "marketed with a sustainability and ESG focus" must ensure that assertions made about goals are "reasonable and substantiated." The FCA also commented that, in receiving applications for new ESG and sustainable investment funds, "a number of these have been poorly drafted and have fallen below [our] expectations. They often contain claims that do not bear scrutiny."

Compliance departments must get on top of this new wave of guidance and retrospectively assess their existing and proposed product suites to ensure that strategies, benefits, and goals meet these criteria and can be validated and substantiated.

5. SELLING AND ADVISING ON PRODUCTS TO CUSTOMERS AND CLIENTS

If you offer a green product, how many staff in your front-line sales and advice teams can you comfortably say are qualified to discuss the associated benefits and risks to a customer?

Like payment protection insurance (PPI) and many other products previously mis-sold, green products are expected to present a particularly risky proposition due to the transitional risks of climate change. Products sold one day may quickly see their green credentials superseded due new innovations, resulting in customers trapped in expensive long-term commitments that offer poor value to them.

Firms should challenge their sales processes around green products – asking whether:

- Customer outcomes have been appropriately calibrated to capture green outcomes
- Green product recommendations can only be provided by suitably skilled persons
- Training programs have been developed and embedded that allow sales staff appropriate capabilities to offer green products
- Training programs are frequently reviewed and updated to offer timely refreshers in a fast-moving environment
- Employees are appropriately incentivized (noting inappropriate sales metrics in PPI) to sell green financing and investor products to clients
- Appropriate quality assurance and risk-based sampling is being used on what is a new addition to firms' product suites.

6. ONGOING COMMUNICATION AND DISCLOSURE

6.1 Product level

The FCA's 2021 paper[15] introducing climate-related financial disclosure rules and guidance for asset managers, life insurers, and FCA-regulated pension providers, showed a direction of travel towards more granular product and portfolio level information, rather than entity level as was formerly the case. As frameworks develop, data is gathered, and firms mature, we expect this to become even more granular over time. The FCA's 2021 "Dear Chair" letter to authorized fund managers stated the importance of "clear and accurate ongoing disclosures to consumers."[16]

Customers and clients will want to understand green performance and credentials of their own products held on an ongoing basis. At a customer-level, the FCA commented that "firms must ensure their communications are 'clear, fair and not misleading'. What we do not expect to see is firms exaggerating their products' green credentials." Firms failing to identify the necessary data and accurately disclose to this level run the risk of potentially being left behind, leaving them to rely heavily on their own assumptions, which are more likely to be challenged legally should they prove inaccurate. Based on the clarity of regulatory messaging, firms should be under no illusion of expectations in this area.[17]

[15] https://bit.ly/3LJW3vX
[16] https://bit.ly/3LNZK3R
[17] https://bit.ly/3L0amQ6

> *"What comes with this "gold rush" of new green products, this clamor to seize upon a new opportunity, is the potential to misrepresent the true underlying nature of these green products."*

6.2 Company-wide level

For the last few years, environmental group Extinction Rebellion (which has an explicit goal of net zero emissions by 2025)[18] has been targeting and damaging head offices of banks that it considers to be neglecting their climate responsibilities. These actions were arguably in part fueled by the readily accessible data that is published on the amount of fossil fuel financing that banks contribute to, either via direct lending or in advisory capacities.

Firms will come under increasing scrutiny for the quality, transparency, and granularity of their climate-related disclosures, both at an entity and customer/investor level. Turning first to entity-level disclosures, Frank Elderson, a board member of the European Central Bank, commented on bank regulatory self-assessments that: "Our overall initial snapshot is rather disappointing. None of the banks under our supervision meet all our expectations. All banks have several blind spots and may already be exposed to material climate risks. They are all still a long way off meeting the supervisory expectations we have laid out for them. And all banks need to catch up, as their climate risk undertakings will eventually influence their supervisory requirements."[19]

This stark message aligns to our own assessment of financial services disclosures. Our 2022 benchmarking exercise of around 90 financial institutions globally highlighted mixed standards across all areas of disclosure.[20] As more firms make commitments towards achieving Paris-aligned goals through science-based targets, so does the likelihood that the accountability and legitimacy of these claims get questioned.

7. RISKS AND PITFALLS

A history of mis-selling relating to ESG and climate credentials already exists. We have highlighted two case studies where misrepresentations of green credentials and benefits have been prominent.

Case Study 1: Dieselgate emissions scandal as a marker

BACKGROUND

In September 2015, the U.S. EPA (Environmental Protection Agency) identified irregularities in the emissions profiles of a number of VW based diesel vehicle platforms. Subsequent testing between real world driving emissions and the laboratory test figures differed wildly and the ensuing investigation identified a "defeat device" in the software. The actual mechanics and methods have not been fully publicly disclosed, but a very sophisticated and orchestrated deception was afoot. In essence, the vehicle would know when it was being tested due to inputs (or lack of) such as no steering, no brakes, and certain air and throttle position; under these circumstances it would default to a much lower power and emissions setting that would create an artificial view of the particulates and gas content for the test. The nitrogen oxide pollutants were 40 times higher under real use conditions, under certain conditions, than are permitted under U.S. regulation. [21]

With similar parallels to the influx of green products from financial services, the VW group saw a huge commercial opportunity to market its small diesel platforms as eco-friendly to the U.S. When combined with a significant sales campaign, focused on green credentials, it generated a wave of new car sales based on erroneous environmental claims. The EPA identified 482,000 cars in the U.S. alone, with VW identifying a further 11 million vehicles subsequently as the case caught global attention, with 8 million in Europe.[22]

The ensuing legal battles, claims and payouts started with VW setting aside a significant figure of around €6 billion in 2015/2016; by 2020 this rose publicly to €31.3 billion globally and has grown beyond this, albeit more privately. If this is not a cautionary tale of mis-selling, then the money that may have facilitated it should be. Statements obtained from the European

[18] https://bit.ly/3DY53vl, https://bbc.in/3UlsAXj
[19] https://bit.ly/3xXeaJ6
[20] https://bit.ly/3dTZUd8
[21] https://bbc.in/3fryH2d; https://bbc.in/2L0236V
[22] https://reut.rs/3Ce3597; https://bit.ly/3fkiOdI

Investment Bank by journalists implicate a loan facility of €400 million that was likely used as part of drive train efficiency. In an early 2016 press conference, the bank's President, Werner Hoyer, admitted that a facility provided by the EIB could well be implicated in the defeat technology and subsequently "put on hold" any new facilities while investigating further.

APPLYING THE LESSON TO CLIMATE CONDUCT

The implications for a financial services firm, when either creating a new green products suite or indeed the onwards use of its funding in green initiatives, must be considered from a risk perspective as a war on two fronts. Although there is a significant generational opportunity both to affect change and drive commercial and shareholder value, it is not without risk and must be very carefully navigated to not end up in the same "provisions" boat as VW. As discussed previously, our recent benchmarking exercise of around 90 financial services institutions globally highlighted mixed standards across all areas of disclosure. This could lead to many coming under scrutiny over their green credential claims.

Case Study 2: U.K. Green Deal mis-selling scandal

BACKGROUND

The U.K.'s Green Deal was hailed as the "biggest home improvement program since the Second World War" when it was launched by the U.K. government in 2013. It promised homeowners solar panels, insulation, and new boilers, with no upfront cost. Customers would need to take out a loan, but they were assured that the repayments would be no higher than the savings they would make on their energy bills. Problems started to emerge when it was discovered that the claim was based on a typical household's energy usage, and many homeowners who used less than this "average" have ended up with higher bills. On top of this, the loans were tied to the property, rather than the individual, which meant homeowners could potentially struggle to sell their house in the future. Faults also emerged in the quality of fittings conducted by approved installers. The multi-million-pound scheme was dropped by the U.K. government after just two years following low uptake and was described by MPs as a "complete fiasco". The scheme has left a legacy of thousands of households encumbered with high interest loans that they will potentially be paying off for decades to come. Mis-selling claims are now underway and are being handled by the Department for Business, Energy & Industrial Strategy (BEIS) and Ombudsman or, if elevated to appeal, the Secretary of State.

APPLYING THE LESSON TO CLIMATE CONDUCT

In Scotland, the firm Home Energy and Lifestyle Management Ltd (Helms), which was an approved installer, faced criticism for its selling tactics, with Citizens Advice Scotland producing a report in 2018 detailing the unorthodox methods reported by customers. Tactics included telling vulnerable and elderly people they were getting the work done for free and using high-pressure tactics to get them to sign up. One customer was signed up for a 25-year loan aged 82, meaning it would only be paid off when the customer was 107. The Green Deal shares many of the same mis-selling traits of PPI and should be heeded by firms when identifying green product types, partnerships, and sales approach and channels. At a time when the U.K. government is proposing replacing gas boilers by electricity-driven heat pumps as part of its Green Plan, the potential scale for mis-selling dwarfs that of the Green Deal. As firms move to offering their own products, or partner with third parties to supply these, there is increased risk of mis-selling, including failing to appropriately assess suitability, applicability, and affordability. Ensuring conduct frameworks remain dynamic to the new and existing risks posed by green and ESG-linked products is paramount.

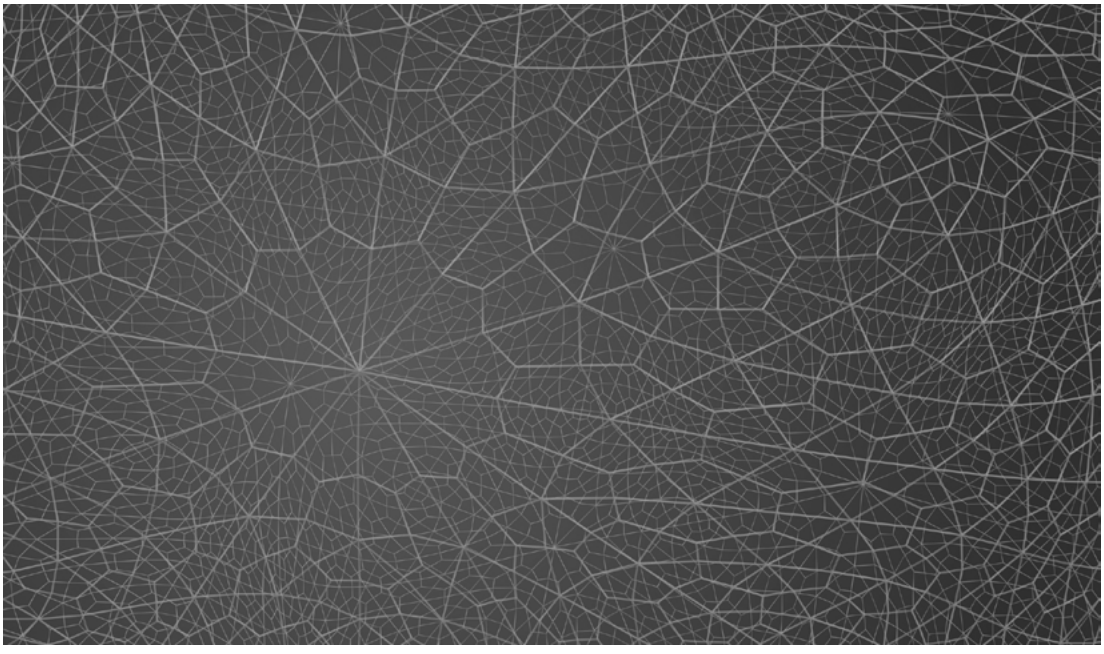
8. WHAT SHOULD FIRMS BE DOING

Given the risks that firms face, we would suggest that they take the following guidance into account:

- **Embed climate risks and opportunities at the highest level:** firms should be spotlighting ESG and climate risk and opportunities at the highest level. Firms are increasingly treating climate change as a principal risk, with its own dedicated risk management function, and board and executive level representation. Consideration must be given as an ongoing material strategic agenda point, moving away from it being a subset of a different business area such as finance or corporate affairs.
- **Taking a holistic view:** firms must ensure potential conduct risks posed by climate change are recognized

and factored into their strategy and risk management frameworks. In recent months, we have reviewed over 90 separate disclosures covering climate risk management, and only a handful consider climate conduct as a material first or second order risk for their firms.

- **Working through product lifecycles:** firms should be using risk assessments around green products and considering their full lifecycle, including interaction with third parties. Based on market trends, many firms are likely to partner and potentially outsource some elements of specialist product sales to third parties, consequently, they must ensure that their standards, risk management, and controls are equivalent to the firm's own, and that the firm can perform some degree of ESG sales audit and quality assurance.
- **Approach the data challenge:** with the acquisition of accurate data being widely recognized as a keystone in the implementation of a wider ESG strategy, the need for robust and scientific data when making environmental claims should also be considered. Firms should look to increase capacity to complete full lifecycle assessments of their products, ensuring that they are able to make valid and substantiated claims about their products. Movements in the development of global taxonomies will help to standardize and provide clearer ESG labeling guidelines. These classify which economic activities are seen as "green", and firms should be aware of region-specific regulations from governments and supranational organizations to help mitigate the potential for greenwashing.
- **Keeping pace with disclosure developments:** with current disclosure frameworks constantly and swiftly evolving, firms must constantly revisit and review their own frameworks on a timely basis, or else risk being left behind or failing to meet new standards of disclosure (e.g., Taskforce for Nature Related Financial Disclosures). Firms with the broadest awareness and consideration of disclosure will be able to find the greatest synergies and overlap, which will aid the reduction of unnecessary duplication and back-and-forth conversations with customers, clients, and suppliers. Following COP26, the pressure for action is intensifying[23] as the FCA confirmed that it does not necessarily require new powers or legislation to combat against greenwashing and it will be able to use existing powers to enforce this area.[24]



[23] https://bit.ly/3SAlj8N
[24] https://bit.ly/3SAlq4d

9. CONCLUSION

The complex subject of conduct in combination with climate change – arguably one of the widest ranging thematic issues of our time – presents an anxiety-inducing and risk-strewn proposition. When navigating this potential minefield, caution and process must be the watchwords at all levels of the firm when delivering robust and defendable frameworks to manage ESG products and services. Without this approach, it will be all too easy for firms to over-egg their "green pudding" and as Dieselgate attests, "where there's blame, there's a claim".

The danger of mis-selling green products and misrepresenting the positive ESG or climate credentials of a product may deliver short-term gains but could also lead to significant value destruction in the longer run. Climate compliant and friendly products are without doubt the next "gold rush", given they represent a moral and commercially attractive proposition that can benefit, to a greater or lesser degree, the entire global population. If the lessons of previous mis-selling mishaps are learned, then this could be the defining opportunity for the next generation of financial services' customers, firms, employees, and executives. If not, it has the potential to damage not only individual firms' balance sheets and reputations, but also broader efforts to make sustainable finance a reality – and ultimately the very future of our planet.

DECENTRALIZING SUSTAINABILITY – WHY AND HOW TO DO IT

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RICHARD WINDER | U.K. Head of Sustainability, Handelsbanken

ABSTRACT

Over several decades, banking has evolved into one of the most centralized sectors of the economy. So, what are some of the challenges and benefits of working with climate change and sustainability in a strongly decentralized bank? Catharina Belfrage Sahlstrand and Richard Winder take us behind the scenes at the Swedish-headquartered Handelsbanken.

1. INTRODUCTION

Do you trust your employees? Not a trick question. But do you actually trust them? It may well say so in the chairman's statement or the CEO's foreword to the latest report and accounts. And no doubt instinctively this is how most board directors and senior managers feel about the people who work for them. Some colleagues may wear a passion for their work or organization brightly on their sleeve, while others may display their loyalty and commitment more quietly through their daily efforts and through the results they produce.

However, for the most part, this explicit trust is not fully followed through in large organizations' operating models, steering systems, and, therefore, cultures. In their 2020 book on enlightened corporate leadership, "Humanocracy",[1] Professors Gary Hamel and Michele Zanini highlight the often yawning gap between companies' warm words and the real-world empowerment of their people – or rather the lack of it. This mismatch leads, the authors demonstrate, to disengagement, silo thinking, squandered creativity, and ultimately reduced productivity and profitability. They go on to quantify and illustrate the performance advantage and many co-benefits that can be achieved by distributing power and accountability throughout an organization.

Back in 2002, industrial economist and former bank president Jan Wallander wrote a detailed account of his (successful) mission to radically decentralize Handelsbanken and transform it into one of the strongest performing banks in Europe over several decades. His case for decentralizing was disarmingly simple, although naturally the task of achieving it proved more challenging.

Through his academic observations, Dr. Wallander asserted that, as a general rule, individuals are intrinsically motivated to do a good job. By extension, given extensive decision-making power and accountability, they are both willing and capable of finding good ways forward in their work and pursuing them successfully.

Moreover, in this environment of heightened trust and expectation, people tend to step up and take ownership of challenges and opportunities in their areas of responsibility, taking personal satisfaction in their professional achievements, while striving to remedy any adverse consequences of their actions.

However, this was only one side of Dr. Wallander's argument. During his time as a leading light in Swedish economic research, systems for "extrinsic" individual motivation –

[1] https://bit.ly/3ekaCtF

typically combining top-down instruction and performance management with individual targets and incentives – had risen to prominence across many industrial sectors, spurred on by the early embrace of U.S. corporates and the founding crop of management consultancies. Having studied these systems at close quarters, Dr. Wallander had become convinced they only served to dilute or distort employees' natural feelings of drive, pride, and care for their work.

He saw that this approach to people management – driven by what the late social psychologist Douglas McGregor termed "Theory X thinking"[2] – had the effect of pitting employee against employee, manager against manager, and business area against business area. Sometimes, such internal rivalry sprang up entirely by design in the hope of squeezing out greater ambition, grit, and innovation from employees. Other times, it would occur quite unintentionally through the clash of different parties' priorities based on the targets they had been set. Yet, in all cases, the results would be suboptimal organizational performance, disaffected employees, short-termism, a brittle culture, and – high on Dr. Wallander's own watchlist – dissatisfied customers, leading inevitably to a drag on long-term financial performance. Indeed, this is just as Hamel and Zanini have shown to be the case in today's corporate world.

2. INSTITUTING TRUST-BASED LEADERSHIP WITHIN ORGANIZATIONS

In 1970, Dr. Wallander was appointed managing director (in today's language, chief executive officer) of Handelsbanken, then Sweden's largest bank. The bank had been experiencing a broad set of challenges to its profitability over the preceding decade or so. He took up this post on one condition: that he would have the time, space, and board support to put into practice the full scope of his thinking on trust-based leadership, despite the inevitable resistance his team would face in doing so.

Almost overnight, power for making credit and other business decisions was transferred from directorates in the head office to branch managers on the ground. The middle managers responsible for churning out a steady stream of orders to these branches were told to stop. They were offered roles out in the branch network, which many, though not all, chose to take up. The focus of the organization was to be on long-term profitability, and this would be assured only by higher levels of customer satisfaction and lower costs than the competition. Prudence and relationships would command the premium within his model, while chasing a fast buck at the expense of either would be frowned upon.

To cut a long story short, the approach we work with in Handelsbanken today – when you dig beneath the bank's many significant strategic, digital, and other developments since that time – still takes full account of Dr. Wallander's unshakeable belief in the individual, and their intrinsic motivations and potential. The way of working is decentralized, so that each local branch team forms and follows its own business plan, its own goals, and its P&L and cost-income progression. Individuals, wherever they are in the organization, are empowered to be the decision makers in their areas of responsibility, taking support wherever needed – but not orders – from their management line.

To the uninitiated, this may sound more than a little like anarchy. But we can assure you that it is anything but that in Handelsbanken, a lender long recognized for its strength in managing risks and generating stable returns throughout the economic cycle.

A decentralized way of working requires a solid central framework within which colleagues can carry out their responsibilities the ways they find best, but consistent with the organization's overall strategy, objectives, and obligations. The more decentralized, the stronger this framework needs to be, and Handelsbanken is highly decentralized.

This central framework is made up of the bank's guiding values, its business, operating, and management models, its steering systems, and its policies. These policies cover areas such as credit, risk management, human resources, and, of course, various aspects of sustainability.

Hence, all over our organization, colleagues feel at once free to put their skills, ideas, and networks to best use, while at the same time bound to act in line with the bank's values, goals, and ways of working. In practice, this is less a case of balancing two opposites and more a case of finding the strongest harmony between the individual and the common interest.

[2] McGregor, D., 1960, The human side of enterprise, McGraw-Hill

In any case, half a century of working in the way described above has led to a flat, open organization, where everyday collaboration tends to spawn spontaneously across teams and functions, without the need for a nod or a prod from higher up. It has also cultivated a strong sense of both individual and corporate responsibility – responsibility to each other, the bank, our customers, and the communities we serve.

This culture of responsibility has proven a fertile seedbed for Handelsbanken's work with sustainability over recent decades. However, as the expectations and demands of our stakeholders continue to grow and gather pace, working with sustainability in a decentralized way has not been without its challenges. In this article, we will take a look at some of the challenges we have encountered so far, how we have approached them, and how we would assess the net benefit, or otherwise, of our model in these circumstances.

3. SOME HIGH LEVEL CHALLENGES OF DECENTRALIZING SUSTAINABILITY

3.1 Example 1: Driving focus and ambition

As noted, a strongly decentralized approach requires a robust central framework within which empowered colleagues can work confidently. This is even more the case when the area in question takes in new concepts and requirements well beyond the familiar confines of traditional banking, and more so again when these concepts and requirements are continually evolving.

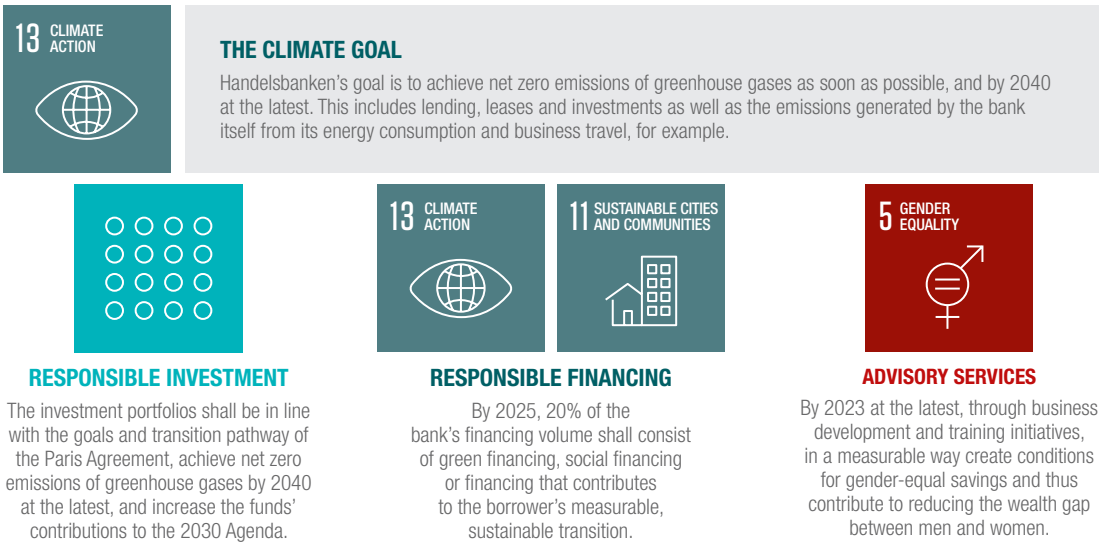
Like all banks, we need a shared sense of where we are driving towards and when we need to get there. Hence, initially, we worked together at the center to explore our risks and opportunities, our stakeholders' expectations, and how the evolving sustainability agenda connected back to our core values. This led to the bank setting out a number of initial sustainability goals, endorsed by the central board of directors, to guide the focus and efforts of the whole organization (Figure 1).

From this point on, our priority has been to mobilize the organization, initially by communicating the goals in ways that felt relevant to different roles and functions. Through this, we aimed to secure that all-important buy-in from our branches, business support units, and other functions, and to equip them with the direction and context they needed to start considering how best to contribute towards these goals.

Meanwhile, back at the center, we worked to provide support and challenge, as sustainability subject matter experts, to these developing ideas, connecting workstreams and initiatives wherever this could add value, while identifying potential gaps to be filled. Perhaps a little like the role of an air traffic controller.

What we did not do was to take our corporate-level goals and seek to parcel these up into increasingly granular targets, at business line, district, branch, or individual level, with a view to the sum of these achieving our headline goals. That would be the antithesis of our decentralized approach. For us, leadership

Figure 1: Handelsbanken's goals for a sustainable future



needs to emanate from within the organization, just as much as from the top. To achieve this, we cannot simply tell our managers what to do; we need to listen, adapt, explain, and support them. And sometimes we need to sit on our hands.

Looking at, say, our sustainable financing goal, or the overall net zero climate goal, you may be wondering how we can be sure of achieving them working in the way just described. The honest answer is that at this stage we cannot with 100 percent confidence. And neither, in reality, can those who adopt the "command control" model of calibrated targets and close follow up, which has been seen to lead to so much gaming and suboptimization. We can, however, be sure that colleagues throughout the organization know and care about reaching these goals, that they see their roles in doing so, and that they feel responsible to lean in, learn more, and find collaborative ways forward.

That is not to claim for even a moment that progress along this curve is rapid, smooth, or uniform across the bank. If anything, working in a decentralized way takes more time and care to establish critical momentum. But here is the thing: once that point has been passed, the real power of an engaged workforce kicks in and progress tends to go exponential.

3.2 Example 2: Meeting regulatory expectations

Quite understandably, regulation tends to be designed around the norm rather than the exception, not least in banking. Most banks are not strongly decentralized, instead engaging in often sophisticated strategic planning, budgeting and forecasting, portfolio allocation, and activity management from the center. We have, therefore, become accustomed over many years to adapting to rules which assume a centralized point of departure.

The regulatory framework around sustainability is no exception. Thus, ensuring we satisfy an increasingly detailed suite of market, customer, and product disclosure requirements in a way that supports our model takes a great deal of care and thought. In this context, we also think carefully about how best to meet our voluntary commitments, for instance, as a signatory to the U.N.'s Principles for Responsible Banking and their investment equivalents, and to the Net Zero Banking Alliance and Asset Managers Initiative.

As we face these regulations, it can at first seem inevitable for us to centralize this or that element of our response. It appears the simplest, quickest route to compliance, the one we can control and adjust most closely. However, we keep at the front of our minds that such an assumption takes no account of the knock-on effects on our culture of trust, ownership, responsibility, and accountability. Moreover, when you multiply this assumption by all the challenges to which it might be applied, you immediately see how this leads piece by piece to the dismantling of our decentralized advantages. Hence, it pays to take time to consider all the possible solutions and not to come at the question as necessarily an "either or".

Sustainability regulation is evolving rapidly, at the national, European, and international level. Voluntary initiatives continue to be adopted into statutory frameworks, while the outline of convergence across key economies can increasingly be made out.

For us, therefore, it is important to remain adaptable to this changing picture. We cannot simply agree an approach to regulatory compliance, bake it into our decentralized operations, and turn our full focus towards monitoring and follow-up. We will need to iterate and at times substantially rewire this approach as we go, and this requires a shared understanding of the evolving principles, standards, and direction of travel.

Keeping the organization informed and on track is, therefore, a challenge. To achieve this, functions that previously had little to do with one another have established an open dialogue, while regular knowledge sharing forums have sprung up around themes ranging from scenario analysis and data sourcing to sustainable product development and customer engagement.

3.3 Example 3: Seizing customer opportunities

In a command control environment, it is superficially simple to change the business focus of all or parts of an organization. Budget lines, targets, and incentives do the heavy lifting, locked in by hands-on management, and backed up by strategic communications.

To some extent, with a decentralized approach the opposite is true. In Handelsbanken, it is customer demand that determines the business focus of the organization. Branches' business plans are built around an assessment of local market needs more than the bank's requirement to focus on selling this or that product. It has always been customer behavior and expectations that have driven our product and service development, these days picked up as much through our digital platforms and data systems as through face-to-face meetings.

This creates an unusual challenge with regard to climate change. Although our customers are becoming more aware of how their businesses and lifestyles impact the climate, plus the risks a more extreme climate poses to their lives, they are not yet all – by any means – clamoring for our support to take climate-mitigative or -adaptive action. In order to achieve our goal that financed emissions (as well as our investment portfolios and own operations) should be carbon neutral by 2040 at the latest and, therefore, align with the Paris 1.5 degree goal, we need customer action to increase substantially through this decade and beyond.

It is true that, to some extent, the policy environment in our home markets will help accelerate action. For instance, minimum energy efficiency standards and the phasing out of fossil fuel heating or the internal combustion engine. But it is equally apparent that we need – and indeed policymakers expect banks – to take a lead in stimulating market demand.

On one level, this expedient to "push the pace" creates a tension with our demand-led ethos, and thus our decentralized structure. However, we have chosen to come at it from another angle, one which resonates loudly with our core values.

For us, the starting point is the responsibility we feel to our customers. Being decentralized means that our most experienced bankers are embedded in their local communities, out in our branches, making the vast majority of the bank's credit and business decisions day in, day out. They aim to build lasting customer relationships through a focus on their long-term risks and resilience rather than short-term transactions, while the bank focuses on remaining a reliable, responsible counterparty. Together, these factors have led Handelsbanken to be viewed as a trusted partner by very many of our customers.

Through our own wide-ranging analysis and engagement, we can see the shape and scale of the sustainability risks forming around our customers. We can also see the kinds of opportunities that, through informed action, they may be able to seize in what will undoubtedly be the greatest economic transformation of our age.

We, therefore, feel a responsibility to raise these questions with our customers proactively, and to support them as they move from whatever level of awareness they may presently have, through careful assessment and strategic planning, to a plan of action. And we continue to develop our range of resources, partnerships, and incentives to support this journey.

Naturally, in many cases, the customer's action plan will require some kind of financing, and we also need to see that we have the right kinds of sustainable lending products, with the right range of features, flexible to different customers' transition and adaptation needs. In some ways, we have gone through this process already on the sustainable investment side of our business, where Handelsbanken has – through customer engagement – grown into one of Sweden's principal sustainable investment players. However, the road ahead with transition finance is not so well established and banks will need to travel faster along it.

Of course, for customers to prioritize this area, we need our branch teams to decide to do the same. This is not as simple as it might sound, when each branch is used to shaping its business plan around the local demand the team can already see and the discussions they are already having, rather than discussions we need to catalyze and then help to progress through to action.

Add to that the simple fact of life that it is easier to work within one's comfort zone. Sustainability issues are multi-dimensional, complex, and always evolving, while the fear of feeling exposed can be acute when the customer is used to you having all the answers. But as anyone who has worked for any time with these issues knows, the best way to get comfortable with them – beyond an initial grounding in the basics – is to start engaging with others on them and to learn along the way.

This is certainly what we have found through our customer engagement to date, which has really picked up pace over the last year or so. It has also been helped along by the fact that all parts of the bank, from compliance and risk through to our digital teams and branches, take a customer-centric approach. As with our regulatory work, this has led to new dialogue bridges within the organization, as colleagues look to ensure their contributions to the bank's climate change response are aligned around good customer outcomes.

4. CONCLUSION

The challenges sketched out above, along with others encountered when decentralizing sustainability, take patient, careful deliberation, and a shared determination to work through. This, in turn, requires a keen, first-hand appreciation of the benefits of working this way, which far outweigh the headaches and occasional frustrations.

Increasingly, employees in all organizations want to play a fuller role, professionally, in tackling climate change and other societal challenges. In a decentralized approach, they are that much more able to do so. Knowing this, and feeling a strong responsibility to their colleagues, customers, and communities, leads employees to take the initiative, to collaborate openly, and to develop their own knowledge. The level of discretionary effort is understandably higher in an organization characterized by trust, empowerment, and accountability.

It is also true that there are no single "right" answers to the challenges that need to be overcome on the path to a sustainable bank and economy as a whole. Better then to let a thousand flowers bloom – out in our branches, districts, digital platforms and central functions, and across our different markets – and to share what worked and what did not so that we can all learn and improve. Not only will the pool of ideas be deeper and more diverse that way, but the ideas themselves tend to be shaped by practical, on-the-ground realities rather than abstract models.

Nevertheless, not everything can or should be decentralized, and it is important not to be dogmatic, where sometimes we can see that to centralize is the only sensible decision. The measure is whether doing so will add direct value to the bank and its stakeholders, without in any way undermining our successful way of working.

Striking this balance is as much an art as it is a science; the fulcrum point can be found in a different spot from one question to the next and can shift over time. It is also critical to keep in mind the overall tendency of organizations to centralize. Dr. Wallander used the analogy of a stretched rubber band. When the fingers weaken, the band will always contract. Hence, it is important to remain vigilant as well as circumspect in our thinking, so that the fingers stay strong.

Responsible banking has become the hallmark of Handelsbanken since it was founded one and a half centuries ago. Upon these foundations, we have been working actively with decentralization for over 50 years, and with Sustainability (with a 'big S') for at least the last dozen of those. Both throw up their occasional challenges amid a rising tide of opportunity. But together, we have found them to be a natural fit – symbiotic even, with each nourishing and feeding off the other.

REDESIGNING DATA ASSIMILATION AND SOURCING STRATEGIES

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ABSTRACT

In recent years we have seen the onus shifting onto financial services firms to implement structured methodologies and metrics to identify, assess, and validate their own environmental, social, and governance (ESG) credentials along with those of the companies they finance, invest in, or use as suppliers – in effect becoming the arbiters of sound ESG practices across global markets. Delivering that validation demands a deep-dive into data that encompasses both financial and non-financial activities in order to quantify positive or negative ESG-related impacts. However, the highly complex, interlinked, and global nature of the financial services industry means this is no easy task. Greenwashing, fragmented regulations, and diverse (and sometimes divergent) ESG measurement methodologies all clutter the pathway to clear and reliable ESG evaluations. This paper outlines approaches for assessing ESG data scoping and sourcing, and sets out one specific approach/best practice for incorporating corporate ESG data strategies.

1. FINANCIAL SERVICES AND THE CASE FOR ESG DATA

"I have no data yet. It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit." Sherlock Holmes, A Scandal in Bohemia

Rarely a truer word spoken, even if uttered by a fictional detective – and particularly pertinent today in the context of ESG in financial services and the search for underlying facts in data. Since the early 2000s, when Kofi Annan, Secretary General of the United Nations, formed the U.N. Global Compact and asked 55 of the most powerful financial services CEOs to consider the holistic view of ESG,[1] the search for – and validation of – appropriate data to confirm institutions' "green" credentials has become a fundamental challenge in itself.

Historically, the financial returns challenge facing the world of finance was framed within a two-dimensional view encompassing performance and risk. From the first records of banking activity, exemplified in ancient Mesopotamian temple and grain ledgers, the core measurement and metric for returns has revolved around monetary gain and not wider social-macro benefits. The consideration of ESG risks has traditionally fallen largely outside the realms of core banking strategies – as has the consideration and collection of corresponding data.

Let us briefly review the nature of a traditional transaction: typically, a loan of some description where the agent (banker) provides a sum of money in exchange for the return of this capital at some time in the future, either over a period or in one lump sum. This facilitation of capital is rewarded for the investment in the individual or the entity, with an additional return of capital to compensate for the risk taken. The focus therein lies on the transaction and the risk accommodation between the two parties.

The parameters to price this risk are, and have always been, focused on the transaction and the individual counterparty. This was true of the Mesopotamian bankers looking at the quality of a farmer's land[2] (repayment risk modeling) and has continued through history as a core tenet of risk and reward calculation and mitigation. Even now, highly sophisticated

[1] https://bit.ly/3UNizbw
[2] https://bit.ly/3BO4Eck

credit modeling and feeds fundamentally still look at factors related to the person/entity receiving the money. It has since become more obvious that macro-societal factors, although ostensibly priced into the business model, may have a deeper and more fundamental effect on the assuredness of returns.

This paradigm has now been undermined by the realization that financial service firms have a responsibility toward wider society and the planet to consider the impact of these activities. Hence, the effects of their business on society and the environment should be priced into their products and services and considered from a wider risk modeling perspective. Supported by an impressive 28 percent annual growth rate over the past five years, the ESG data market will surpass U.S.$1.3 billion by 2022. It has been forecasted that the global market for ESG data will surpass U.S.$5 billion by 2025.[3] In an effort to bring about change, regulators and governments have taken notice: one early trailblazer was the U.K.'s Financial Conduct Authority (FCA), who earlier this year wrote a letter requesting that authorized fund managers address the delivery of sustainable investment funds.[4] Not only should firms consider traditional ESG factor valuation in terms of book value and asset value, but also the impact of encouraging ethical practice on overall longer-term value creation (intrinsic brand valuation).

As the financial service industry gets to grips with society's and regulators' needs to consider ESG in their wider product, lending, and investment approaches, we have seen a step change initially around the marketing of products and latterly the actual behavior of the financial services business itself.

As banks and financial services firms have pivoted toward a consideration of ESG factors – and in many cases embraced the opportunity to access and deploy new pools of capital – there has been a veritable flood of ESG-related products.[5] However, this opportunity brings with it the specter of overstating green credentials.[6] From oil-soaked "green" portfolios to ethical credit cards that reward users with air miles, mistakes – to put it mildly – have been made.

To address such issues, in September 2021 the U.K. Competitions and Markets Authority (CMA) published a "Green Claims Code",[7] outlining the requirements for making a valid environmental claim about a product or service. Although this is not specifically targeted at financial services firms, it is a fair proxy of wider sentiment on this issue and underlines concerns about the public being misled to further commercial interests.

A reckoning may be coming, as outlined in our report "Tomorrow's mis-selling scandal?".[8] In the meantime, the nirvana of comprehensive and credible ESG data is increasingly being pursued across financial services to support the true measurement of ESG impact and performance.

What has changed – driven in the main by regulators responding to the impetus and expanding appetite of consumers and shareholders – is the increase in accountability. From April 6th, 2022, over 1,300 of the largest U.K.-registered companies and financial institutions will have to disclose climate-related financial information on a mandatory basis via the SDR (Sustainability Disclosure Regime) – in line with recommendations from the Task Force on Climate-Related Financial Disclosures.[9] This will include many of the U.K.'s banks and insurers, so it is important for them to improve how they report their ESG metrics to move the needle now. The acquisition of supporting data has accordingly become the cornerstone of any sensible and considered ESG and sustainability strategy.[10] Without proof and empirical data, notably for rules such as Sustainable Finance Disclosure Regulation (SFDR)[11] and Corporate Sustainability and Responsibility Directive (CSRD)[12] among others, any efforts to justify, support, and communicate an ESG assertion or benefit can easily be labeled as a "greenwashing" strategy, or at worst, deception (as per the VW Dieselgate saga).[13] There have, however, been efforts towards globalizing standards. When issuing exposure drafts in March 2022, International Sustainability Standards Board (ISSB) consolidated content from the Task Force on Climate-related Financial Disclosures (TCFD), Climate Disclosure Standards Board (CDSB),

[3] https://bit.ly/3LNSXH4
[4] https://bit.ly/3dKR95c
[5] https://bloom.bg/3E0K8bm
[6] https://on.ft.com/3rcEMSD
[7] https://bit.ly/3dLiX9x
[8] https://bit.ly/3SjBSYa
[9] https://bit.ly/3xXeOWW
[10] https://on.ft.com/3xXlvbL
[11] https://bit.ly/3RdByIZ
[12] https://bit.ly/3BK0RNc
[13] https://bbc.in/2L0236V

Sustainability Accounting Standards Board (SASB), Integrated Reporting, and the World Economic Forum's International Business Council's (WEF IBC) stakeholder capitalism metrics.[14]

2. SCOPING ESG DATA STARTS HERE

2.1 The fundamental purpose of ESG in financial services

When looking at the new types of required data, we can see some obvious groupings. At the highest level these are drawn from the U.N.'s 17 Sustainable Development Goals (SDGs) and represent several pillars or groups of thematic areas that should be considered from an ESG perspective (Figure 1).

The challenge with the U.N. SDGs is that – as the name indicates – they are essentially goals and do not talk to a wider set of metrics to inform an auditable outcome. One must also consider that SDGs, although a widely recognized set of corporate imperatives, are not the only measures of ESG impact – indeed, some companies may choose to formulate their own views on critical ESG drivers. Nonetheless, whichever measure one chooses to align with, they will ultimately all require data to facilitate any measurement and adjustment of corporate strategy. With this in mind, various third parties, regulators, and data vendors have cut these SDG pillars to suit their own needs and bucketed them into relevant thematic groupings.

We have created a commonsense grouping of 20 themes derived from the original 17 SDGs (Figure 2).

This grouping within pragmatic subsets (of which Figure 2 is one potential representation) means measurement metrics can be assessed, data purchased, and/or opinions and metrics assimilated to better understand how a firm's activities impact on the overarching SDGs. From this, financial services participants can deduce how the metrics can be formed and deployed, be it for their own operations, supply chain assessments, or delivering downstream public commitments or regulatory reporting (such as SFDR amongst others). The challenge with these high-level groupings and metrics is in the detail: SFDR, for example, is somewhat prescriptive in its methodology – although this is not the case for all regulations.

2.2 ESG data – identifying your corporate needs

As is evident in the market – and reflecting the enormity of the task – a wider ESG data appreciation is typically not conducted as one overarching exercise. In order to identify needs and establish the scope of all the required data in the most comprehensive fashion, a firm-wide view of the value chain – front-to-back office and product-to-procurement – should be conducted to determine how these functions and products are mapped to regulatory needs and, by extension, the respective data requirements for these areas. When coupled

Figure 1: United Nations Sustainable Development Goals

[14] https://bit.ly/3DYGA9u

Figure 2: Thematic grouping of U.N. SDGs

Source: Capco

with wider shareholder and public commitments (such as net zero goals for carbon neutrality within a certain time scale), an overall picture of the ESG data required, and by whom, can be constructed.

Alongside regulations, public commitments, and pan-value chain needs, there is a fourth ESG data dimension – time horizons. Cost and budget implications (share of corporate cost spend) are a further, fifth dimension. Incorporating these will enable the creation of a clear "batting order" of data needs. Priorities can accordingly be set, overlaps and synergies noted, and costs and benefits prioritized to reach a view on how best to assimilate data – "why buy ESG data three times for three different users when it can be bought smarter once through a central data sharing function?" Addressing ESG data requirements for all relevant processes and actors allows for an intelligent roadmap design that underpins the required holistic approach to data assimilation.

Looking to a universal bank example, it may be the case – albeit due to a combination of ethics and good governance – that services and goods are being generated by the bank across various functions while linked to the same underlying corporate entity/client. The asset management arm is investing in the client entity, with the retail bank also providing debt, mortgages, and structured products, and the investment bank helping it raise new capital. However, when it comes to capturing and assessing ESG-related data for that client entity, legacy IT, infrastructure, procedures, and processes mean that the picture is somewhat fragmented.

All these business divisions sit separately, with aforementioned distinct governance, but the overarching need remains for ESG data that is harmonized across these divisions and could ostensibly be accommodated via one central repository – a firm-wide "golden source". As an aside: this utopian view of data would also solve for many other issues where data and architecture are key factors, with operational resilience being one example. That said, consideration should be given to the idea of ESG data as a distinct and special case. It is effectively a new type of data for financial services, one that has wide-reaching and long-term implications for firms going forward and hence – given proper investment and management – will offer enhanced shareholder value in perpetuity.

A coherent evaluation of the firm's entire value chain is required to form a comprehensive ESG profile; ESG data requirements must be considered for all products, processes, customers, and suppliers. Consider the example of greenhouse gas emissions (GHGs). If a bank has set Net Zero 2030 targets (for instance, to be GHG neutral for their own operations by 2030), then it will need to fully understand the profile of its upstream suppliers and downstream buyers (Scope 3 GHG emissions), for example, an outsourced photocopying company.

It may also be aspiring to become "funded net zero" by 2050, that is for the bank's clients to also achieve their own net zero status. If it has a 30-year mortgage or asset-backed product with the same photocopying company, the GHGs profile of this company may again need to be considered. The same GHG emissions for the same company are being scrutinized by totally different parts of the bank/firm to satisfy totally different commitments or regulations; albeit this downstream photocopying company will only have one correct GHG answer.

Using a centralized source as outlined above should prevent inconsistent interpretation of ESG data. For example, the investment banking arm of a universal bank may trade a given ESG stock while its sister asset manager refuses to include the stock in its ESG portfolios – all as a result of inconsistent access to the relevant data. This additionally serves to undermine the bank's overall ESG credibility when its divisional capabilities are not aligned in their views of the companies' green credentials. It is often the case (both anecdotally and via proprietary work we have conducted) that the holistic firm view of ESG data has been federated as a function of individual needs and the maturing and different domain requirements within the business. Many firms need answers to ESG questions at different stages of their life cycle, so a fragmented provision inevitably evolves over time. Often these are the same questions, requiring similar, if not identical, ESG data to be downloaded and surfaced from different suppliers to arrive at different answers for the same end-entity. These overlaps and differences represent not only a real risk to understanding the institution's ESG profile, but at best are a waste of money. This leads back to the original point – a full institution-wide "ESG needs" assessment should be conducted to create a "golden source" and a holistic view of the respective ESG data requirements.

Needs will adapt and data provision and quality will change over time, but without this "line in the sand" reset, disjointed – and hence inconsistent and unreliable – data provision will only endure. Proceeding with a siloed approach will ultimately introduce transverse risk and wastage across the firm. This can be designed out via a swift and decisive ESG data needs picture that can then be refreshed as required, garnering best practice and maintaining a "grip" on this most complex of data procurement conundrums. It all starts with the question: "what do we really need across the whole firm"?

A key consideration when compiling and plotting the data assimilation roadmap is that there will be a natural prioritization of ESG data needs from pre-existing programs of work, current and impending regulations, and focus within the business. To inform prioritization, it is vital to look at not only the current strategic ESG priorities (and the data needs) but also upcoming and future demands. In doing so, historic ESG data provision plus the historic book of work can be considered against future regulatory and strategic needs for ESG data. It is only when this overall picture of ESG data has been collated that a prioritization can be considered both in terms of business needs and the associated cost implications. The overall picture must be understood, as typically this is where the duplication of data procurement across different parts of the firm – be it cross-division, cross-geography, or at different stages of program maturity – results in the duplication/overlaps of ESG data in the firm.

2.3 Understanding the level of data required is key

Once it is agreed that a more formalized/unified view is required, there is a natural tendency to immediately initiate outreach to a solutions or data provider. The initial scoping approach is almost always followed by an RFP to appropriate vendors with a view to them providing an "answer" regarding who has the data and who do I buy it from. However, this "jump" to an external vendor is not without risk, and there are intermediary steps that should be considered to ensure ESG data is leveraged in an optimal fashion.

In this context, the data can encompass various provisions, feeds, and approaches – Figure 3 captures the various levels of data hierarchy. The data hierarchy outlined in Figure 3 allows firms to consider and understand more effectively the various levels of ESG data that are available in the market and what level of granularity they require for their needs.

Depending on the type of ESG information required, the appropriate data level and hence source should be identified to determine the desired combination of third-party data and any appropriate in-house proprietary data gathering and manipulation.

- Level one of the hierarchy covers data required to assess the overall ESG rating, or the specific E, S, and G ratings of a company or potentially a major thematic grouping like climate.
- Level two provides more detailed data relating to a specific sub-metric – for example, the GHG output or water pollution produced by a company.
- Level three contains the most granular level of data corresponding to the underlying "key data elements" (KDEs). The dependence on outsourced data is greatest at level one; while at level three the ESG data analysis is carried out internally based on core KDEs that have been sourced directly.

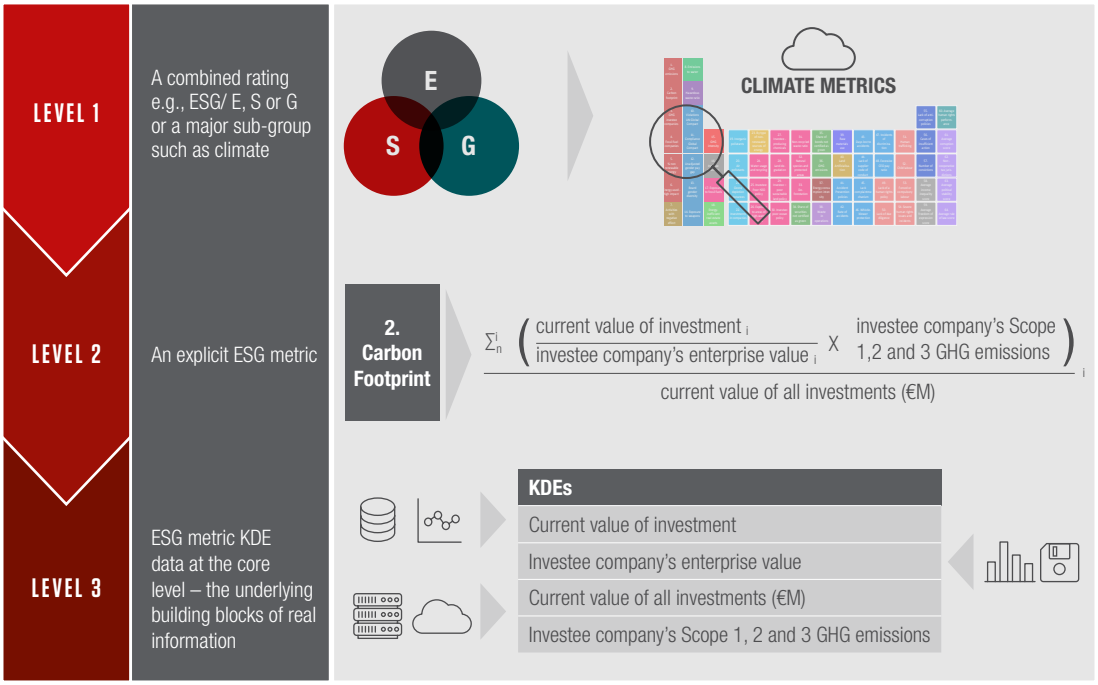
By understanding the level of granularity (levels one, two, or three) that are required by the firm in order to achieve their commercial and regulatory goals, the type and level of sophistication of inbound ESG data can, therefore, be defined. There is a wider question, which is critical to this rationale and choice, regarding what system or architecture will the data be fed into for the firm's use. This topic will be explored in more detail in a follow-up article. However, in the context of choosing the level of granularity of data required, there will need to be an understanding as to what system this data will feed into and whether this requires new systems or whether it can be integrated into pre-existing data infrastructures.

Armed with this foundational view of what they need in terms of end-use ESG data, firms will be far better positioned regarding which third-party data providers to use, the engagement approach, and the procurement model – all of which we explore in the next section.

3. SOURCING ESG DATA: QUALITY, CONSISTENCY AND CONTROL

The issue of sourcing ESG data presents some existential questions for the firm. Do I want an answer to my E, S, and G questions from a third party? Do I want individual metrics answered specifically, e.g., GHGs? Who designs the metrics/methodology, and can I trust them? Ultimately, do I only want to obtain the underlying supporting data (route data) and use it to create my own proprietary, independent metrics? The answers to these questions will facilitate a broader view of any strategic assimilation of ESG data, fundamentally providing a financial services firm's view as to what data they need to buy and at what level of manipulation.

Figure 3: Breaking down your ESG requirement into data levels



Once the required view of the underlying ESG data and its level of detail have been determined in line with the firm's ESG needs, an informed "shopping list" covering its requirements can be generated that captures all the different ESG data that need to be brought into the firm (ESG data requirements list).

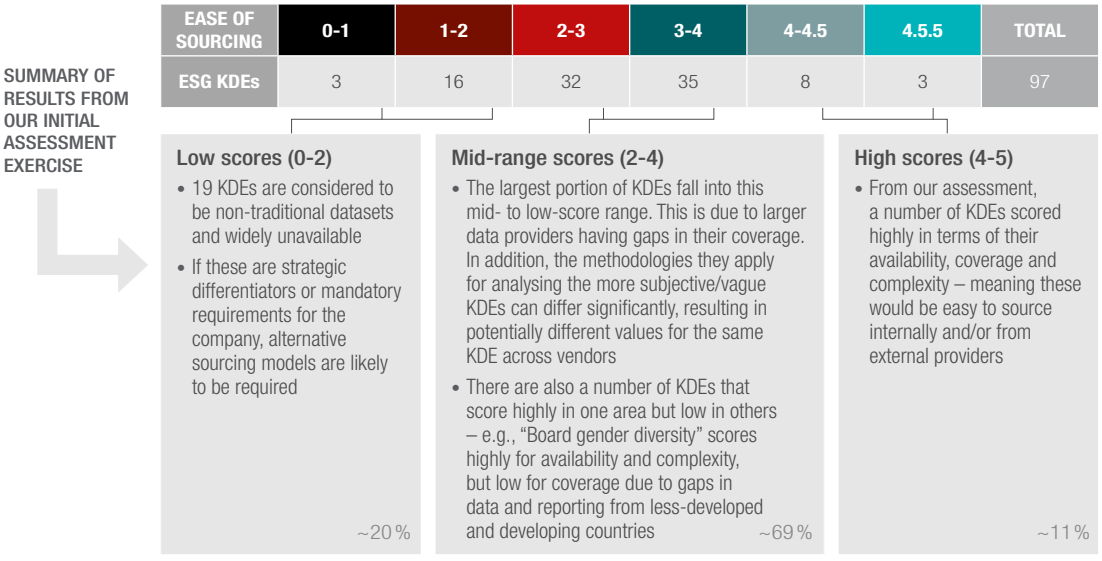
In practical terms, from a risk and data lineage integrity perspective, major institutions such as global systemically important banks (GSIBs) will likely need to source both vendor-provided data/ESG answers and the underlying route data/KDEs. Cost will no doubt be a significant factor in this strategy. Everyone wants a car that looks and performs like a Ferrari, has the environmental profile of an EV, and has the boot space of a van, all for the price of a Dacia. Data is no different – like the family car, ESG data comes with inherent compromises, hence highlighting the importance of the aforementioned pragmatic business ESG data scoping exercise, especially the ranking of business priorities (and the ESG data they need) against the associated cost of provision.

As the ESG data sector continues to grow, driven by an arms race among larger traditional ratings agencies, consolidation across data providers will continue as niche and science-based players are bought up; quality will likely increase and the choice of providers will narrow.[15] Providers should, therefore, also be assessed from both a strategic procurement and risk perspective, and not just in terms of the scoping exercise and its duration to mitigate potential long-term dependence from single significant providers (as evident in market data monopolies).

That being said, the largest providers of data will undoubtedly account for a significant proportion of the ESG data provided to most financial services firms. Whether data is bought from these larger vendors or smaller niche providers, the plethora of assertions and claims underpinning this data must be tested in a robust way. The industry is wrestling with significant holes in datasets currently, with zeros, blanks, and #REF or synthetic replacement data commonplace, highlighting the demand. In reality, this reflects the immaturity of this new type of data requirement and the associated gaps arising from customer's needs not aligning with the current availability of underlying datasets, highlighting the demand for "show me" over "tell me" reporting.[16] Essentially, nobody is currently measuring or collecting all the ESG data on downstream clients, with much of what is available being graded as "untrustworthy",[17] hence creating a disconnect in the data value chain.

Figure 4: Breakdown in complexity of ESG KDEs

Based on our assessment, circa 20% of the KDEs will require alternative sourcing models due to their unavailability and complexity. An additional 69% will represent some sourcing challenges due to gaps in the coverage of larger data providers and differences in the calculation methodologies used. Only 11% will be easy to source.



[15] https://bit.ly/3LMw7jk
[16] https://bit.ly/3BSLpys
[17] https://bit.ly/3UDeK8u

Figure 5: Recomposed metric quality as a function of underlying KDEs

Recognizing the immaturity and imperfections of ESG data, financial services firms will want to gain a clear understanding of the depth and quality of data that can be provided. Limitations reports, outlining issues, including data blind spots, should be requested from third-party providers. Identifying quality data in a saturated market is a major issue. One example of where the problem is being addressed is through initiatives where data is provided in an open source environment, such as the ESG Book, aimed at creating reliable data and countering "data issues" that arise from a lack of underlying visibility.[18] Whether private and proprietary or open source, the long run is unclear for ESG data but its importance and relevance is widely accepted.

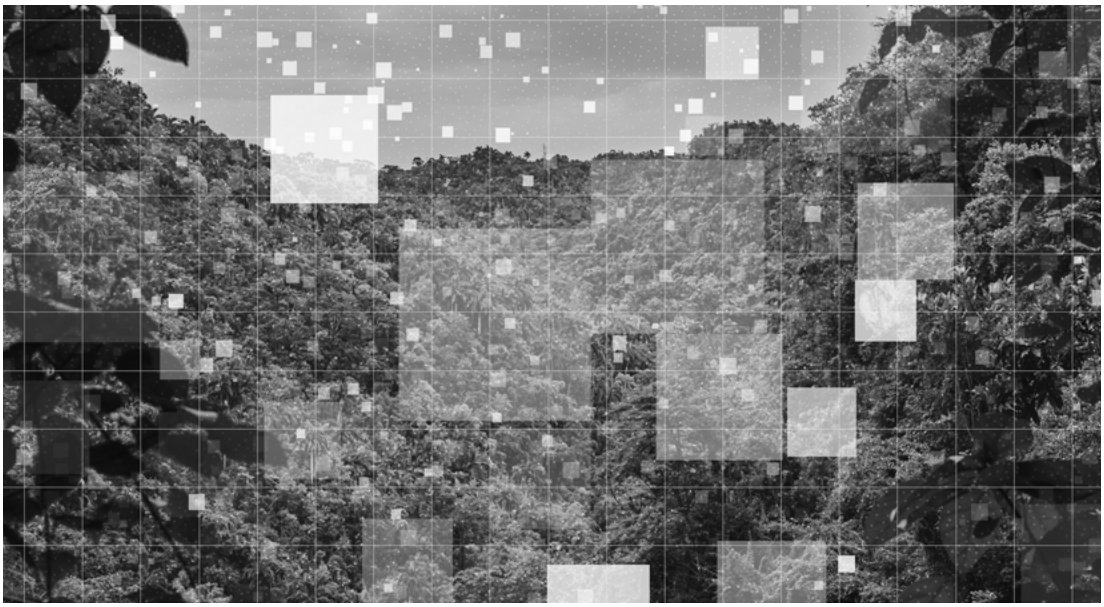
The commercial impact of poor ESG data on the end user cannot be underestimated from a reputation, brand, and regulatory perspective. As such, alongside limitation guarantees, indemnification quality assurances and commercial penalties may be considered or sought outside of traditional market data provision contracts. This approach may well create tension between ESG data and vendees, but in a new, unstructured ESG data arms race, a new partnering and provision model is likely to both be required and naturally evolve.

3.1 Digging deeper into the data – due diligence at the KDE level

Many traditional data providers may purport to be all things to all customers from an ESG data perspective – but the reality is not that clear-cut. When mapping data requirements to providers' capabilities, it is likely that the picture of available ESG data provision will be a "jigsaw", with elements of provider overlap. In order to see through providers' marketing promises, and to get to the underlying truth and gain real understanding of data quality, firms should look to establish a view of data integrity at the most fundamental level to help clear the fog around this most difficult of procurement issues.

Looking at the initial KDE assessment in Figure 4, we can see which of the underlying data elements are accessible – or "good" – and from there deduce the impact they have on the metrics that are derived from them. By extension, by recomposing the KDEs into a weighted score for an associated ESG metric, one is able to judge – and crucially demonstrate – the quality/value of the final ESG metric as a function of its fundamental data components.

[18] https://bit.ly/3xZl1Sm



We conducted a proprietary analysis that examined the quality of the core underlying KDEs that provide the "building blocks" for common ESG metrics (Figure 4). By looking at the quality of the underlying KDEs, it is possible to interpret and extrapolate the ultimate quality of the associated ESG metric. By extension, assessing the KDEs on the basis of factors such as complexity, availability, sector, market coverage, and so forth, allows firms to reach a demonstrable and quantitative measurement by which any ESG metric they use can be assessed for quality of provision and trustworthiness.

However, as Figure 4 demonstrates, the quality – and indeed availability – of the KDEs that firms may require is not guaranteed; firms may accordingly need to identify alternative data sources.

Providers will inevitably argue the merits and quality of their metrics and answers – but for true comfort, the real test of those attributes is to dig into the route data/KDEs used to inform said metrics.

The ideal approach with this analysis is to take the KDE ratings and recompose them mathematically to see the outcome on the common ESG metrics (Figure 5). The picture this paints, in terms of the quality of standard ESG metrics, might be considered somewhat stark. However, to be forewarned is forearmed and this approach significantly helps in understanding the strength and weaknesses of your ESG metrics. It follows that, when sourcing these metrics, either self-generated internally from source/KDE data or simply bought from a third party, firms are better positioned to approach providers with regards to understanding the ultimate metric quality.

We have created the recomposed metrics rating in Figure 5 to provide an overview of the reliability of a metric as a function of the underlying KDE availability. It essentially provides a map that, regardless of the provider and their assertions, flags up shortcomings in their metrics – and, accordingly, the level of skepticism with which a firm should treat those metrics.

Armed with both this map and a clear idea of their own scoping needs, the "jigsaw" of providers can be arranged to meet a firm's requirements. When it comes to more complicated and difficult ESG metrics, firms can look to bring in specialists as and when required (whether to address competitive or regulatory needs).

A "real world" example of this approach would be utilizing the larger ratings agencies to cover all geographies for general E, S, and G metrics, but also drawing upon a handful of specialist data providers for biodiversity metrics, GHGs, or specific board diversity requirements to augment those high-level E, S, and G data feeds. This "big and small" or "overarching and specialist" approach will ultimately identify a suite of data providers that are qualified to meet a firm's specific needs, factoring in commercial requirements and the final cost of provision.

This approach should provide the necessary level of comfort when a financial services organization is implementing a mass ESG data provision assimilation or procurement strategy. This strategic approach to ESG data assimilation will illustrate that an appropriate level of managerial due diligence has been conducted, a robust methodology is adopted, and this can be updated and reviewed on a timely basis. Although not an exhaustive solution, it allows for some mitigation from concentration risk – as this approach circumvents the traditional market data issue of having all your "data eggs in one basket" – while also getting to the right ESG answers at a commercially viable price.

4. CONCLUSION

Due to its dynamic, complex, and increasingly expansive nature, the ESG data landscape is challenging for firms to map, let alone navigate. The task of scoping and sourcing relevant, high-quality data can be intimidating in the extreme.

As this paper outlines, rigorously scoping ESG data requirements on the basis of the level of detail and type of information required, will offer the clearest understanding of how and where third-party data should be sourced. In the likely absence of a central "golden source" of ESG data, it is key to acknowledge the risks associated with sourcing unreliable or subjective data. Using a KDE scoring methodology, aligned to a good scoping and business-needs exercise, will inevitably reduce and mitigate some of the inherent risks in assimilating ESG data in the current immature market for its provision.

Data needs are only likely to escalate over time, in line with growing demand for "proof" of data quality and access to more comprehensive pools of data. As such, an ESG data assimilation model requires continuous revision to make relevant updates on a timely basis and as appropriate to a firm's needs. As the ESG data market expands, the potential to commercialize the data for industry utility increases. Although this market is in its infancy, being able to unambiguously prove your ESG credentials is vital to reap the longer-term commercial benefits and thrive in the impending green industrial revolution.

Whether responding to regulatory demands over the next few years or satisfying stakeholder-driven imperatives – the stick or the carrot – how a firm incorporates quality ESG data into its business strategy will be key and should be top of boardroom agendas.

Back to our old friend Sherlock Holmes: "Data! Data! Data!" he cried impatiently. "I can't make bricks without clay."[19] Time will tell, but all indications suggest the same sentiment will preoccupy leadership in financial services firms in their sustainability and ESG endeavors for some time to come.

[19] The Adventure of the Copper Beeches – a Sherlock Holmes Short Story, Sir Arthur Conan Doyle

THE SUSTAINABILITY-LINKED LOAN – CONCEPT, DEVELOPMENT, OUTLOOK

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ABSTRACT

Since the introduction of the "sustainability-linked loan" (SLL) in April 2017, the market for this lending product has grown significantly. The SLL is a loan where the interest margin is linked to the sustainability achievements of the borrower. If the borrower improves its sustainability performance, the margin decreases, and vice versa. This article provides an overview of the features of the product, currently offered by over 500 banks worldwide, including real-life examples of SLLs. It highlights market developments (quality standards for SLLs, product diversification, and growth of the syndicated SLL market) and it discusses how the risks of greenwashing that come with this product can be mitigated. The risks of greenwashing are high, which means that the parties involved will have to make a greater effort to maintain the integrity of the SLL product. We conclude with some reflections on the kind of commitment by corporates and banks that is required for keeping up the integrity of the SLL, a type of loan that is intended to contribute to the goals of the Paris Agreement and the net zero targets that many companies and banks have stated in public.

1. THE SUSTAINABILITY-LINKED LOAN

In this section, we start with highlighting the commitments that banks have made to become net zero by 2050, and the implications this has for reducing their Scope 3 emissions. We describe the features of the SLL product as a concrete example of how banks can engage with their customers on reducing their greenhouse gas emissions and deliver on other sustainability goals. We then provide some real-life examples of SLLs that have been closed. Finally, economic aspects of the SLL are discussed.

1.1 Banks focus on reducing their Scope 3 emissions

On December 4, 2018, five international banks stated: "[…] we commit to measure the climate alignment of our lending portfolio, and to explore ways to progressively steer financial flows through our core lending towards the goals of the Paris Agreement" [ING (2018)]. The statement made at COP24 is known as the Katowice commitment by BBVA, BNP Paribas, ING, Société Générale, and Standard Chartered. Through this statement these banks commit to institutionally engaging their clients to take action to meet the target of "holding the increase in the global average temperature to well below 2 °C above preindustrial levels […], recognizing that this would significantly reduce the risks and impacts of climate change" [UNFCCC (2015), art. 2.1(a)]. At COP26, November 2021 in Glasgow, these banks joined the UNEPFI governed industry initiative to aligning their lending and investment portfolios with net zero emissions by 2050 [UNEPFI (2021)].

At first sight, banks have two options for sustainable strategies to live up to their commitments to mitigate climate change. The first option is that they limit their own environmental footprint, through reducing paper usage, limiting air and car travel, using climate neutral buildings, and buying electricity from renewable energy sources (Scope 1 and 2). The second option is that they somehow engage with their retail and

business clients with the aim of reducing their environmental footprint (Scope 3). As the greenhouse gas emissions of banks are mainly driven by their employees, and not by industrial processes, the first option ought to be implemented; however, its contribution to their Katowice or net zero commitment is of relatively minor significance. As greenhouse gas emissions assigned to banks consist of 95 percent Scope 3 emissions [Lloyd et al. (2022)], the Katowice and net zero commitments show that banks take seriously the moral obligation to do justice to future generations by going beyond their traditional role description and work on mitigating climate change not only within their own organization, but mainly through engaging their clients.

The ethical stance taken by the Katowice and net zero banks can be considered as deviating from classic economic theory. According to classic economic theory, a firm can be seen as a nexus of contracts among the parties that constitute a corporation [Boatright (2014), Jensen and Meckling (1976)]. Economic theory further assumes that markets function optimally when actors are motivated by self-interest without recourse to ethical motivations [Koslowski (2012)]. This means that the Katowice and net zero banks have committed to do the right thing, ethically speaking, and may face some difficulties with living up to their commitments from a strict economic point of view. In this article, we show how the "sustainability-linked loan" (SLL) could be considered a solution to engaging with corporate clients on their sustainability achievements, while remaining within the competitive level playing field of corporate banking.

1.2 The sustainability-linked loan product[1]

In April 2017, ING introduced a lending product that couples the interest rate on a loan to the corporate client's sustainability achievements [ING (2017), Philips (2017), Schoenmaker and Schramade (2019), Kim et al. (2022)]. Companies can use these loans for their corporate purposes in general, not just for environmentally friendly projects. When the borrower's sustainability performance improves, the interest rate decreases. On the other hand, when the borrower's sustainability performance deteriorates, it will pay more interest. Originally, ING named this loan "sustainability improvement loan", thereby emphasizing that the business client's commitment to do better on sustainability is most important [ING (2019)]. In the meantime, however, the loan market associations[2] have labeled this form of loan "sustainability-linked loan", which is the recognized name of the product in the financial markets since.

The SLL comes in two different forms that represent different ways of measuring the sustainability performance of the borrower. Firstly, the sustainability performance of the borrower can be assessed by an independent, specialized environmental, social, and governance (ESG) rating agency. Based on a questionnaire regarding, for example, the company's greenhouse gas emissions (E), the company's social practices (S) and the way in which it is managed (G), the agency produces a report with an overall sustainability score for the company. Typically, the sustainability score is a natural number between 1 and 100. The better the company performs on sustainability, the higher the score. By implementing sustainable policies – for example, reducing its water consumption or improving the health and safety of its employees – a company can improve its overall sustainability score. As mentioned above, the sustainability rating agency is independent, meaning that neither the company nor the bank can influence the final sustainability score; it is determined by the analyst working for the rating agency.

In the loan agreement between the borrower and the bank, reference is made to the improvement of the sustainability score by the company. First, the company acknowledges the sustainability score as representing the actual situation in the company regarding the status of its sustainable policies, actions, and results. Second, the company undertakes to inform the rating agency during the life of the loan about its sustainable policies, actions taken, and external recognition received – to the extent that this is reasonable and practicable. Third, within the clause that formulates the pricing of the loan, it is stated that if the company improves its sustainability score by x points (say from 60 to 70), then the interest rate will decrease by y percent (say from 1 percent to 0.95 percent). Conversely, if the sustainability score for whatever reason decreases by x points (from 60 to 50), the company will incur an increased interest rate of y percent (from 1 percent to 1.05 percent). Finally, to prevent a situation in which the company benefits from the lower interest rate just by disclosing a few of its policies to the rating agency, the bank insists that

[1] This section is in part based on Mees (2020, Ch. 8).
[2] Loan Market Association (LMA), Asia Pacific LMA and Loan Syndications, and Trading Association (LSTA)

the sustainability score cannot be older than six months at the time of signing the loan agreement. In other words, the sustainability-linked loan is there to incentivize concrete and ambitious sustainable actions taken by the business client, and not just the disclosure of documents to the rating agency.

Secondly, since the introduction of the SLL, businesses and banks have discovered that, for some companies, sustainability achievements can be approximated by focusing on key performance indicators (KPIs), such as greenhouse gas emissions, renewable energy, and water consumption, rather than the sustainability score by the rating agency. To find out which sustainability issues matter most to specific industry sectors, the Sustainability Accounting Standards Board (SASB) published its Materiality Map. The SASB table specifies, for example, that circular economy in the sense of achieving zero waste in production plants matters more to one industry sector, whereas employee health and safety matters more to another sector [SASB (2022)]. To understand materiality more specifically, the Global Reporting Initiative defines: "material are those topics that have a direct or indirect impact on an organization's ability to create, preserve or erode economic, environmental and social value for itself, its stakeholders and society at large" [GRI (2022)]. By combining this with the SASB "materiality map", it follows that companies in the real economy across all industry sectors typically deal with between seven and thirteen material sustainability issues, of which at least three are most material. In practice, therefore, banks and the borrower discuss the selection of the sustainability KPIs based on sources like SASB in combination with the borrower's own materiality matrix as disclosed in their annual or integrated report.

For the selected key performance indicators, quantitative goals beyond the term of the loan should be defined. In the loan agreement a table is included, which specifies the KPIs, the historical values that have been achieved prior to entering into the loan agreement, and the quantitative values per KPI that should be achieved in the years after signing the loan agreement. The annual check of which KPI has been met determines those KPIs that should be considered when calculating the discount or the premium on the interest margin. The structure of the discount and premium mechanism that relates to the interest margin depends on the number of KPIs chosen and the relative weight of the KPIs. For example, depending on the efforts required for achieving the goal, one KPI can have a higher weight relative to another KPI.

The most challenging aspect of arranging a SLL is that the goals per KPI should be ambitious and realistic at the same time. On the one hand, the bank needs to assess the level of ambition of their client per KPI and form an opinion on the following questions: will achieving the goal of this KPI in a significant way contribute to mitigating the material ESG issue that the KPI addresses? Or, does achieving the KPI require more from the borrower than just business as usual? In any case, committing to realize the KPIs must entail the real risk that the borrower may not achieve the goal. On the other hand, it is important that the company's management believes that they can achieve the goal and is motivated to exercise efforts to stretch the organization. If the goals to be achieved are too ambitious and the borrower fails to become motivated to go the extra mile, then the contribution ("impact") of that loan to, for example, the bank's net zero target may be negligible. From experience with structuring many SLLs, we can say that striking the balance between ambition and realism regarding the KPIs is the most challenging and interesting aspect of such a structuring role.

As in the case of the ESG rating agency, banks do not impose any additional administration on the borrower when structuring a SLL based on sustainability KPIs. The main requirement is that progress on meeting the KPIs is verified by the company's independent auditor. Increasingly, auditors take up the task of providing assurance on the borrower's non-financial data. They provide their audit either in the company's annual integrated report, or in a separate sustainability report. In most cases, progress on achieving the KPIs is measured annually along with the auditor's review cycle. However, a two-yearly review cycle would also be possible.

While syndicating the €1 billion revolving credit facility for Philips in 2017, the bank structuring the ESG features of the loan was named the "sustainability coordinator". It was acknowledged by parties involved that structuring the sustainability aspects of a loan, as described above, requires different competencies than the traditional roles in a bank syndicate like coordinator, book runner, documentation agent, and facility agent. Since then, it is primarily up to the borrower and the sustainability coordinator to prepare the proposal for the syndicate banks to link the interest margin on the loan to the ESG rating or the sustainability KPIs of the borrower. Because the link to the sustainability achievements of the borrower has a direct effect on the pricing of the loan, the syndicate's approval requires consent from all lenders.

The upshot so far is that providing SLLs to corporate customers can be considered in line with the Katowice or net zero commitment that banks have expressed following the Paris Agreement. As long as the most material ESG issues of the borrower are addressed and the KPIs are sufficiently ambitious, a contribution of a SLL to a bank's net zero target can be expected. However, below we will discuss the potential obstacles that need to be overcome to prevent the SLL becoming insignificant, that is preventing them from becoming prone to greenwashing.

1.3 Examples of SLLs

Barry Callebaut is one the largest cocoa grinders in the world. The company sources cocoa from Côte d'Ivoire and Ghana, the two largest producing countries. In November 2016, the program "Forever chocolate" was launched with the aim of embedding sustainability more strongly into the business. In line with its strategic commitment to sustainability, Barry Callebaut decided in June 2017 to link the interest margin of its €750 million corporate revolving credit facility to its ESG rating issued by Sustainalytics. The facility had a tenor of five years with two extension options (5+1+1 years). At the date of signing the loan agreement, the ESG rating of Barry Callebaut was 72. It was agreed that if the ESG score rose (fell) by five points, the margin dropped (increased) by five basis points [Tepla and Duke (2020)].

Johnson Controls International (JCI) is a global diversified technology and multi-industrial company, serving a wide range of customers in over 150 countries. The company creates intelligent buildings, efficient energy solutions, integrated infrastructure, and next generation transportation systems for smart cities and communities. In 2018, JCI released their ambitious global sustainability strategy for 2025. In December 2019, JCI coupled their U.S.$3 billion revolving credit facility to three KPIs: health and safety of its employees, improving the sustainability of their products and services, and reducing JCI's own operational climate footprint. The loan was provided by a syndicate of 18 international banks [JCI (2019)].

PUMA, the manufacturer of sporting goods and branded apparel, coupled the coupon on its €250 million Schuldschein to its "10for25" strategy [PUMA (2022)]. The KPIs that PUMA has chosen are related to renewable energy usage, sustainable sourcing of raw materials, water consumption, reducing plastic bags by their clients, and community engagement [Brown (2020)]. A lower coupon will be payable when the KPIs are met. Conversely, PUMA will pay a premium when the KPIs are not achieved. Starting with an original amount of €150 million, the Schuldschein was significantly oversubscribed and was settled at €250 million.

1.4 Economics of SLLs

The policy of providing sustainability-linked loans means that banks shift their priority towards increasing lending volumes with business clients who want to invest in sustainable business processes or have already done so. Correspondingly, banks will want to decrease their lending to clients who have no plans whatsoever for a sustainable course of action. As said, engaging with business clients on improving their sustainability achievements and facilitating this by providing loans linked to those sustainability achievements, serves the purpose of living up to the commitment of steering the bank's lending portfolio towards the goals of the Paris Agreement. The ESG rating or the sustainability KPIs approximate the sustainability achievements of the business client in a holistic way, which is instrumental for the sustainability-linked loan. The question then is: does providing these loans also make sense from an economic point of view? To answer this question, we will consider the point of view of the bank's shareholders, since the situation of the other stakeholders (i.e., retail and business clients, employees, and regulators) seems less complicated.

In 2014, the Basel III regulations came into force [CRD IV (2013)]. One of the main consequences of this regulation is that the connection between the risks a bank assumes in its lending operations and the return on their investment for the bank's shareholders has become tighter. The main difference with the traditional concept of return on equity (ROE), defined as net profit as a percentage of shareholders' equity, is that equity has been replaced by $c \times RWA$ for internal capital allocation purposes, whereby the constant c is chosen to be equal to the bank's core tier-1 ratio, and RWA stands for "risk weighted assets" – that is, the risk weighted exposure of the bank towards its lending customers. This leads to the following formula being used as the basis for defining ROE under Basel III: $ROE = result/capital = result/(c \times RWA)$. Through the ratio between result and risk, the return on the shareholders' capital is now directly related to the revenues banks receive for extending their services and the risks they incur in doing so.

We can now assess the consequences for shareholders of the bank's policy to increase its lending volumes with business clients working on reducing their greenhouse gas emissions and improving on sustainability in general. As the regulators indicate [Schotten et al. (2016)], a differentiation in risk profile is likely to emerge between carbon intensive companies that strive for a green future and companies that do not take the required greenhouse gas reduction measures in time. Assets of the latter group might need to be written off before their economic life ends, potentially causing an accelerated depreciation of the bank loans that finance the respective companies. Since regulators represent the public interest in the continuity of the financial system, banks will anticipate the change in risk profile of their clients and start migrating to clients with sustainable policies sooner rather than later.

The credit risk that banks run on business clients committed to mitigating climate change decreases. Since these clients anticipate a shortage of resources soon, they are likely to be among the companies that will survive the transition towards a low carbon economy, compared with companies that do not take any measures. Following the market's transparency, however, clients with a sustainable policy will demand lower interest rates in return for their lower risk profile, causing a corresponding reduction of the bank's revenues. In fact, the phenomenon of reduced revenues from effective sustainable companies has already been observed in the financial markets [Kim et al. (2014)]. The question, then, is: will the reduction in credit risk compensate sufficiently for the reduction in revenues, leaving the equilibrium between result and risk in place?

As explained above, the SLL is based on the assumption that a slight decrease in the interest rate (i.e., result) will be accompanied by a slight decrease in the probability of default for the portfolio of companies that do significantly better on sustainability. The decrease in probability of default, all other things equal, would then lead to a decrease in risk weighted assets (RWA). The overall return for the shareholders on their equity – that is, ROE = result/(c × RWA) – could then remain stable or increase. However, a slight decrease in ROE would also be possible. Regarding the impact of improved sustainability scores and KPIs on a company's probability of default, more empirical evidence is needed to reach more definitive conclusions. Consequently, for the other stakeholders (retail and business clients, employees, and regulators), the sustainability linked loan has positive implications, whereas this remains uncertain for the shareholders until empirical studies have been published.

2. DEVELOPMENTS IN THE MARKET SINCE 2017

Since the introduction of the sustainability improvement loan in 2017, three interdependent developments have taken place: loan market associations worldwide have started to issue principles and guidance to maintain the integrity and credibility of the SLL product; the feature of linking the sustainability achievements of corporates to the price of financial products that banks provide has proliferated beyond the market for bilateral and syndicated loans; and the volume of SLL transactions has grown to such an extent that the SLL has become mainstream in the syndicated loan market.

2.1 Loan market associations set standards for SLLs

Within two years of the first SLL, in March 2019, the Loan Market Association (LMA) adopted the so-called Sustainability Linked Loan Principles (SLLP). As the LMA states: "The goal of the SLLP is to promote the development and preserve the integrity of the sustainability linked loan product by providing guidelines which capture the fundamental characteristics of these loans. In doing so, the purpose of the SLLP is also to promote sustainable development more generally. The SLLP are voluntary recommended guidelines, to be applied by market participants on a deal-by-deal basis depending on the underlying characteristics of the transaction" [LMA (2019)]. The SLLP are meant to facilitate the borrower's achievement of ambitious, predetermined sustainability performance objectives. This means that companies are encouraged to make public their sustainability strategy against the background of their overall company strategy, and to report annually about the progress they are making.

These are the main principles of SLLs. First, the selection of the KPIs should represent the borrower's material ESG challenges. The KPIs should be core to the borrower's business, they should be measurable on a consistent methodological basis, and able to be benchmarked as much as possible using an external reference like, for example, SASB. Second, the quantitative targets per KPI should be ambitious – that is, beyond business as usual – where possible compared to a benchmark or an external reference and determined on a predefined timeline, set before the origination of the loan. The targets should be based on performance levels not older than six to twelve months. Third, borrowers should at least once per annum provide the lenders with up-to-date information on their performance regarding the targets per KPI. Finally, the SLLP prescribe independent and external verification of the borrower's performance level against the targets per KPI.

In May 2021, the global loan market associations released a revised version of the SLLP, which aligns with the Sustainability-Linked Bond Principles (SLBP) as published by the ICMA in June 2020 (see below). These new versions, which were again updated in March 2022, are a further improvement and strengthening of the principles underlying sustainability-linked financial products. In addition, the loan market associations issued separate papers with further guidance on the selection of material sustainability KPIs, setting appropriate ambition levels for the targets per KPI, and preventing greenwashing by not allowing a loan to be named SLL in case the KPI mechanism does not start at signing of the loan agreement, but only later when KPIs or the target values have been established (i.e., so called "sleeping SLLs").

To conclude, the loan market associations have followed the emergence of the SLL closely. They have played their institutional role in initiating and sustaining the SLLP on time, just before the market grew significantly in 2020 and beyond, doing their best to maintain the integrity of the SLL product.

2.2 The SLL mechanism extends to other financial products

As mentioned above, PUMA coupled the coupon on its Schuldschein to five sustainability KPIs (see Section 1.3 above). This turned out to be an obvious extension of the SLL, because a Schuldschein can be regarded a term loan, which is placed with investors and held until maturity. Regarding the sustainability-linked features there is hardly any difference between a syndicated SLL and a Schuldschein.

The first financial product that included the sustainability-linked feature outside the loan and Schuldschein market was the sustainability-linked bond (SLB). In September 2019, the first SLB was issued by ENEL, a leading Italian electricity company. The KPI to which the bond coupon is linked reads: "a percentage of installed renewable generation capacity equal to or greater than 55 percent of total consolidated installed capacity. To ensure the transparency of the results, the achievement of that target (as of 30 June 2019, the figure was already equal to 45.9 percent) will be certified by a specific assurance report issued by the auditor engaged for this purpose" [ENEL (2019)]. In June 2020, ICMA released the Sustainability-Linked Bond Principles (SLBP) [ICMA (2020)]. As with the SLLP, the SLBP emphasize the selection of material KPIs, setting ambitious targets per KPI, annual reporting by the bond issuer, and independent verification of the issuer's performance against the target values per KPI.

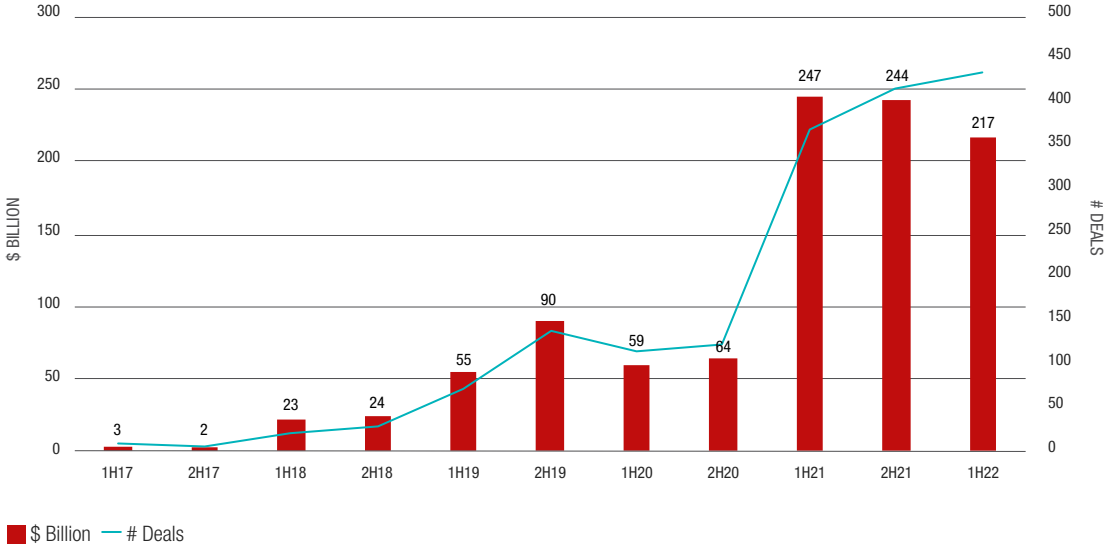
> *"Borrowers and lenders in the financial markets should share the responsibility for maintaining the integrity of sustainability-linked financial products."*

Two key differences between the SLBP and the Sustainability Linked Loan Principles (SLLP) should be noted. First, the SLBP state that "one or more KPIs" should be selected. The SLLP, on the other hand, do not mention any number, but only emphasize the importance of materiality of the KPIs and being at the core of the issuer's business. Second, both SLLP and SLBP "recommend" pre-signing external review of the KPIs and the targets by means of a "second party opinion" (SPO). However, based on our experience, the bond market seems to have implemented the practice of SPOs ex-ante much more carefully than the loan market. SPOs for syndicated loans are hardly applied.

In the meantime, the sustainability-linked derivative (SLD) has been implemented. In September 2021, ISDA has issued guidance regarding the SLD to market parties [ISDA (2021)]. SLDs create a sustainability-linked cash flow that is a component of, or relates to, a conventional derivatives instrument – for example, an interest rate or credit default swap – by using KPIs to monitor compliance with sustainability targets. Both KPIs and the corresponding pricing and cash flows can take several forms. For example, meeting a KPI can result in an increase or decrease in payments, payment of a rebate or fee, a margin, or spread amount. The same or different KPIs can apply to one or both parties to a derivatives transaction.

The most recent implementation of the sustainability-linked feature is in supply chain finance. Supply chain finance is a working capital instrument, through which a bank provides liquidity to the suppliers of a buyer by paying their invoices at a discount and allowing the buyer to pay later. Like the SLL, the rates offered to the suppliers can be linked to their sustainability achievements; for example, as approximated by an ESG rating.

Figure 1: Growth of the syndicated sustainability-linked loans market



Source: BloombergNEF

2.3 Linking syndicated loans to sustainability becomes mainstream

The impressive growth of the market for syndicated SLLs has been followed by market research firms. Bloomberg New Energy Finance (BNEF) reports a strong growth of syndicated sustainability-linked loans worldwide over the years 2017 to 2021 (Figure 1). Beginning in 2017, the global volume of SLLs that were provided by bank syndicates increased tenfold during 2018 to U.S.$47 billion, within the total market for sustainable debt, which grew by 30 percent to U.S.$315 billion in 2018 (BNEF). From there on, with a pause in 2020 due to the COVID-19 pandemic, global syndicated SLL volumes quadrupled to U.S.$491 billion, with total sustainable debt issuance reaching U.S.$1.6 trillion in 2021.

To put these figures in the context of the global syndicated loan market: global syndicated loans reached U.S.$5.3 trillion in 2018 [Dealogic (2019)], which means that sustainability-linked loans made up 0.9 percent of the entire syndicated loan market in 2018. However, the share of syndicated SLLs of the entire syndicated loan market (U.S.$5.6 trillion) grew to 8.8 percent in 2021 [Dealogic (2022)].

Given that the loan market associations provided a quality standard and the feature of linking the price of a financial product to the sustainability achievements of the issuer proliferated to bonds, derivatives, and supply chain finance, it is warranted to conclude that sustainability linked products have become mainstream in the financial markets. Moreover, according to ING analysis, in 2022 more than 500 banks worldwide are offering the SLL by means of participating in syndicated SLLs. The SLL has brought about change in the banking sector, i.e., change in the sense of integrating a tangible reward for acting to achieve the goals of the Paris Agreement and net zero commitments in the day-to-day practice of banking services to corporate customers.

3. OUTLOOK FOR SUSTAINABILITY-LINKED FINANCIAL PRODUCTS

The rise of the sustainability-linked feature in financial instruments has been followed closely by the media. More recently, both SLLs and SLBs have been criticized for allowing companies to greenwash their sustainability strategies. The E.U. considers greenwashing as “companies giving a false impression of their environmental impact or benefits. Greenwashing misleads market actors and does not give due advantage to those companies that are making the effort to green their products and activities. It ultimately leads to a less green economy” [E.U. (2020)]. Investopedia (2022) defines greenwashing as “an unsubstantiated claim to deceive consumers into believing that a company’s products are environmentally friendly”.

The principles and guidance that the loan market associations have issued (see Section 2.1 above) emphasize the importance of maintaining the integrity and credibility of the sustainability-linked loan and bond markets. This means that banks should withstand the pressure to greenwash their client's weak sustainability plans in the competitive, commercial struggle to win a mandate to structure a sustainability-linked loan or bond. It belongs to the fiduciary duty of banks to ensure that the money of deposit holders and investors is allocated to borrowers and issuers who truly live up to their sustainability commitments. Banks assess the credibility of these commitments. In this section, we will further lay out what it means for a SLL to be credible and how banks should maintain the integrity of this product.

3.1 SLLs address a company's material sustainability issues

To begin with, sustainable development is considered a comprehensive concept as formulated by the U.N. in the original report "Our common future" [WCED (1987)] and adopted at the Earth Summit in Rio de Janeiro (1992). Since then, sustainable development has been worked out in the U.N. Sustainable Development Goals (SDGs), which were adopted in 2015. Sustainability means that we cannot focus on one goal, for example, mitigating climate change, while neglecting other goals like, for example, famine relief. The U.N. 2030 Agenda for Sustainable Development is about realizing all 17 SDGs, not just a subset. The SDGs mutually depend on each other. To preserve the planet for future generations the full U.N. sustainable development agenda must be realized during this decade of action, 2020-2030.

Having said that, it should be noted that no private company can realize all the SDGs on its own. Some sustainability issues matter more to a business than others. For example, a company's business processes may be more related to clean water and sanitation (SDG 6), whereas another company's business processes could be strongly related to industry, innovation, and infrastructure (SDG 9).

Given the all-encompassing nature of sustainable development, the above means that a company's sustainability strategy can be called credible once it addresses the significant material sustainability issues that the company faces. Making our best effort to bring sustainable development further means that our strategies must tackle the material sustainability issues inherent to our business processes. We should do substantially more than solving the "easy" issues, or the ones that might not even be material. Consequently, when playing a significant role in a sustainability-linked loan transaction (e.g., as sustainability coordinator, documentation agent, or bookrunner), banks should promote tackling a minimum of three material sustainability issues with respective KPIs. Three KPIs is the minimum number of most material ESG issues that companies face across industry sectors. Where possible, and when the industry's materiality matrix so prescribes, more KPIs related to material sustainability issues should be added.

A recent example of an industrywide initiative to agree on the material sustainability issues for the sector is the Net Zero Steel Sector Strategy [NZSI (2022)]. Eight leading steel producers have agreed on a pathway that should lead to 50 percent greenhouse gas emission reduction by 2030 and net zero emissions by 2050, thereby keeping alive the 1.5 °C scenario of the Paris Agreement. The sector will, for example, increase the use of scrap steel, make investments now that are compatible with this strategy, increase the use of green hydrogen, and disrupt today's dominant technology (the blast furnace) to make it more sustainable.

3.2 SLLs incentivize achieving ambitious sustainability targets

Despite stronger efforts worldwide to act on the SDGs, concerns voiced by scientists that the affluent countries are not doing enough are becoming louder. The IPCC 6th Assessment Report [IPCC (2021)] expresses these concerns more explicitly than ever before. This means that, while we focus on the material sustainability issues of companies, an important question is: which sustainability targets can be considered ambitious? It is obvious that global business is crucially important to taking the SDGs further; governments and individual citizens cannot do this alone. All players in the world economy face the task of addressing climate change and realizing a sustainable economy that is resilient in the future. Thus, it is a must that all players in the economy take their responsibility to make a resilient economy happen.

Taking significant steps beyond business-as-usual means setting ambitious targets for tackling material sustainability issues by stretching oneself and the company. An ambition that does not entail the risk of failure cannot be considered a credible ambition. Being ambitious on material sustainability issues means that companies and their representatives do their utmost in good faith to execute all reasonable courses of action required to solve the issue.

However, for many of us, committing oneself to an ambition reveals another risk: self-certification or self-approval. The credibility of defining a sustainability strategy without external review may be questioned. To mitigate this risk in setting target levels for sustainability KPIs, the SLLP and SLBP strongly recommend referring to authoritative, independent sources of sustainability pathways like the Science-Based Target initiative [SBTi (2022)] or the Transition Pathway Initiative [TPI (2022)]. In addition, credibility is gained if one can show that if all businesses in the company's industry sector would set the same target, for example, as provided by the SBTi or the International Energy Agency [IEA (2022)], the entire sector would be in line with the goals of the Paris Agreement. These independent bodies set clear transition pathways for companies and form a solid basis for a sustainability-linked financing structure. Finally, in line with the SLLP and SLBP, companies and banks should let target levels for sustainability KPIs be verified by a reputable second party opinion (SPO) provider.

3.3 A credible sustainability strategy means acting now, not later

A recent report by the Cambridge Sustainability Commissions highlights the challenges of the behavioral change that is required for attaining the goals of the Paris Agreement [Newell et al. (2021)]. Significant steps are urgently required to make our food, transport, and energy habits more sustainable. We should see, for example, linearly decreasing greenhouse gas emission reduction pathways linked to an abatement curve and corresponding investment plan, or linearly increasing recycling rates for waste. Even better, we would like to see companies taking the most difficult actions first.

At the same time, we acknowledge that the financing calendar of companies may not always match with their strategic review timetable. The review of the company's sustainability strategy may fall in the middle of the tenor of the loan to be linked to the sustainability KPIs. Consequently, we understand that companies would like to include certain provisions in SLL documentation to enable them to include the sustainability KPIs more easily later. However, staying true to the SLLP, when structuring a SLL with KPIs that will be set after signing the loan agreement, a robust process should be in place to ensure the quality of the KPIs including agreement with the lenders. Only when the entire framework has been implemented in loan documentation and is activated, it can be communicated in public as a SLL.

3.4 A credible sustainability strategy is not about corporate philanthropy

Recently, we have seen a few SLL transactions where the discount and/or premium on the interest margin were donated to a charity. Banks should be reluctant to promote this practice for the following reasons.

First, a bank's business model by regulation is based on risk and reward, which means that low risks can be priced modestly, whereas higher risks require a higher price. Since it is becoming clearer every day that the sustainability domain and the credit risk domain are getting closer to each other, companies without a credible sustainability strategy mean a higher credit risk to lenders. This is emphasized by Standard & Poors who state: "ESG credit factors are those ESG factors that can materially influence the creditworthiness of a rated entity or issue and for which we have sufficient visibility and certainty to include in our credit rating analysis" [S&P (2021)]. Consequently, being asked to donate the premium to compensate for the higher credit risk is something we deem misaligned with the business model that banks operate. Lenders also do not do this when applying usual margin ratchets, commonly used in loan facilities. These are mechanisms whereby the initial margin is reduced as and when the borrower receives a better financial position.

Second, the charity mechanism leads to divergence of the loan market and the bond market, instead of aligning these markets around the sustainability-linked feature. The SLLP and SLBP do not mention the charity construct whatsoever. We, therefore, consider using charities in financial products confusing for the market parties involved.

Third, the reporting of these donations is not transparent. ING reports on its economic value generated and distributed from operations towards different stakeholder groups (suppliers, employees, shareholders, governments, and community) [ING (2020)]. The donations to charities, as we see them in a few deals, do not show up in financial reporting. In addition, drafting a separate report for these donations, like for the purpose of tax reporting, is cumbersome and does not contribute to making a sustainability impact.

4. CONCLUDING REFLECTIONS ON NET ZERO COMMITMENTS AND THE SLL

In this paper, we have reflected on a few recent developments in the sustainable finance market. As the architect and initiator of banking products that link the sustainability achievements of clients to the price of these products, we are concerned about the credibility of this market [ING (2021)]. Given the enormous growth of the market for sustainability-linked financial products and their potential for helping to make the real economy more sustainable, we want to be clear on where we stand on the risks of being satisfied with realizing too few, not very ambitious sustainability KPIs at some point in the distant future. In other words, the risk of the SLL slipping into insignificance because all parties greenwash each other, is simply high.

This means that while they are part of the competitive level playing field of winning mandates for SLLs in the commercial relationships to their clients, banks face a few "on-the-spot burdens" (see Section 3), which could lead to a deterioration of the credibility of SLL products [Mees (2020)]. The on-the-spot commercial pressure to give in to a proposal with too few, not very ambitious sustainability KPIs to be realized at some point in the distant future, can become a motivational roadblock, resulting in greenwashing. Because greenwashing does not lead to a green economy, such on-the-spot burden can hamper realizing the net zero goal the bank has committed to. In fact, greenwashing is increasingly hindering the achievement of banks' net zero commitments.

An important question is: which institutional policies, or which "ex-ante burdens" should we then accept to prevent the risk of using the SLL as a greenwashing tool? Which institutional commitments are strong enough to prevent bankers from allowing SLL to slip into an easy greenwashing exercise?

Since we have conceptualized a bank as a nexus of contracts (see Section 1.1), keeping up the integrity and credibility of the SLL may involve a renegotiation of these contracts with the stakeholders. For example, as we have seen in Section 1.4, the SLL may or may not be in the short-term interest of all the bank's stakeholders, in particular the shareholders. To reach a new equilibrium in the relationships with the stakeholders, banks will need to show a commitment to proceed with implementing their net zero commitment, which may be stronger than the commitment we have seen to be required for a sustainable strategy generally.

Very similar to Mario Draghi, the former president of the European Central Bank, in my view, a commitment is required from banks to achieve net zero "whatever it takes". A commitment of "whatever it takes" enables banks to overcome the commercial pressures to greenwash their clients' weak sustainability strategies, without losing the sensibilities to learn from one's mistakes and the ability to receive feedback from the market. The commitment of "whatever it takes" entails a particular meta-decision to overcome the motivational problems that one will come across when being faced with a greenwashing case. By taking the meta-decision to commit oneself to a net zero pathway, "whatever it takes" will enable bankers to overcome the heavy on-the-spot burdens when being confronted with greenwashing situations [Mees (2020)].

Borrowers and lenders in the financial markets should share the responsibility for maintaining the integrity of sustainability-linked financial products. Market parties should voluntarily do their best to preserve the integrity and credibility of sustainability-linked financial products; for example, in line with the goals of the Paris Agreement and their net zero commitments. Best efforts to be understood as doing one's utmost in good faith to execute all reasonable courses of action that are required to solve the issue. Sustainability-linked financial products are a tool that help companies to transition to a sustainable economy, by incentivizing them to act now on material, ambitious, and predefined sustainability performance objectives.

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INSIGHTS INTO SUCCESSFUL ESG IMPLEMENTATION IN ORGANIZATIONS

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ABSTRACT

In a world where organizations are increasingly held accountable for the impact of their operations on the environment and society, ESG reporting and metrics have emerged as the primary paradigm for assessing an organization's sustainability efforts. Yet, it is an area with competing concepts, an ever-expanding set of measures and requirements, and a growing ratings and standards industry. In this article, we discuss how ESG initiatives and measurements can help organizations create value rather than merely being a compliance exercise. First, we emphasize the importance of ESG reporting and ratings for organizations, notwithstanding their limitations. Second, we highlight the need for transparency of the ESG metrics and activities being implemented by organizations and the priority of avoiding greenwashing. Finally, we stress the requirement of senior management involvement and accountability in ESG initiatives that create long-term value.

1. INTRODUCTION

The popularity of the topic "environmental, social, and corporate governance" (ESG) has increased dramatically in the past few years, not just among investors but also among the general public (Figure 1). This trend reflects current societal expectations that organizations need to be held accountable for the environmental and social impact of their business activities and has resulted in the emergence of ESG as the main paradigm through which a company's efforts towards sustainable development are evaluated [MacNeil and Esser (2022)]. Investors particularly, are demanding that organizations disclose specific, measurable, and transparent non-financial ESG metrics that they systematically incorporate into their decision-making [Taylor (2017)]. Moreover, by March 2022, over 4,390 investors managing around U.S.$121 trillion had adopted the Principles for Responsible Investment (PRI), a United Nations-supported network of investors and financial institutions that work together to implement ESG-related factors in their investment decisions [PRI (2022)].

The growing relevance of ESG-related information for investors is largely due to the recognition that ESG factors present material risks that affect an organization's ability to create long-term value [Edmans (2022)]. Indeed, empirical research supports that organizations with environmental and social policies in place achieve better financial and stock market performance than their counterparts [Eccles et al. (2012)]. What this means for organizations is twofold, first; increasingly, companies are expected to develop ESG strategies to stay competitive, and second; the supply of financial capital is becoming tied to their ESG performance, which investors evaluate both qualitatively and quantitative through ESG reports, metrics, and scores.

This demand on organizations to focus on their ESG performance is an opportunity to move away from a short-term profit-maximization perspective towards a broader, longer-term understanding of value that considers not just economic value but also social and environmental value. However, too much investor pressure and an over-reliance on metrics can

also result in ESG initiatives that are worthless and become a box-ticking exercise [Taylor (2017)]. There are numerous examples of organizations that use their ESG practices as a PR and marketing tool, but there are also encouraging examples of organizations that have embraced this opportunity to integrate ESG challenges into their daily decision-making and operations, creating a unique competitive advantage [Serafeim (2020)].

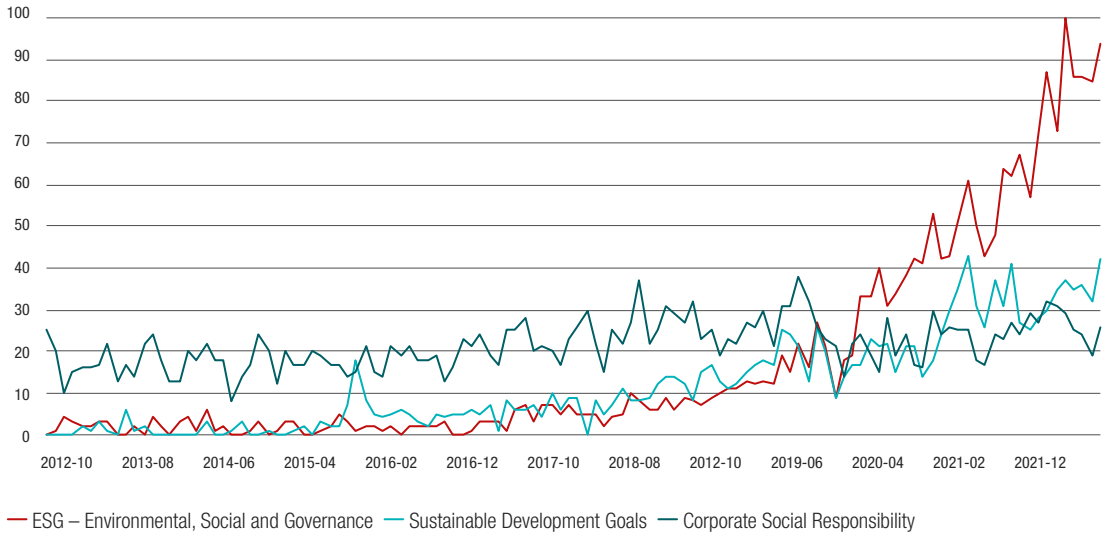
In this article, we start by briefly reviewing the emergence and development of the ESG concept, which is distinct yet related to "corporate social responsibility" (CSR) and sustainable development. Second, we review some of the key measurements and ESG ratings and their providers. This is an increasingly competitive and developing market where many providers have created their own indexes and methodologies to assess the ESG performance of organizations. Finally, we share our thoughts on how ESG can become a value-creation tool for organizations and not just a set of meaningless metrics. In this sense, we highlight the importance of ESG reporting and metrics despite their imperfections, the priority of transparency and staying away from greenwashing, and the need for senior management commitment to implement value creating ESG initiatives that are core to the organization's activities.

2. EMERGENCE OF ESG

Historically, the social responsibility of organizations has been mostly connected to creating better living conditions for their employees and communities through, for example, funding hospitals, care homes, or orphanages [Chaffee (2017)]. Nonetheless, it was not until the mid-nineteenth century that the obligations of organizations towards society were explicitly defined, leading to the emergence of the concept of corporate social responsibility (CSR), understood as a decision-making process that could be implemented through models and frameworks, and which allowed organizations to consider the impact of their business operations on society [Latapí Agudelo et al. (2019)]. Although the concept of CSR has evolved to incorporate both social and environmental concerns, it has maintained this original connection to social accountability and is ultimately about organizations behaving ethically as they pursue their business goals [MacNeil and Esser (2022)].

Recently, however, and to a great extent driven by the rise in climate change concerns, organizations, governments, and other stakeholders are turning their attention to ESG initiatives and strategies as a more focused and "tangible" alternative to CSR, to evaluate an organization's contribution to sustainable development[1] and the United Nations Sustainable Development Goals (SDGs) (Figure 2).

Figure 1: Interest in ESG topics over time



Note: The graph shows the great growth of interest in the topic of ESG in Google trends, particularly in the last five years.
Source: https://bit.ly/3CNbD6W

[1] We follow the "Brundtland Report" and define sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [(U.N. (1987)].

The concept of ESG emerged in the 1990s as a response to investor pressures to understand the exposure of their portfolios to material risks related to environmental (e.g., carbon emissions), social (e.g., workforce diversity), or governance (e.g., transparency) issues and has a clear finance focus, in contrast to the ethics focus of CSR. The ESG approach or paradigm involves identifying, assessing, and reporting, both qualitatively and quantitatively, risks to an organization's ability to generate long-term financial returns, which derive from their exposure to environmental, social, and governance issues [MacNeil and Esser (2022)].

Although ESG has a very different focus to CSR, the two concepts are related, as they are both tools or frameworks that organizations can implement to understand how they can contribute to sustainable development. While the implementation of CSR reflects an organization's commitment to considering and addressing social and environmental challenges, ESG initiatives enable this effort and commitment to be measured and communicated so that external audiences, such as investors, consumers, or regulators, can evaluate them [Daugaard and Ding (2022)]. A key difference between the two approaches is that the ESG model, in which ESG factors are incorporated into investors' capital allocation decisions, presents a major shift of responsibility from the board of directors to investors in driving organizations' efforts in addressing major environmental and social challenges [PRI (2016)].

The growing societal concerns around environmental and social issues, and the increased urgency in tackling the SDGs and "grand challenges", have resulted in the need to measure our progress towards specific environmental and social goals, such as carbon reductions, board diversity, etc. This trend has favored the financial ESG model, which has emerged as the dominant approach worldwide and is reflected in the current plethora of ESG reporting initiatives, metrics, ratings, and regulatory rules [MacNeil and Esser (2022)].

3. ESG REPORTING, METRICS, AND STANDARDS

When organizations start to think about ESG, a central concern is often how to communicate their ESG initiatives and their impact to stakeholders. In this sense, it is important to understand the main ESG reporting initiatives, ratings, and metrics, as well as what is exactly being measured and how. In this section, we analyze some of the current key actors, rating providers, and what they capture.

3.1 Key actors

3.1.1 PRIVATE RATING AGENCIES

Since the ESG market is not yet fully mature, there is no market concentration and a wide variety of ESG indices and measures are being provided by different organizations. Large and well-known ESG providers include companies such as

Figure 2: U.N. Sustainable Development Goals (SDGs)

Source: https://bit.ly/3MjHiAl

Sustainalytics and MSCI. Data and media conglomerates such as Thomson Reuters and Bloomberg have also developed their own methodology to calculate ESG ratings. In addition, traditional ratings and index providers such as Fitch, Moody's, and S&P now also provide ESG ratings and indices. This has happened via the expansion of current teams or the acquisition of specialized companies such as RobescoSAM by S&P in November 2019. Finally, although these large companies have moved in, there are still successful specialized ESG ratings companies such as GRESB, which is the most well-known ESG rating provider in the real estate and infrastructure industries.

3.1.2 INTERNATIONAL ORGANIZATIONS AND ESG REPORTING INITIATIVES

Companies interested in adopting more sustainable practices and ESG initiatives do not only rely on ESG rating agencies, "international organizations" have also had a preeminent role in setting standards, frameworks, and guidelines regarding sustainability reporting.

For example, there has been growing relevance and visibility of international events such as the U.N. Climate Change Conference (COP) where governments and companies have actively participated and signed major climate pacts (COP26 – Glasgow Climate Pact). One of the world's largest voluntary corporate sustainability initiatives, Principles for Responsible Investment (PRI), is also supported by the United Nations. Founded in 2005, this initiative is now internationally recognized and has over 7000 corporate signatories in over 135 countries. The Organization for Economic Cooperation and Development (OECD) has also released numerous in-depth assessments and reports on ESG, focusing on themes such as investment practices [Boffo and Patalano (2020)] and metrics [OECD (2022)].

Relevant frameworks and reporting initiatives, including Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB), have also been successful. It is important to point out that there has been an even larger array of impactful reporting and sustainable standards initiatives regarding climate crises. For example, the Taskforce on Climate-Related Financial Disclosures (TCFD) was created in 2015 and launched at COP21 in Paris focusing on climate-related risk and opportunities and is now mandatory in the U.K. for large businesses. More recently, the International Sustainability Standards Board (ISSB), established at COP26, has been discussing and consulting on global sustainability and climate-related disclosure requirement standards.

3.2 Decomposing the metrics

ESG metrics are varied and rating companies can analyze from 120 to almost 200 key metrics and sub-metrics [Boffo and Patalano (2020)]. Weights and the relative importance of each of the letters also differs, E factors tend to be close to half of the weight for many providers. Consequently, rather than only aggregating all the metrics in a final number or score it is important to understand what is being measured and included in the main ratings at a more micro level. This article will not provide an exhaustive listing of all the metrics but will show how some themes are universal among different providers and how different providers might also choose to add different measures.

3.2.1 ENVIRONMENT

Environment metrics have been developed and refined in the last decades. Several of these metrics have been part of a large movement focusing on environmental sustainability and green movements around the world.

Recently, many companies have announced ambitious plans regarding the reduction of emissions in the next decades or carbon policies for the next few years and decades. These include around a third of the U.K.'s biggest companies (30 of the U.K.'s FTSE100 companies) signing up for the United Nation's Race to Zero campaign in 2021. These campaigns have also included, paradoxically, oil companies such as BP and Shell that have announced an ambition to reduce emissions or even become net zero companies.

Yet, it is still important to try to understand how these statements and commitments are measured. Among the main ESG rating providers, environmental metrics captured include pollution, emissions, waste, and energy efficiency data. Broadly speaking, companies should think about how their activities impact, and how they can measure, air pollution (including greenhouse gas emission), biodiversity or habitat impact, contamination, energy sources/use, water use/impact, waste management procedures, resource efficiency, and materials sourcing and impact.

Even in such an established field, there will be different emphasis placed on different emissions by different agencies, such as Bloomberg's focus on carbon emissions. Ratings can also vary depending on a company's emphasis on waste (disposal/pollution), resource use and depletion, and renewable energy. Other rating agencies will also include investment and development of environmental innovation metrics (i.e., Thomson Reuters) or environmental opportunities

(i.e., MSCI). Nonetheless, nowadays most "E" ratings focus mostly on the disclosure/existence of measurement of environmental targets, objectives, and policies rather than transition frameworks or more innovative investments in climate mitigation and renewable energy [OECD (2022)].

3.2.2 SOCIAL

Social issues are a broad category to measure. Consequently, measuring social factors can lead to an even greater discrepancy among funds' S scores. Broad topics such as human rights are taken into consideration within this category by different providers [Boffo and Patalano (2020)]. Health and safety measures can refer to the community, supply chain, customers, employees, and contracts. Discrimination and diversity in the workforce are also clear statistics that can be measured. Freedom of association/unionizing has also been included by some ESG rating companies.

Community relations in areas where the companies operate are a clear topic of interest in the measures. They can focus on stakeholder relations, community development, partnership with social enterprises, or even on stakeholder opposition (MSCI).

A broad category of customer satisfaction has been included within the social rating. Some ratings have refined it to product liability or responsibility (Thomson Reuters, MSCI), which are not only related to social issues but also consumer goods legislation.

Topics related to labor standards and working conditions are also measured. Particularly the controls and measures in place in the companies and supply chains regarding illegal practices such as modern-day slavery (compulsory/forced labor) and child labor.

There is an overlap between some of the potential social and governance measures. Many of the measures can take into consideration how companies interact with society but also internal social factors and inequalities within the company.

3.2.3 GOVERNANCE

Governance is a key feature of management. Arguably, it is one of the key sources of competitive advantage for companies and how to design and implement good governance is taught by business schools around the world. Furthermore, corporate social responsibility (CSR) departments are, or have been, included in a variety of organizational structures.

Governance is currently mainly measured by managerial and board level metrics. Board/management measures can include the composition of the board, board-chair independence, executive compensation independence and composition of the compensation committee, and audit committee independence and structure. Operation measures can relate to anticorruption measures, political contribution, data protection and cybersecurity, fiduciary duty, fraud, political contributions, and protection of whistleblowers.

4. DISCUSSION – ORGANIZATIONAL IMPLEMENTATION OF ESG STRATEGIES FOR VALUE CREATION

The emergence of ESG as the leading paradigm to evaluate an organization's sustainability performance (via the exposure to risks lens) leaves managers facing the challenge of which ESG metrics to implement and how to measure them (point 1). Furthermore, the reliance of the ESG paradigm on metrics and reporting without proper transparency can result in a greenwashing exercise that does not lead to long-term value creation (point 2). Finally, managerial support is needed for a successful ESG strategy leading to value creation (point 3). It is worth mentioning that in the context of ESG, and sustainability in general, a long-term perspective on value is necessary [Flammer and Bansal (2017)] as well as a broad conceptualization of value, where not just economic value is considered but also social and environmental value.

Below, we discuss in a bit more detail what we believe are the important issues that organizations need to consider to derive value from their ESG initiatives.

4.1 ESG metrics are not perfect but necessary

The first challenge an organization will face is the lack of alignment between the different ratings, ESG standards, and ESG reporting initiatives. As explained earlier, different ESG rating agencies measure different things. This has led to some confusion about how ESG metrics are measured and what are the most determinant performance metrics, resulting in some criticisms from the press [Economist (2022)] as well as open confrontation of public business figures, such as Elon Musk questioning the logic of his electric car company, Tesla, being removed from S&P 500 index dedicated to companies excelling at ESG, while major oil companies were still included.

In any rating, there will always be room for discretionary, or ambiguous choices on what parameters should be included and how to weigh them. Hence, it is not only ESG ratings that suffer from such issues. In fact, it is important to remember that even traditional credit ratings of companies with decades of proven performance are still susceptible to error and criticism. For example, well-established traditional rating agencies (Moody's/S&P/Fitch Rating) were very criticized for the ratings they had issued in the run-up to the 2008 financial crisis and ended up paying fines to U.S. federal and state authorities [Freifeld (2017)].

Auditing companies have also not been immune from such criticisms, with Ernst & Young's Wirecard audits and KPMG's failures with Carillion audits receiving international attention [Makortoff (2022)]. However, even though there have been some controversies related to these important companies, auditing companies are still very important developers of metrics used to assess the management of companies and the likelihood of receiving investments. Consequently, it is important to remember that ESG measurements are still a work in progress.

In any case, ESG reporting, metrics, and ratings are important because they allow external audiences (investors, regulators, shareholders, etc.) to form a picture of an organization's current ESG-related practices, the extent to which its operations are exposed to environmental and social risks, and the issues they need to address to improve their ESG performance. Moreover, organizations will find value in comparing their ESG metrics and performance ratings with their peers, within the same industry as well as across industries.

Rather than focusing on one metric, a more sensible approach for organizations is to improve on a wide range of metrics within the E, S, or G framework. This can lead to a broader positive societal impact and less exposure to changes or rebalancing of specific ESG performance ratings.

Governments have been trying to catch up and regulations regarding mandatory ESG reporting and several other initiatives have been discussed in the U.K., Switzerland, the E.U., the U.S., and many other parts of the world. Consequently, there has been an evolution of the value of ESG ratings from simply voluntary standards adopted by some companies following a wide range of measurements, to the diffusion of more established and accepted metrics.

Furthermore, it is expected that ESG ratings will converge, or de facto standards will emerge, as has been the case in the real estate industry, with GRESB's real estate index now being accepted globally as the industry's sustainability standard [Gradillas et al. (2021)]. It is expected that there will be a concentration and consolidation of ESG rating providers and, hence, a clearer consensus of what are the most relevant metrics and standards within each industry, enabling comparison of sustainability performance across organizations in the same industry.

To conclude, ESG reporting initiatives and metrics are not perfect, and they will never be perfect (as any metric), but they are being refined and improved. ESG reporting and metrics are important because they convey relevant ESG information that allows better decision-making for investors, consumers, governments, and regulators. Organizations should, therefore, implement ESG reporting initiatives or standards that best fit their needs despite their limitations. As we have seen in real estate, eventually comparable metrics will emerge so that investors can assess and compare not just the extent to which companies are exposed to ESG-related risks but also the ability of organizations to create long-term value through their ESG strategy.

5. TRANSPARENCY AND STAYING AWAY FROM GREENWASHING ARE A MUST

Companies are facing increased pressures to disclose ESG-related information, both qualitative and quantitative, that allows external audiences to assess their sustainability performance. These pressures are mostly driven by the understanding that ESG factors present material risks that can affect an organization's ability to generate financial returns [Sharma and Aragon-Correa (2005)]. However, as mentioned earlier, it is not just investors, but also governments, regulators, consumers, and society in general, that are demanding access to ESG information to make better decisions and choices. It is, therefore, tempting for organizations to engage in ESG initiatives as a marketing or PR exercise, and this is indeed the case for many companies. Nonetheless, investors and other stakeholders are becoming increasingly sophisticated at identifying worthless ESG activities, which are being discounted as greenwashing. For example, the efforts of McDonald's to be perceived as supporting diversity by increasing the number of women and minorities in senior roles were thwarted by a discrimination suit in the U.S. by black franchisees who claimed to have been treated less favorably than white franchise owners [Taylor (2017)].

Organizations are increasingly being scrutinized for their ESG initiatives and those perceived as greenwashing face severe credibility and reputation damage. Furthermore, greenwashing has moved from only a reputational concern to investigations and legal sanctions in certain countries (i.e., France) and in some industries (financial). Managers, particularly directors, with their fiduciary duties must be aware of these risks and engage in coherent ESG initiatives that avoid greenwashing. For instance, ESG metrics should not be regarded as balancing themselves out, so that increasing the diversity of staff, for example, does not give leeway for an organization to pollute more without impacting their overall ESG performance. The risk of being perceived as engaging in greenwashing activities can to some extent be addressed with transparency.

Transparency in ESG should truly reflect an organization's long-term commitment to considering the environmental and social impact of its business activities. In this sense, organizations should focus on not just explaining how they address the negative externalities caused by their operations, such as reducing their carbon emissions, but also on explaining their efforts to create a positive environmental or social impact; for instance, by promoting inclusiveness through designing clothes for people with disabilities. In addition, when considering disclosing ESG information, companies are also encouraged to be transparent in relation to their failures. Natura, for example, a Brazilian cosmetics company, clearly communicates its sustainability targets in its integrated annual report, as well as its progress towards those targets whether that progress has been positive or not. Natura believed that this honest, open approach was important to developing a dialogue with its stakeholders [Eccles et al. (2012)].

Beyond reputation and credibility, transparency in ESG also has obvious financial implications. First, a company's ESG disclosure and performance will impact its ability to raise capital in the financial markets as well as the price at which it is able to raise money [Clarkson et al. (2008)]. Second, the valuation of companies without adequate ESG reporting activities will be discounted as regulation in this area increases [Serafeim (2020)]. Indeed, governments have been increasing the need for mandatory ESG reporting and several initiatives have been discussed, such as the SEC's proposals on climate disclosures and the European Sustainability Reporting Standards (ESRS). ESG reporting is, therefore, moving from a simple set of voluntary initiatives adopted by companies for a different range of ethical or commercial motivations to legal requirements to do so. Larger companies, such as those listed on stock exchanges, might already disclose their sustainability performance and strategies [Gallo and Christensen (2011)] due to shareholder and regulatory pressures, however, small and medium-sized organizations (SMEs) should also be focusing on making sure they can transparently disclose their ESG commitments, impacts, and initiatives.

To conclude, transparency in ESG information that truly reflects an organization's long-term commitment to considering the environmental and social impact of its business activities has become imperative. Cosmetic fixes can easily be considered greenwashing, which, beyond being unethical and having reputational damages, is increasingly being considered illegal. Honest ESG goals, policies, and initiatives need to be transparently shared with internal and external stakeholders, so they understand how the organization is considering and addressing their ESG challenges.

6. MEANINGFUL ESG INITIATIVES REQUIRE SENIOR MANAGEMENT COMMITMENT AND ACCOUNTABILITY

Currently, most medium and large organizations have a person or a team responsible for sustainability and ESG initiatives. Many of these positions or teams were initially created and included within the organigram of companies with the growth in the popularity of CSR in the 1970s [Latapí Agudelo et al. (2019)]. However, these teams are often isolated from the rest of the organization and have limited budgets and power, which may result in ESG initiatives that lack the relevance to provide benefits to the organization [Taylor (2017)]. For instance, they may release a sustainability report or improve the organization's ESG disclosure, both of which have limited impact. Nonetheless, achieving long-term value creation through ESG initiatives that are core to the organization's activities involves strategic decisions that cannot be made by a sustainability team and require the attention of the CEO and senior management [Serafeim (2020)]. Senior management can, therefore, lead the initial push so that sustainability becomes a horizontal function that affects the whole organization. From an initial top-down initiative from senior executives, the ESG values and initiatives can then be shared across the company at different organizational and seniority levels. This is essential to drive the organizational changes necessary to fully embed ESG values within the governance of the whole company.

Furthermore, to create value, an organization's ESG initiatives need to be part of a long-term strategy that is aligned and coherent with the company's vision, identity, and core activities. There are very few organizations that systematically incorporate environmental, social, and governance factors into their daily decision-making. For most organizations, meaningful ESG initiatives that create financial, as well as social and environmental value, involve continued organizational changes that require the power of senior management to be implemented [Eccles et al. (2020)]. For example, the outdoor clothing company Patagonia's unique approach and commitment to fighting climate change come directly from the founder's vision and leadership.

A way to align and foster ESG commitments of c-suite executives is to have members that have either had experience as sustainability officers or have this objective in parallel to their current and traditional managerial roles. These senior executives could influence the strategic decisions of the companies, without compartmentalizing them. Companies of different sectors have started trying it, such as Tyson Foods, where the executive vice president of corporate strategy was also a former chief sustainability officer and managed the company venture fund [Serafeim (2020)].

Another recent trend that has received considerable media attention recently is linking senior management pay to ESG metrics, to both incentivize and make senior management accountable for the organization's ESG goals. Theoretically, if ESG metrics are relevant for long-term value, then tying pay to long-term value should be sufficient to encourage executives to bolster them [Flammer and Bansal (2017)]. Yet, some nudging for change might still be needed since some senior executives might want to focus on traditional managerial practices and performance metrics. Hence, in recent years, a number of activist funds have pushed companies to tie senior leadership compensation to ESG metrics [Hill (2021)] as a way to speed up adoption. In fact, there have been some developments in this regard, with 58 percent of FTSE 100 companies in the U.K. having included an ESG measure within their executive incentive plans by 2021 [PWC (2021)]. This has also led to a positive public relations boost for companies that adopt this practice.

This approach, as with most things ESG, has not been free from critics [Edmans (2022)], with some suggesting that including ESG metrics within executive compensation packages might incentivize CEOs to focus only on the ESG metrics in their contract, and not all value drivers. However, it is important to remember that similar arguments were made when other pay metrics were included in senior executive packages, such as stock options.

"To create value, an organization's ESG initiatives need to be part of a long-term strategy that is aligned and coherent with the company's vision, identity, and core activities."

To conclude, ESG should not be viewed through the compliance prism; instead, companies should focus on how ESG factors could be integrated into the core activities of the company. A long-term ESG strategy that creates value for the company is likely to require strategic choices and organizational changes that can only be achieved with the full support and commitment of senior management. In this sense, it is important to have processes and structures in place that make senior management accountable for the achievement of the organization's ESG goals.

7. CONCLUSION

Organizations are increasingly expected to disclose ESG information and metrics, and their ESG performance is being continuously evaluated through a plethora of ESG ratings that often measure different things and are not necessarily aligned. With the growth of the implementation of ESG initiatives by companies and the likelihood of more regulation in the coming years, many companies know that they cannot just stay still and wait. In fact, some managers have already been exploring how companies can gain competitive advantages from, for example, environmental policies for decades. In more strictly regulated industries, such as investment funds, the incentive to implement voluntary environmental efforts may be stronger in anticipation of more strict regulatory norms in the future.

While transparency and ESG disclosures are crucial for facilitating better decision-making by investors, consumers, governments, regulators, and other stakeholders, an over-reliance on metrics can result in organizations engaging in a superficial compliance exercise with limited impact. Some companies might be tempted to exclusively focus on achieving high ESG ratings as opposed to having a long-term ESG strategy. However, this is very risky since these ratings are in constant flux, and more importantly, ESG initiatives should not be aimed at scoring points but at becoming a more sustainable company.

Finally, organizations should develop transparent ESG reporting practices that include clear ESG goals, and their failures as well as their successes. ESG initiatives need to focus on activities that are core to the company and be integrated into a company's long-term strategy. Creating value through ESG initiatives will most likely require strategic choices and organizational changes that cannot take place without senior management commitment and accountability.

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ENGAGEMENT AS A PATHWAY TO A HEALTHIER ESG OUTLOOK FOR FINANCIAL INSTITUTIONS

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ABSTRACT

As ESG assessments begin to evolve towards an industry standard, financial institutions and their investment approaches find themselves under the microscope of the public and regulators. As a result, a common debate has arisen between the "right" approach of divestiture versus those of engagement. Though there are proponents for both sides, this paper seeks to outline the benefits of, and propose solutions for, engagement, allowing financial institutions to steward the progression to a healthier ESG outlook. Given the surge in ESG stewardship and active ownership, it seems likely that governing regulatory bodies will begin to mandate, and perhaps regulate, active ownership policies; taking action in advance of these mandates will better position financial services for a socially and environmentally equitable future.

1. INTRODUCTION

Environmental, social, and governance (ESG) initiatives have gained significant momentum over the past decade, including a quick ramp-up period under the U.S. Biden Administration, following the European lead. As ESG assessments begin to evolve towards an industry standard, financial institutions, and their investment approaches, find themselves under the microscope of the public and regulators. As a result, a common debate has arisen between the "right" approach of divestiture versus those of engagement. Though there are proponents for both sides, this paper seeks to outline the benefits of, and propose solutions for, engagement, allowing financial institutions (FIs) to pave the way to a healthier ESG outlook.

2. ESG EXPLAINED

While most people have heard of ESG, and know what each letter stands for, it is important to understand the notion from a more practical perspective:

- **Environmental:** the company's position on environmental issues such as climate change, greenhouse gas emissions, waste, pollution, and other nature-related considerations
- **Social:** the company's working conditions, power and influence in the local community, and employee relations/diversity, as these imperatives become critical to a vibrant society
- **Governance:** the overall position of the company and its board with respect to business ethics, the interests of various stakeholders – employees, suppliers, shareholders, customers – and financial transparency.

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3. DIVESTITURE AND ENGAGEMENT EXPLAINED

Divestiture is the process of selling assets held by financial institutions to maximize the value they retain. Given the rise of ESG initiatives, the definition of value has been reshaped, such that decisions pertaining to asset ownership must give some consideration to the societal impact of the position. As such, advocacy groups have been lobbying institutions to divest from industries that deplete non-renewable resources. Despite these efforts, there are many implications to divestiture, including, but not limited to, the transferal of emission concerns to institutions that are less distressed by the high-emissions, and perhaps worse – the invested company takes no action to improve or reduce their emissions and research goals. For example, British Petroleum (BP) sold its petrochemical business to INEOS, effectively wiping off related emissions from its books; however, little is known about what INEOS has done with the business after purchase.

Engagement, or active ownership, serves as an alternative to divestment, whereby institutions with a controlling position in an underlying company exercise their influence to ensure changes are made in terms of operating model and governance, thus pushing companies with higher net-negative social costs to reduce their footprint. Engagement requires a well-rounded understanding of the underlying's business practices and requires a long-term mindset to ensure entrenched practices can be re-evaluated and restructured.

At present, both ESG-related divestment and engagement have not been widely practiced among financial institutions. This is largely due to the financial outcomes that are met and remain unchallenged by regulatory bodies. In addition, challenges with governance and oversight serve as a disincentive to financial institutions, as measuring improvements in the components of ESG is novel and presents challenges with qualifying impacts.

4. DIVESTMENT FOR FINANCIAL INSTITUTIONS MAY BE A FORGONE CONCLUSION

For several reasons, financial institutions have been resistant to divestment in the near-term. Within Canada alone, the Office of the Superintendent of Financial Institutions (OSFI), a regulatory body for over 400 financial institutions in Canada, asserts that a primary objective is to prioritize the stability of the economy over other pursuits. Given the scale of investment into socially costly assets, a large short-term pullback could result in price disruptions that are not favorable to the general wellbeing of the economy. Other regulatory authorities are also getting engaged in applying guidance leading to more enhanced reporting requirements; IFRS through the Task Force on Climate Related Disclosures (TCFD) and the SEC on securities filings of publicly traded companies. All these initiatives will provide a framework for planning, monitoring, and reporting on ESG-related matters.

In case financial institutions were willing to divest from ESG offenders, underlying firms would scarcely be starved of capital. These companies routinely raise capital to fund their initiatives and the onus of ESG considerations would, therefore, shift from socially conscious institutions as funding sources to their less concerned counterparts. As a result, consequences for operating companies with high emissions would likely remain minimal in the longer term, and new shareholders may not take the necessary strides to enact lasting change.

This notion is summarized by The Economist: "The Western world's dirty assets are heading into the shadows. Public firms, including European oil majors such as Shell, and large listed mining outfits, are selling their most polluting assets in order to please ESG investors and meet their carbon-reduction targets. But those oil wells and coal mines are not being shut down. Instead, they are being bought by private companies and funds that have alternative sources of capital and stay out of the limelight. Little wonder: owning dirty assets may require a thick skin, but it is likely to be profitable. Private-equity firms have snapped up $60bn-worth of fossil-fuel-linked assets in the past two years alone, from shale fields to pipelines."[2]

For institutions that claim to be committed to generating net positive ESG changes, divestment is largely an act of wiping one's hands clean of the responsibility the institution is claiming to have to society, while potentially inducing short-term market volatility in the process. As stated by the global head of sustainability research at Morningstar, "managers who allow their engagement strategies to drag on for much longer than two years have some explaining to do". Financial institutions have another path of "active ownership engagement" to ensure long-term emission reduction: by exercising their authority as shareholders, corporate behavior can be influenced.

[2] Economist, 2022, "The truth about dirty assets," February 12, https://econ.st/3LR1IFU

> *"Once financial institutions successfully institute ESG practices within a company, it is vital to ensure the success of these measures is tracked."*

5. REGULATORY TRENDS INSPIRING NEW APPROACHES TO ENGAGEMENT

Engagement is becoming a more frequently used method to tackle ESG concerns for institutions. In tandem, regulatory bodies are becoming more sensitive to climate-based concerns and have come up with various methods to help model the risk scenarios. In May of this year, OSFI issued a draft framework to highlight beneficial strategies to manage climate risk. This included governance and risk management practices to identify climate related risks, as well as a set of financial disclosures on the same topic. Given this movement, it is reasonable to assume that regulatory bodies are trending towards ESG-based mandates, for which financial institutions need to be aptly prepared. At the same time, this guidance is useful to construct assessment and engagement frameworks for active ownership. Some institutions are leading the charge in this regard, both through carefully considered sustainable investment frameworks and engagement with governance teams of their underlying investments.

One such institution that is actively shaping the near-term landscape for other financial institutions is the Canadian Pension Plan Investment Board (CPPIB). This institution is actively developing a framework aimed at benchmarking and reducing the emissions profiles of their portfolio investments. The CPPIB uses an abatement capacity assessment to understand which emissions can and cannot be reduced in the short and long term. This concept will be further discussed when assessing the implications of measuring engagement.

Given that CPPIB is federally regulated, and they operate on a comparable scale to many large financial institutions, this serves as an indicator of potential change in regulatory mandates – keeping a close eye on how CPPIB builds out an abatement capacity plan and resulting emission reduction strategy provides early indicators on how other financial institutions can adapt to upcoming Canadian regulatory changes. CPPIB's efforts indicate the plausibility of a standardized financial institution ESG framework applied to investment evaluation and management.

6. PRACTICAL APPROACHES TO ENGAGEMENT

Frameworks, such as that proposed by CPPIB serve to narrow the lens for engagement to a tangible, goal-oriented outcome. For such frameworks to be truly effective, financial institutions need to take measures to actively engage with constituents and must carefully monitor such engagement practices. When institutions invest with the intent to actively engage with the underlying company, several covenants need to be understood by both parties. This expectation-setting needs to be carried out with regards to the reasons and objectives of the engagement. By outlining the rationale for engagement, financial institutions can paint a better picture of what will be reported and aim to ensure the relevant performance objectives and measurements are in place. In addition, if the underlying company has a complete understanding of the goals of the engagement undertaking, they can communicate more clearly, and allocate resources to support with the engagement activities more effectively.

One of the most direct engagement approaches entails working with corporate governance teams to instill and advise on practices. Beyond bringing ESG concerns to the attention of company representatives, financial institutions can urge them to conduct additional due diligence and push for standardized monitoring processes. If the financial institution utilizes the same engagement practices across various firms, these standardized monitoring processes will allow for more simplified ESG benchmarking across investments and industries. In addition, with a direct line of communication established, financial institutions can advise on the engagement activities. For example, using CPPIB's economic abatement capacity framework, an institution may seek to discern the most productive emission abatement avenue as a priority.

Despite the benefit of direct engagement with governance, publicly traded companies traditionally cannot ratify major changes without seeking a majority shareholder vote. As a result, institutions need to ensure they have enough influence to push their social agenda in a timely manner. One avenue

FACTOR	CORPORATE PERSPECTIVE	
	ENABLERS	BARRIERS
RELATIONAL	• Presence of a two-way dialogue. • Being honest and transparent in the dialogue and having an open and objective discussion.	• Language barriers and communication issues. • Lack of continuity in interactions.
CORPORATE	• Responsiveness (e.g., speed of response) and willingness to act on investor requests. • Selecting appropriate internal experts. • Knowing who your investor(s) is(are) and having access to all prior dialogues/discussions to tailor your conversation. • Keeping a systematic record of the interactions with investors.	• Bureaucracy inside the company preventing changes in internal practices and/or external reporting on (new) practices. • Lack of resources and/or insufficient knowledge or expertise to meet specific investor demands. • Lack of ESG policies, practices, and/or reliable internal results that can be reported externally.
INVESTOR	• Listening capacity. • Making the effort to communicate in different languages. • Providing a list of questions in advance so accurate information can be prepared for the dialogue. • Prior knowledge of corporate ESG performance and preparations to ensure a sophisticated dialogue. • Genuine interest in (improving) the management of ESG issues at the corporation. • Patience and understanding regarding corporate ability to address ESG challenges.	• Lack of preparation and posing questions/requests that are too generic. • Lack of investor knowledge about the corporation, its business model, ESG policy, and/or track record compared to peers. • Lack of tracking process to determine whether engagement requests have been met. • Changing engagement objectives and targets over time.

financial institutions can take to enhance their general influence with their portfolio companies is by temporarily increasing voting rights through "share lending". This pertains to a temporary share transfer by a lender, giving the borrower the voting rights associated with the additional shares. Consequently, a financial institution can establish a share lending program whereby shares are lent during times where the need for voting power is low and subsequently recalled when major ESG-related voting is set to occur. In the latter case, financial institutions can also opt to borrow additional shares from other lenders should they need to exercise additional influence over major voting.

In order to ensure engagement is successful, financial institutions can lean on research conducted by the Principles for Responsible Investment (PRI), a U.N.-supported network of investors. PRI has conducted studies into methods of engagement, and their evidence suggests that engagement quality is significantly more important that quantity. Improper relational, corporate, and investor practices can inhibit the success of engagement efforts. Table 1 outlines various factors and associated perspectives.[3]

Once financial institutions successfully institute ESG practices within a company, it is vital to ensure the success of these measures is tracked. This presents a unique challenge, given the juvenescence of the ESG reporting landscape and a present lack of mandates surrounding ESG disclosure. Active ownership with regards to ESG will require a plan to tackle any challenges associated with collecting, processing, and utilizing data. It is often best to leverage third-party ESG data providers who collect ESG metrics from corporations. They try to apply standardized data approaches, but often more than one provider is needed, and additional logic and modeling may be required.

[3] https://bit.ly/3y3c4r1

7. CONCLUSION

Though both divestiture and engagement can reduce the ecological footprint supported by financial institutions, engagement is more likely to result in measurable changes beyond just abatement levels of portfolios. While divestiture transfers emission-based responsibilities to less concerned parties, engagement allows institutions to target each of the facets of ESG. A financial institution that becomes aware of poor treatment of workers can exercise influence with corporate governance teams and lead shareholder voting to institute ESG policies, such as anonymous whistleblower systems. An institution that finds a noticeable gap in skillset at a portfolio company's executive level can follow the same approach to establish change management action plans. Such changes can result in net-positive outcomes for firms, economies, and ecosystems. Given the surge in active ownership, necessitated by depleting natural resource reserves and major climate agreements, it seems likely that governing regulatory bodies will begin to mandate and perhaps regulate active ownership policies; taking such actions in advance of these mandates serves to better position financial institutions for the socially and environmentally equitable future envisioned for the generations to come.

Despite engagement being the favorable and likely path forward for financial institutions, these organizations must enhance the basis upon which investment decisions are made to ensure synergies exist between the ESG goals across portfolio companies. Evaluation methods such as positive and exclusionary screening, or abatement capacity frameworks, provide a fundamental platform to ensure meaningful engagement can be conducted, and transferable methodologies can be applied. The path forward to a sustainable future is being shaped by many organizations and financial institutions have a major role to play in helping to solve these challenging problems.

HOW IS ESG RESHAPING THE ALTERNATIVE INVESTMENT BUSINESS?

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ABSTRACT

Growth is only sustainable if it preserves natural capital and integrates, beyond its economic implications, the environmental, social, and governance dimensions. It is a new social project advocated by the public authorities and which is applied at the corporate level through "corporate social responsibility" (CSR). Sustainability is gradually gaining ground and affecting the whole economy. As the intergenerational component of sustainable development emphasizes the objective of a long-term horizon, it is necessary to develop new instruments and mechanisms for financing the economy. Finance and sustainability come together to give rise to the so-called sustainable finance. Europe is the epicentre of sustainable finance. The lack of a clear definition has led the European Commission to work on developing a common classification or taxonomy. Environmental, social, and governance (ESG) concerns are at the heart of regulations in the financial services industry. Today, ESG is no longer just an acronym but a reality, expected to reach a third of assets under management worldwide by 2025. It is spreading across all asset classes, including the less liquid ones. ESG now defines the new frontiers of alternative investments.

1. INTRODUCTION: IS GROWTH SUSTAINABLE?

"High-income countries are responsible for 74 percent of excess resource use causing ecological breakdown"[1]. In 2012, WWF[2] had already warned that "if we continue like this, by 2050 we will need three planets. Our pattern of consumption is unsustainable."

Since the 1970s, we have realized that we live in a world of limited resources. This scarcity of raw materials will inexorably lead to a loss of momentum in the economy, which not only responds to a Newtonian mechanistic vision but on the contrary follows the law of entropy and more particularly the second law of thermodynamics. Thus, growth is only sustainable if it preserves natural capital and also takes account of environmental and social factors. It is about sustainable development, a new paradigm of economic development.

2. FROM SUSTAINABILITY TO ESG

2.1 How can we define sustainable development knowing that this term is very often used?

The first definition of sustainable development, often used by academics and in official texts, was provided in the Brundtland report "Our common future" of the U.N. Commission on Environment and Development in 1987. Sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." This definition highlights the notion of intergenerational equity, between present and future generations, and lays down the three pillars of sustainable development (SD): economic, social, and environmental.

This approach to sustainable development also applies at the microeconomic level, at the company level, with "corporate social responsibility" (CSR). CSR is not a recent concept; it came from across the Atlantic with a strong religious connotation of Protestant inspiration dating from the 1920s.

[1] https://bit.ly/3UMy96Z
[2] https://bit.ly/3BTsmny

The successful businessman must also give back to society a kind of implicit contract: the "trusteeship". It was only in the 1950s that the term CSR appeared in the U.S. in the context of social movements. It gradually spread to the academic world when Howard R. Bowen, an economist of Keynesian inspiration, published his first book on the subject: "Social responsibilities of the businessman". The maximization of profit for the shareholder is no longer the sole objective of the manager, who also aims to consider other stakeholders, perhaps as a means of fighting against the rise of communism at the time but also possibly fuel to the fire of this divisive subject. CSR is thus intimately linked to the notion of corporate governance, the separation of powers between shareholders and managers, the role of the latter, and their ethics. This gave rise to a management discipline based on the study of the relationship between business and society, the academic field of "business and society".

2.2 Is the ultimate goal of the company not merely to satisfy the ultimate shareholder? What about other stakeholders?

Ansoff (1968), well known for his concept of strategic planning, was among the first to highlight the fact that the role of the company is to reconcile contradictory group interests. This approach, based on business ethics and philosophical foundations, has had a lot of echoes in the field of CSR. It is possible to cite in particular: (1) the concept of corporate citizenship in France by the Circle of Young Leaders; (2) the concept of triple bottom line proposed in 1997 by John Elkington; and the concept of creation of shared value or "shared value" proposed by Porter and Kramer in 2011. The common denominator of all of these approaches is the business-society interface[3].

Sustainability is gradually gaining ground and affecting the entire economy. Finance and sustainability come together, giving rise to the so-called sustainable finance. The latter brings together socially responsible investments (SRI), green investments, and, more generally, responsible investments. Its origin is not recent. For example, SRI is a movement that began in the U.S. under the impetus of religious congregations wishing to exclude from their investments certain sectors, such as alcohol, tobacco, and gambling. The first funds appeared in the 1920s and were based on a so-called negative selection approach, eliminating certain sectors considered to be unethical. The most famous of these, the Pioneer Fund, was started in Boston in 1927.

The 1929 crisis was not conducive to the development of this "ethical" investment, and it was not until the 1970s that there was a renewed interest in SRI, mainly due to the repercussions from the Vietnam War and the Watergate scandal. It was at this time that the first SRI fund to adopt a best-in-class approach appeared, the Pax World Fund, which comprised of all sectors and favored socially responsible companies. This approach aims to combine financial performance with ESG (environmental, social and governance), or extra-financial criteria. In Europe, with the exception for Sweden, these investments only appeared late in the 1980s and 1990s under the impetus of the Brundtland report, "Our common future", and sustainable development. This specific sector of finance is based on four pillars:

1. New behaviors
2. Compliance with sustainable growth
3. Finance close to individuals
4. Inclusive finance.

3. TRANSPARENCY WOULD BE ONE OF THE RULES OF THE GAME

Europe is the epicenter of sustainable finance, even though the market is showing signs of maturity and there is no clear definition of what is meant by the term sustainable finance. As a result, the European Commission has decided to undertake a dedicated action on a common classification or taxonomy. Environmental, social and governance (ESG) concerns are at the heart of regulation in the financial services industry. To increase the transparency on sustainable products and to avoid greenwashing, the European Union issued the Sustainable Finance Disclosure Regulation (SFDR) in 2018. It introduces various ESG disclosure-related requirements for financial market participants and financial advisors at entity, service, and product level. This phased regulation requires more transparency and disclosures about integration of sustainability into the investment process, definition of the fund as one of three classifications (Article 6: non-ESG focused financial products, Article 8: funds that promote environmental or social characteristics; or Article 9: funds that have sustainable investment as their objective), and Principle Adverse Impacts (PAIs) of investment decisions on sustainability factors. Level 1 came into force on March 10, 2021 and the Level 2 implementation, which is scheduled for January 2023, will require institutions to report on 18 PAIs alongside voluntary areas. However, SFDR follows a "comply-or-explain" principle for managers (whether

[3] Ansoff, H. I., 1968, Corporate strategy: an analytic approach to business policy for growth and expansion, McGraw-Hill
Elkington, J., 1997, Cannibals with forks – triple bottom line of 21st century business, New Society Publishers.
Porter M. E., and M. R. Kramer, 2011, "Creating shared value," Harvard Business Review, January-February, https://bit.ly/3Uh4XUG

traditional or alternative managers) with less than 500 employees and is applicable outside Europe for companies that market their funds in the E.U. To be compliant, fund managers face a great challenge: **the availability and quality of ESG data.**

SFDR is not the only E.U. regulation, it is a part of a broader package. The regulatory pressure, which many consider a challenge, is also at the root of the rise of ESG investing, which is more specific (focusing on three pillars: environmental, social, and governance) and measurable than "sustainability".

Today, ESG is no longer just an acronym, it has become a reality, expected to reach U.S.$53 trillion by 2025, a third of global assets under management. The ESG agenda has thus become a growing priority for the financial services sector. This groundswell was reinforced during the COVID-19 pandemic, prompting institutions to prioritize their strategy, notably by integrating these three criteria into risk management and product development. Regulators have also made it their priority and we are far from the end of the regulatory wave; this is just the beginning!

4. THE NEW FRONTIER OF ESG: ALTERNATIVE INVESTMENTS

ESG concerns are spreading across the asset management industry, including alternative investments. Alternative investments are not new, and can be tracked back as far as the Industrial Revolution.[4] Despite its lack of formal definition,[5] it can be distinguished from traditional investments (stock, bond and cash related instruments). Considered initially as a very heterogeneous niche, private markets have been growing steadily over the last decade and this trend is expected to continue, reaching U.S.$23 trillion by 2026.[6]

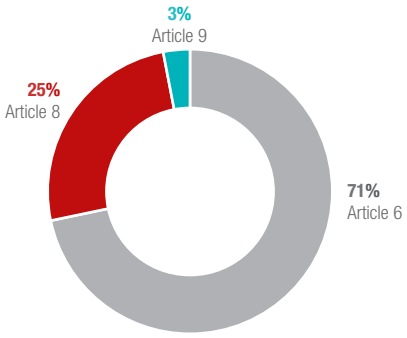
The key driver for this growth was the low interest environment in which (institutional) investors were looking for new sources of income.

The ESG wave has also reached the private markets: as of October 2021, "42 percent of AUM across private capital is managed by funds that have an active ESG policy",[7] meaning U.S.$4.37 trillion of the U.S.$10.3 trillion market.

This ESG trend is noticeable for all asset classes, with the winner being "infrastructure" (64 percent of AuM in ESG committed funds) followed closely by "private debt" (59 percent of AuM in ESG committed funds). The ESG impact on private equity is lower (only 34 percent) but has the highest overall ESG committed value of AuM, U.S.$2.3 trillion. In terms of region, APAC seems to be a less mature market than Europe and North America.

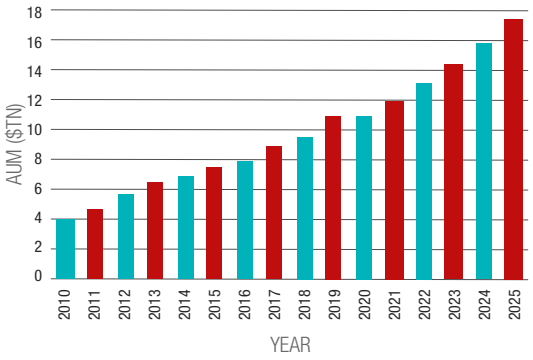
According to Preqin H1 2022 Investor Outlook, nearly three-quarters (72 percent) of investors believe fund managers are adopting ESG policies because of pressures from existing and prospective limited partners (LPs). Hence, investors are the key driver for more ESG transparency in private markets. Historically, there was less pressure for private companies

Figure 1: Breakdown of E.U. funds between SFDR classification



Source: Morningstar Direct. Data as of 31 Dec 2021. Based on SFDR data collected from prospectuses on 91% of funds available for sale in the E.U., excluding money market funds, funds of funds, and feeder funds.

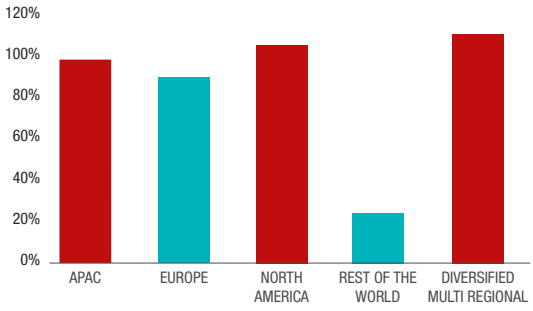
Figure 2: The growth of alternative assets 2010-2025



Source: Preqin

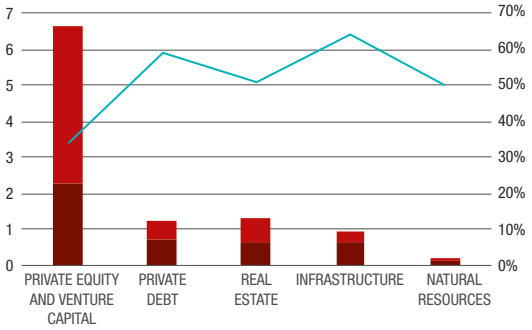
[4] 1852, first investment in infrastructure with the Transcontinental Railroad
[5] CAIA Association
[6] https://bit.ly/3eC5r8B
[7] ibid

Figure 3: Absolute alternative assets AUM growth: 2021A-2026F



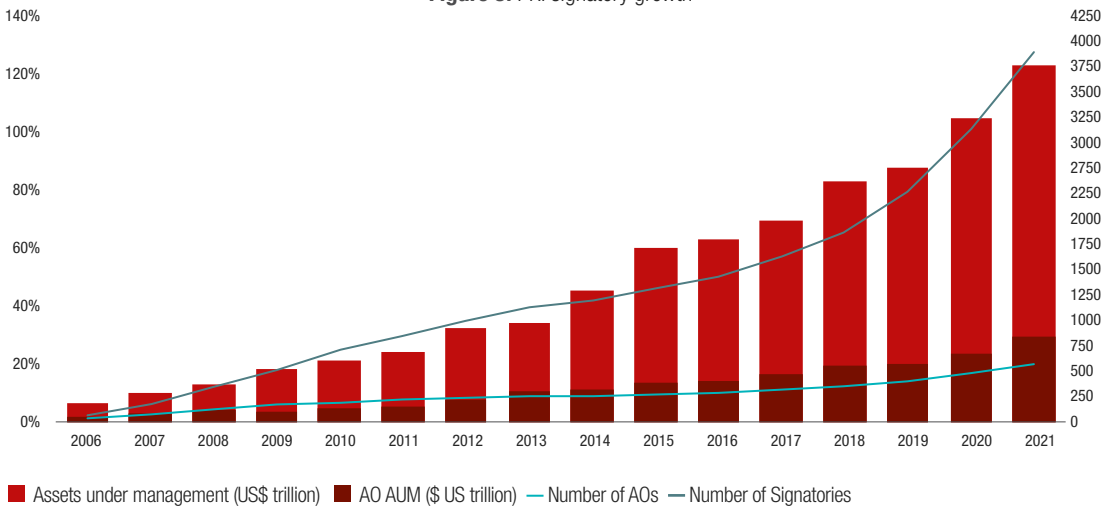
2021 figure is annualized based on data to March. 2022-2026 are Prequin's forecasted figures.
Source: Preqin forecasts

Figure 4: Assets under management by managers with ESG commitment



Source: Preqin data. Data as of September 2021

Figure 5: PRI signatory growth



Source: U.N. Principles for Responsible Investment (U.N. PRI), 2022

to disclose ESG information, but that has changed rapidly as asset owners are exercising their influence to access this information by engaging the general partners (GPs). As increasing numbers of asset owners and LPs are integrating ESG into their investment process (as of May 2022, nearly 700 asset owners globally have signed on to the PRI), they now want to better understand what GPs and alternative fund managers are doing in terms of ESG and how it is embedded in the investment statement.

They are no longer just asking if there is an ESG policy in place, they are now strengthening their dialogue by asking for more information, sending out questionnaires, and challenging GPs where they stand in their ESG journey. Hence, the rise of ESG in private markets has changed the relationship between investors and GPs, and is now an integral part of the due diligence process. The due diligence questionnaire acts as a starting point of such a dialogue between investors and GPs. Hence, LPs and asset owners have updated and designed their own due diligence questionnaires to understand and evaluate GPs processes for incorporating ESG risks. Those questionnaires are not standardized and GPs and alternative fund managers may have to deal with different questions and different formats that create some difficulties for them to understand and collect all the relevant data to answer. However, some templates are available to investors to assess ESG integration such as:

- ILPA (Institutional Limited Partners Association) ESG Assessment Framework gives standards to LPs to better evaluate and compare the ESG integration of their managers.

- The PRI's "Limited Partners' Responsible Investment Due Diligence Questionnaire" is intended to help LPs "understand and evaluate a General Partner's (GP) processes for integrating material environmental, social, and governance (ESG) factors into their investment practices and to understand where responsibility for doing so lies."

Investors now demand additional transparency into their holdings and consistent asset-level data across their portfolios, including private investments. This additional transparency leads to a huge growth in data needs and consumption and creates new challenges for GPs and alternative fund managers, who are not always equipped to provide, analyze, and report accurate data at the level of granularity required. They are facing an important data challenge, as this information is not publicly available and there is also no clear and consistent approach across asset types. Furthermore, the data may sometimes be in different systems and need to be retreated manually, increasing the risk of operational errors and decreasing at the same time data quality. This manual retreatment approach to data processing from fund managers and GPs leads to long delays in delivering the information to their investors. There is room for improvement in terms of innovation, agility, and risk management but this may require the modernization of IT tools and the use of new technologies.

Beyond the data challenge, the alternative investment industry is also facing a lack of standardization. For instance, for private equity and venture capital it is difficult to compare data between portfolio companies as they do not have the same data collection process, the same data quality, and disclosures. But the various stakeholders are fully aware of this standardization gap, and they carry out concerted actions. A concrete example is the ESG Data Convergence initiative launched in September 2021, gathering LPs and GPs from the private equity industry. This project seeks to standardize ESG metrics and provide a mechanism for comparative reporting for the private market industry representing U.S.$8.7 trillion in AUM and over 1400 underlying portfolio companies. There is certainly more that can be done in this space with these companies being just the tip of the iceberg but the economic motivation is there and the will appears to be following. Whether this can move across multiple geographies and jurisdiction as well as investment sizes and asset classes are yet to be seen.

5. CONCLUSION

Historically, Europe has led the way on ESG assets as well as serving as a global barometer, but the U.S. is catching up with 40 percent market growth over the past few years and now accounts for U.S.$17 trillion, or nearly half, of the global ESG assets under management.

As the ESG agenda continues to gain prominence, with global ESG assets expected to grow to U.S.$53 trillion by 2025,[8] there is an increasing demand from institutional investors not only in traditional investments but also in alternatives. They expect more granular reporting to better understand where alternative fund managers and GPs are standing in terms of ESG journey. **Transparency is now the rule of the game**.

ESG is a great opportunity for the industry but also an important challenge due to the lack of standardized data and reporting framework. This data gap makes it harder for investors to assess funds' performance and compare them to their peers from an ESG perspective – comparing on a so-called apples-for-apples basis. However, the alternative investment industry is adapting to the ESG era and innovating through the development of common standards thanks to the collaboration of the different stakeholders.

Hence, ESG data is on the way to becoming one of the main drivers of innovation and, combined with new technologies, it will become the solution instead of the problem to the challenge of a lack of standardization.

[8] https://bloom.bg/3g4Dl6o

ABOUT CAPCO

Capco, a Wipro company, is a global technology and management consultancy specializing in driving digital transformation in the financial services industry. With a growing client portfolio comprising of over 100 global organizations, Capco operates at the intersection of business and technology by combining innovative thinking with unrivalled industry knowledge to deliver end-to-end data-driven solutions and fast-track digital initiatives for banking and payments, capital markets, wealth and asset management, insurance, and the energy sector. Capco's cutting-edge ingenuity is brought to life through its Innovation Labs and award-winning Be Yourself At Work culture and diverse talent.

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