Corporate sustainable finance: recovery and the way forward from economic shocks

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1. Introduction

In this research paper, we will discuss what economic shocks are, what categories they fall into, and how they manifest themselves. In addition, the possible threats of these shocks will be analyzed, as well as the role of finance in their recovery and in the future.
An economic shock can be summarized as an unexpected and unpredictable event, external to the economic system, that influences its performance in a positive or negative way. It is classified according to the type of economic variable it affects. A demand shock is a sudden event that temporarily increases or decreases the demand for goods or services. Through change in prices as well, it affects household consumption spending, business investment spending, or foreign investment spending affecting exports. A supply shock is an event that suddenly increases or decreases the supply of a good or service. On the other hand, it may consist of an increase in factor productivity due to an advance in technology, or exogenous changes in the quantity or price of a commodity, e.g. of oil (oil shock), following political or military events in producing countries (see Russia-Ukraine war, 2022), or of agricultural production, due to climatic phenomena such as droughts or floods. An economic policy shock, finally, occurs when public authorities take decisions not expected by private operators, which may concern the reference interest rate or other monetary instruments at the central bank's disposal, or the level of government spending.

2. Finance and the Real Economy

Oftentimes in the past, the financial sector and the real economy were regarded as two separate entities with little to no overlap. The financial sector is a concoction of institutions, markets, and tools that enable financial services to private and public consumers. The real economy represents all the non-financial aspects of an economy and can be explained using real economic variables such as inflation or real interest rate. The nature of the two “institutions" varied in performance measures, KPIs, and decision-makers. While the two coexisted, they were still considered to be independent of each other’s influence on standard economic thinking in the pre-Global Financial Crisis era. All that changed radically during and after the 2007-9 financial crisis, where risky behavior in the financial sector resulted in dramatic effects on the state of the real economy. This turn of events instigated many discussions on the apparent close relationship between the financial sector and the real economy and conducted central banks, policymakers, economists, financial actors, and academics to take interest in how to regulate and change the financial sectors in order to positively influence and preserve the economy.

Nowadays, financial and economic stability are considered to be intrinsically related. There are many ways in which both domains interact with each other. The financial sector has an immense role in influencing prices and allocating liquidity, thus affecting inflation, cost of borrowing, and income distribution. Since most day-to-day and business transactions pass through the financial system, it consequently has a say in maintaining natural unemployment rates, monetary stability, and economic-financial risks. For instance, the government, as well as private and public firms - all use the financial sector to echo their concerns in the event of a shock, since, for instance, central banks' reductions and injections of liquidity in the market are one of the most vital tools to stabilize the economic trajectory owed to their power in changing aggregate demand and thus inflation, unemployment, and stability.

In recent economic shocks, the role of finance, and especially sustainable finance, has been pivotal and emphasized in policy documents. Major shocks such as COVID-19 or the Ukraine War crisis can severely provoke negative alterations in key economic factors such as consumer-investor loss of confidence, excessive inflation, or bank defaults. Sustainable finance tools such as green deposits or corporate ESG shock measures can be used in this case to adequately lead the economy to recover by prioritizing stability and making a step towards other medium to long-term policy goals, such as shifting focus towards renewable energy instead of fossil fuels.

3. Corporate efforts in ESG

Sustainable finance has also found its way into the corporate world. Commercial banks, retail companies, and such have adapted to internalize the principles, performance measures and goals of sustainability frequently referred to as ESG (Environmental, Social, Governance). Crises such as COVID-19 have highlighted the interconnectedness of physical corporate stakeholders with the environment and social interests. We must therefore evolve this sector, even if it is a difficult task for companies facing budgets with ESG metrics, costs, profitability, etc. The following subsections aim to delve deeper into them.

i) Risks and Opportunities, Regulations and Internal Policies

In recent years, the focus on climate change and social engagement is increasing the pressure on market players to commit themselves in this direction and improve their environmental and social impact. The acronym ESG stands for Environmental, Social, and Governance and refers to a set of criteria established to assess a company's environmental, social, and governance activities, and it is often taken into account both by investors and regulating institutions. The **E**nvironmental criteria assess a company's efficiency in the use of natural resources (such as water and air), respect for biodiversity, agri-food safety, and limiting carbon dioxide emissions. **S**ocial criteria concern the company's relationship with employees, suppliers, consumers, and local communities. They measure, for example, respect for human, civil, and labour rights, maintenance of adequate working conditions, compliance with child labour laws, and the broader area of equality and inclusion. Finally, **G**overnance concerns regard corporate good practices and ethical principles. The issues under consideration here are remuneration, respect for shareholders, transparency of business decisions, and respect for diversity and minorities.

There are many reasons why a company should commit to an ESG-oriented strategy. The first one, common to many companies, is to meet the strong public demand for transparency regarding their non-financial activities. Many consumers and investors are increasingly paying attention to the environmental and social impact of their choices, which shifts their interest towards those companies committed to this direction. In addition to this, many 'pro-ESG' entrepreneurs, consultants, and researchers suggest other advantages for companies that adopt these standards. These include the following.

- New Market Expansion: When government authorities trust corporate actors, they are more likely to grant them access, approvals, and licenses that offer new opportunities for growth.
- Cost Reduction: By improving the energy efficiency of its processes or using resources in a sustainable way companies can significantly reduce their operating costs (e.g. energy and raw material costs).
- Improved strategic positioning: especially in the areas of 'Social' and 'Governance', It is said that increased corporate focus in these areas leads to greater strategic freedom, relieving regulatory pressure. The strengthening of ESG practices, in fact, may result in a lower risk of unfavorable actions by governments, like for example being taxed for external damage or similar things.

- Improved human capital: This is because it will be easier to attract high-quality and motivated personnel. Finally, it has been documented that employee satisfaction leads to increased productivity.
(examples presented by the consultancy firm McKinsey)

After looking at the companies' side, why should anyone choose to invest in ESG? The reasons behind this trend can be grouped into two categories. Firstly, there are market motivations. Many investors want their funds to have a positive impact on the environment and society, as well as the companies they invest in. To get these guarantees, many are also willing to accept lower returns, as we will see later on.
Secondly, we have economic motivations. Some proponents of ESG practices argue that they have equal (if not better) financial performance.

The first argument used is the long-term orientation of companies with high ESG scores. Over time, investors have become increasingly aware that these issues can be a determinant of a company's long-term financial performance. Incorporating ESG factors into the investment process and portfolio construction, therefore, can help improve the risk/return profile in the long run. Speaking of risk reduction, mention should be made of stranded assets; that is, all those assets that may lose value due to direct (physical risk) and indirect (transition risk) causes of climate change; where physical risk means

Against the benefits, incorporating environmental, social, and governance issues into corporate decisions also has its problematic aspects.
First, there is the difficult correspondence between ESG strategy objectives and market needs; especially in terms of time horizons. In fact, if the ESG strategy envisages investing with a long-term perspective, the market often rewards companies that manage to achieve targets on a quarterly basis. The managers of these companies, in order to maximize their earnings, are extremely focused on achieving these short-term goals, which discourages them from investing in sectors that meet ESG criteria.

Secondly, ESG-oriented investments are not necessarily sustainable economically. In this regard, there are several studies that would confirm this thesis. For example, Margolis, Elfenbein, and Walsh, three well-known economists, conducted an analysis (2009) of 35 countries on the implementation of ESG strategies and did not identify significant improvements in corporate performance on these analysed firms. Similarly, Kitzmueller e Shimshack’s study, comes to the same conclusion. On the other hand, Manchiraju and Rajgopal’ study states that the financial performance of ESG investments was on average indistinguishable from conventional investment.

Furthermore, it is very difficult to understand and clearly define which activities fall under ESG and which do not. This third limitation has first and foremost to do with the business model of companies, which can indeed undertake 'socially responsible' activities; but always strictly in line with the company's existing business model, making them indistinguishable from standard business decisions made to maximise shareholder value. Many examples of this are 'greenwashing' practices, namely when an organization spends more time and money on marketing itself as environmentally friendly than on actually minimizing its environmental impact.

A standards problem, therefore, is reflected in two other critical issues: the ability to define what an ESG strategy is and the extent to which ESG scores give truthful representations of the sustainability of a certain activity. ESG ratings developed by third-party agencies have only a weak correlation with business outcomes such as performance, risk, or failure, deemed indicative of ESG quality. For example, as the article by Vladi Nikolov reports if a company does not report data on water utilization, an ESG rating agency could obtain data on this from water utilities in the targeted company's area of operation. For instance, Chatterji, Durand, and Touboul, three renowned economics professors, (2016) show that there is a general disagreement about the ratings providers' judgments of ESG quality, proving that ESG ratings have little operational validity and applicability. Without a clear definition of what we are talking about, in short, it is not even possible to avoid the greenwashing mentioned earlier.

The average company size can be another related problem. Indeed, as shown by the study conducted by Timothy M. Doyle, Vice President of Policy and General Counsel of the American Council for Capital Formation (2018), larger companies tend to have higher ESG ratings. This is mainly because companies with higher ratings also have more resources to invest in measures that improve their ESG profile. As mentioned, however, this does not necessarily mean that they also have a greater positive ESG impact.

Environmental sustainability, in short, is an important issue and the financial and economic world must recognize this. In doing so, however, we need to weigh the risks and benefits of the instruments and strategies we want to use to deal with it.

ii) Stakeholder pressure

The rising popularity of sustainable finance has created a dynamic in which corporate strategies are less dependent on managers and board members, and increasingly more on social actors with diverse backgrounds. The decision-making power dynamic has changed. Efforts towards the improvement of ESG credentials do not come without stakeholder pressure and therefore external inducement. Much of this pressure has become a legal requirement in some countries. Regulators frequently set standards for banks and financial institutions such as the mandatory reorientation of cash flows towards sustainability investments, and stress test sustainable finance frameworks and climate risk management programs such as the one conducted by the European Central Bank. Regulators also expect asset and fund managers to fully integrate ESG considerations into their investment decisions and business practices. But regulators aren't the only stakeholders insisting on more sustainable financial practices. In fact, according to PRI (Principles for Responsible Investment), an investment research institution, investors, employees, and new generations of consumers are increasingly aware of these topics. Clients and staff are becoming more sensitive to the socio-environmental stance of the firm they choose to work for/buy from, and thus, are more willing to participate in public debate, voice their concerns and shun the institutions that behave in a way that is not consistent with their general values, as per Mercer's study. These external concerns increasingly find their way inside the boardroom meetings. Firms, if not for other reasons, are financially obliged to take ESG and sustainable finance into consideration. Investors buy stock of publicly traded companies, enable access to debt and influence the firm's reputation. Consumers are the central stakeholders for retail companies and thus their preferences lie at the forefront of their strategy.

The evolution of the influence of external stakeholders in conducting ESG into corporate strategies has been accelerated after crises such as the pandemic and its effect on firm climate goals, according to KPMG's advisory board. Crises and economic shocks usually tend to shine more light on what is wrong in an economic system/market or immediate social issues. In fact, various inefficiencies, inequalities, or overlooked facets become more salient as a time of difficulty is endured by social actors and firms. Thus, during and after crises, one tends to observe a heightening of external shareholder thrust toward sustainable finance. As sentiments in the general public often change after a shock (as found in one Stanford study), stakeholders voice their concerns (as they are also more aware of the tools they can use to influence firms), which leads to firms responding to the needs of society in general. This can be seen as a type of “automatic stabilizer”, where corporate agents acknowledge inefficient/immoral practices and incorporate ESG concerns into their medium/long-term agenda.

iii) Firm image

A closely related explanation behind why the corporate world chooses to engage with ESG so profoundly nowadays is the firm’s image in public. Firms oftentimes comply with sustainable finance principles, as to be on the good side of the public eye. This is often done in a fraudulent way, giving rise to greenwashing. Greenwashing aims to capitalize on the relatively recent trend of preference for environmentally responsible products. A firm’s reputation heavily influences its sales, stock price, investor confidence, or government scrutiny. The risk of bad public opinion is sometimes too large to bear, considering its effect on the private markets. What we can increasingly observe is that a company’s valuation is a positive function of its sustainability performance, as well as the public sentiment which in turn, is strongly correlated with ESG performance.

In the wake of the Ukraine war, public opinion scrutinized support for Ukraine by politicians, celebrities, and firms. Firms, if not out of morality, extended ESG efforts in this domain to be in the public’s good eye. Crises, as aforementioned, usually tend to intensify calls for sustainable finance implementation. These result in a more corporate focus on human development, environmental sustenance, and CSR (corporate social responsibility). These address social recovery from economic shocks and thus, set recovery efforts in motion that complement recuperation and the agenda going forwards.

iv) ESG indicators and business performance metrics

The measurement of a firm’s performance in the domain of sustainable finance has undergone significant improvements. The measurement of the efforts is more detailed, comprehensive, and increasingly quantitative in nature. Investors´ interest in these indicators when reviewing company performance has also surged. Many have the misconception that focusing on or including ESG goals in a company's agenda often comes at the price of financial performance goals such as profitability, valuation, or cost reduction. As real examples demonstrate, that is not entirely true. Despite growing attention for ESG by firms, it is still largely regarded as a set of objectives for public relations and image rather than a core element of business strategy. There are in fact multiple ways in which ESG/sustainable finance can influence a corporate institution's business performance positively. Forbes research shows that the majority of the new generation consumers (Gen Z and Millenials) pay attention to a company's ESG performance when making a purchase, and are more likely to go through with a firm that fares relatively well in sustainable finance. This is due to increasing levels of socio-environmental awareness (often heightened after crises). Catering to this demographic cohort in ESG guarantees a lack of erosion of sales and revenues. Moreover, investors increasingly expect their investments to abide by ESG requirements called ESG assets. Based on a recent Nasdaq survey, investors are starting to focus more on the long-term benefits, thus firms with ESG goals experience less of stock market fluctuations due to investors' preferences. Coming back to the new generation premise, a commitment to sustainable finance can dramatically improve employer branding. High ESG performance is projected to attract high-skilled educated labor who value their employer's stance. Young professionals and university students tend to be attracted to socially responsible firms, and the latter is shown to have higher employee satisfaction rates as well. Another facet is government regulatory bodies and their correlation to company earnings. Many countries are adopting policies on corporate ESG efforts and are expected to continue/expand them in the medium term. Many countries penalize firms, not in line with sustainability requirements and at times subsidize those with high ESG performance. This can positively influence earnings and the business environment. Lastly, financing energy-efficient appliances or reducing energy/water usage or waste decreases the non-optimal operational costs of a company in most cases. ESG-related operational changes also often conduce "multiplier effects" in the form of optimization or further cost reductions.

What is interesting, ESG efforts may often serve as downside protection during economic shocks. The research appears to support the claim that sustainability-related lower risk corresponds to better financial performance. In times of the financial crisis, Fernandez et. al (2019) found that German green mutual funds performed better in terms of risk-adjusted returns than their counterparts. In the same way, FTSE4Good (an ESG stock index set) recovered its value quicker after the financial crisis. More recently, after COVID-19, the majority of ESG funds outperformed their conventional peers, which was credited to ESG-related resiliency, risk management, and innovation.

v) Sustainability Efforts and Business Performance

In more than 20 years of research and work on sustainability issues with the world's best companies, it has been found that when the system of measuring and accountability for ESG performance is completely separate from the system that defines profitability and determines share price, leaders become blind to the interdependence between the two types of performance. Indeed, the increasing focus on ESG reporting has, for the most part, not changed the way companies make decisions on strategy and capital investments. Nor has it helped reveal the tensions and opportunities that arise from understanding how ESG performance affects corporate profitability. As a result, most companies continue to treat sustainability as an afterthought, a matter of reputation, regulation, and reporting, rather than an essential component of corporate strategy. Capital allocation and operating budget decisions continue to be made in ways that lead to social and environmental harm, while companies rely on meager corporate social responsibility budgets, philanthropy, and public relations to retroactively remedy or deflect the problems created by those decisions.

Just think of ExxonMobil, a major US oil company of global importance, and its desire to become 'consistent' with the Paris Agreement by reducing the environmental impact of its operations. At the same time, the company intends to continue investing heavily in new oil and gas properties. Current ESG rating systems only allow the company to report on emissions from its internal operations, without taking into account the environmental consequences of the oil and gas it sells. By this flawed measure, ExxonMobil ranks in the top quartile of nearly 30,000 companies in the ESG ranking. Its much-publicized $15 billion commitment to low-carbon solutions ignores the $256 billion in 2019 revenues that depend entirely on fossil fuels, making the company the fifth largest producer of greenhouse gases (GHGs) on the planet. In short, neither ExxonMobil's massive impact on the planet nor the existential dilemma facing the company's economic future are fully reflected in the ESG rating or factored into management's strategic decisions.

Or consider Tyson Foods, a producer of chicken, beef, and pork. In 2016, Tyson pledged to reduce its GHG emissions by 30% by 2030, but since then its GHG emissions have increased by an average of 3% per year. Our analysis suggests that it is impossible for Tyson to realize its financial projections and simultaneously meet its stated ESG targets. But unfortunately, these are only a few examples of an endless series. In fact, many companies have made ESG commitments that are incompatible with business realities, and as long as ESG metrics and financial reporting are disconnected, these inconsistencies will continue.

If companies want to move beyond mere posturing, leaders must address the contradictions, and embrace the synergies, between profit and societal benefits and make the bold changes necessary to effectively realize the goals of the Paris Agreement and the 17 UN Sustainable Development Goals.

Let's get into it deeper by analyzing two different companies' business strategies and performances, ExxonMobil, just cited above, and Discovery, a global life, and health insurance company.

A good starting point for identifying relevant ESG issues is to consult the International Sustainability Standards Board's list, defined as "those governances, sustainability or societal factors that may influence the financial condition or operational performance of companies within a specific sector".

In some cases, the link between relevant ESG issues and financial performance is straightforward. The majority of ExxonMobil's revenues obviously derive from its customers' use of fossil fuels, even though it does not report greenhouse gas emissions generated by its customers in its sustainability report. The most relevant issue for Discovery is the health of its customers, which directly affects its financial performance. But unlike ExxonMobil, Discovery strongly addresses the link between these issues. It uses multiple rewards to encourage its subscribers to adopt healthier behaviors, such as exercising more, eating a better diet, and getting regular check-ups. The company tracks the cost of incentives, their effectiveness in changing behavior, and the impact of behavior change on medical costs and health outcomes.

Discovery uses this approach to continuously optimize the relationship between customer health and company profits. The company has made numerous investments that differentiate it from other life and health insurance companies, such as offering its customers free Apple Watches that allow the company to remotely monitor physical activity and track more than 11 million exercise readings per day by customers. Promoting customer health as a central component of the company's strategy has created a unique competitive position and fuelled Discovery's global expansion and superior profitability compared to other insurers. Rigorous academic studies (e.g. from Johns Hopkins) have shown that the medical expenses of Discovery's health insurance subscribers are 15% lower than those of local competitors' policyholders and that the life expectancy of Discovery's life insurance customers is 10 years longer.

In other industries, the link between the social and environmental impact of a company's actions and profits can be more complex. In the food and beverage sector, the nutritional value of products sold is an obvious and straightforward material issue; less visible are the operations of raw material suppliers, which can account for 50% or more of all financial costs. Agricultural commodities such as those used by Mars, a US multinational agribusiness company, often come from small farmers in South America, Africa, and Asia. While they offer a substantial cost advantage over commodities purchased from large-scale commercial farmers in developed countries and generate income for small-scale farmers, the less sophisticated farming practices they use raise worrying social and environmental issues, including child labor, water scarcity, and deforestation, which accelerates climate change.

Mars systematically tracks the carbon footprint and water intensity of the crops it purchases around the world, along with farmers' incomes. The challenge is to maintain a cost advantage by sourcing from low-income countries while reducing poverty and environmental damage. Applying this approach to sourcing mint from smallholder farmers in India, for example, has resulted in a 26% increase in farmer income and a 48% reduction in unsustainable water use, allowing the company to maintain a significant cost advantage.

The greatest social and environmental impacts of any company will be the result of fundamental strategic choices rather than incremental operational improvements. Start-ups, unconstrained by the past, often find strategic advantages by rethinking business models in light of current knowledge. When Discovery first entered the insurance market almost 30 years ago, it exploited the ways in which diet and behavior influence health to invent a more profitable business model, different from that of more established health insurance competitors, seeking to exploit consumer concern about climate change. Another example is Tesla, which used new software and technology to invent the first popular electric vehicle. But many long-established companies still operate with business models developed decades or even centuries ago, when leaders were unaware of or routinely ignored the impact of their activities on social conditions and the environment. They react to ESG issues only at the last moment and are therefore ill-positioned to compete in a world where social and environmental impact drives shareholder value.

Virtually all incumbent automotive companies are now trying to catch up with the demand for electric vehicles, after decades of focusing on progressively improving the kilometer-per-liter performance of their vehicles or reducing factory emissions. This is exactly the kind of strategic change at the heart of the business model that companies in every sector will need to make, and fast.

A primary concern for Mars, as mentioned above, is the footprint of its raw material supplies. This is why the company systematically establishes baseline performance measures for climate, water, land, gender-specific income, and human rights for each of its raw materials. Each product has a different footprint: for cocoa, the most critical ESG factors are farmer poverty and deforestation; for dairy products, land and water use are important. Issues vary even within the same commodity: sugar is a key ingredient in Mars products, but if it comes from beets, the most important aspect is water use, while sourcing from sugar cane raises issues of poverty and human rights.

If Mars had ignored the social and environmental factors of suppliers, the drive to maximize profits would have inevitably led it to buy from smallholders with the worst social and environmental impacts, as labor and environmental practices tend to improve with more sophisticated and expensive farming. Buying commodities at higher prices from large-scale commercial farmers might improve the company's ESG performance, but doing so would also increase its costs and do nothing to reduce smallholder poverty and environmental degradation caused by their farming practices. Integrating sustainability factors into the procurement process has allowed Mars to maintain a cost advantage and, through carefully calibrated investments help smallholder farmers, communities, and supply chain partners change their practices, and reduce poverty and environmental damage.

Win-win solutions that improve both societal benefits and profits are easy to adopt, but most companies stop at trade-offs that require sacrificing profits to improve social or environmental performance. Such trade-offs, however, can often be avoided by collaborating with other stakeholders. In fact, many levers that influence the intensity of a company's impact on profit are controlled by only a few external stakeholders.

Enel found success with a different kind of collaboration. The company needed world-class engineering talent to switch from fossil fuels to renewable energy, but the most talented environmental engineers did not want to work for an electricity company that still relied heavily on fossil fuels. The company, therefore, turned to crowdsource. It published more than 170 of the most difficult technical problems on its digital platform Open Innovability, which reaches 500,000 'active solvers' from more than 100 countries. So far, some 7,000 solutions to these challenges have been proposed. Enel engineers evaluate them and award cash prizes to the winners or establish joint ventures with them.

For example, the transition to renewable energy depends, in part, on batteries large enough to compensate for fluctuations in the energy generated by solar and wind power for an entire city. This is a big challenge because the storage capacity of current batteries is severely limited and extremely expensive. With the spread of electric vehicles, car batteries could be used to store energy and supply it when needed. Using only 5 percent of the energy stored in car batteries could balance the electricity grid of an entire city. Enel had the idea but did not have the software to enable batteries to contribute to the electricity grid. A six-person start-up company based in Delaware became aware of the opportunity through the Open Innovability platform and provided the software solution.

Collaboration with other stakeholders, be they companies, governments or NGOs, requires a new degree of trust and cross-sectoral collaboration. The game of blaming each other for social or environmental problems must give way to a partnership where everyone supports a shared agenda. In this way, positive results become compatible with profits and basic measures, strategies, and investments are developed jointly.

Despite the increasing focus on ESG performance, most companies have done little to change organizational roles and structures to integrate sustainability into operations. CSR departments are generally very small and not involved in strategic and operational decisions. They mainly focus on stakeholder and government relations, philanthropy, and ESG reporting. But if ESG criteria are to be integrated into key decisions, people with sustainability expertise must be present at the strategic and operational decision-making table.

Enel has made this change. Its innovation and sustainability functions are united under a 'chief immovability officer', who supervises, on a matrix basis, a team of people from each department to ensure that all decisions include a sustainability analysis. Mars created the combined role of 'chief procurement and sustainability officer'.

Incentives must also be aligned. Remuneration systems must reward performance for achieving not only financial but also social and environmental goals. Some ESG-related pay bonuses are 'artfully' designed so that they can be awarded even if emissions increase or environmental damage worsens. Obviously, this makes such incentives ineffective. Companies that take ESG goals seriously make sure that a significant portion of executives' bonuses depends on their achievement. At Mars, the top 300 corporate executives receive long-term incentive compensation (in addition to salary and annual bonuses) based on their success in achieving equally weighted financial and emissions reduction targets over a three-year period. Mastercard recently announced incentive compensation for all employees that includes performance metrics related to three key issues: carbon emissions, financial inclusion, and gender equality.

Companies must explain to investors how they plan to increase the effectiveness of their earnings, express their commitment to specific goals, and provide regular updates on their performance. How a firm integrates positive social effects into its business model will be considerably more important to investors concerned about climate and sustainable development goals than inaccurate and inconsistent ESG rankings.

For instance, Nestlé has been systematically lowering the amount of sugar, salt, and fat in its product lineup for more than a decade, but it didn't start telling investors about these healthier options' quicker growth rates and greater profit margins until 2018.
Enel has long talked about its switch to renewable energy in its sustainability reports and taken pride in its work to advance the UN's Sustainable Development Goals, but it wasn't until its investor presentation at Enel Capital Markets Day in November 2019 that it first highlighted the financial value generated by the renewables business model. The Covid-19 outbreak caused most companies to fall in value over the ensuing three months, however, Enel's share price rose over 24% during that time, a development that management credits to this adjustment in

marketing tactics. Companies won't see the value of those efforts reflected in their share prices unless they can clearly communicate to investors the financial benefit of their ESG improvements.

We cannot continue down the current path, where business social and environmental initiatives are reactive after the fact, unrelated to strategy and decision-making. Businesses will change their business models, capital expenditures, and operational procedures fundamentally as a result of a shared value and the economics of impact focus, creating significant opportunities for differentiation and competitive advantage. By doing this, they will build an economy that actually closes social gaps and revives ecosystems.

4. Innovation in sustainable finance

Of late, we can observe a rise in demand in the sustainable finance instrument market owing to a paradigm shift in corporate strategies and regulations adopted by countries. A rise in demand and thus lucrativeness of a market often conduces innovation - as has been the case with sustainable finance. The previously niche market has increasingly adopted innovative solutions to offer green investments and financial tools to even conventional players in the economy.

One such innovation is green deposits. These are fixed deposits for a specific timeframe, from which liquidity is solely used to fund ESG projects such as smart agriculture, renewable energy sources, or waste management infrastructure. The sensible risk management feature of these can be seen through their characteristic of providing stable principles and predictable returns - going against the fear that ESG tools are risky, volatile, and may result in loss of principle. Similarly, sustainable deposits, which were first launched by Standard Chartered to meet Sustainable Development Goals in Africa, Asia, and the Middle East in 2019, are fixed deposits focused on funding small and medium-sized enterprises in developing countries, aiding microfinancing initiatives and supporting sustainable projects. As per Standard Chartered, 1.4 million tonnes of CO_2 have been avoided thanks to these instruments, 20,000 small and medium-sized enterprises have been funded and over 885,000 microloans have been provided - 70% of all of these results lie in Asia, Africa, and the Middle East. Green trade loans are another example of innovative sustainable finance tools. These are loans specifically designed to fund final and intermediate goods that produce sustainable products or that promote initiatives such as renewable energy or fair trade. Next, green guarantees and letters of credit are instruments used to finance investments with a clear positive impact on energy transition and environmental regeneration. Siemens Gamesa Renewable Energy was the first to receive this instrument worth 230 million euros for wind power solutions. Lastly, we can outline sustainable supply chain financing. This is a form of agreement where a corporation provides better access to finances to its suppliers based on ESG efforts. They have the objective to reduce supplier costs by improving sustainable practices.

These examples of innovative sustainable finance solutions evolve with economic, environmental, and social needs with time. They can be immensely useful in times of economic shocks, as they foster values of sensible risk management, minimizing volatility, and commitment to long-term sustainability - all of which diminish an economy's exposure to fervent shocks in the business cycle due to energy inflation, climate change damage or financial crises.

5. Recommendations

The best way to ensure that your company is addressing major social and environmental challenges is to move away from a focus on modest changes and improvements in reporting, and instead identify and pursue bold new opportunities. Address the fundamental question of how to reinvent your business model and differentiate your company from competitors by incorporating positive social and environmental outcomes into your strategy. Communicating a clear and compelling competitive strategy to create shared value, such as pursuing financial success in a way that also benefits society, will carry much more weight with investors than marginal improvements in ESG metrics.

Instead of relying only on traditional cost-benefit analyses and internal rate of return calculations to make budgetary and capital expenditure decisions, companies need to start using equations that take into account the primary social and environmental effects of their operations. Profit impact intensity is the ratio of a company's profits to its most important positive or negative effect on ESG issues. For the electricity company Enel, the primary issue is the environmental impact of its operating footprint, which means that the company should make investment decisions that optimize profits per tonne of CO_2 emitted.

Product design, product access, and operational footprint are three areas in which companies must change their internal decision-making processes from purely financial analysis to a more sophisticated analysis that includes social and environmental consequences. The mathematical relationship between changes in environmental or social factors and consequent changes in profits must become the framework for decision-making at all levels of the company. The results are likely to lead to significantly different choices that will not only improve ESG performance but also help to reposition the company in a way that improves financial performance.

6. Word of closing

With ESG on the rise in the corporate world, crisis management is on an improving trajectory as well. What we can repeatedly observe is that after crises such as the 2008 financial crisis or COVID-19, the economic landscape is characterized by a slump in private consumption and investment - features that stabilize and revive the economy after a shock. While lowering interest rates, injecting liquidity into the economy, and luring investors has worked to some extent, they come with their own set of social/economic costs and limitations that cannot be dismissed. Issues such as the liquidity trap or speculative investing threaten asset prices and economic stability aftershocks. Somewhere in this, long-term socially focused projects go missing. Up until now, investors have been relatively hesitant to engage with ESG instruments due to the perception of low returns or risk. However as we have analyzed, various corporate incentives, consumer opinion, and innovative financial tools have been changing the situation for the better. Sustainable finance in the economic and financial domain must be emphasized more if we are to quicken and recover after socio-economic crises, and set a definitive pathway for long-term projects that fulfill the United Nations' Sustainable Development Goals. The new era of sustainable finance is already underway.

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