CHAPTER V

CAPITAL MARKETS AND SUSTAINABLE FINANCE

INTRODUCTION

Since its inception, the *World Investment Report* has provided analysis of direct investment and international production, focusing on the *downstream* segment of the investment chain (*WIR20*). More recently, and with a growing need to mobilize the vast sums of capital needed to meet the SDGs by 2030, the *WIR* has expanded its focus to the analysis of the global financial market ecosystem, or the *upstream* segment of the investment chain. Despite its qualitative differences from foreign direct investment (FDI), portfolio investment nevertheless offers a potential source of capital for sustainable development, and the ecosystem surrounding global capital markets is increasingly aligning itself with sustainable development outcomes, including the SDGs.

In seeking to map the contribution of the global financial market ecosystem to the SDGs, as well as offer policy recommendations for further leveraging capital markets for sustainable development, the analysis in this chapter examines three areas:

- i. *Products and services.* What products exist in the financial market ecosystem, such as equity funds, fixed-income products and derivatives, that can support a transition in investment strategies to a more sustainable approach?
- ii. Asset owners and financial service providers. How can asset owners, in particular institutional investors such as pension and sovereign wealth funds as well as financial service providers such as insurance companies and banks, exert a greater influence on their investees through active ownership, including engagement and voting, as well as allocate more of their portfolio to SDG sectors and developingcountry markets?
- iii. Institutions and regulators. What has been the institutional response with regard to sustainability and the SDGs, and how can financial market institutions, such as stock exchanges or derivatives exchanges, exert their influence on financial market participants? What has been the role of regulators in enforcing sustainability disclosure and standards, and in what ways can regulation bring transparency, harmonization and greater impact to global financial markets?

The past 25 years have seen the emergence of sustainability performance as something to measure and disclose to investors. The realization has taken root that sustainability issues represent a material risk to investors, as well as a potential systemic risk to the global financial market and ultimately to society at large, as demonstrated by the dire consequences of the COVID-19 pandemic. More recently, sustainability performance and ratings have expanded from company disclosure to an emphasis on fund disclosure and asset owners, such as pension funds. The past decade has also witnessed the accelerating growth of a sustainable investment market focused on equities and bonds.

Much of this trend has been voluntary and market-driven, demanded by investors, provided by enlightened early adopters and supported by frameworks and principles, subscribed to on an elective basis. However, the analysis in this chapter suggests that the period of voluntary self-regulation is now transitioning towards a mandatory regulated sustainable investment market, which is likely to influence the future direction of the whole global financial market ecosystem. Already, the sustainable investment market appears to have reached a tipping point in terms of both the size of the market – hitting record highs in the number of products and the assets under management – and regulatory oversight, with the notable impact of the Taxonomy for Sustainable Activities of the European Union (EU) and its regulation of sustainability-related disclosure in the financial services sector.

The inevitable evolution of this trend is full integration of sustainability performance and standardized ratings throughout the whole global financial market ecosystem. That is, sustainability ceases to be a niche investment strategy and becomes a standardized performance metric in the same way as financial performance. This will be especially important for developing countries, which have been somewhat bypassed by the growth in sustainable investment and have yet to fully benefit from the exposure of global fund portfolios or indexes to their markets.

UNCTAD has been working for more than a decade to promote the uptake of sustainability by capital markets and other financial market actors, particularly in developing countries (see for example, UNCTAD, 2019). To take this work forward, with a longer-term, post-SDG perspective, UNCTAD is launching the *Global Sustainable Finance Observatory* to facilitate the transition of sustainable investment from market niche to market norm, as described in this chapter. The Observatory will integrate the relevant instruments and outputs on a virtual platform to strengthen the assessment, transparency and integrity of sustainable finance products and services. The Observatory will work in tandem with the standards-setting processes of the financial industry and regulatory bodies to promote the full and effective integration of sustainable development (as defined by the SDGs) into all aspects of the global financial ecosystem.

A. SUSTAINABILITY-THEMED CAPITAL MARKET PRODUCTS

UNCTAD estimates that sustainability-dedicated investments – investment products targeting sustainable development-related themes or sectors – amounted to \$3.2 trillion in 2020, up more than 80 per cent from 2019. These capital market investments consist mainly of sustainable funds (over \$1.7 trillion), green bonds (over \$1 trillion), social bonds (\$212 billion) and mixed-sustainability bonds (\$218 billion). Most of this investment is domiciled in developed countries and targeted at assets in developed markets. With respect to the sustainability credentials of this investment, especially funds, questions remain about greenwashing and its impact on sustainable development. Nevertheless, the sustainable investment market's rapid expansion indicates the potential for capital markets to help fill the financing gap to attain the SDGs.

1. Sustainability-themed funds

Over the past five years, the fund industry has been rapidly embracing sustainability through the multiplication of funds and indexes dedicated to sustainability themes. In 2020 alone, sustainable funds have surged, including mutual funds and exchange-traded funds (ETFs) described in prospectuses or other filings as selecting assets that integrate sustainability, impact or environment, social and governance (ESG) factors.

a. Market trends

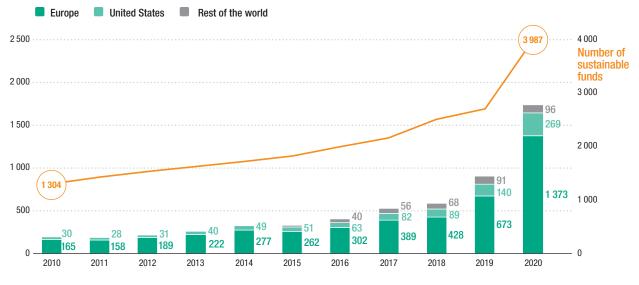
According to data from Morningstar and TrackInsight, the total number of sustainabilitythemed funds reached 3,987 by June 2020, up 30 per cent from 2019, with about half of all sustainable funds launched in the last five years (UNCTAD, forthcoming b). Assets under management (AUM) of sustainable funds have quadrupled in the last five years, and last year alone they nearly doubled, from roughly \$900 billion in 2019 to over \$1.7 trillion in 2020 (figure V.1). This exceptional growth held for both sustainable mutual funds and ESG ETFs (box V.1), which together now represent 3.3 per cent of the assets of all open-ended funds worldwide.¹

The universe of sustainability-themed funds comprises 3,435 mutual funds and 552 ETFs, with AUM of \$1.56 trillion and \$174 billion respectively. The asset allocations of sustainable funds are split among equity, fixed-income and mixed allocation funds, with equity funds accounting for the majority of funds by number (62 per cent). The remainder are split equally between fixed-income (19 per cent) and mixed-allocation funds (19 per cent).

Investment flows to sustainability-themed funds exhibit a similar growth trajectory. From 2016 to 2019, net inflows to these funds increased from \$33 billion to \$159 billion. Despite massive outflows from global capital markets in March 2020 following the outbreak of COVID-19, the total net inflows to sustainable funds in the first half of 2020 recovered to \$164 billion, and UNCTAD estimates that full-year net inflows reached well over \$300 billion (figure V.2). The explosion in flows to these funds demonstrates their rapidly growing

Figure V.1. Number of sustainable funds and assets under management, 2010–2020





Source: UNCTAD, based on Morningstar and TrackInsight data.

Note: Numbers of funds do not include funds that were liquidated; the numbers for 2020 are as of 30 June.

Box V.1. The rise of sustainable exchange-traded funds (ETFs)

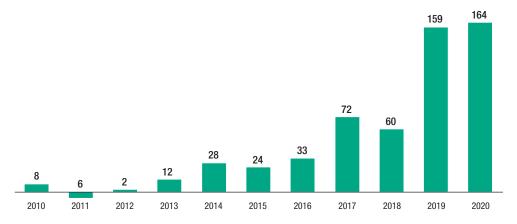
ETFs with an ESG tilt are a subset of the sustainability-themed investment funds in this report. Providers of ETFs are increasingly responding to the demand for sustainability-themed products, with a particular focus on ESG performance. Since UNCTAD's first study on ESG ETFs (UNCTAD, 2020f), the number of such funds has more than doubled – from 221 in 2019 to 552 in 2020, a much faster annual growth than in previous years.

ETFs integrate ESG performance by using one of several strategies, including (i) exclusionary screening; (ii) a general integration of ESG performance; (iii) pursuing a best-in-class ESG strategy; and (iv) thematic strategies, specifically targeting a sustainable sector, market, or theme, such as the United Nations' SDGs. Of the 552 ESG ETFs, 77 followed a themed strategy, up from 49 in 2019. This illustrates the growing attraction of themed strategies that often align with, or explicitly target, a specific SDG. Overall, 208 ESG ETFs targeted the SDGs in their investments in 2020, of which almost 90 per cent covered just three goals: SDG 13 (Climate action), SDG 7 (Affordable and clean energy) and SDG 5 (Gender equality).

In terms of the distribution of ESG ETFs by domicile, Europe accounted for a greater share in 2020 than in 2019, up from 59 per cent of funds to 67 per cent, reflecting the overall geographic distribution of the whole sustainable fund market. Only seven ESG ETFs, or just over 1 per cent of the total, were domiciled in developing countries – the same number as in 2019.

Source: UNCTAD, based on TrackInsight data.

Figure V.2. Net inflows to sustainability-themed funds, 2010–2020 (Billions of dollars)



Source: UNCTAD, based on Morningstar and TrackInsight data. Note: Flows for 2020 are as of 30 June.

popularity as an investment vehicle. However, these net inflows remain relatively small in relation to the size of total AUM of sustainability-themed funds. This shows that the growth in their assets is driven, to a large extent, by the rise in their market value, boosted by buoyant stock markets, in particular in Europe and the United States in the last two years.²

The vast majority of sustainability-themed funds are domiciled in Europe (73 per cent), followed by North America (18 per cent); other regions, including developing countries, represent less than 10 per cent of domiciled funds. This reflects the maturity of the market and the relatively advanced regulatory environment for sustainable investment in Europe (UNCTAD, forthcoming b). The United States has the second largest share of sustainability-themed funds, while Luxembourg is by far the largest single host country, holding a market share of almost 30 per cent by assets (although domicile does not necessarily mean the fund is managed from that location).

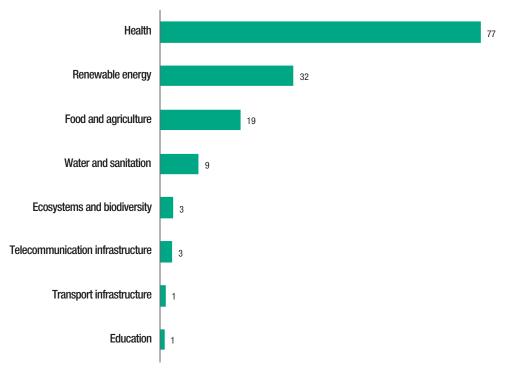
The rapid rise of sustainability-themed funds, particularly in 2020, reflects the accelerating adoption of sustainability criteria within the investment community, in particular in developed countries. Institutional investors, such as pension and insurance funds, are increasingly prioritizing sustainability in their investment decisions, particularly in view of their long-term obligations to beneficiaries and the material risks posed by climate change and other sustainability-related crises, such as the COVID-19 pandemic. They are also increasingly convinced that a pivot to sustainable investment does not necessarily entail an opportunity cost (Morgan Stanley, 2019). In the last two years, major fund providers and asset owners, such as BlackRock (United States) and Norway's Government Pension Fund, have stepped up their efforts to move towards sustainable investment, for example by announcing the divestment of carbon-related assets from their portfolios.³

b. Sustainability-themed funds and the SDGs

One of the investment strategies of sustainable funds is to target sustainability-related themes or sectors, including in the SDGs. UNCTAD's analysis of 800 sustainable equity funds for which relevant data are available found that about 27 per cent of their total assets (\$145 billion of their total AUM of \$540 billion) is deployed in eight key SDG sectors: transport infrastructure, telecommunication infrastructure, water and sanitation, food and agriculture, renewable energy, health, education and ecosystem diversity. The health sector, which covers medical services, pharmaceuticals and medical devices, is the most common and single largest SDG sector for these funds, followed by renewable energy, food and agriculture, and water and sanitation (figure V.3). Their investments in the health sector can make a critical contribution to the achievement of SDG 3 – good health and well-being (box V.2). Meanwhile, the analysis also suggests that the funds' returns did not systematically suffer a financial disadvantage for having a sustainable tilt in their portfolios. Over a period of three years, 48 per cent of sustainable funds outperformed their respective benchmarks, while 52 per cent underperformed them (UNCTAD, forthcoming b).

The benefits of sustainable funds are mainly limited to developed economies. Developing and transition economies so far remain largely absent from the sustainable fund market. In total, they host about 5 per cent of the world's sustainable funds by number and less than 3 per cent by assets. However, leading emerging markets have become important players in a wide range of SDG sectors, such as pharmaceuticals, renewable energy and green bonds. In addition, stock markets in developing and transition economies account for roughly 23 per cent of global market capitalization. These two factors suggest that developing economies have the potential to significantly grow their sustainable fund markets, and their fund markets in general.

Figure V.3. Deployed assets across eight SDG sectors, 2020 (Billions of dollars)



Source: UNCTAD, based on Morningstar and TrackInsight data.

In addition to the regional concentration of funds in developed-country markets, their real impact and sustainability credentials also remain questionable, raising concerns about "ESG or SDG washing". The global sustainable fund market therefore needs to address two fundamental issues to fully unleash its potential to finance sustainable development: (i) how to make sustainable funds contribute more to sustainable development in developing economies, and (ii) how to improve their sustainability credentials and address ESG- or SDG-washing concerns.

To leverage sustainability-themed funds for sustainable development, developing and transition economies need to put in place necessary industry standards and regulatory frameworks, as they did to support the growth of sustainable bonds. Incentives could also be provided for the development of and investment in sustainability-aligned indices and funds. Meanwhile, there is a need for more funds that target developing and transition economies in both developing and developed markets. Among the measures required to support this shift are improving capital market regulation and reporting in developing countries and raising standards to international norms to boost investor confidence.

To continue growing in the long term, sustainable funds need to address issues about the harmonization of standards. Meanwhile, the fund market needs to enhance credibility by improving transparency through reporting, not only on ESG issues but also on climate impact and SDG alignment. Today, more than 90 per cent of the world's largest companies report on ESG or SDG issues (G&A,2020), but very few funds are reporting on their own sustainability performance. Fully transparent self-reporting would be a helpful first step towards more transparency and credibility, and the reporting should be supported by external auditing, as is required for companies. Meanwhile, stock exchanges can put in place relevant guidelines or demand greater sustainability performance and disclosure in their listing requirements (see section C).

Box V.2. Fund investment in the health sector

Good health and well-being are covered by SDG 3; they are a basic human right and are also essential for economic and social development. In 2020, direct investment and project finance in health infrastructure (e.g. hospitals) fell by 39 per cent (UNCTAD, 2021c), threatening progress on the attainment of SDG 3 and putting pressure on the health sector, especially in developing countries. The pandemic has also compounded the strain on national health systems globally (see chapter III, section C).

However, the response to the pandemic has also been increased investment by mutual funds and ETFs in other areas within the health sector, such as health care, pharmaceuticals, biotechnology, and medical devices and supplies. In 2020 and the first four months of 2021, the number of equity funds dedicated to the health sector rose by 13 per cent to 575, with AUM reaching \$350 billion.

More than two thirds of this investment is domiciled and invested in North America, which perhaps reflects private approaches to health care and health insurance. Europe accounts for 29 per cent of funds' investment in the health sector, perhaps reflecting predominantly public approaches to health care and health insurance, despite mature pharmaceutical and medical supply industries. The AUM domiciled in developing countries and invested there reached \$5.5 billion at the start of 2021, accounting for roughly 2 per cent of AUM in the health sector.

Meanwhile, sustainable funds in general also invest heavily in the health sector. UNCTAD's analysis of more than 800 sustainable equity funds, over 90 per cent of which are not in the health sector, found that about 14 per cent of these funds' assets, about \$77 billion out of \$540 billion of total assets, are invested into the health sector, by far the largest exposure among key SDG-oriented sectors such as renewable energy, agriculture and transport infrastructure.

While the trend in investment via capital markets is positive for the pandemic recovery and the attainment of SDG 3, most health sector funds described here are so far not included in mainstream sustainable fund databases such as that of Morningstar. This does not necessarily mean they are not sustainable or do not contribute to sustainable outcomes, as 16 per cent of these funds have "above average" ESG ratings, according to data provided by Conser, a Swiss sustainability data company. Instead, these funds are not counted as sustainable funds, perhaps just because they do not disclose systematic ESG integration in their investment strategy or because sustainability ratings for many of them are inaccessible. This highlights the importance of harmonizing standards for defining and qualifying sustainable funds and building up their sustainability data. In addition, there may be an advantage to use the SDGs as a benchmark for sustainability and to take a broader view of the market to better establish the level of SDG investment.

Source: UNCTAD, based on Morningstar and TrackInsight data.

2. Sustainable bond markets

The now \$1.5 trillion market for sustainable bonds (green, social and mixed) saw increased demand in every quarter of 2020, from less than \$70 billion in Q1 to close to \$180 billion in Q4, pushed by the issuance of social and mixed-sustainability bonds as national and supranational organizations and corporations financed relief efforts amid the fallout from the pandemic. The highest increase was seen in the social bond market, with a tenfold rise to \$164 billion in 2020 — or one third of the sustainable bond market (green, social and mixed-sustainability combined), up from just 5 per cent in 2019. At the same time, mixed-sustainability bonds (a mix of green and social) were valued at \$128 billion, surpassing their 2019 total by a factor of three.

The sustainable bond market — including green bonds, social bonds and mixedsustainability bonds (a mix of green and social) — has seen enormous growth since the first green bond was launched just over a decade ago. Based on 2020's explosive growth rate, social and mixed-sustainability bonds are rapidly catching up with the green bond segment (long the leader in this area) and becoming increasingly popular tools for financing SDG related activities. Cumulatively the total amount of outstanding sustainable bonds since 2015 is estimated to be \$1.5 trillion, based on average maturity periods for these bonds.⁴

Despite an average annual growth rate of 67 per cent and significant size in absolute terms, the sustainable bond market is still very much in its early growth stage, representing only about 1.26 per cent of the total global bond market of approximately \$119 trillion.⁵ This suggests enormous growth potential for this segment going forward.

In the next five years, the sustainable bond market can expect to see further acceleration of growth as investors and issuers become more confident with this proven investment vehicle and the sense of urgency around financing the SDGs, including climate action, continues to create a conducive policy environment for these types of investments. By 2025, the sustainable bond market could reach 5 per cent of the total global market, which would bring over \$6 trillion of new investments in SDG sectors.

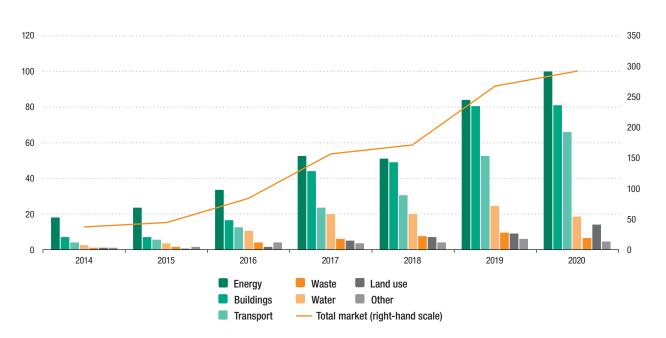
In part, this development has been facilitated by stock exchanges: 37 stock exchanges now have specialized market segments to increase the visibility of these products, up from zero exchanges 10 years ago. The Luxembourg Stock Exchange, with the creation of the Luxembourg Green Exchange market segment, was one of the first exchanges to list green bonds. By Q1 2021, the new exchange had listed over 500 green bonds, 350 mixed-sustainability bonds and 70 social bonds. Stock exchanges also work with issuers to develop sustainable bonds: for example, the Johannesburg Stock Exchange worked with the city of Cape Town in 2020 to develop a municipal green bond. More details about different types of sustainable bonds are provided in the following subsections.

a. Green bonds

Figure V.4.

Green bonds facilitate investment in environmental infrastructure projects, including projects related to climate action (SDG 13), affordable and clean energy (SDG 7), and sustainable cities and communities (SDG 11). Green bond segments on stock exchanges first emerged in 2014, and the value of green bonds issued, both listed and unlisted, has since grown by 700 per cent into a \$300 billion market (figure V.4). The proceeds of green bonds are primarily used in three sectors: energy, buildings and transport. In 2020, the global green bond market continued its upward trend, though it grew slower in 2020 than in 2019. This may be due to the effects of the pandemic leading to deferred infrastructure projects; it may also be related to the dramatic growth of the sustainability bond market, which mixes elements of green bonds and social bonds.

Green bond market size and industries financed, 2014–2020 (Billions of dollars)



Source: Climate Bonds Initiative

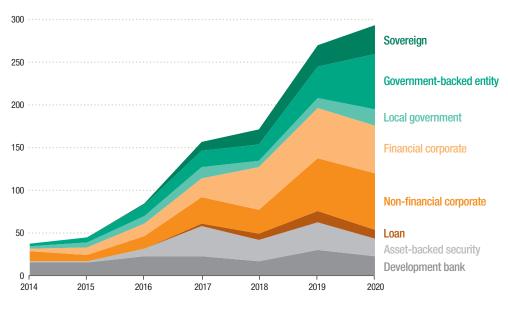


Figure V.5. Green bond market size by type of issuer, 2014–2020 (Billions of dollars)

Source: Climate Bonds Initiative.

Although financial and non-financial corporations are the dominant issuers of green bonds, the value issued by government-backed entities increased in 2020 (figure V.5). Government-backed entities issued nearly \$65 billion in green bonds in 2020, compared with \$36 billion in 2019. Development banks issued nearly \$23 billion worth of green bonds in 2020, about \$6 billion less than in 2019, which accounted for only 7.8 per cent of all green bonds issued, compared with 40 per cent in 2014. This highlights how development banks kick-started this innovative area of finance, which is now dominated by government and private-sector issuers. For example, financial corporations, which issued 6.8 per cent of green bonds in 2014, accounted for 19 per cent of the market in 2020.

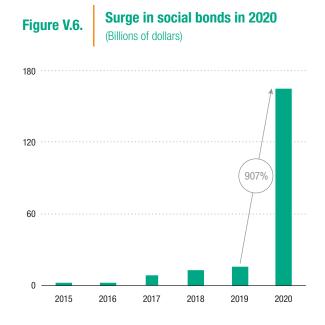
b. Social bonds

The pandemic has boosted the issuance of social bonds — a trend first observed in *WIR20*. The year 2020 saw a jump of over 900 per cent in the value of the social bond market (figure V.6). These sustainable debt products are based on a set of principles or guidelines issued by the International Capital Market Association (ICMA). According to the ICMA's *Social Bond Principles*, social bonds finance projects with positive social outcomes such as health or well-being improvement and poverty reduction. Similar to social bonds, impact bonds are outcomes-based contracts used to deliver services to the population (box V.3).

The huge surge in social bonds in 2020 was due mainly to the response to the COVID-19 pandemic. Supranational entities led the development of COVID-19 response bonds, primarily social bonds specifically developed to address the impacts of the pandemic. Multilateral development banks were able to react quickly as many already had frameworks in place to issue social and mixed-sustainability bonds. COVID-19 response bonds include the largest dollar-denominated social bond ever launched in international capital markets before Q1 2020: the issuance of the \$3 billion "Fight COVID-19" social bond of the African Development Bank (AfDB). Another big issuer of social bonds in 2020 was the European Union, which tapped the market multiple times to fund the EU SURE (Support to MITIGATE Unemployment Risks in an Emergency), a temporary job support program.

EU SURE is a programme developed by the EU to help member States cope with the economic disruption caused by the pandemic. The program provides financial assistance to address the sudden increase in public expenditure, as member States try to mitigate the consequences of the economic shocks of the pandemic. The EU SURE social bonds are aligned with the Social Bond Principles of the ICMA and aim at supporting employees and selfemployed against the risk of unemployment and loss of income (SDG 8).

By the first quarter of 2021, the European Commission had issued \in 75.5 billion (\$91 billion) worth of social bonds in six rounds under the EU SURE instrument. These funds have already been disbursed to 17 member States (figure V.7), but others can still submit requests to receive financial support under SURE, which could raise up to \in 100 billion.



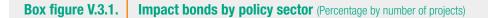
Source: UNCTAD.

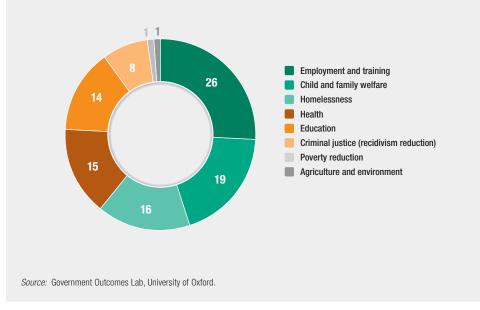
Box V.3. Impact bonds

Impact bonds are outcomes-based contracts that use private investor funding to cover the upfront capital required for providing a service. These contracts differ from traditional contracts by focusing on outcomes rather than on inputs and activities. The service is designed to achieve measurable outcomes, and the investor is repaid only if these outcomes are achieved.

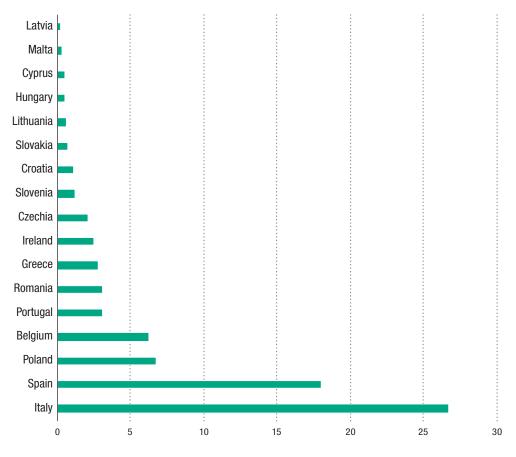
There are two types of impact bonds: (i) social impact bonds, for which the outcome payer is the government representing the target group, and (ii) development impact bonds, in which the outcome payer is an external donor (e.g. aid agency of a government or multilateral agency).

Currently, 206 projects are funded through impact bonds, which have raised over \$450 million all over the world for different policy sectors (box figure V.3.1).









Source: UNCTAD.

At the beginning of the pandemic, the AfDB raised \$3 billion in a three-year bond to help mitigate the economic and social impact of the pandemic on Africa's economies and livelihoods. The Fight COVID-19 bond was allocated to central banks and official institutions (53 per cent), bank treasuries (27 per cent) and asset managers (20 per cent). Final bond distribution statistics demonstrated a worldwide interest in COVID-19-related bonds: the bonds were funded from investors in Europe (37 per cent), the Americas (36 per cent), Asia (17 per cent), Africa (8 per cent) and the Middle East (1 per cent).

Currently, 12 African countries borrow funds from the AfDB that are financed by the Fight Covid-19 social bond. These countries' projects focus on different sectors and interventions, ranging from supporting the transition of production lines to health-care materials, to providing bridge-finance for SMEs struggling with the effects of national lockdowns, to providing social support for vulnerable people. For example, the Tunisian PARISE project received a \$217 million loan from the AfDB in April 2020 to mitigate the impact of the COVID-19 crisis through job protection and the social inclusion of vulnerable groups (the youth and the poor) over the short term, and through economic recovery in the medium term. In Cameroon, a \$106 million loan is funding the country's Crisis Response Budget Support Programme, which is to build capacity for COVID-19 testing, management and response by providing planning and strategic tools, as well as financial resources, to the health sector. It also aims to stabilize household income and livelihoods to safeguard food security.

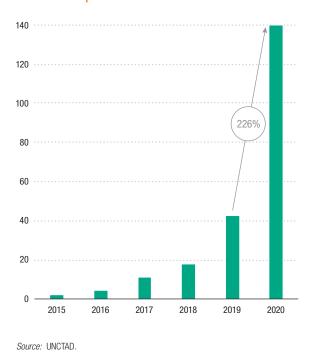
c. Mixed-sustainability bonds

Mixed-sustainability bonds are instruments that mix social and environmental objectives and are defined by the ICMA Sustainability Bond Guidelines. Thus, they are aligned with the components of both ICMA's Green Bond Principles and Social Bond Principles. Similar to social bonds, the mixed-sustainability bond market saw a significant leap in volume in 2020, growing 226 per cent (figure V.8).

Given the cross-cutting and interrelated nature of social and environmental issues, these mixedsustainability bonds are especially useful for raising funds for sustainable development projects. Supranational organizations, such as development banks, have taken the Sustainability Bond Guidelines as a guide for their sustainable development bonds frameworks. The World Bank Group has such a framework, and the proceeds of its bonds go to projects designed to achieve both positive social and environmental impacts and outcomes in line with the World Bank Group's twin goals of eliminating extreme poverty and promoting shared prosperity.

Figure V.8. Surge in mixed-sustainability

bonds in 2020 (Billions of dollars)



In 2020, the World Bank Group reported that it has committed \$23.2 billion of proceeds from mixed-sustainability bonds to fund 100 new projects, of which 54 per cent were from lower-middle-income countries, 57 per cent had a gender focus and 31 per cent had climate co-benefits. When analysed by sector, the majority of proceeds went to projects that involved some infrastructure aspect, such as transportation, water and sanitation, and energy. The region most benefited was Latin America and the Caribbean, followed by East Asia and the Pacific and then Europe and Central Asia.

As an example of how sustainable bonds can incorporate social and environmental goals, the World Bank project Support to Bogota's Metro Line 1 Project aims at improving public transportation in Colombia's capital (to reduce transportation emissions) but also embeds mechanisms to hire more women, with a target of at least 20 per cent of Metro employees. The project also incorporates a reporting mechanism for victims of sexual harassment and an action protocol for Metro police and staff to intervene.

B. INSTITUTIONAL INVESTORS AND FINANCIAL SERVICE PROVIDERS

At the far upstream end of the investment chain are asset owners and asset managers, the vast majority of which are institutional investors. The size of the assets managed by institutional investors puts them in a strong position with regard to effecting change on sustainability issues. They can do this primarily through two routes: (i) asset allocation – how they choose to allocate the large amounts of capital at their disposal, which can have a determinative impact on companies and markets; and (ii) active ownership – how they engage with their investments through corporate governance mechanisms to influence the policies of the companies in which they invest.

1. Sustainability-influenced asset allocation

This section examines four groups of upstream institutional investors that have an important role to play in driving sustainable investment and who have a strong institutional interest in doing so: the first two, pension funds and sovereign wealth funds (SWFs), managed reported global assets of \$52 trillion and \$9.2 trillion, in 2021, respectively (Thinking Ahead Institute, 2021 and Global SWF, April 2021).⁶ The second two, insurance companies and banks, manage assets but primarily provide financial services for their clients in the form of risk liability and other risk management products, and loans. The investable assets of insurance companies and banks reached \$32 trillion (2018) and \$155 trillion (2019) respectively.⁷

a. Pension funds

Given their long-term obligations, pension funds (as well as SWFs, discussed in the next subsection) are in a better position to assess long-term risks to their portfolios, and the intergenerational nature of their business model tends to make them more responsive to ESG- and SDG-related issues. Consequently, there has been a realization on the part of these large institutional investors that ESG factors constitute material risks for the sustainability of their investments. UNCTAD has focused much of its analysis on public pension funds, which often have a clearly defined link with local communities and ESG priorities. In terms of their AUM, they accounted for almost \$20 trillion in 2021, or 40 per cent of total global pension assets.⁸

Public pension funds could be an important financing source for sustainable development. For example, infrastructure investments are well suited to their needs – their investment horizon aligns with long-term infrastructure projects and their investment capacity can address the size of such projects (PwC, 2016). Despite the impact of the pandemic, the investment of pension funds in infrastructure continued growing in 2020, with increasing investments committed by the funds to sectors critical for sustainable development, such as renewable energy, agriculture and industrial properties (including warehouses, industrial premises and logistics centres) (IE University, 2020).

In recent years sustainability-dedicated investment has started to gain increased traction among the funds, and their strategies have evolved from relatively simple approaches (such as exclusion or negative screening) to more sophisticated ones. Impact investment (including SDG-themed investment) has become an important investment strategy, showing an ongoing transition from responsible investment to sustainability-dedicated investment (UNCTAD, 2020d). The most popular investment areas are related to climate change mitigation, in particular in carbon-efficient assets, renewables, green real estate and infrastructure, and green, social or mixed-sustainability bonds. In 2018, Canada Pension Plan (CPP) became the first pension fund to issue green bonds, raising \$1.5 billion in total, a record at the time for a single green bond transaction in Canada.⁹

An increasing number of funds have also started to integrate the SDGs into their asset allocation. APG and PGGM (both the Netherlands) jointly developed a taxonomy for investment that contributes to the SDGs, called Sustainable Development Investment. By the end of 2017, PGGM had dedicated 15 per cent of its total assets to SDG-related sectors or projects. Other funds, such as ATP (Denmark), the Government Pension Investment Fund of Japan and the New Zealand Superannuation Fund, also use the SDGs as a reference to pursue positive investments that deliver clear social and environmental benefits alongside financial returns.

Nonetheless, public pension funds still have a long way to go in embracing sustainability in their investments. According to an UNCTAD report, among the world's 50 largest public pension funds and 30 largest SWFs, only 16 public pension funds and 4 SWFs published a sustainable or responsible investment report in 2019 (UNCTAD, 2020d). More fundamentally, public pension fund portfolios largely bypass developing-country markets, limiting their contribution to sustainable development.

b. Sovereign wealth funds

In response to the needs for additional resources to fight the pandemic and drive post-pandemic recovery, SWFs have acted as useful fiscal buffers for their governments. During the pandemic, many funds were called on to offset widening budget gaps to backstop the economic and financial impacts of the crisis. Reported drawdowns were widespread, ranging from large funds such as in Qatar, the Russian Federation, Singapore and Norway, where nearly 5 per cent of the Government Pension Fund Global's capital was earmarked for fiscal support, to small funds as in Botswana, Ghana or Nigeria – that are far less well resourced. Meanwhile, the funds were also engaged in a variety of other measures designed to provide relief to distressed sectors of local economies. Mubadala Investment Company (United Arab Emirates), for example, rolled out a \$114 million rent relief plan targeting the retail and hospitality industries. In the Russian Federation, the Russian Direct Investment Fund provided capital for vaccine production. Funds from Malaysia, Singapore and Turkey have stepped in to fund or recapitalize local firms operating in key sectors (IE University, 2020). In view of their role in fighting the pandemic, SWFs - especially those in developing countries - may see their function as an economic stabilization vehicle further strengthened as a useful tool to insulate their economies from internal and external shocks and to promote sustainable development in their countries.

As SWFs become more active in direct investments in infrastructure, energy, emerging technologies and other assets that are vital to the strategic interests of host countries, it is worth questioning whether controlling stakes in investment projects are desirable. Where such significant stakes are warranted, there may be options for SWFs and public pension funds to work in partnership, either with host-country governments, with development finance institutions or with other private-sector investors that can bring technical and managerial competencies to the project.

Meanwhile, the funds should uphold responsible investment principles and standards, such as the Principles for Responsible Investment in Agriculture, which protect the rights of minority shareholders and local stakeholders. Home-country governments, as the final owners of the funds, need to review the mandate of these funds to allow them necessary space for investment abroad in productive assets and activities. In contrast, developing host countries need to reduce entry barriers for institutional investors while safeguarding public interests. In addition, they can use risk-sharing tools, such as public-private partnership, investment insurance and blended financing, to help improve the risk-return profile of SDG investment projects, and make bankable projects readily available for institutional investors, while taking measures to maximize their development benefits (*WIR14*).

The Santiago Principles,¹⁰ the industry-agreed framework on SWF governance and operations, have helped mitigate concerns related to governance, transparency and accountability issues to a certain extent. Yet, questions remain about whether SWFs are governed according to international standards and about their strategic purpose with regard to foreign investment (Marie et al., 2021). Meanwhile, sustainability integration, or how to make SWFs work better for sustainable development, is largely absent in the Santiago Principles. Therefore, the Principles need to be updated to ensure that ESG integration becomes an inherent part of SWF investment decision-making, and that the Principles are aligned with member State commitment to the SDGs and the Paris Agreement on Climate Change.

c. Insurance companies

In its role as risk manager, risk carrier and investor, insurance is a key component of a sustainable financial system. At its core, the insurance business model is built on the principle of mutualization of risk — making it a particularly effective tool for the management of collective problems posed by sustainable development challenges. Beyond providing financial resilience, insurance acts as an enabler of solutions that can drive social and environmental sustainability. Through investment, insurers can support sustainable development as asset owners, using capital-allocation and active-ownership strategies that complement their underwriting business.

Climate change is a systemic risk for the whole world. Total economic losses from disasters globally were an estimated \$202 billion in 2020, up from \$150 billion in 2019, with about \$190 billion resulting from natural catastrophes and the remainder from humangenerated events. The *insurance protection gap* is the difference between economic losses and *insured* economic losses over time: the bigger the gap, the greater the uninsured losses. This gap is bigger in developing countries than in developed countries, further exacerbating the negative economic impacts of climate change on developing countries. In North America 66 per cent of the economic losses in 2020 were insured while in Oceania/ Australia the share was 73 per cent and in Europe 33 per cent. In Latin America and the Caribbean it was 18 per cent, in Asia 12 per cent and in Africa 0 per cent. Worldwide, the insurance protection gap increased to \$113 billion in 2020, up from \$87 billion in 2019. Although insured (\$69.8 billion) and economic (\$104.6 billion) losses occurred primarily in North America in 2020, *none* of the \$1.4 billion in economic losses suffered in Africa were insured (Swiss Re Institute, 2021).

With economic losses from catastrophes growing faster than insured losses, adapting economies to climate-related impacts has become a major priority. New insurance products designed to create disaster-risk-financing systems, where no other risk-transfer tool is available, are increasingly being seen as part of the solution in closing this protection gap and fostering sustainable development.

Initiatives to harness insurance for sustainable development have been picking up momentum since 2012 when the UN Environment Programme Financial Initiative (UNEP FI) launched the Principles for Sustainable Insurance. The Principles serve as a global framework for the insurance industry to address ESG risks and opportunities and a global initiative to strengthen the insurance industry's contribution – as risk managers, insurers and investors – to building resilient, inclusive and sustainable communities and economies on a healthy planet. In 2016, UNEP-FI further created the Sustainable Insurance Forum whose core members are insurance regulators and supervisors. While the Principles are focused on the private companies in the insurance industry, the Forum is focused on strengthening insurance regulators' understanding of sustainability challenges and the systemic risks and opportunities sustainability presents for the insurance industry.

Climate change presents an enormous challenge for the industry, but it is also an issue in which the industry and its regulators can play an important role in promoting the transition to a net-zero economy. Among the key priorities, the insurance industry needs to

- assess climate change risks in an integrated manner, including climate-related physical, transition and litigation risks.
- recognize that climate change presents not only downside risks, but also upside opportunities to develop insurance products or expand existing ones within a changing risk landscape that can assist with climate adaptation.

An important step in the insurance industry was taken in April 2021 by seven of the world's leading insurers and reinsurers, working together with UNEP, in the process of establishing a pioneering Net-Zero Insurance Alliance. The seven companies – Allianz, Aviva, AXA, Munich Re, SCOR, Swiss Re and Zurich Insurance Group – recognize that the global insurance and reinsurance industry can play a key role in accelerating the transition to a resilient, net-zero emissions economy, in line with the 1.5°C target of the Paris Agreement on Climate Change.

d. Banks

The volume of sustainable financial products and strategies has grown in the past years, driven by increased demand and campaigns to incentivize financial sector efforts in achieving global sustainability agendas. The focus of these initiatives has been mostly investors and asset owners, while the banking sector has received less attention. The banking sector can play a critical role in fostering sustainable development through enhanced corporate lending, which represents a significant source of global capital.

The sustainable loan market, valued at approximately \$200 billion in 2020, is less than a decade old and consists mainly of green loans (which have been used to finance green assets and projects) and sustainability-linked loans (which are tied to the borrower's ESG rating and not the use of proceeds) (figure V.9). The frameworks underpinning these instruments are the Green Loan Principles established in 2018 and the Sustainability Linked Loan Principles established in 2019 by the Loan Market Association, a banking industry group.

European markets played a leading role in the upward trend of the sustainable loan market, consistently representing about half or more of the market over the past five years (figure V.10). Most loans raised under the Green Loan Principles are for investment in renewable energy, while the sustainability-linked loans go to a more diversified set of industries.

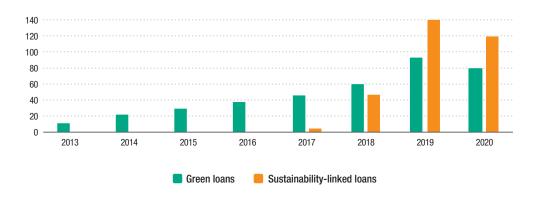
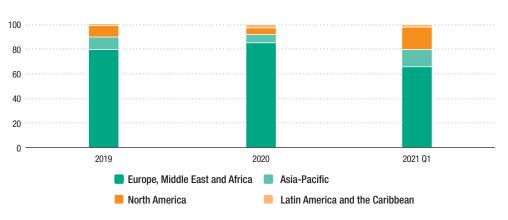


Figure V.9. Green and sustainability-linked loans (Billions of dollars)

Source: UNCTAD, based on Bloomberg data.

Figure V.10. Sustainability-linked loan issuance by region (Per cent)



Source: UNCTAD, based on Bloomberg data .

The recent economic decline triggered by the pandemic poses a risk for debt markets. In this context, the consideration of ESG factors by banks and their inclusion into long-term strategies, risk management processes and product design is critical to have a more resilient system able to withstand shocks. For instance, in the COVID-19 crisis, evidence suggests that companies with strong ESG performance have been more resilient, and the same for sustainable debt and green bonds compared with mainstream corporate debt. Banks can lead the way to a more sustainable economy by lending to economic activities that contribute to sustainable development and by incentivizing clients to better address social and environmental opportunities and challenges.

In 2012, the International Finance Corporation launched a pioneering initiative, the Sustainable Banking Network. The Network is a unique, voluntary community of financial sector regulatory agencies and banking associations from emerging markets that are committed to advancing sustainable finance in line with international good practice. The current 43 member countries represent \$43 trillion or about 86 per cent of the total banking assets in emerging markets.

The UNEP FI Principles for Responsible Banking (box V.4), published in 2019, reinforced the case for the environmental and social aspect of corporate lending and banks.

Currently, they have 227 signatories, from 69 countries, totaling \$57 trillion in assets. This demonstrates growing interest from the banking community in joining the efforts of other financial sectors to promote sustainable development.

Another banking sector initiative is the Collective Commitment to Climate Action, the most ambitious global banking sector initiative supporting the transition to a net zero economy by 2050. It brings together a leadership group of 38 banks from across all six continents that have committed to align their portfolios with the global climate goal to limit warming to well below 2 degrees. The initiative's banks, representing more than \$15 trillion in assets, are fast-tracking the commitment made by all Principles for Responsible Banking signatories to align their business strategy with the temperature goals of the Paris Agreement on Climate Change. At the end of 2020, one year since the launch of the commitment, banks have taken steps to develop the know-how and underlying data to align their portfolios with the Paris Agreement on Climate Change. To deliver on their commitment, banks have been developing new financial products, implementing exclusion policies, assessing and managing risks, conducting portfolio alignment assessments and engaging with their clients.

2. The sustainability dimension of active ownership

With 43 per cent of public pension and SWF assets invested in publicly listed equities (Megginson et al., 2021), they are "universal owners" with large shareholdings in companies across a wide range of sectors and markets. The top 100 SWFs and public pension funds alone are estimated to own about 5 per cent of all listed equities globally (IE University, 2020). This puts them in a uniquely powerful position to drive sustainability inclusion along their investment chains through active and responsible ownership. This influence can be exercised through dialogue and engagement with their investment.

Box V.4. The Principles for Responsible Banking

In September 2019, the United Nations Environment Programme Finance Initiative (UNEP FI) launched the Principles for Responsible Banking to provide a framework for a sustainable banking system and help the industry to demonstrate how it makes a positive contribution to society. They embed sustainability at the strategic, portfolio and transactional levels, and across all business areas. The Principles for Responsible Banking entail that signatory banks' strategy and practice align with the vision society set out for its future in the SDGs and the Paris Climate Agreement on Climate Change by following this six-point framework:

- 1. Alignment: Align business strategy to be consistent with and contribute to individuals' needs and society's goals, as expressed in the SDGs, the Paris Climate Agreement and relevant national and regional frameworks.
- 2. Impact and Target Setting: Continuously increase positive impacts while reducing the negative impacts on, and managing the risks to, people and environment resulting from banks' activities, products and services.
- 3. Clients and Customers: Work responsibly with clients and customers to encourage sustainable practices and enable economic activities that create shared prosperity for current and future generations.
- 4. Stakeholders: Proactively and responsibly consult, engage and partner with relevant stakeholders to achieve society's goals.
- 5. Governance and Culture: Implement these Principles through effective governance and a culture of responsible banking.
- 6. Transparency and Accountability: Periodically review individual and collective implementation of these Principles and be transparent about and accountable for positive and negative impacts.

The principles represent a multi-stakeholder partnership between UNEP FI and the banking industry to help banks implement these principles through guidance and reporting frameworks. They are open for banks to sign on. Signatory banks are required to report on their self-assessment within 18 months of becoming a signatory. Within a maximum of four years, banks are expected to have implemented their targets.

Source: UNEP FI Principles for Responsible Banking, https://www.unepfi.org/banking/bankingprinciples

a. Engagement

Active engagement can take many forms, including consultations and dialogue with all stakeholders in the investment value chain. Generally, funds favour engagement with asset managers and investees as a first resort to improve ESG performance, for example, by reducing carbon intensity or acting on gender parity. If engagement fails, the next resort can be to exclude firms from a fund's portfolio. Given the large portfolios of many funds, engagement can be an onerous task. For this reason, engagement is often undertaken by asset managers on behalf of the fund or outsourced to professional service providers.

In response to the large number of companies in fund portfolios, some funds take a thematic approach, engaging companies on specific issues, such as child labour, the preservation of marine life, management diversity or the circular economy, or developing engagement programmes that focus on specific components, such as climate change and emissions. Engagement can also be focused on corporate governance practices within companies.

Collective engagement through international initiatives and collaboration with other investors are gaining popularity. For example, many frontrunner pension funds have participated in the Climate 100+, an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. Group lobbying such as this tends to be more effective and time-saving for investors.

b. Voting

The most common way in which funds practise active ownership is through voting, either directly or, more likely, through a proxy. Most institutional investors regard voting in shareholder meetings as one of the most important tools for exercising ownership rights and a natural feature of ownership. They are increasingly supporting ESG and sustainability-related resolutions. Norway's Government Pension Fund, for example, voted in favour of over 43 per cent of sustainability-related resolutions in 2018, up from over 25 per cent in 2017. Washington State Investment Board voted in favour of over 90 per cent of climate change-related shareholder proposals for United States companies in 2019.

Many investors have voting policies, which can serve as custom voting instructions for proxy voting providers and enable the fund to actively vote in many company meetings across different markets and sectors. Most funds use specialist proxy voting services to both advise and vote on behalf of the fund. And some funds have a "voting focus" list, which allows them to focus on a selection of the largest or most strategically important companies in their portfolio.

In terms of corporate governance, funds have been active in promoting gender balance on company boards. For example, CPP (Canada) systematically votes against nominating committee chairs at companies that have no female directors and follows this up by voting against the entire nominating committee if there has been no progress a year later (box V.5). ABP (Netherlands) underlined its support for the principle of one share, one vote to align capital stakes and controlling rights. If companies adopt controlling structures, the fund asks the board to critically assess these structures and to phase them out over time. In these ways and more, the voting power of large share owners, such as pension funds, is plainly visible and their influence on company policy and action is potentially decisive and immediate.

Box V.5. Gender equality in boardrooms

Gender equality is one of the 17 UN SDGs. Stock exchanges and other capital market stakeholders can play an important role in promoting gender equality in financial markets. Indeed, supporting actions in the private sector have soared in recent years, and awareness raising for gender parity in business positions has risen significantly. For example, seven years ago, seven exchanges started to raise awareness about the Women's Empowerment Principles and the importance of gender equality to businesses, by jointly holding special "Ring the Bell for Gender Equality" events. Organized by the UN Sustainable Stock Exchange (SSE), UN Women, UN Global Compact, the World Federation of Exchanges (WFE), and Women in ETFs, the event developed into an annual initiative which by 2021 included more than 100 exchanges around the world.

Although a growing number of exchanges promote gender equality among their listed companies, the number of women in high-level positions within companies remains low in many markets (box table V.5.1). For example, on average, only 20 per cent of corporate board seats in the G20 are held by women; and only 5.5 per cent of boards are chaired by a woman. The number of female CEOs is even lower; on average only 3.5 per cent of all CEO positions among large listed G20 companies are held by women.

Box table V.5.1. Ranking of G20 stock exchanges by gender balance of issuers' boards

Stock exchange (top 100 issuers by market capitalization)		Share of women on	Mandatory minimum rule for women on boards			Share of women	Share of women
		board (%)	Rule exists	Share of women (%)	Number of women	- chairs (%)	CEOs (%)
1	Euronext Paris	44.3	Yes	40ª		2	5
2	Borsa Italiana	37.5	Yes	33 ^b		13	5
3	London Stock Exchange (LSE)	36.2	No			5	5
4	Deutsche Börse (DB)	32.5	Yes	30°		4	2
5	Australian Securities Exchange (ASX)	32.3	No			14	8
6	New York Stock Exchange (NYSE)	30.4	No			9	8
7	Toronto Stock Exchange (TSX)	30.2	No	d		9	4
8	Johannesburg Stock Exchange (JSE)	28.5	No			11	2
9	NASDAQ	27.8	Yes		1 e	3	5
10	Shenzhen Stock Exchange (SZSE)	17.3	No			5	11
11	National Stock Exchange of India (NSE)/ Bombay Stock Exchange (BSE)f	16.8	Yes		1 ⁹	7	4
12	Borsa Istanbul	14.9	No		h	6	3
13	Hong Kong Exchange (HKEX)	13.6	No			7	5
14	A Bolsa do Brazil (B3)	12.1	No			5	1
15	Japan Exchange Group (JPX)	11.9	No			1	0
16	Bolsas y Mercados Argentinos (BYMA)	10.8	No			2	1
17	Moscow Exchange (MICEX)	10.6	No			3	0
18	Shanghai Stock Exchange (SSE)	10.3	No			3	2
19	Indonesia Stock Exchange (IDX)	10.3	No			9	3
20	Bolsa Mexicana de Valores (BMV)	7.8	No			2	1
21	South Korea Stock Exchange (KRX)	7.4	Yes		1 ⁱ	1	2
22	The Saudi Stock Exchange Tadawul	1.2	No			1	1

Source: UN SSE (2021), Policy Brief: Gender Equality on Corporate Boards.

Note: Some markets have come close to achieving gender equality on boards. On the average board for Euronext Paris issuers, nearly half (44 per cent) of the seats are held by women. While the numbers for chair and CEO positions remain low everywhere, the Australian Stock Exchange is notable for having the most female chairpersons and the Shenzhen Stock Exchange is notable for having the highest number of female CEOs. In some cases, regulations may have helped increase the number of women in high-level positions. In 6 of the 22 markets in the G20, rules set a mandatory minimum for women's participation on boards, including in three of the top four exchanges.

^a Assemblée Nationale (2011), Dossiers. Société: représentation des femmes dans les conseils d'administration et de surveillance. Details of the rule: In case the total board members are fewer than nine, there should not be more than a two-seat difference between genders.

^b Borsa Italiana (2021). The Italian law, launched in 2011, is scheduled to expire at the end of 2021.

^c Deloitte (2019), Data driven change: Women in the boardroom, a global perspective. Detail of the rule: the quota applies to non-executive board seats.

^d Ontario Securities Commission (2014). Amendment Instrument for NI 58-101 Disclosure of Corporate Governance Practices. Details of the rule: Several provinces have a "comply or explain" rule regarding consideration of women for top management positions in listed companies with self-determined quotas. See also: Deloitte (2019), Data driven change: Women in the boardroom, a global perspective. In 2017 the province of Ontario set a goal of 30 per cent women on boards, to be reached within three or five years by listed companies.

• NASDAQ (2020), Nasdaq to Advance Diversity through New Proposed Listing Requirements. Details of the rule: NASDAQ's proposal rules are pending approval by the U.S. Securities and Exchange Commission. If approved, they would require listed companies to have at least one director who self-identifies as female. In case of non-compliance, companies would have to explain the reasons.

^f Because of cross-listings, these two exchanges are grouped together in this ranking.

^g Indian Parliament (2013), Section 149(1)(b) of Companies Act 2013.

h MSCI (2020), Women on Boards: 2020 Progress Report. Details of the rule: Non-binding goal of no less than 25 per cent female directors.

¹ MSCI (2020), Women on Boards: 2020 Progress Report. Details of the rule: As of July 2020, a large listed company should not have a board comprising only one gender. *Source:* UNCTAD.

C. STOCK EXCHANGES AND DERIVATIVES EXCHANGES

The number of exchanges with written guidance on ESG disclosure (SDG 12.6) for issuers has grown rapidly, from 13 exchanges in 2015 to 56 at the end of 2020. Likewise, the number of stock exchanges providing training on ESG topics to issuers and investors continues to rise rapidly, with over half of the stock exchanges offering at least one training course or workshop. Mandatory ESG reporting is also on the rise in recent years, supported by both exchanges and security market regulators. The number of exchanges covered by mandatory rules on ESG disclosure more than doubled in the past five years, currently at 25. One of the highest increases is in the number of stock exchanges that have dedicated sustainability bond segments, which includes green bond segments (SDG 13); 14 exchanges opened such segments between 2019 and 2020, taking the total to 38.

1. Stock exchanges

The sustainability activities of stock exchanges – those related to ESG factors – have all grown rapidly in scale and scope over the past decade. The SSE database contains data on 106 stock exchanges worldwide, listing over 53,000 companies and representing a market capitalization of more than \$88 trillion. The database specifically tracks various activities related to ESG factors, all of which have seen rapid growth over the last decade (figure V.11).

60 50 40 30 20 10 0 2000 2005 2010 2015 2020 Exchanges with sustainability reports Exchanges training on ESG topics Exchanges whose markets are covered Exchanges providing written guidance by an ESG index on ESG reporting Exchanges with mandatory ESG listing Exchanges with ESG bond segments requirements

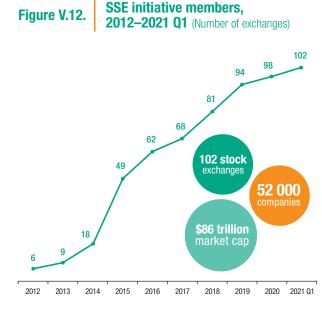
Figure V.11. Stock exchange trends, 2000–2021 (Number of exchanges)

Source: UNCTAD, SSE database.

This overall upward trend is expected to persist, as investor interest in ESG-themed products is strong and growing, public policies to promote sustainable development continue to strengthen in several jurisdictions and more stock exchanges recognize the important role that they can play in promoting investment in sustainable development. Key instruments and developments supporting these trends are discussed in more detail below.

a. Sustainable Stock Exchanges initiative

The SSE initiative, which has grown to include most of the stock exchanges in the world (figure V.12), provides an indicator of the growing attention that exchanges are giving to sustainability in their markets. Launched in 2009, the SSE is a UN Partnership Programme administered by UNCTAD,



Source: UNCTAD, SSE database.

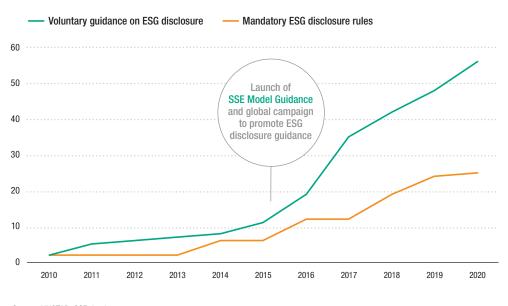
UN Global Compact, UN Environment and Principles for Responsible Investment. The SSE brings together exchanges, portfolio investors, listed companies, capital market regulators and policymakers to build consensus and capacity on SDG issues.

As of Q1 2021, 102 partner exchanges from five continents have publicly committed to advance sustainability in their markets. The SSE focuses on gender equality (SDG 5.5), SME financing (SDG 8.3), securities market regulation (SDG 10.5), sustainability reporting (SDG 12.6), green finance (SDG 13.3) and partnerships for sustainable capital markets (SDG 17).

b. ESG disclosure: stock exchange guidance, listing requirements and standards

Over the past decade, the number of markets with ESG disclosure guidance and mandatory ESG disclosure rules has expanded rapidly (figure V.13). The number of stock exchanges providing formal guidance to issuers on reporting ESG information has gone from 2 to 56 exchanges, collectively listing over 40,000 companies with a market capitalization of more than \$50 trillion. During the same period, the number of markets with mandatory ESG disclosure rules has gone from 2 to 25, listing over 16,000 companies valued at over \$18 trillion. This trend suggests that SDG 12.6 on sustainability reporting should be achieved by 2030.

Global trend in ESG disclosure rules and guidance (Number of exchanges) Figure V.13.



Source: UNCTAD, SSE database

The ESG disclosure guidance produced by stock exchanges helps companies navigate, comply with or stay ahead of regulations that require disclosure of ESG information and assists companies in addressing growing investor demand for ESG information. The spectrum of approaches to reporting ESG data is rapidly consolidating on a few key reporting instruments (figure V.14). An overwhelming majority of guidance documents reference the instruments of the Global Reporting Initiative (GRI), followed by those of the Sustainability

Accounting Standards Board (SASB) and the

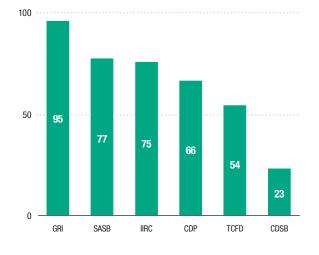
International Integrated Reporting Council (IIRC), which are each referenced in about three quarters of guidance documents. Climate-specific reporting instruments such as the recommendations of the Financial Stability Board's Taskforce on Climaterelated Financial Disclosures (TCFD) and the Carbon Disclosure Standards Board (CDSB) are referenced by just under half of the guidance documents.¹¹

c. Securities regulators and sustainability

In some markets, mandatory ESG disclosure rules originate from stock exchanges with devolved regulatory authority, but in most instances, they emanate from securities market regulators. At both the national and international levels, securities regulators are sharpening their focus on sustainability reporting through reporting rules, market education programmes and the development of disclosure and reporting standards.

Figure V.14.

ESG reporting instruments referenced in stock exchange guidance (Per cent of guidance documents, as of Q1 2021)



Source: UNCTAD, SSE database.

At the national level, examples of regulators' initiatives include the announcement by Egypt's Financial Regulatory Authority of the launching of a new think tank and training centre, the Regional Center for Sustainable Finance. The Center has been established to help bridge the finance gap to fulfil the Paris Agreement on Climate Change and the SDGs. In Brazil, the Securities and Exchange Commission (CVM) launched the Sustainable CVM Series, consisting of guidance documents on sustainable finance. In the first volume, the CVM presents a guide focused on the inclusion of ESG issues with respect to investment decision making. In the United States, the Securities and Exchange Commission created a Climate and ESG Task Force to identify any material gaps or misstatements in issuers' disclosure of climate risks. The task force will also analyse disclosure and compliance issues relating to investment advisers' and funds' ESG strategies.

At the regional level, on 21 April 2021 the European Commission launched a package of measures designed to better channel investment towards sustainable activities across the *European Union*. This package includes the EU Taxonomy Climate Delegated Act (also known as the EU taxonomy), which seeks to minimize "greenwashing" by producing standardized language to be used by companies and investors when communicating about investments in sustainability-themed products and projects. Another important feature of this package is the new Corporate Sustainability Reporting Directive, which revises and strengthens the rules introduced by the Non-Financial Reporting Directive of 2014. It is designed to improve sustainability information by making it more consistent, comparable and reliable through the financial system. All these measures are elements of the European Green Deal that aims to make Europe climate-neutral by 2050.

At the international level, the International Organization of Securities Commissions (IOSCO)'s Sustainable Finance Network (created in 2018) published a report in 2020 (IOSCO, 2020) that highlights three priorities to address:

- Multiple and diverse sustainability frameworks and standards
- Lack of common definitions of sustainable activities
- "Greenwashing" and other challenges to investor protection

The report emphasized the need to improve the comparability of sustainability-related disclosures, noting that the lack of consistency and comparability across third-party frameworks could create an obstacle to cross-border financial activities and raise investor protection concerns. The report reflects expectations from regulators and market participants that IOSCO should take an active role in facilitating global coordination and addressing transparency. IOSCO has set up a Board-level Sustainable Finance Task Force (STF) to address these findings. The work of the STF has focused on three main areas: (i) improving sustainability-related disclosures by issuers; (ii) sustainability-related practices, policies, procedures and disclosures for asset managers; and (iii) ESG ratings and ESG data providers.

With regard to *sustainability-related disclosures for issuers*, following extensive industry engagement and detailed fact-finding work – focusing on investors' needs and the status of corporate disclosures on sustainability – IOSCO has identified significant gaps and shortcomings in corporations' sustainability-related disclosures and revealed that investor demand for sustainability-related information is not being properly met. The shortcomings include

- that companies' sustainability-related disclosures are not complete, consistent and comparable
- that companies report selectively against multiple different standards and frameworks

- that companies' sustainability disclosures typically aim to meet multiple stakeholder needs
- that companies do provide a mix of qualitative and quantitative information, but quantitative information is limited and not consistent
- that generally, companies do not provide detailed disclosures on the impact of sustainability practices on their financial performance and there is inconsistency in location (e.g. annual reports, stand-alone reports, corporate websites) and timing of reports, as well as the application of audit and assurance

Companies also face significant challenges, as they need more clarity on exactly what to disclose, where and how, in light of multiple requests for sustainability information from different asset managers and data service providers, which can be costly and inefficient. Common standards would potentially reduce the burden on corporate issuers caused by having to comply with diverging frameworks and help to clarify for issuers what they should disclose, where and when to make their disclosures and what structure/methodology to use. Having greater clarity on reporting expectations (including content, location and timing) will help issuers build relevant governance, systems and controls to meet reporting requirements.

IOSCO has publicly conveyed the urgent need to improve the completeness, consistency, comparability, reliability and auditability of sustainability reporting – including greater emphasis on industry-specific quantitative metrics and the standardization of narrative information. It has outlined three potential mechanisms to do so:

- Establish an International Sustainability Standards Board (ISSB) under the IFRS Foundation's structure, with a strong governance foundation¹²
- Build on existing efforts: IOSCO has strongly encouraged the ISSB to leverage on the alliance¹³ of leading sustainability reporting organizations' prototype for climate-related financial disclosures (the 'Prototype') that builds on existing content in their collective frameworks and the TCFD's recommendations. Given the urgency of the climate challenge, IOSCO supports a "climate first" approach in the near term, signalling that the new ISSB should also move forward quickly to develop standards covering other sustainability topics, including ESG issues.
- Encourage a "building block" approach to establishing a comprehensive global sustainability reporting system that provides a consistent and comparable baseline of sustainability-related information material to enterprise value creation, while also providing flexibility for coordination on reporting requirements that capture wider sustainability impacts. IOSCO has proposed that a multi-stakeholder expert consultative committee, within the IFRS Foundation structure, could be a promising mechanism to support the practical delivery of the building blocks approach, in a way that complements and does not replace existing advisory groups and outreach arrangements within the IFRS Foundation's architecture.

IOSCO considers that the IFRS Foundation could potentially deliver a global baseline for investor-oriented sustainability-related disclosure standards focused on enterprise value creation, which jurisdictions could consider incorporating or building upon as part of their mandatory reporting requirements, as appropriate and consistent with their domestic legal frameworks. This could promote international consistency and comparability in sustainability-related information, and also form the basis for the development of an audit and assurance framework.

IOSCO continues to work closely with the IFRS Foundation to assess refinements to the prototype and its content and to consider whether it could be a sound basis for the development of an international reporting standard under the ISSB. IOSCO plans to consider potential endorsement of future standards issued by the ISSB to use for crossborder – and possibly also domestic – purposes to guide issuers' sustainability-related reporting requirements across member jurisdictions. IOSCO continues to coordinate with IFRS Foundation on the establishment of a multi-stakeholder expert consultative committee.

With regard to asset managers, after a comprehensive fact-finding exercise, IOSCO is planning to publish a draft Consultation Report at the end of June 2021. The Consultation Report will set out proposed recommendations for securities regulators and/or policymakers, as applicable, in order to improve sustainability-related practices, policies, procedures and related disclosures in the asset management industry.

The report is an important milestone as asset managers are at the heart of the investment chain. Notably, sustainability-related practices, policies and procedures help ensure that asset managers take sustainability-related risks and opportunities into consideration and integrate them into their decision-making process.

Further, the disclosure of such practices, policies and procedures is intended to promote consistency, comparability and reliability in disclosure, which will help prevent greenwashing at the asset manager level. Similarly, regulatory requirements or guidance relating to product-level disclosure for sustainability-related products are intended to prevent greenwashing at the product level. The report also addresses the risk of greenwashing through other recommendations that aim at both supporting sustainability-related financial and investor education initiatives and ensuring that there are adequate supervisory and enforcement tools to ensure compliance with requirements in this area and address breaches of such requirements.

With regard to *ESG ratings and data providers*, IOSCO is seeking to assist its members in understanding the implications of the increasingly important role of ESG ratings and other data products developed by private providers and, in doing so, develop guidance that securities markets regulators can impress upon these providers. IOSCO, through the fact-finding exercise, has come to the following initial conclusions:

- Higher-quality and more consistent ESG data are needed across the investment universe, and users need both breadth and depth of coverage for ESG data.
- There is sometimes little clarity and alignment on definitions and on what the ratings or data points intend to measure.
- There is currently little transparency about the methodologies and metrics that underpin the ESG ratings or data sets. Some commonalities have been observed, such as the prevalence of sector-specific methodologies, and the lack of benchmarking versus rival product offerings. However, there is still a wide degree of divergence in the industry.
- Interactions between data and rating providers and issuers appears insufficient, suggesting that ratings and data that investors rely on for investment decisions may contain errors. This is further exacerbated by the fact there is no standard marketpractice through which providers of ESG rating and data gather information from rated entities.
- Conflicts of interest may exist at the level of the ESG rating or data providers. This can be the case where they offer paid consulting services to corporate issuers, for example.

As a result of these findings, IOSCO will publish a set of recommendations for ESG rating and data providers, users of ESG ratings and data products, and entities covered by their ratings and data products. The Consultation Report is expected to be published by mid-July 2021 with a final report expected in the final quarter of 2021.

2. Derivatives exchanges

While the role of stock exchanges in sustainable development has been well explored over the past decade, the potential role of derivatives exchanges — where nearly 35 billion futures and options contracts were traded globally in 2019 — is less understood. Stock exchanges are seen as important enablers of change in as much as they are key market institutions sitting between listed companies and investors, and actively engaged with securities market regulators. Likewise, derivatives exchanges sit in the centre of a market ecosystem (figure V.15) where the exchange holds the potential to convene and influence market participants.

Until 2019, however, little work had been done to understand the role of derivatives exchanges in supporting the sustainability transition. In 2019 the WFE drafted a white paper on sustainability and commodity derivatives. Then in 2020, both the United States Commodity Futures Trading Commission – an industry regulatory body – and the Futures Industry Association (FIA) – an international industry association – acknowledged the role of derivatives markets in addressing climate change and associated risks (FIA, 2020). In 2021, the UN SSE and the WFE further explored how derivatives exchanges could contribute to sustainable development in a joint report (UNSSE, WFE, 2021). Collectively these efforts have marked a new interest in the role of these exchanges both by external stakeholders and by the exchanges themselves. While many challenges remain, new efforts in this area point to opportunities for a positive contribution from derivatives exchanges.

One key challenge for exchanges where fossil-fuel energy contracts account for a large proportion of traded activity is that fossil fuels are expected to be significantly phased out over the coming decades. Another challenge is that derivatives are often perceived as mathematically complex products overly focused on short-term trading, as not especially accessible to smaller investors and as a source of systemic risks. The latter challenge is one that policymakers need to continually address through regulation, much like in debt or equity markets, to ensure that these markets do not pose systemic risks to the wider economy.

Figure V.15. Participants in the derivatives exchange ecosystem



Source: UNCTAD.

At the same time, the transition to more sustainable investments also offers opportunities for all derivatives exchanges, particularly in offering sustainabilitythemed products and services. A number of exchanges are already doing this and, as the United States Commodity Futures Trading Commission notes in its report on climate risk, the need for new products likely will grow. The development of such products responds to growing market demand, as well as regulatory or policy developments.

Three general categories of products currently traded on derivatives exchanges can be adapted to facilitate investment in sustainable development: equity derivatives, commodity derivatives and special-purpose derivatives (e.g. weather futures contracts). Integrating sustainable development within these risk management products and engaging more closely with the derivatives ecosystem can assist the global effort to finance the SDGs. As derivatives exchanges look forward, they can support the sustainability agenda through actions in several areas, as presented in the following menu (UNSSE, WFE 2021):

- **Engage in partnerships** to build consensus on sustainable finance: exchanges should ensure they are participants in the evolving field of sustainable finance, to ensure agreed solutions are suitable for market deployment.
- Use the exchange's convening power to help drive market standardization where this is necessary to develop the market for sustainability-themed products – exchanges can use their position within the market ecosystem to reach market agreement on reference standards.
- Provide mechanisms to enhance transparency about the sustainability attributes of products traded on markets and market participants: transparency is a core attribute of market functioning. As an intermediate step, exchanges may consider providing a platform that enables market users to report on their sustainability practices and initiatives.
- Link market participation to sustainable market practices (particularly relevant in the case of commodities markets): exchanges may stipulate that participation in certain markets is predicated on meeting additional sustainability-aligned requirements. This could range from requiring the publication of a sustainability report to requiring demonstrated alignment (through reporting) with agreed sustainability practices.
- Introduce sustainability-aligned data products that support the development of the underlying markets: data products and services support the functioning of the traded market and can also be the basis for the development of new tradeable products.
- List new tradeable sustainability-aligned products to meet emergent demand, whether driven by regulatory changes or customer requirements (e.g. products that support a low-carbon transition). This also includes introducing or amending commodities contracts to specifically incorporate sustainability considerations (process and production methods): exchanges can support the development of the underlying market by listing products that enable price discovery of more sustainably produced versions of commodities or support the shift of the market towards more sustainably produced commodities.

Going forward, derivatives exchanges and policymakers can build on lessons learned from the experience of stock exchanges to further explore opportunities for derivatives exchanges to contribute to sustainable development. These efforts cover the full spectrum from product innovation (including modification of existing products) to working with stakeholders to further expand the sustainable finance market.

Between 2019 and 2020, the topic of sustainability has gone from virtually unconsidered in derivatives markets to the subject of multiple papers by the exchange industry, relevant regulators and international organisations. Exchanges, market participants and regulators looked at sustainability topics from various angles, from the potential impact on markets to the role derivatives markets can play in contributing to the SDGs. The sustainability challenges of the modern world are such that addressing them requires concerted effort from *all* actors, including *all* elements of the finance sector. Derivatives exchanges can be an important part of the overall solution, whether as providers of relevant products and services, contributors to greater data availability and transparency or conveners of the market to address barriers to change.

D. THE FUTURE OF SUSTAINABLE FINANCE

Capital markets can have a decisive impact on the level and direction of sustainable investment and can contribute towards filling the financing gap for the SDGs. Increasingly, financial institutions, such as stock exchanges and derivatives exchanges, have been integrating sustainability values and performance criteria in their activities. There has been a proliferation of sustainability-themed financial products in recent years, including sustainability-themed funds, and derivative products. Institutional asset owners, such as pension and sovereign wealth funds, are having an impact on companies and markets through asset allocation decisions and active ownership practices. Global efforts to fight the pandemic have also helped accelerate a transition towards sustainable investment.

1. "The triple challenge" and the market in transition

To continue growing and ensure concrete impacts over the long term, the sustainable investment market needs to address "a triple challenge", in order to fully unleash its potential to finance sustainable development:

- i. The niche market risk. Despite a surge in recent years, sustainable investments remain a small share of the global market and there is a risk that it remains in this situation: as a small segment of the overall market. To realize the full potential of the capital markets, sustainability integration should not be limited to sustainability-themed products. Instead, all market players, should strive to make all financial products meet minimum ESG standards, and take actions to channel more investments into SDG-related sectors and areas with the aim of generating positive development impact on the ground.
- ii. The geographical imbalance. While there is clearly an increasing demand for sustainability-themed investment products, much of the recent momentum has bypassed developing countries. Most of the AUM linked to sustainability-themed products are tied to investments in developed markets, whereas the greatest sustainable development challenges and need for investment in SDG sectors is in developing countries. There need to be greater efforts to channel sustainable finance to developing countries. This may include innovation in project development, investment guarantees and other product innovation and de-risking strategies to encourage more private investment in developing countries. Investing in sustainable development must include investing in developing countries. Before developing countries are engaged in and benefit from the development of the sustainable investment market, the development impact of sustainable products remains limited.
- iii. ESG/SDG-washing concerns. Because of the lack of widely agreed international standards, sustainable investment products are so far mainly based on selfdeclaration. The wide differences in their sustainability ratings suggest that many of them may not meet their self-declared "sustainable" credentials. This leads to legitimate concerns about ESG/SDG-washing. The credibility of sustainable funds needs to be enhanced to attract investment flows to support the continued growth of the market.

Addressing these challenges requires three fundamental transitions in the sustainable investment market which would take it from where it is today to where it needs to be in the future:

- i. Growing sustainable investment from "market niche" to "market norm", by making sustainability integration universal rather than a strategy of a subset of the larger market.
- ii. Transforming the sustainable investment market from a developed-country phenomenon to a global market, which benefits all countries, in particular developing economies.
- iii. Strengthening the credibility of sustainability ratings and reporting with more robust and regulated standards and taxonomies.

This transformation, from the market of today to the market of the future, entails concerted efforts by all stakeholders, including fund and index providers, institutional investors, stock exchanges and regulators. More work can be done to encourage the integration of ESG factors into mainstream products and indexes. Meanwhile, regulations need to keep pace with market trends to bring transparency, predictability and credibility to the market. Rules and guidelines to establish industry standards and governance requirements with an aim to bring transparency, predictability to the market are moving beyond voluntary measures. Slowly, regulation is helping to shape the future contours of the sustainable investment market.

The new EU taxonomy and regulations on sustainability-related disclosures in the financial services, as well as other sustainable investment-related regulations, could serve as examples for other countries. The increased role of IOSCO in sustainable finance and the proposed new Sustainability Standards Board from the IFRS Foundation also point towards the further development of globally harmonized approaches to sustainability reporting standards and the regulation of sustainability-themed financial products.

Much work has been done over the past decade to integrate sustainability into different parts of the financial system, including asset owners, banks, insurance companies and stock exchanges. Better coordinating these activities and effectively monitoring their impact can help accelerate the trend towards the future of finance.

2. The UN Global Sustainable Finance Observatory

To help address these challenges, UNCTAD will launch a new initiative, the UN Global Sustainable Finance Observatory. This initiative is built on the vision of a future global financial ecosystem in which sustainable development (as defined by the SDGs) is fully embedded into the business model and investment culture.

The Observatory will promote and facilitate the transition of sustainable investment from market niche to market norm, leading up to 2030 and beyond. It will address the challenges of fragmentation in standards, proliferation in benchmarking, complexity in disclosure and self-declaration of sustainability. It will integrate the relevant instruments and outputs on its virtual platform to facilitate the assessment, transparency and integrity of sustainable finance products and services. The Observatory will work in tandem with the standards-setting processes of the financial industry and regulatory bodies to promote the full and effective integration of sustainable development into all aspects of the global financial ecosystem.

Specifically, the UN Global Sustainable Finance Observatory will

- Promote the integration of SDGs into the sustainability assessment ecosystem in a coherent and synergistic manner, including through the established UN Core Indicators for SDGs reporting by enterprises (UN International Standards of Accounting and Reporting).
- ii. Build a *global database of sustainable investment funds and other products* to improve the open-source availability of sustainability data for key stakeholders and the public.
- iii. Conduct *sustainability assessments and ranking* of "self-claimed" sustainable products on the global capital market, and award best performers while disclosing ESG/SDG-washing cases.
- iv. Establish *a pool of various sustainability ratings* on the capital market for transparency and public scrutiny for better reporting methodology in different industries.
- v. Compile a *global inventory of good regulatory and policy practices* for sustainability integration into capital markets and facilitate peer learning.
- vi. Provide a *capacity-building platform* for assisting developing countries on policies, regulatory measures, product development, industry standards, reporting and other related issues to ensure their maximum benefit from sustainable finance.

The Observatory is envisioned as a multi-agency partnership coordinated by UNCTAD. It seeks to leverage the expertise and networks of initiatives working on different aspects of sustainable finance, such as the UN SSE initiative, UNCTAD Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting, the UN Global Compact, the Principles for Responsible Investment, UNEP FI, the UN Capital Development Fund, the International Finance Corporation, IOSCO, the International Standards Organization and the WFE, among other stakeholders.

The UN Global Sustainable Finance Observatory will be launched at UNCTAD's World Investment Forum in October 2021, which brings together the global investment-fordevelopment community, including all capital market stakeholders along the global investment chain.

As a follow-up on UNCTAD's monitoring and analysis of capital markets and their contribution to the SDGs, which was requested and commended by the United Nations General Assembly in its resolution on "Promoting investments for sustainable development" (A/RES/74.199) and (A/RES/75/207), UNCTAD will seek the endorsement of the Global Sustainable Finance Observatory by the UN General Assembly as part of its efforts to accelerate the achievement of the SDGs, and to meet commitments on climate change and financing for development.

NOTES

- ¹ According to the quarterly statistics of the European Fund and Asset Management Association, the assets of regulated, open-ended funds worldwide (excluding funds of funds) were about \$54 trillion at the end of the second quarter of 2020 (http://efama.org).
- ² As an example, MSCI ACWI ESG Leaders Index (USD), an index designed to represent a broad spectrum of the global equity opportunity set with more than 1,200 high ESG rating stocks in its portfolio, recorded a return of over 40 per cent in the last two years.
- "World's biggest fund manager vows to divest from thermal coal", *The Guardian*, 14 January 2020;
 "World's biggest sovereign wealth fund to ditch fossil fuels", *The Guardian*, 12 June 2019
- ⁴ Estimates for the average maturity of green bonds vary but include 8.75 years (Kapraun and Scheins, 2019) between 7 and 8 years (Ehlers and Packer, 2017) and 5 to 10 years (CBI, 2021).
- ⁵ Q1 2021 estimate by the Securities Industry and Financial Markets Association (SIFMA).
- ⁶ According to data from the Global SWF Data Platform, as of April 2021. See https://globalswf.com/.
- ⁷ https://www.statista.com.
- ⁸ According to data from the Global SWF Data Platform, as of April 2021. See https://globalswf.com/.
- ⁹ "Canada Pension sells \$1.2 billion green bond in global first", Bloomberg, 13 June 2018.
- ¹⁰ https://ifswf.org/.
- ¹¹ The SSE's ESG Guidance Database contains a comprehensive list of all stock exchange ESG guidance documents and an analysis of the reporting instruments they reference. With 57 guides from markets worldwide (as of Q1 2021), the database is designed to supplement the original SSE model guidance by facilitating peer-to-peer learning and benchmarking among exchanges. For more information, visit www. SSEinitiative.org/data.
- ¹² The IFRS Foundation, whose financial reporting standards have been adopted for use in more than 140 countries, launched consultations on the formation of the ISSB in Q4 2020 and is expected to formally launch the ISSB during the November 2021 UN COP26 climate summit. The new SSB would prioritize climate related reporting in a "climate first" strategy, building on the well-established work of the Financial Stability Board's Task Force on Climate-related Financial Disclosures, as well as work by the alliance of leading standard-setters in sustainability reporting (CDP, CDSB, GRI, IIRC and SASB).
- ¹³ "The alliance" comprises the CDP, the Climate Disclosure Standards Board (CDSB), the Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC), and the Sustainability Accounting Standards Board (SASB).