ESG Monitor

TUESDAY, NOVEMBER 2, 2021

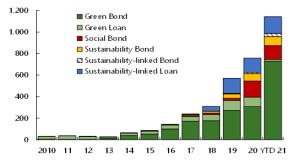
ESG MONITOR HIGHLIGHTS

- ESG debt issuance continued to register strong growth in 2021. Global issuance of all sustainable debt reached \$1.1 trillion in the 10 months of 2021, exceeding 2020's record issuance. Green bonds remain the largest debt instrument, while sustainability-linked debt has seen the fastest increase.
- While developed markets have driven most of the rise in issuance volumes throughout 2021, debt issuance by EMs has increased steadily, notably in the Asia-Pacific region. Diverse instruments such as sustainability-linked bonds and social bonds appear as complementary to green bonds in EMs, with a notable increase in 2021.
- ESG-dedicated fund inflows tapered off somewhat in 2021 but remain high by historical standards. Flows into sustainable funds have trended lower, except for active bond fund flows.
- Climate-related disclosures by firms have increased significantly in the 12 months to September 2021, across all regions and sectors. However, reporting is not consistent across the pillars defined by the Task Force on Climate-related Financial Disclosures (TCFD), illustrating the need for further progress, especially on the governance side.
- In the run-up to the COP26 Summit, taking place from 31 October to 12 November 2021 in Glasgow (Scotland), the recent surge of energy and commodity prices and its impact on financial markets is likely to be at a center stage of the debate. While COP26 is expected to set the tone for policy reforms over the next few years, the growing investor interest for sustainability and climate risk mitigation confirms the crucial role of the financial sector in addressing the pressing need for climate transition finance. The next edition of the ESG Monitor will provide an update to the COP26 negotiations and conclusions, most notably on the four main pillars of the Finance Campaign (disclosures, risk management, alignment and net-zero, and mobilization of capital) as well as on the developments on fossil fuels financing (specifically coal) and the connection with the recent surge in energy prices.

Global sustainable debt issuance surpassed \$1 trillion, supported by appetite for transition finance

Sustainable debt issuance reached a new record-high with issuance in the first three quarters exceeding total annual issuance in any prior year

1. Global Sustainable Debt Issuance (Billions of US dollars, as of Oct 21, 2021)

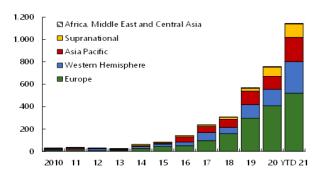


Source: Bloomberg NEF

Note: Supranational entities include the European Commission and other entities (e.g., African Development Bank, Council of European Development Bank, World Bank)

Europe continues to dominate overall issuance, but Western Hemisphere and Asia Pacific regions gained traction

2. Global Sustainable Debt issuance by region (Billions of US dollars, as of Oct 21, 2021)

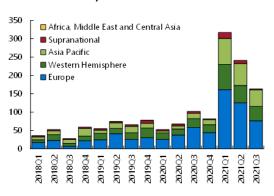


- Driven mainly by green bond issuance, global sustainable debt issuance has shown a robust growth reaching \$1.1 trillion for the first 10 months of 2021.
- The largest categories are green bonds (64 percent), followed by sustainability-linked loans (entity key performance indicator (KPI)-linked, 14 percent), and social bonds (use-of-proceeds approach, 11 percent).
- Europe accounts for about 40 percent of total issuance, and US debt issuance accounts for most of the Western Hemisphere section.
- Development of standards and labels for debt instruments in various regions aim to enable more robust assessment, enhancing investor confidence and encouraging more investment, with the European Union and various international fora leading the way on the policy front.

Quarterly Uptrend in Most Types of Sustainable Debt, notably for Green Bonds

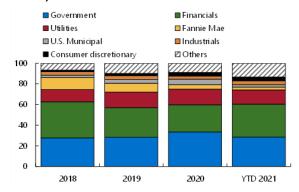
Despite a decline in Q3, green bond issuance remains dynamic and still driven by Europe

3. Global Green Bond Issuance (Billions of US dollars)



While the share of green bonds issued by governments decreased slightly in 2021, financials' issuance surpassed their 2020 level

4. Decomposition of Green Bond Issuance by Institutions (Per cent)



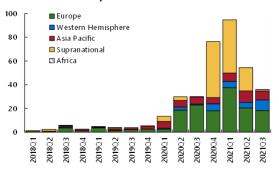
Source: Bloomberg NEF

Note: Supranational entities include the European Commission and others (e.g., African Development Bank, Council of European Development Bank, World Bank)

- Developed markets have driven the rise, with issuance volume in Europe more than doubling between 2020 and 2021. Year to date, Green bond cumulative issuance has been 2.5 times larger than total 2020 issuances. However, in Q3 it is decelerating on the back of declining sequential issuance volumes in Europe.
- Emerging economies issuance has continued to grow, with a notable rise in 2021 in the Asia-Pacific Region, in a context of an increased momentum throughout 2021ⁱ and the publication of new issuance standards in China in April 2021ⁱⁱ.
- Governments and financials continue to account for roughly 60 percent of green bond issuance. Government-backed debt issuance has increased by 141 percent between 2020 and 2021, with European countries paving the way (France, Germany, and the UK most recently).
- Issuance in the utilities sector remains steady and accounts for the majority of non-financial issuance.
- International work on common standards for "green" (and sometimes "transition") classifications, alongside national and regional initiatives, should support the upward trend in green bond issuance.

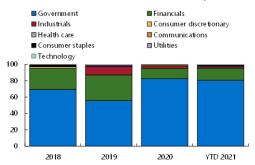
Strong social bond issuance in 2021, notwithstanding the tapering off in supranational entities' issuance in the third quarter

5. Social bond issuance (Billions of US dollars)



Governments continue to be significant social bonds issuers, especially as the Covid-19 pandemic has presented opportunities for greater social investment

6. Global Social Bonds Issuance by Institutions (Billions of US dollars, as of Oct. 21, 2021)



Source: Bloomberg NEF

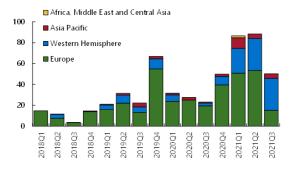
Note: Government includes development banks, supranational entities, sovereign, and local governments.

- Among supranational entities, the European Commission has been the most important driver, with a \$56 bn issuanceiii.
- In Europe for year 2021, issuance remained robust (\$179bn - out of which government debt was \$175bn), and mainly driven by France, representing 97 percent of the bonds issued this year by both governments and corporates.
- Social bonds are dominated by governments, accounting for 80 percent of global issuance. The share of financials increased marginally to 14.8 percent in the YTD.

Appetite for sustainability-linked instruments is growing amid continuing diversification across industries

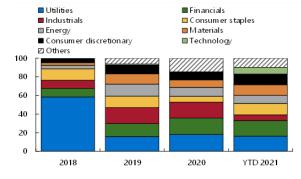
Despite a decline in Q3, sustainability-linked loan issuance has reached record highs in the first half of 2021

7. Global Sustainability-linked Loan Issuance (Billions of US dollars, as of Oct. 21, 2021)



Diversification among issuers of sustainability-linked loans continued to increase

8. Global Sustainability-linked Loans (Per cent of total as of Oct. 21, 2021)



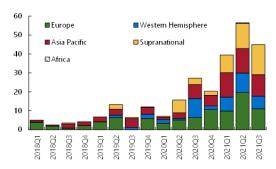
Source: Bloomberg NEF

Note: In panel 2, category Others includes healthcare and communications sectors

- Issuance in the first half of 2021 totaled close to \$170 bn, reflecting the interest for these instruments that has emerged since end of 2019. This fills a critical gap for financial institutions willing to incentivize borrowers to achieve sustainability goals, by supporting the alignment of carbon-intensive companies (most often matching regulatory initiatives at regional or international levels^{iv}).
- The vast majority of issuance is accounted for by Europe and the Western hemisphere, including in the U.S with first signals emerging in favor of these instruments.
- Sustainability-linked loans are diversified among seven broad industries, with utilities, materials, and financials accounting for the largest share.
- The rise of this instrument is seen as complementary from green bond issuance, with several non-financial issuers relying on both approaches to financing specific pools of eligible projects as well as more general ESG entity-level objectives.

Sustainability Bond Issuance is fueled by supranational entities and European interest

9. Sustainability-linked Bonds Issuance by Region (Billions of US dollars, as of Oct. 21, 2021)

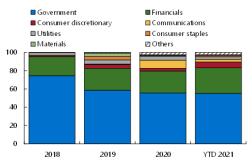


Source: Bloomberg NEF

- Sustainable fixed income is still very much dominated by European names, matching the regulatory push by the European Union ahead of the upcoming regulation on green bond standards covering fixed income instruments.
- The need to finance new lending led to an increase in issuance by supranational entities, especially by development banks (World Bank, AIIB, Islamic Development Bank) and the European Commission.

Sustainability bond issuance has risen to more than \$290 billion

10. Stock of Sustainability-linked Bonds (Billions of US dollars, as of Oct. 21, 2021)

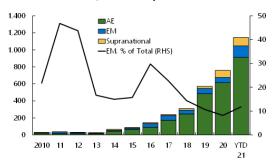


 Governments continue to dominate the market with 55 percent of global issuance.

2021 has been an unprecedented year for Emerging Market (EM) Sustainable Debt

EM's share of sustainable debt issuance increased in 2021, though remaining a modest part of global debt

11. Global Sustainable Debt Issuance (Billions of US dollars; Oct 2021)

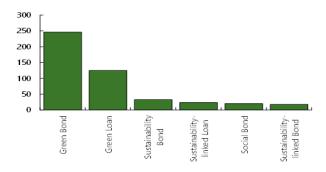


Source: BloombergNEF

- In absolute terms, EM issuance reached \$135 bn in October 2021, amounting to 10 percent of total global sustainable debt issuance.
- Between 2020 and 2021, EM issuance has increased by about 37 percent, the largest increase since 2019 proving resilient after the unprecedented challenges of 2020 due to the pandemic.
- This steady increase in issuance over the 2020-2021 period reflects both the increasing appetite for such instruments as well as sustainable finance opportunities. Supportive market and regulatory developments in individual Ems have played a role. For instance, in ASEAN^v, in members of the Sustainable Banking Network^{vi} that have issued guidance and policies in 2020-2021 or in countries that have included sustainable investment targets in their recovery plans, such as in South Africa^{vii}).

Green bonds are the largest EM sustainable debt product category

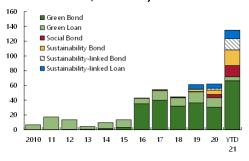
13. EM stock of sustainable debt (Billions of US dollars; Oct 2021)



Source: Bloomberg NEF

The focus of EM sustainable debt issuance remains use-of-proceeds based with climate/environmental objectives

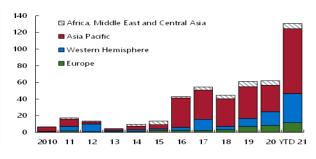
12. Emerging Market Sustainable Debt Issuance (Billions of US dollars; Oct 2021)



- Green bonds make up roughly half of total issuance, followed by sustainability bonds and social bonds. An increase in issuance of green bonds of about 140 percent is the largest increase in EM debt issuance since 2015.
- Sustainability bonds and social bonds issuance show a notable increase in 2021, with roughly an increase of 260 percent for both types of issuances since 2020.
- Countries such as the United Arab Emirates and Brazil have been amongst the first EMs to issue sustainability-linked bonds, reflecting increasing demand for this kind of instruments and following enhanced standardization with the publication of the Sustainability-Linked Bond Principles by ICMA in June 2020.

Asia pacific has remained a key driver of emerging market sustainable debt issuance

14. Regional decomposition of EM sustainable debt (Billions of US dollars; Oct 2021)



- Cumulative EM issuance amounts to \$465 bn as of October 2021, with green bonds accounting for almost \$250 bn.
- Issuances since 2016 have mainly been driven by China; with issuance amounting to \$62.7bn as of October 2021, up from \$16.5bn in 2020—accounting for more than 70 percent of total yearly Asia Pacific issuances.
- The Western hemisphere has experienced strong growth between 2020 and 2021, mostly driven by Chile and Mexico (\$21.4 bn and \$7.85 bn issuances respectively in 2021 YTD).

Following Historical Highs, ESG Fund Flows have subsided somewhat in 2021

Equity ESG flows have remained higher on average but have trended downwards in 2021 ...

15. Semi-annually Equity and Bond Flows into ESG/SRI funds

(Billions of US dollars, latest end-September)

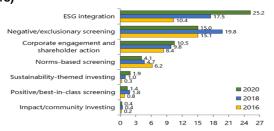


Source: EPFR

- Semi-annual ESG equity fund inflows moderated further to \$19 bn in September 2021 after peaking at \$38 bn in January.
- ESG bond fund inflows have remained roughly \$8 bn per month in 2021Q3, somewhat higher than 2020 average.

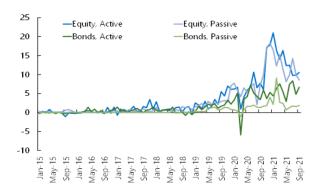
The evolution of sustainable investment strategies since 2016 shows increased appetite for ESG integration and corporate engagement

17. Evolution of sustainable investment strategies in 2016, 2018 and 2020 (asset values expressed in Trillions of US dollars)



... with a broad-based weakness aside from active bond fund flows

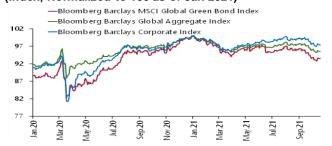
16. Monthly Equity and Bond Flows into ESG/SRI funds (Billions of US dollars, latest end-September)



- Equity flows of active and passive funds have generally trended lower this year.
- Active bond fund flows saw a steady upward trend, while flows into passive bond funds remained relatively small.

However, green bonds continued to underperform corporate bonds and broad fixed income in 2021

18. Bloomberg Barclays MSCI Global Green Bond Index and Various Fixed Income Indices (Index; Normalized to 100 as of Jan 2021)



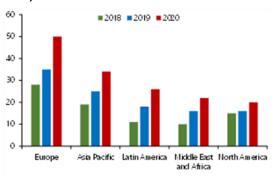
Source: Bloomberg; Global Sustainable Investment Alliance; and IMF staff calculations

- Sustainable investing strategies have substantially grown from 2016-2020, with sustainability-themed investing, ESG integration and corporate engagement having developed consistently during the period. On the other hand, positive, negative, and norm-based screening have experienced a more variable trajectory since 2016. Though most investors and investment products rely on a combination of strategies, these trends illustrate an increasing focus on converting the entire industry towards sustainability.
- The Green Bond index lost 6.4 percent so far this year and continued to show a lagging performance compared to the Global Aggregate (-4.5.x percent) and Corporate (-2.7.x percent) indices.

Climate disclosures have continued to improve, showing encouraging progress

Disclosure of climate metrics and targets has increased across all regions since 2018...

19. TCFD-Aligned Metrics and Targets Disclosures by Region (Percent of Companies That Disclose Information Aligned with TCFD Recommended Disclosures; 2020)

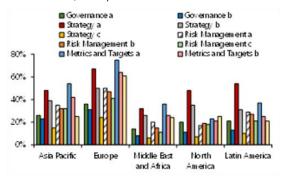


Source: TCFD 2021 Status Report^{viii}

- Europe remains the leading region for disclosures, with an increase of 16 ppts in the average disclosure by European companies between 2019 and 2020.
- Announcements of official TCFD-aligned reporting requirements over the past year include Brazil, EU, Hong Kong, Japan, New Zealand, Singapore, Switzerland, and the United Kingdom.

... but reporting across the various reporting requirements remain diverse

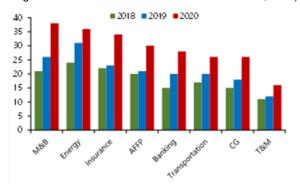
20. TCFD-Aligned Metrics and Targets Disclosures by Region (Percent of Companies That Disclose Information Aligned with TCFD Recommended Disclosures; 2019)



- There is significant variation of disclosures across the 11 reporting recommendations.
- Across most regions, companies are more likely to disclose metrics used to assess climate-related risks and opportunities (Metrics and Targets) except for the Americas—where companies are more likely to describe climate-related risk and opportunities (Strategy a).
- Governance (a and b) and the description of the resilience of a company's strategy (c) remain the lowest reported disclosures overall.

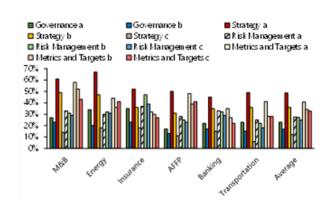
Materials and energy have the highest disclosures among all industries...

21. TCFD-Aligned Metrics and Targets Disclosures by Industry (Percent of Companies That Disclose Information Aligned with TCFD Recommended Disclosures; 2020)



.... while diversification is also visible across sectors' reporting of the disclosures

22. PRI Signatories Reporting on Climate Indicators (Number)



Source: TCFD 2021 Status Report

Note: M&B is Materials and Buildings, AFFP is Agriculture, Food, and Forest Products, CG is consumer goods, and T&M is Technology and Media. In panel 2 Average is across all sectors.

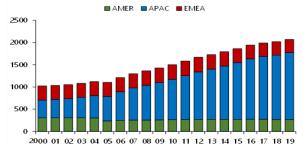
- Disclosure has improved across the board over the past three years, but only about 50 percent of companies are disclosing in alignment with at least three recommended disclosures.
- The most significant improvement was seen in the materials and building sector, with 38 percent disclosure on average across the 11 recommendations.
- Companies in the materials and building sectors were more likely to report Governance, Strategy and Metrics and targets disclosures, than Risk management.
- Insurance has been the leading sector for Governance and Risk management disclosures.

A glimpse at the energy and finance nexus in the run-up to the finance-related negotiations of COP26

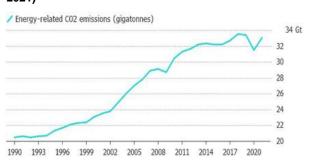
- The COP26 summit, taking place from 31 October to 12 November 2021 in Glasgow (Scotland) brings parties together to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change. The main priorities include:
 - ✓ Securing global net-zero by mid-century and keep 1.5 degrees Celsius within reach notably by accelerating the phase-out of coal and encouraging investment in renewables
 - √ Adapting to protect communities and natural habitats by protecting and restoring ecosystems
 - ✓ Mobilizing finance
 - ✓ Finalizing the detailed rules that make the Paris Agreement operational ix.
- According to estimates, achieving the net-zero goal requires additional global investments of between \$12 trillion and \$20 trillion, or roughly 0.6 to 1 percent of annual global GDP over the next two decades. This would require investors to rotate away from the fossil fuel sector towards renewables and low-emission solutions across all sectors of the economy. The IEA (2021) estimates that 70 percent of such investment needs to come from private sources among which annual clean energy investment in emerging and developing economies would need to increase to over \$1 trillion by 2030 (IEA and World Bank, 2021xi).
- The IEA (2021) has also underlined the need for a rapid shift away from fossil fuels, such as phasing out all unabated coal power plants by 2040, to achieve net-zero targets. However, progress with achieving net zero targets have been slow and uneven across regions. According to the most recent United Nations Production Gap report (2021 xii)'s assessment of recent national energy plans and projections, on a global level, governments are planning to produce around 110 percent more fossil fuels in 2030 than would be consistent with limiting global warming to 1.5°C, and 45 percent more than would be consistent with limiting warming to 2°C. By 2040, this excess grows to 190 percent and 89 percent, respectively.

As the imperative of a shift away from fossil fuels is not yet translated into energy production, energy related CO2 equivalent emissions are on the rise

23. Cumulative Installed Capacity for Thermal Coal (Gigawatt, as of end of 2019)



24. Evolution of energy-related CO₂ emissions (1990-2021)



Source: Bloomberg NEF and IEA

- The growth rate of installed capacity for thermal coal is sustained since 2005, the cumulative capacity remains large, reaching over 2,075GW end of 2019—roughly doubling from early 2000 levels.
- CO2 equivalent emissions have been rebounding and will rise in 2021 to a new record high, according to the IEA (2021xiii), therefore erasing most of the pandemic-related reduction in 2020 (Figure 24). The IEA argues that this rebound is being driven by higher electricity consumption from coal sources, as well as by the infrastructure spending featured in many recovery plans and the demand for material inputs.

25. Map of thermal coal and lignite power plants planned or announced, under construction, proposed and for which financing is secured (capacity > 1MW, as of 29 October 2021—as depicted by red dots)



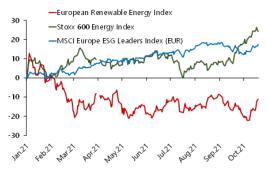
Source: Bloomberg Finance L.P, Mapbox, OpenStreetMap, BNEF

 Thermal coal and lignite expansion is mostly concentrated in the Asia-Pacific Region, as well as in the Middle East and the United States.

Amid a surge in energy prices, "green" stock indices have also picked up

26. Performance of European Renewable Energy, Stoxx 600 Energy and MSCI Europe ESG Leaders Indices

(Index, Normalized to as of 31 December 2020)



27. Performance of SGI European Green Deal Index and Stoxx Europe 600 Index (Normalized as of 02/01/2019)

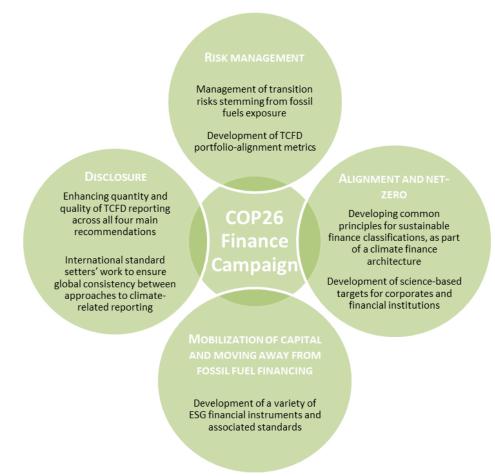


Source: Bloomberg and IMF staff calculation

- While the European Renewable Energy Index continues to underperform the other indices, since end of October it has risen 14 percent amid the recent surge in energy prices, particularly coal and natural gas xiv.
- Stocks that are positively exposed to decarbonization have shown an upward trend since April 2020 benefitting from ESG integration over the long term, as illustrated by the rise in performance of the SGI European Green Deal Index^{xv}.

The next edition of the ESG Monitor will dive into the four main objectives of the COP26 Finance Campaign

- Unleashing the trillions in private finance implies that every financial decision needs to take into consideration the climate imperative: considering the topics to be discussed during COP26, this Conference may set the tone for policy over the medium to long-term and market impacts will need to be monitored closely.
- In this respect, as an update to the COP26, the forthcoming ESG monitor will address the four main pillars of the Finance Campaign^{xvi} (disclosures, risk management, alignment, and net zero, and mobilization of capital), as well as on the developments on fossil fuels financing (specifically coal) and the connection with the recent surge in energy prices.



Annex: IMF ESG Monitor

- Environmental, social and governance (ESG) considerations are being increasingly integrated in the decision-making of lenders, investors and firms. This is largely driven by rising concerns about climate-related physical risks (losses as climate-related changes disrupt economic activity and destroy capital) as well as growing awareness of transition risks (the potential for losses resulting from a shift toward a lower-carbon economy).
- The ESG Monitor discusses the role of ESG factors in financial markets covers global developments in sustainable finance, and provides periodic updates on ESG issuance, asset price performance, and ongoing policy initiatives that affect the private sector perception of ESG-related risks.

Sustainable finance is the incorporation of ESG principles in business and investment decisions

Select Environmental, Social, and Governance (ESG) Issues

Key Pillars	Key Themes		Key Issues
Environment	Climate change	Carbon footprint	Vulnerabilities from climate change events
	Natural resources	Energy efficiency Sourcing of raw materials	Water efficiency Usage of land
	Pollution and waste	Toxic emissions Wastewater management Hazardous materials management	Air quality Electronic waste management
	Opportunities and policy	Renewable energy Clean technology	Green buildings Environmental and biodiversity targets and investment
Social	Human capital	Workplace health and safety Development opportunities	Employee engagement, diversity, and inclusion Labor practices (e.g., wages, working conditions)
	Product responsibility	Product safety and quality Selling practices and product labeling	Customer privacy and data security Access to products
	Relations	Community Government	Civil society
Governance	Corporate governance	Board structure and accountability Accounting and disclosure practices	Executive compensation and management effectiveness Ownership and shareholder rights
	Corporate behavior	Management of corruption Systemic risk management Earnings quality	Competitive behavior Management of business environment (e.g., legal, regulations) Transparency on tax and related-party transactions

Source: IMF, Global Financial Stability Report (Chapter 6, October 2019).

Glossary of Frequent Terms in Sustainable Finance in This Issue

ESG	Environmental, Social and Governance	
ETS	Emissions Trading System (related to carbon emissions)	
NGFS	Network (of Central Banks and Supervisors) for Greening the Financial System	
PRI	Principles for Responsible Investment (UN-supported network of investors)	
SRI	Sustainable, Responsible and Impact Investing	
TCFD	Task Force on Climate-related Financial Disclosures	

Endnote: Sustainable and Responsible Impact Investing Strategies

Impact and underperformance concerns have led the evolution of ESG strategies from exclusions to more selective inclusion and investor activism. Initially, sustainable investing was primarily about negative screening strategies that excluded firms or entire sectors from investment portfolios. Over time, concerns about risk management, benchmark underperformance, and a need to demonstrate material ultimate impact have given rise to strategies based on positive screening for companies with good ESG performance (best-in-class, improvement), companies that fulfill certain minimum standards or norms (norm-based screening), or sectors that are considered sustainable (sustainability-themed investments). For more information see Chapter 6 of the October 2019 Global Financial Stability Report.

¹ Climate Bonds Initiative (2021). Sustainable Debt Market. Summary H1 2021.

PBOC (2021). Notice on Issuing the Green Bond Endorsed Projects Catalogue.

European Commission (2021). SURE social bonds program. To finance this EU program to finance short-term employment schemes and keep people in jobs during the pandemic, the European Commission will issue up to EUR100 billion of social bonds by 2022. This program is complementary to the Next Generation EU program.

Tandon, A. (2021), "Transition finance: Investigating the state of play: A stock take of emerging approaches and financial instruments", OECD Environment Working Papers, No. 179, OECD Publishing, Paris, https://doi.org/10.1787/68becf35-en

ASEAN Roadmap For Sustainable Capital Markets, published in March 2021. ACMF_Roadmap_high.resolution.pdf (theacmf.org)

Sustainable Banking Network countries with national policies and guidelines focused on sustainable finance include Bangladesh, Brazil, Cambodia, China, Colombia, Ecuador, Georgia, Ghana, Indonesia, Kenya, Mexico, Mongolia, Morocco, Nepal, Nigeria, Pakistan, Panama, Paraguay, Peru, Philippines, South Africa, Sri Lanka, Thailand, Turkey, and Vietnam.

The South African Economic Reconstruction and Recovery Plan, published in October 2020. South African Economic Reconstruction and Recovery Plan (www.gov.za)

The Task Force on Climate-related Financial Disclosures (TCFD) assessed whether the reports of a sample of public companies align with one or more of its 11 recommended disclosures across four categories: Governance, Strategy, Risk Management and Metrics and Targets.

ix UK COP26 website (October 2021).

^{*}Estimates by IEA (2021) and IMF (2021) respectively: International Energy Agency (IEA). 2021. Net Zero by 2050: A Roadmap for the Gbbal Energy Sector. https://www.iea.org/ reports/net-zero-by-2050, International Monetary Fund (IMF). 2021a. "G20 Background Note: Reaching Net Zero Emissions." Washington, DC.

International Energy Agency (IEA). 2021. Financing Clean Energy Transitions in Emerging and Developing Economies. In collaboration with the World Bank and the World Economic Forum.

xii United Nations (UN). 2021. The Production Gap. Governments' planned fossil fuel production remains dangerously out of sync with Paris Agreement limits. 2021 Report - Production Gap

xiii International Energy Agency (IEA). 2021. Sustainable Recovery Tracker. <u>Tracking sustainable recoveries – Sustainable Recovery Tracker</u> <u>– Analysis - IEA</u>

IMF Blog, "Surging Energy Prices May Not Ease Until Next Year", 21 October 2021.

The Index, property of Société Générale, aims to select listed European companies stocks that could potentially benefit from the European Green Deal, in four investment themes: clean energy (renewable energy generation, wind energy equipment, electrification), sustainable mobility (rail, electric vehicles, hydrogen, biofuel), building and renovation (climate-proofing, energy efficiency) and circular economy (recycling and waste management, reusable, recycling packaging).

COP26 (2021). Building a Private Finance System for Net Zero. Priorities for private finance for COP26. COP26-Private-Finance-Hub-Strategy_Nov-2020v4.1.pdf (ukcop26.org)