ESG Monitor

MONETARY AND CAPITAL MARKETS DEPARTMENT

January 5, 2021

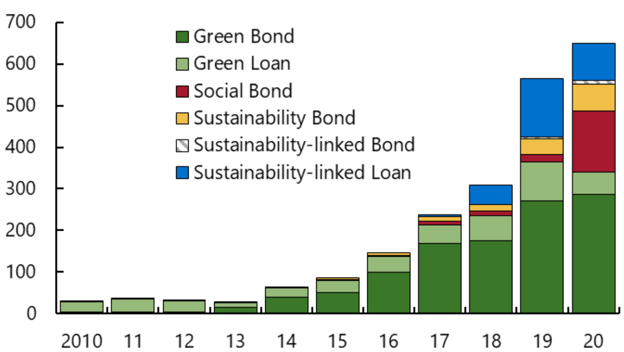
<u>ESG Monitor Highlights</u>

- Sustainable debt issuance rose to a new record in 2020, boosted by social bonds, to meet pandemic-related spending
- ESG-related assets outperformed non-ESG equivalents for most of last year (especially equities), partly as tech-heavy industries benefitted relatively to the broad market in 2020; monthly flows remain strong
- The ascent of carbon markets will likely continue, notwithstanding the 2020 global recession, but prices are generally low
- An encouraging trend for climate-related disclosures by firms is underway
- Japan focus: a fertile ESG landscape with greater move toward disclosures and adoption of sustainability considerations
- ESG considerations take a bigger role in alternative assets, but lack of consistent disclosures remains a barrier to further development

ESG-dedicated fixed income assets were shaped by the COVID-19 pandemic in 2020

Sustainable debt issuance rose to a record in 2020, despite a very weak Q2.

1. Global Sustainable Debt Issuance
(Billions of US dollars, as of Nov 30, 2020)

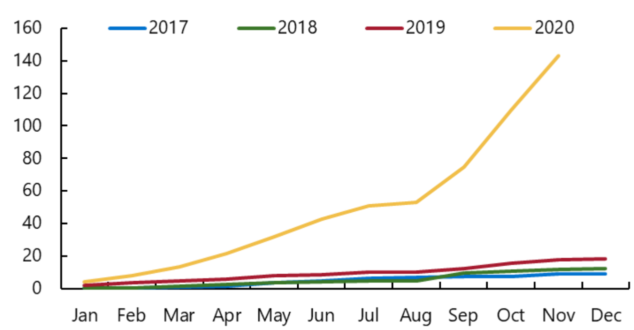


Source: BloombergNEF

- Sustainable debt issuance for the first 11 months of 2020 reached around $650 bn, continuing the trend of strong growth since inception.
- Unlike regular debt issuance that recovered quickly in Q2 2020 from the pandemic hit, sustainable debt issuance was much slower to recover, owing to fewer eligible projects to finance. Green bonds have merely kept pace with the 2019 issuance.

Social bond issuances surged in Q3.

2. Social Bond Issuances
(Billions of US dollars)



Source: BloombergNEF

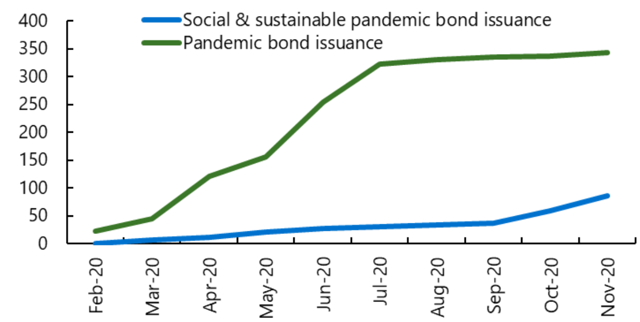
- Social bonds have been the main driver of growth for sustainable debt in 2020. Social bond issuances accelerated to an all-time high, exceeding $100bn in October, due to the COVID-19 pandemic and the need to fund associated spending.
- The surge was driven by EU's two-tranche, EUR 17 bn social bond issuance in October to finance the beginning of its recovery package. The sale received strong demand and was nearly 14 times oversubscribed.

This monitor was prepared by Han Teng Chua, Evan Papageorgiou, and Ranjit Singh (all MCMGA).

ESG-dedicated fixed income assets were shaped by the COVID-19 pandemic in 2020 (cont.)

Interest for bonds labeled with COVID-19 theme appears to be stagnating.

3. Pandemic Bonds Issuance
(Billions of US dollars)

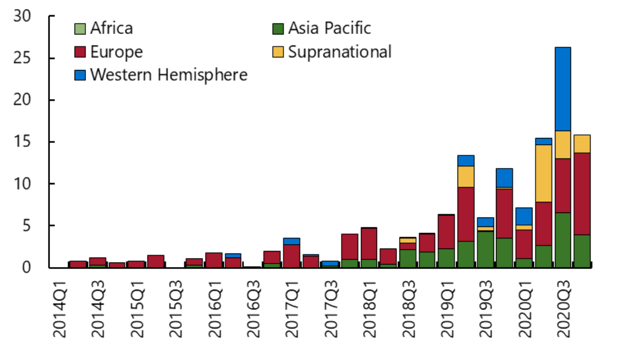


Source: BloombergNEF

- The pace of pandemic bond issuance slowed significantly in H2 following a strong H1.
- *Pandemic bond* is a generic term that includes bonds for which funding is specifically designated for projects in relation to the COVID-19 outbreak.

Sustainability bonds are experiencing strong growth in 2020.

4. Global Sustainability Bonds
(Billions of US dollars, 2020Q4 as of November 30)

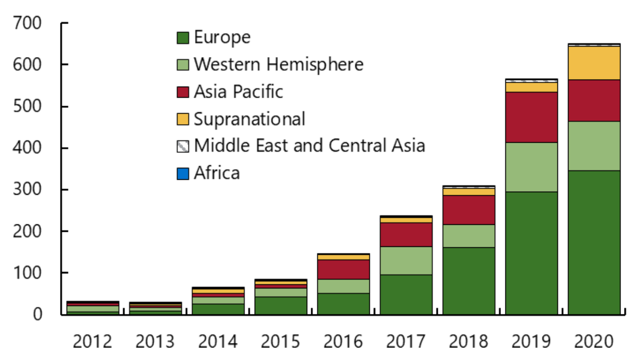


Source: BloombergNEF

- Sustainability bonds is bonds where the proceeds finance both social and/or green activities and/or projects.
- Sustainability bond volumes have exceeded the highs in 2019, recording at $65 bn for the first 11 months of 2020, 1.7x of 2019 levels.
- Mexico was the first country to issue a sovereign SDG bond in mid-September, featuring two eligible criteria: (1) a geospatial criterion that prioritizes vulnerable populations; (2) a governance criterion that involves the UN Development Program.

Issuance by European financials, corporates and sovereigns continues to drive sustainable fixed income.

5. Sustainable Debt Issuance by Region
(Billions of US dollars, as of Nov 30, 2020)

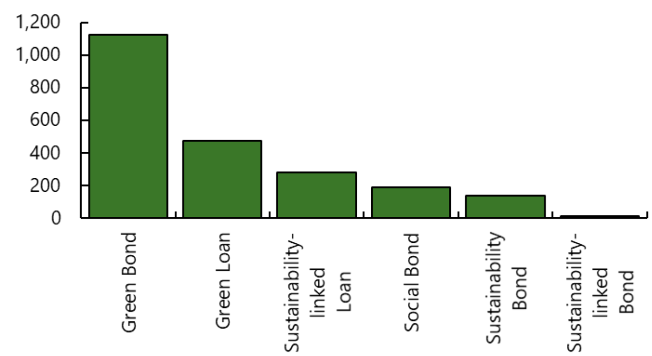


Source: BloombergNEF

- Sustainable fixed income is still very much dominated by European names, matching the regulatory push by the European Union.
- Last year the need to finance new lending led to an increase in issuance by supranational entities.

Sustainable outstanding debt has risen to more than $2.2 trillion, ¾ of which is green debt.

6. Stock of Sustainable Debt
(Billions of US dollars, as of Nov 30, 2020)



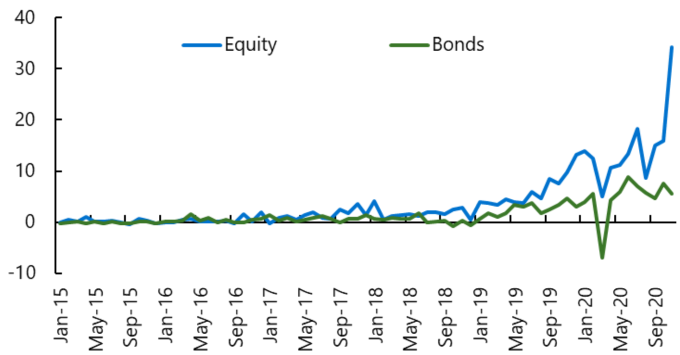
Source: BloombergNEF

- Sustainable fixed income has crossed $2 trillion in outstanding assets in 2020, but it is still much smaller compared to ESG equities as an asset class.
- The emphasis on green debt highlights the push toward greater private sector intermediation for financing solutions to combat physical and transition climate risks.

Tech-heavy weights drove the outperformance of ESG equities, while ESG fixed income was resilient

ESG fund flows remained strong on the back of commitments from the European green deal.

7. Overall Equity and Bond Flows into ESG/SRI Funds
(Billions of US dollars; latest end-November)

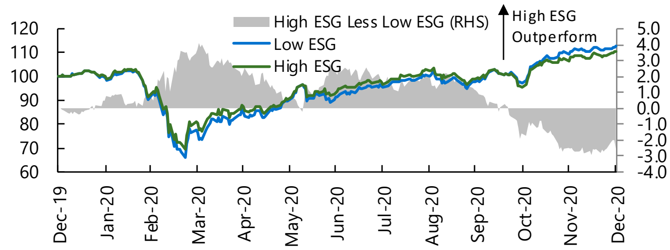


Source: EPFR

- Flows into equity ESG funds surged to a record high in November while bond ESG funds were slightly below their highs in October.
- The European green deal and other developments may be boosting investor appetite.

Equities with low ESG scores have begun outperforming following the correction in September.

8. S&P Global 1,200 Equity (High and Low ESG Baskets)
(Index; Normalized to 100 as of End-19)

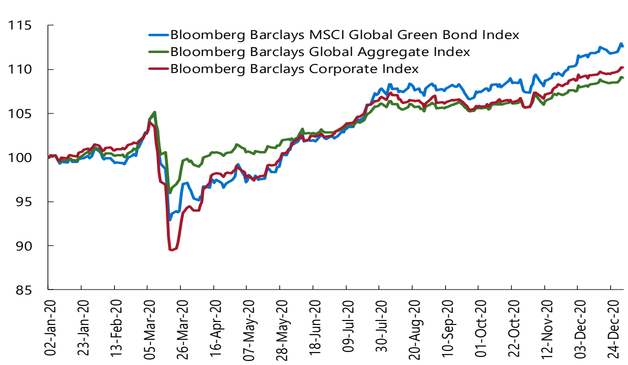


Source: Bloomberg
Note: Indices are created using members of the S&P Global 1,200 Index. High ESG = Average of indices created from 75th percentile scores from RobecoSam, Sustainalytics, Thomson Reuters; Low ESG = Average of indices created from 25th percentile from RobecoSam, Sustainalytics, Thomson Reuters

- Global equities with low ESG scores started to outperform high ESG equities amid a rotation into value stocks such as commodities while tech lagged.
- High ESG score equities have higher weight of tech firms.

Green bonds have outperformed corporate bonds and broad fixed income in Q3 and into Q4.

9. Bloomberg Barclays MSCI Global Green Bond Index and Various Fixed Income Indices
(Index; Normalized to 100 as of Jan 2, 2020)

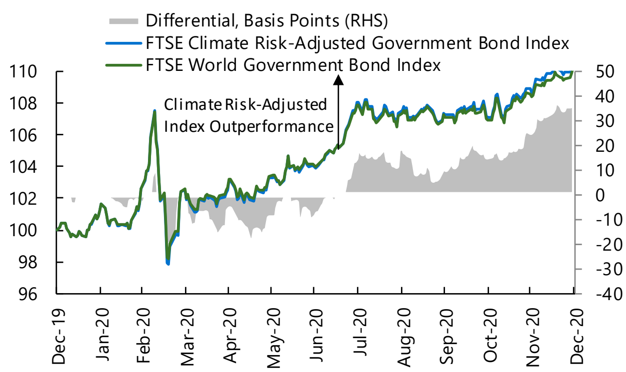


Sources: Bloomberg

- Bloomberg Barclays MSCI Global Green Bond Index is among many indices that track green bonds performance and was launched in 2014.
- The inclusion of green bonds is independently evaluated by MSCI along four dimensions (use of proceeds, project evaluation, management of proceeds, and reporting), reflecting themes in the Green Bonds Principles.
- Green bonds performance tends to track global fixed income but have outperformed starting from Q3.

The outperformance of climate adjusted sovereign bonds continued into Q4.

10. FTSE World Government Bond Index (WGBI) and Climate Adjusted Index
(Index; Normalized to 100 as of Jan 2, 2020)

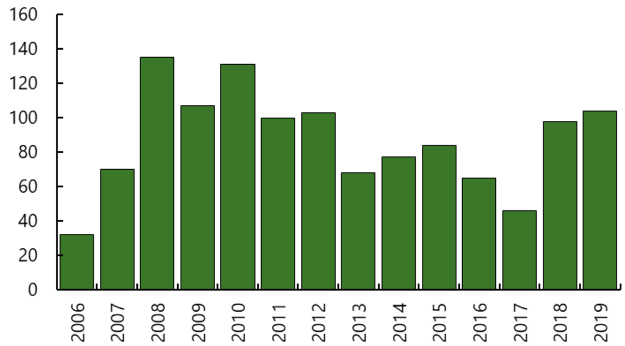


Sources: Bloomberg, IMF staff calculation

- The climate adjusted WGBI has a higher alignment to the 2050 2°C greenhouse gas emissions target but remains some distance away (-0.03).

Carbon dioxide traded picked up in recent years but remained below the highs around 10 years ago.

11. CO2 Traded in the Voluntary Carbon Market
(Annual Volume, Metric Tons)

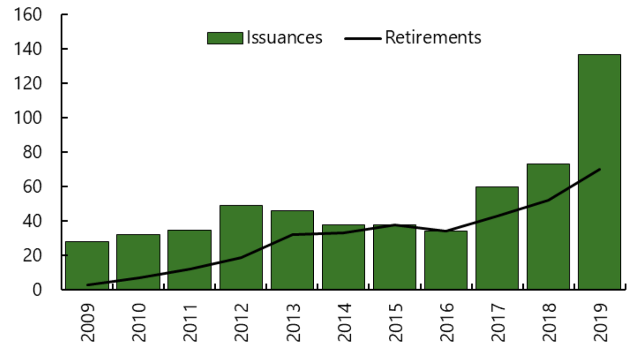


Source: Taskforce on Scaling Voluntary Carbon Markets Report

- Voluntary carbon trading began in 1989, focusing on avoiding deforestation, and picked up when the first Kyoto Protocol first commitment period started in 2008.
- Companies' increased net zero commitments are driving increased momentum in recent years.

Voluntary markets for carbon credits took off in 2019.

12. Credits Issued and Retired by Private Standard
(Metric Tons of Carbon Dioxide Equivalent)

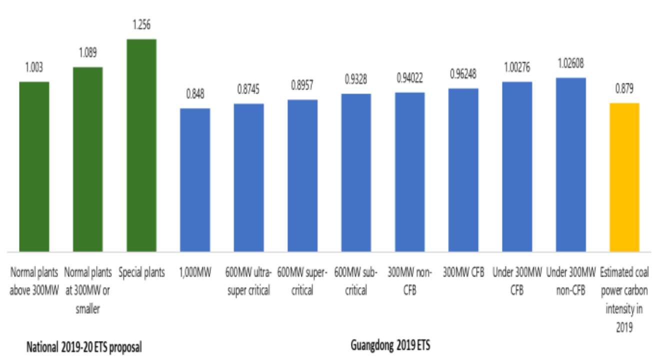


Source: Taskforce on Scaling Voluntary Carbon Markets Report

- 70 metric tons of carbon dioxide were retired in 2019, approximately doubling from 2016.
- Increased retirements of carbon credits allow the purchaser of credits to claim to have reduced emissions.
- Carbon credits need to be overseen by standards to ensure that they are high quality.

China's proposed coal allowances under its national system is too lenient.

13. China Coal Power Allowance Allocations
(tCO_2 /MWh)

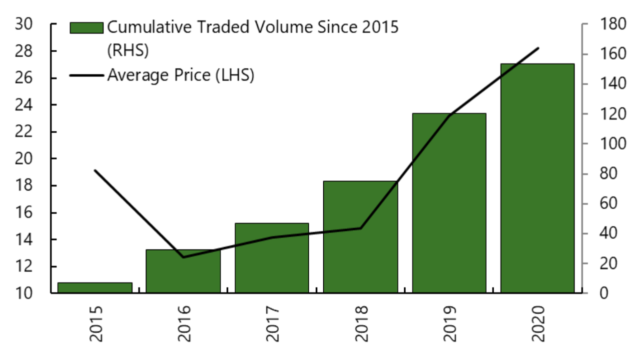


Sources: Ministry of Ecology and Environment, Guangdong Carbon Exchange, CEC, BloombergNEF; Note: Special plants in the national ETS proposal include circulating fluidized bed (CFB) boilers, and plants burning coal-water slurry and coal refuse, while normal plants refer to all the others.

- China's suggested coal allowances under its national emissions trading system (ETS) is more generous than coal power carbon intensity in 2019 and the largest regional system in Guangdong.
- China has been curbing coal consumption despite not running a national ETS. It has announced its aim to be carbon neutral by 2060.

China, Guangzhou carbon price has increased over the past few years but remains low.

14. China, Guangzhou Carbon Trading
(LHS: Chinese yuan; RHS: Volume in Millions)



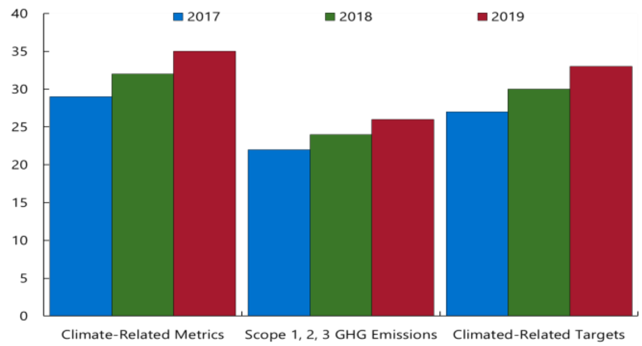
Source: China Emissions Exchange Guangzhou.

- The Guangzhou pilot ETS is the largest local carbon market in China in terms of volume traded.
- While the average carbon price has risen to slightly below CNY30 ($4.6) per metric ton in 2020, it is significantly below that of the European ETS of EUR 32 ($39.4) and IMF's $75 (by 2030) suggested level to limit global warming to 2°C or less.

Climate disclosures have experienced steady and encouraging progress

Disclosure of climate metrics and targets has increased since 2017.

15. TCFD-Aligned Metrics and Targets Disclosures by Year (Percent of Companies That Disclose Information Aligned with TCFD Recommended Disclosures)

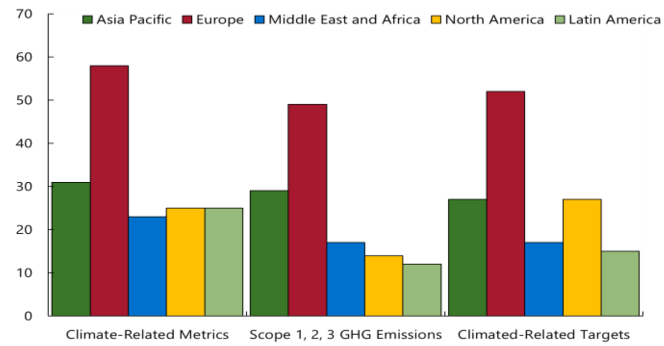


Source: Task Force on Climate-related Financial Disclosures

- The disclosure of climate-related metrics is higher than information on greenhouse gas emissions and targets.
- Scenario planning on climate risks is however lagging and TCFD has launched two guidance: (1) scenario analysis, (2) integrating climate risks into existing risk management processes.

Disclosure varies across regions, with Europe leading the way.

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

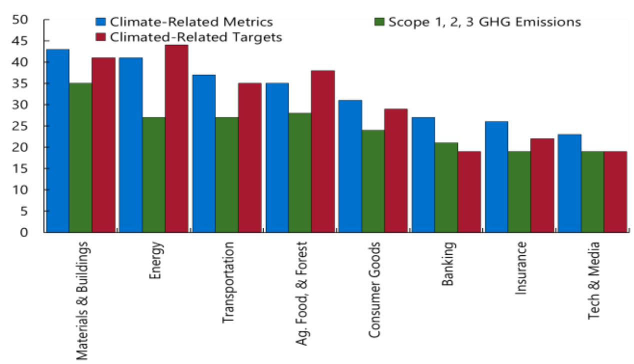


Source: Task Force on Climate-related Financial Disclosures

- Europe has the highest disclosure on climate metrics and targets, accounting for 50% or more companies.
- This could be a result of the European Commission's integration of TCFD recommendations into its Guidelines on Reporting Climate-Related information.
- The UK is planning to make TCFD reporting compulsory for all listed companies and asset owners by 2025, with a significant portion of requirements in place by 2023.

Materials and energy have the highest disclosures among all industries.

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

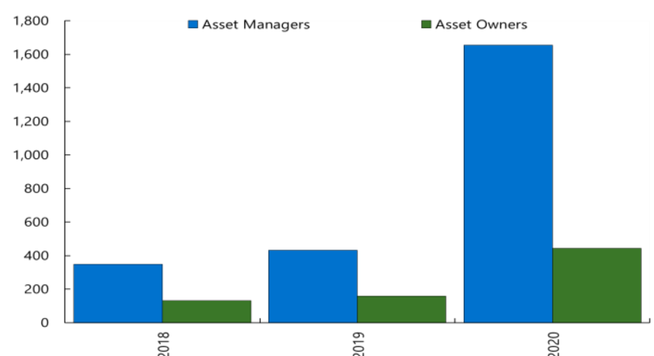


Source: Task Force on Climate-related Financial Disclosures

- Companies in industries exposed to sizeable climate risk such as materials and energy have led TCFD-aligned disclosures.
- That said, less than half of materials and energy companies globally reveal climate-related metrics and targets.

TCFD-aligned reporting by PRI signatories rose significantly in 2020.

18. PRI Signatories Reporting on Climate Indicators (Number)



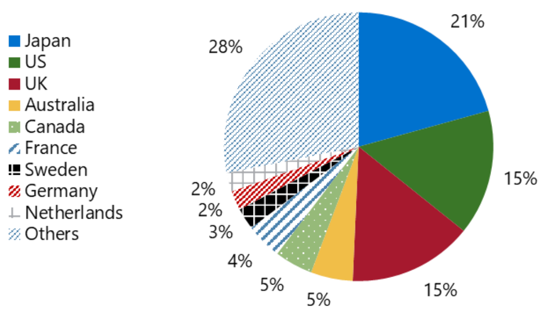
Source: Task Force on Climate-related Financial Disclosures

- The number of asset managers and asset owners reporting TCFD-related indicators rose significantly in 2020, driven by the PRI's mandatory reporting for specific climate-related indicators. Public disclosure remains voluntary.
- While reporting has increased, there is room to improve disclosures of the weighted average carbon intensity metric recommended by the Task Force.

Japan's growing ESG landscape

Japan is the largest TCFD supporter, followed by the US and the UK.

19. Largest TCFD Supporters Breakdown by Country
(Percent; as of mid-November)

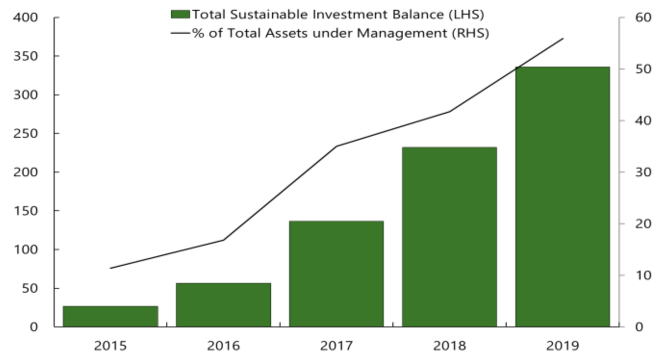


Source: Task Force on Climate-related Financial Disclosures

- Japan has more than 300 TCFD supporters, the largest globally at 21 percent.
- Japan has pledged to be carbon neutral by 2050, a significant change versus an unspecified date previously.

Japan has seen an increase in sustainable investment assets.

20. Sustainable Investment in Japan
(LHS: Trillions of Japanese yen; RHS: Percent of Total Assets under Management (AUM))

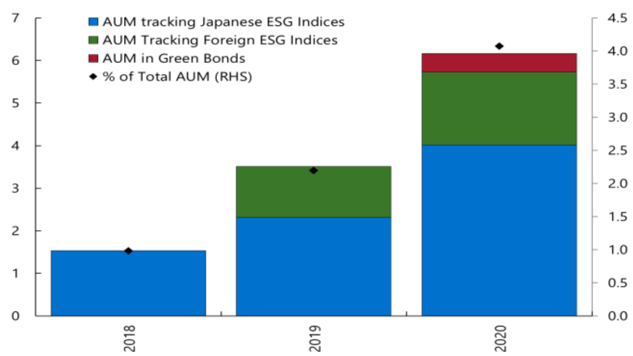


Source: Japan Sustainable Investment Forum

- Sustainable investment in Japan accelerated to JPY336 tn, 1.45x larger than JPY232 tn, reflecting investment by 43 institutions.
- Sustainable investment accounted for 56% of total AUM of the reported institutions.

GPIF has increased investments in ESG even though they are still small relative to total AUM.

21. GPIF Investment in ESG Equity Indices and Green Bonds
(LHS: Trillions of Japanese yen; RHS: Percent of Total Assets under Management (AUM))

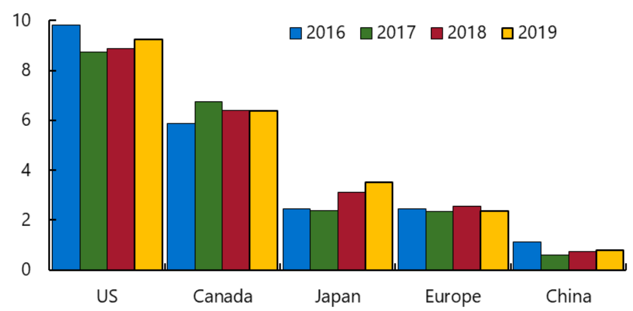


Source: GPIF

- GPIF, the world's largest asset owner, has expanded its ESG investments at a fast pace since beginning in 2017, venturing beyond domestic equities to foreign equities and green bonds.
- GPIF has also forged partnerships with multilateral banks and governmental institutions globally to encourage the issuance of sustainable debt.

However, Japanese banks have increased fossil fuel financing exposures.

22. Fossil Fuel Financing by Banks
(Percent of Overall Loans)



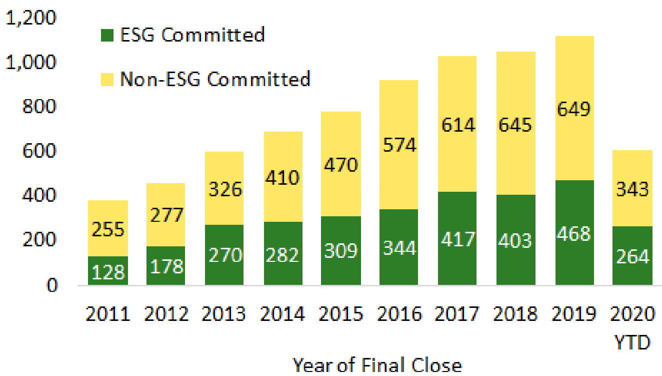
Sources: Banking on Climate Change 2020, Bloomberg, IMF staff calculation
Note: Calculations based on banks provided in Banking on Climate Change report.

- Japan's bank financing of fossil fuel continued to rise even though it is lower than the US and Europe.
- However, in a shift of policy, Japan's government has said that it will slash financing of coal power in the developing world.

ESG takes a bigger role in alternative assets, but lack of disclosures is a barrier to growth

Alternative asset managers (investing in non-publicly traded investments) maintain their interest in ESG.

23. Capital Raised by Alternative Asset Managers (General Partners)
(Billions of US dollars; 2020 as of October)

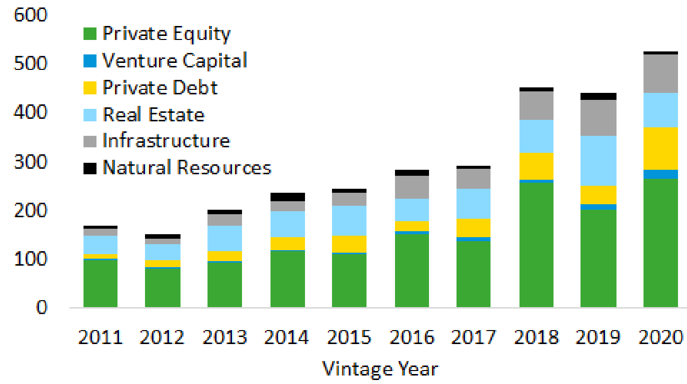


Source: Preqin Pro

- Mirroring developments in listed equity and debt markets, the considerations of ESG principles in alternative investments have risen considerably in recent years.
- The 2020 decline in alternative asset investments was due to the recession and did not seem to disproportionately affect ESG commitments.
- More than 4,400 private capital funds have raised over $3 trillion in ESG committed funds since 2011, according to the Preqin Impact Report (November 2020).

ESG committed private funds have risen, led by buyout strategies of private equity and private debt.

24. Assets under Management of ESG Private Capital by Asset Class
(Billions of US dollars; 2020 as of October)

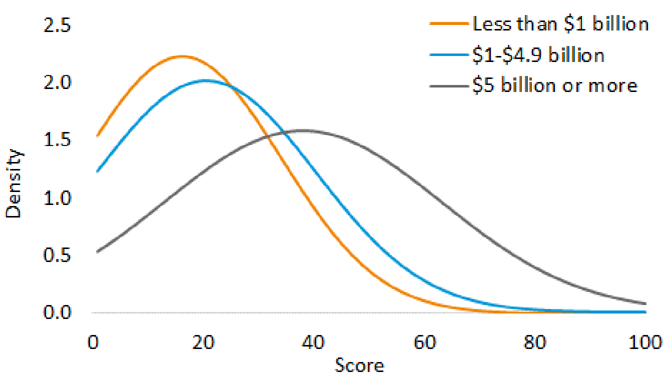


Source: Preqin Pro.

- Private equity funds dominate ESG. According to Preqin, since 2011, 1,714 sustainable private equity funds have been created raising more than $1.5 trillion, followed by ESG real estate fund (with almost $600 billion in assets).
- Greater adoption of private debt deals also show up in ESG funds, as the COVID-19 pandemic lent greater awareness of sustainability considerations. Private debt funds account for nearly $350 billion.

Larger alternative asset funds make a greater effort toward transparency.

25. Distribution of ESG Transparency Scores of Private Capital Fund Managers, by Size of Assets Under Management
(Percent; score of 100 is best, 0 is worst)

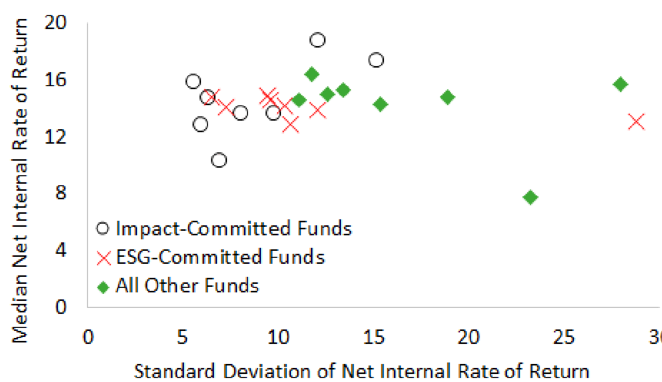


Source: Preqin Pro

- Lack of standardization in reporting is long-standing issue for most investors. Private market disclosures are even more delayed than in public markets, and they have even fewer third-party providers of data, which can prevent greater adoption of alternative investments.
- Larger managers (with at least $5 billion in assets) held significantly higher transparency scores compared to smaller funds, partly due to having more resources dedicated to disclosures.

ESG committed funds offer similar returns to traditional funds, and sometimes with lower volatility.

26. Risk and Return of Sustainable Private Equity Funds
(Percent for both axes; 2010-17 vintages)



Source: Preqin Pro.

- Preqin calculates that ESG committed and impact committed funds perform on par with non-ESG funds, while also maintaining lower risk on average (albeit not strongly statistically significant).
- Impact committed funds are a subset of ESG committed funds, and are explicitly attempting to make a positive societal impact.

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, regula 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*.