# ESG Monitor

MONETARY AND CAPITAL MARKETS DEPARTMENT

**June 2, 2020**

- 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).
- This 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.
- **Highlights of this ESG Monitor are**:
  - The COVID-19 pandemic has contributed to a temporary decline of carbon emissions, but cheaper fossil fuels and fiscal contraints could delay a sustainable long-term reduction of emissions.
  - ESG fund flows and asset performance suffered during the COVID-19 market crash, but equities with high ESG scores outperformed.
  - ESG debt issuance was resilient so far in 2020.
  - Transitions risks associated with the shift from combustion to electric vehicles (EVs) are becoming increasingly apparent.
  - Stranded assets in the energy sector are a prominent transition risk, but funding for coal in Asia remains abundant.

## *Sustainable finance is the incorporation of a broad set of ESG principles in business and investment decisions.*

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

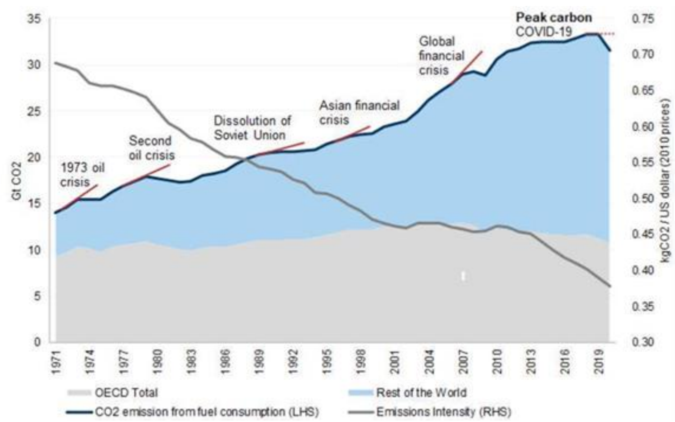
Source: IMF, Global Financial Stability Report (Chapter 6, October 2019).

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

## COVID-19 has led to a drop in emissions, the public supports climate action, but there are challenges

### *The COVID-19 pandemic led to a large drop in CO2 emissions, but may be short-lived.*

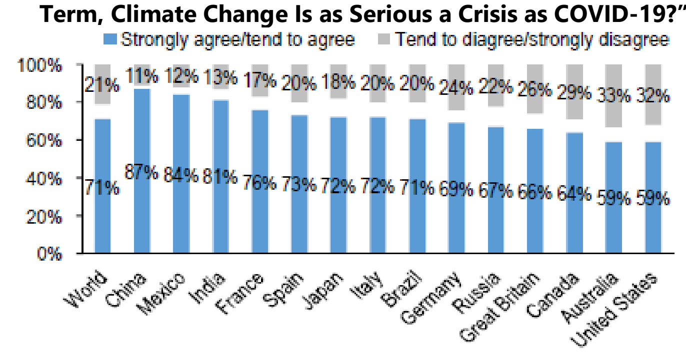
**2. Global Fossil CO2 Emissions and Carbon Intensity (LHS: Gigatons CO2; RHS: Kilograms of CO2 per GDP)**




- Historically, while emissions have always fully rebounded following a crisis, the carbon efficiency (CO2/GDP) has tended to accelerate post crisis
- Chinese emissions data suggests a V-shaped rebound

### *Across 14 countries, 71percent of people believe that climate change is as serious a crisis as COVID-19 ...*

**3. Responses to the Ipsos Survey Question "To What Extent Do You Agree/Disagree with the Following: In the Long Term, Climate Change Is as Serious a Crisis as COVID-19?"**

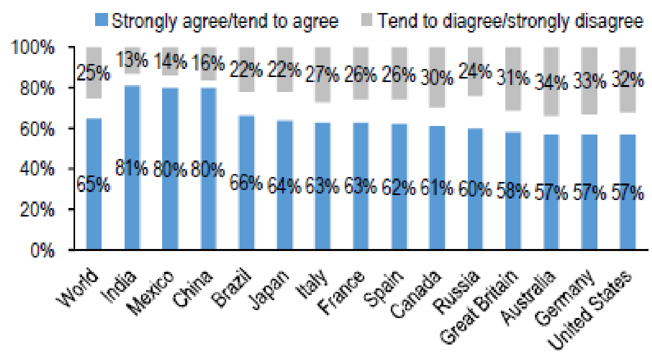



Note: Base: 28,039 online adults aged 16-74: Fieldwork dates: Friday 17 to Sunday 19 April 2020.

- In large EMs (China, Mexico, India) concern about climate change is particularly high
- Concern is lowest in some of the largest CO2 per capita emitters

### *... and 65% believe that climate change should be prioritized in the economic recovery.*

**4. Responses to the Ipsos Survey Question "To What Extent Do You Agree/Disagree with The Following: In The Economic Recovery After Covid-19, It's Important That Government Actions Prioritize Climate Change?"**

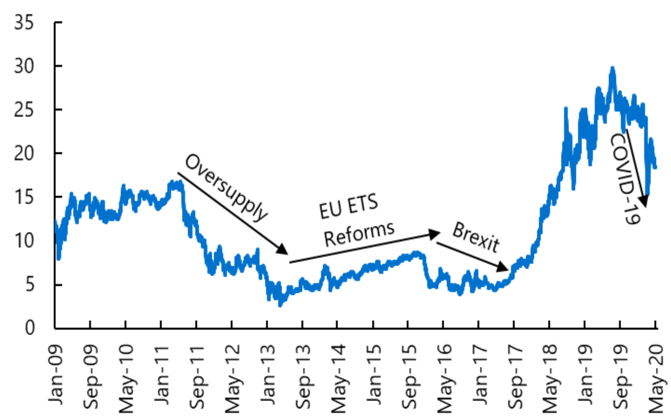



Note: Base: 28,039 online adults aged 16-74: Fieldwork dates: Friday, 17 to Sunday, 19 April 2020.

- Support for a green economic recovery is highest in EM, lowest in the US and Germany.

### *Lower carbon prices, cheaper fossil fuels, and fiscal constraints could delay progress toward lower emissions.*

**5. Carbon Price in European Union Emissions Trading System (Euro per ton)**



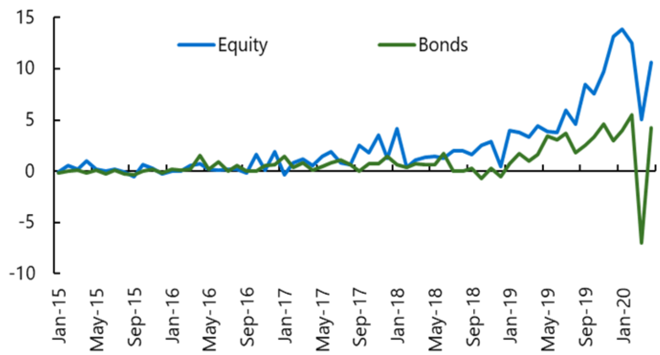

Source: Bloomberg

- Carbon prices in the EU have declined but remain above pre-2018 levels
- Fiscal space to fund investment in the energy transition is more constraint in many countries

# ESG fund flows and asset performance suffered during the COVID-19 market crash, but equities with high ESG scores outperformed, primarily due to lower commodity and higher tech exposure

## *ESG fund flows rebounded in April.*

**6. Overall Equity and Bond Flows into ESG/SRI Funds (Billions of US dollars; latest end April)**

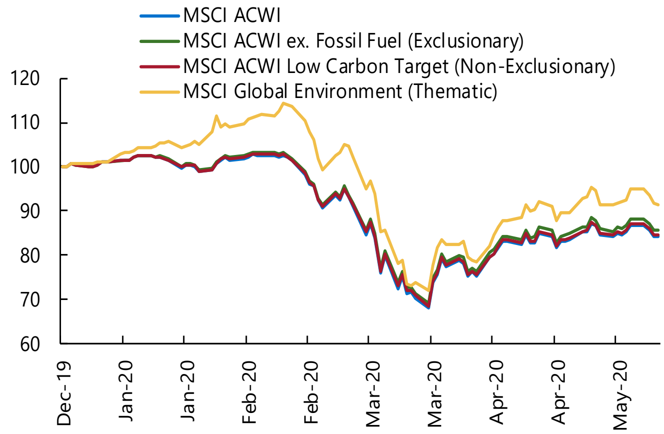



Source: EPFR

- Flows into equity ESG funds remained positive even in March
- Bond ESG funds saw outflows in March, but inflows resumed in April

## *Climate change-themed global equities performed in line or outperformed conventional global equity indices.*

**7. MSCI All-Country World Index (ACWI) and Various ESG Indices (Index; Normalized to 100 as of end-2019)**

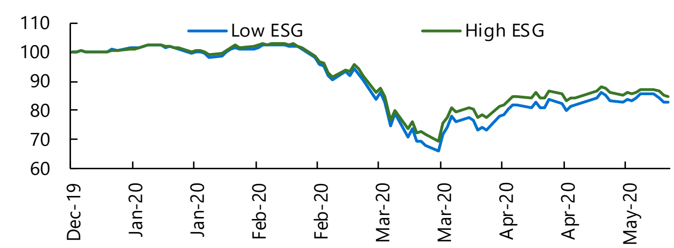



Sources: Bloomberg, IMF staff calculation

- Climate-themed exclusionary indices performed in line
- The broader thematic MSCI Global Environment index outperformed

## *Equities with high ESG scores outperformed through the COVID-19 crash.*

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



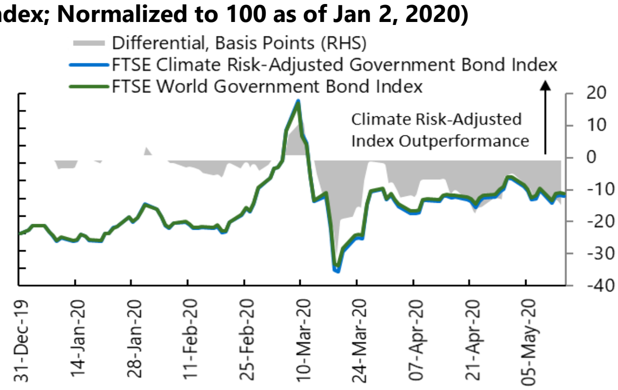

Source: Bloomberg

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 high ESG scores outperformed equities with low ESG scores significantly since mid-March, partly due to less exposure to commodities and higher exposure to tech
- High ESG equities outperformed across advanced economies and EM

## *Climate adjusted bond indices slightly underperformed.*

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



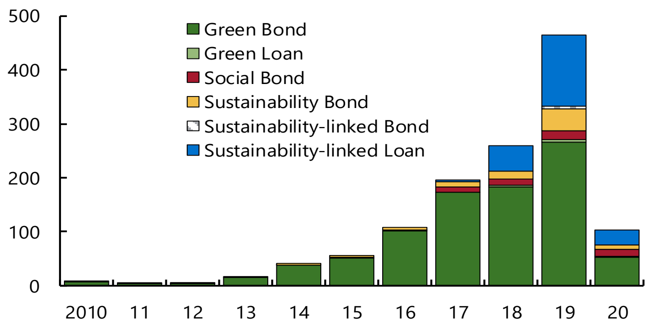

Sources: Bloomberg, IMF staff calculation

- The climate adjusted WGBI tilts toward sovereigns with lower exposure to climate risk

## ESG debt issuance was resilient in Q1

*Sustainable debt issuance was resilient in Q1 2020 relative to 2019 despite difficult market conditions.*

**10. Global Sustainable Debt Issuance (2020 as of April 8)**
**(Billions of US dollars)**

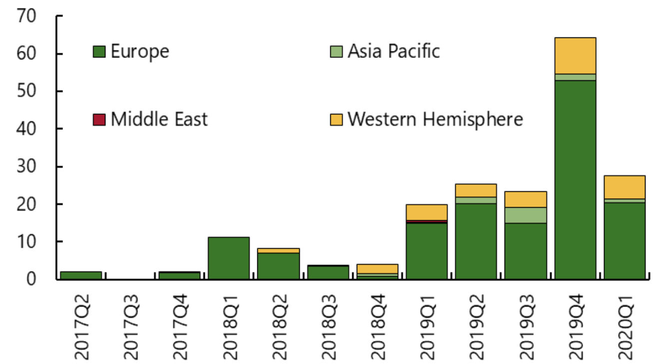



Source: BloombergNEF

- Sustainable debt issuance for Q1 2020 stood at $103bn compared to $87bn for the same period in 2019

*Sustainability-linked bank loans are the fastest growing segment.*

**11. Global Sustainability-linked Loans**
**(Billions of US dollars)**



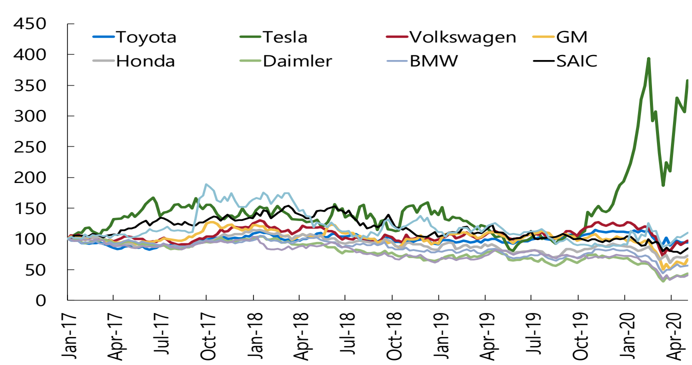

Source: BloombergNEF, IMF staff calculations

- European banks are dominating in sustainability-linked loans
- Sustainability-linked loans are predominantly to non-financial corporates. 84% are revolving credit facilities and 16% term loans (Moody's)

## Transitions risks associated with the shift from combustion to electric vehicles (EVs) are increasingly on the industry's and investors' minds

*Investor focus on the shift to EVs has contributed to Tesla's stock surge …*

**12. Auto Equity Performance**
**(Index; Normalized to 100 as of Jan-17)**

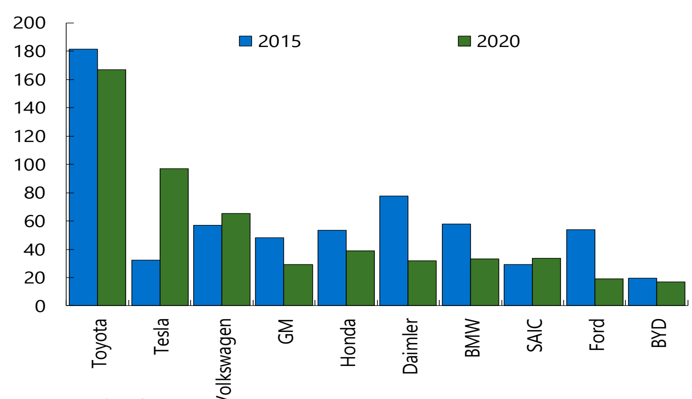



Sources: Bloomberg, IMF staff calculation

- Tesla quickly recovered losses after the COVID-19 sell-off, unlike its competitors, suggesting that investors are confident that low oil prices will not derail the shift to EVs

*… making the company one of the most valuable global automakers despite comparatively small production.*

**13. Auto Market Capitalization**
**(Billions of US dollars)**

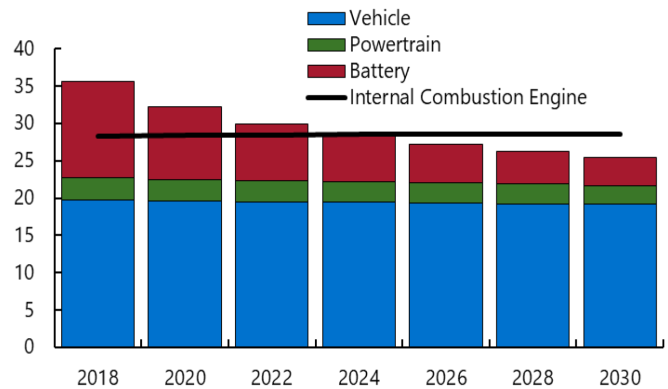



Source: Bloomberg

- Tesla's market cap is close to 100bn, exceeding car makers with much larger volumes
- BYD, a Chinese EV manufacturer, is also highly valued

*EVs are projected to have lower purchase prices than combustion cars in the mid-2020s.*

**14. US EV and Internal Combustion Engine Vehicle Pre-tax Retail Prices**
**(Real 2018 thousands of dollars)**

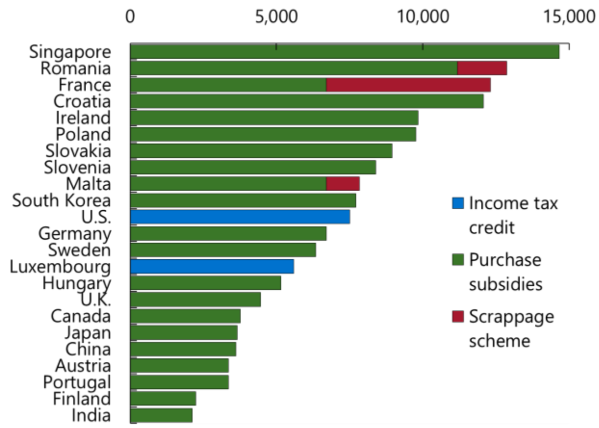



Source: BloombergNEF

- Recent news on faster-than-expected declines in battery prices suggest that EVs could be cheaper than comparable combustion vehicles even earlier

*Currently EV subsidy schemes are in place in many countries and further EV support in the context of post COVID-19 fiscal stimulus is under discussion.*

**15. Battery EV Purchase Assistance**
**(US dollars)**



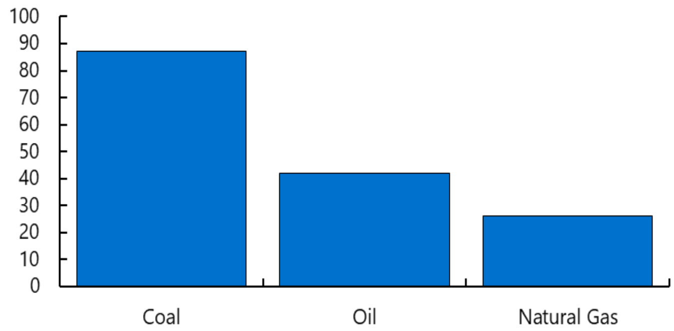

Source: BloombergNEF

- Most advanced economies and some EMs, notably China, provide subsidies that make EVs competitive

## Stranded assets in the energy sector are another prominent transition risk

*As substantial part of proved energy reserves could be stranded ...*

**16. Stranded Assets Globally in 2070 by Fossil Fuel**
**(Percent of Proved Reserves in 2018)**

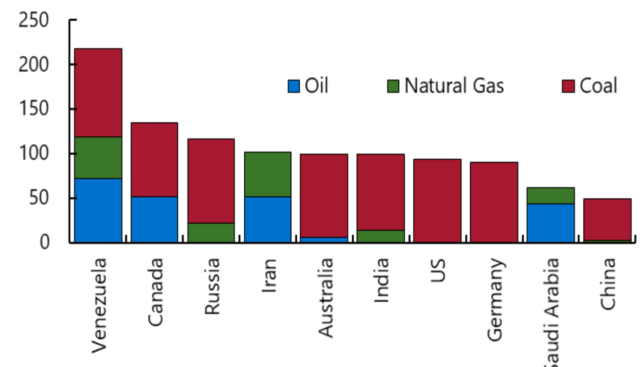



Sources: JP Morgan estimates, BP, IEA
Note: Based on IEA Sustainable Development Scenario - limit global warning to below 1.8 degrees celsius, relative to pre-industrial levels , with 66% probability.

- The IEA estimates that close to 90% of proved coal reserves and 40% of proved oil reserves must remain in the ground to limit global warming to 1.8 degrees Celsius

*... with important implications for fossil energy exporters.*

**17. Stranded Assets in 2070 By Country**
**(Percent of Proved Reserves in 2018)**



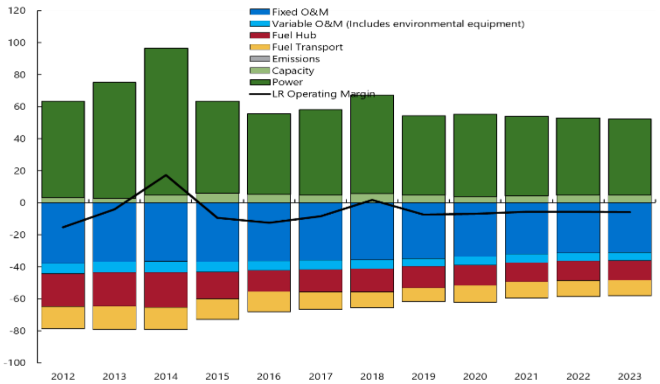

Sources: JP Morgan estimates, BP, IEA
Note: Based on IEA Sustainable Development Scenario - limit global warning to below 1.8 degrees celsius, relative to pre-industrial levels , with 66% probability

- Stranded assets could be substantial for some sovereigns as well as corporates

## Insurers, banks, and asset manager have pledged to get out of coal, but funding remains ample for coal projects, especially in Asia

### *Global coal production peaked in 2013 and profitability of many coal companies is suffering (such as in the US).*

**18. Operating Margins of US Coal Companies**
**(Billions of US dollars)**

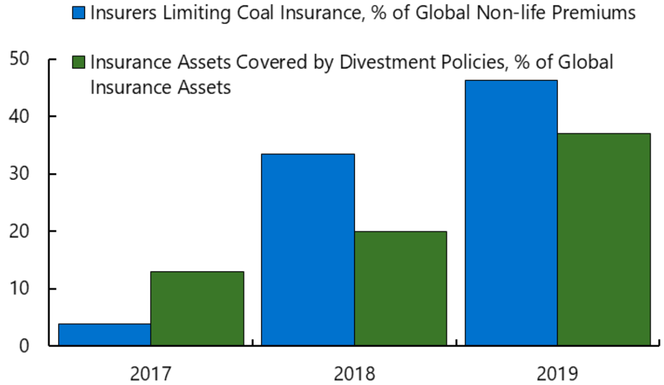



Sources: BloombergNEF

- Between 2012 and 2019, half of US coal companies failed to break even, and the aggregate operating margin for all US coal companies is expected to remain negative through at least 2023

### *Insurers are increasingly curtailing insurance for coal related activities.*

**19. Insurance and Coal**
**(Percent of Global Non-life Premiums & Percent of Global Insurance Assets)**

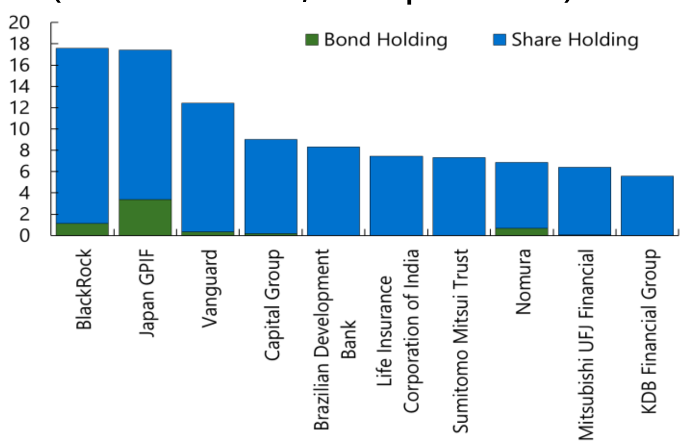



Sources: Unfriend Coal

- Close to half of global insurers have limited insurance for coal related activities

### *Major asset managers hold large coal investments and have pledged divestments.*

**20. Top Coal Investors**
**(Millions of US dollars; As of September 2019)**

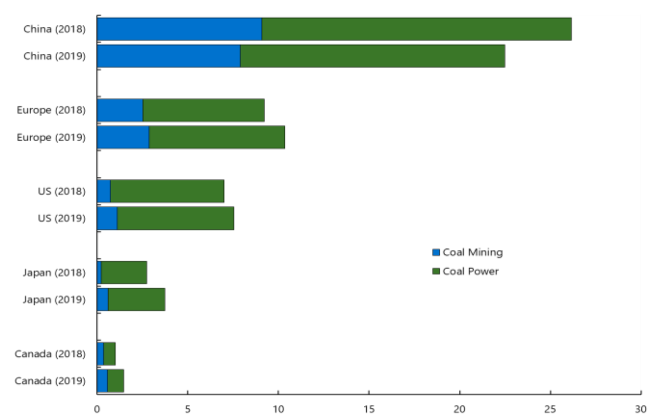



Source: Coalexit.org

- Major asset managers have pledged divestment from coal, but currently hold large coal related assets

### *Several banks have stopped lending to coal projects, but financing is still easily available especially in Asia.*

**21. Bank Funding for Coal Mining and Power Plants**
**(Billions of US dollars)**




Sources: Banking on Climate Change, IMF staff calculations

- Asian banks and export credit agencies remain major financiers of coal projects
- Private equity firms are also stepping up funding
- This calls into question the efficacy of divestment pledges to make funding for coal projects more difficult

## Glossary of Frequent Terms in Sustainable Finance

| | |
|---|---|
| COP21 | 21st Conference of the Parties (2015 United Nations climate change conference) |
| ESG | Environmental, Social and Governance |
| ETS | Emissions Trading System (related to carbon emissions) |
| GRI | Global Reporting Initiative |
| NGFS | Network (of Central Banks and Supervisors) for Greening the Financial System |
| SASB | Sustainability Accounting Standards Board |
| SDGs | United Nations Sustainable Development Goals |
| SRI | Sustainable, Responsible and Impact Investing |
| TCFD | Task Force on Climate-related Financial Disclosures |
| PRI | Principles for Responsible Investment (international network of investors) |

## 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*.