

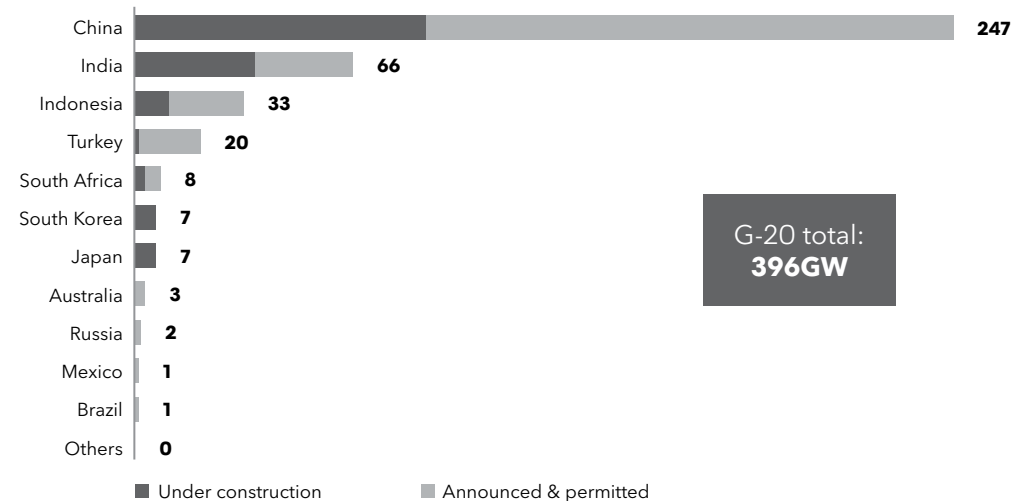
Fossil-fuel support

Other types

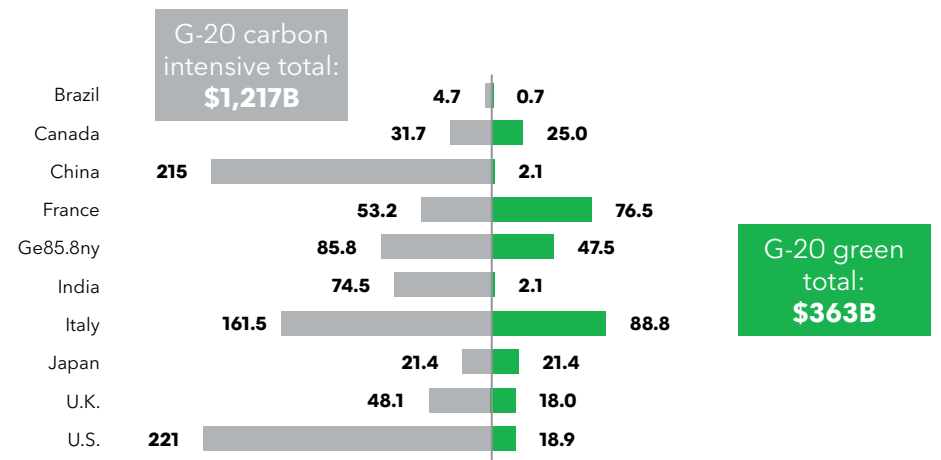
Some G-20 nations have pledged to phase out unabated coal power, while others have plans for hundreds of megawatts in new capacity. Calls for a green economic recovery have thus far largely fallen on deaf ears, with much more funding targeted at CO₂-intensive sectors.

- In recent years some governments have sought to reduce support for coal-fired power. Not only is it more emission-intensive than other fossil fuels, but there are also cost-competitive alternatives: onshore wind and PV are the cheapest source of new bulk power generation in countries accounting for two-thirds of the world's population.
- One of the U.K.'s priorities for COP26 is for parties to ban the use and financing of coal power. Public finance institutions in 13 G-20 countries already have full or partial restrictions on direct coal finance, although not on indirect support. However, some governments may take some persuading to come on board: the G-20 countries have just under 400GW of coal-fired generating capacity in the pipeline – equivalent to a quarter of the current global fleet of coal power stations.
- Coal has attracted very little of the trillions of dollars of Covid-19 recovery funding distributed by the G-20 countries. Indeed, these governments have responded to calls to 'build back better' by allocating some \$363 billion to sectors or projects that aim to buoy up the economy and to cut emissions or aid climate adaptation. However, far more – over \$1.2 trillion – has been set aside for carbon-intensive sectors such as aviation and construction with no green element.
- Globally, governments have approved some \$16.7 trillion in stimulus funding. The vast majority, which we classify as 'neutral', comprises disaster relief, aid for health care, wage subsidies and cross-sector funding programs. One of the reasons why this share is so large is due to the persistence of the pandemic, with recurrent waves of virus infections and government responses. As a result, while governments may have already announced some long-term plans for revitalizing the economy, they have continued to simultaneously roll out funding to deal with the short-term impacts. France and Japan are the only G-20 countries to have allocated more, or a similar volume of, stimulus to green sectors compared with carbon-intensive areas.

Coal-power plants in the pipeline in G-20 (GW)



Approved Covid-19 stimulus in 10 largest G-20 economies (\$billion)



Source: Governments, development banks, Global Coal Plant Tracker. Note: Lower figure includes EU member states' national economic and resilience plans as well as approved stimulus.

Fossil-fuel support

Assessment

Seven of the G-20 jurisdictions (including four in the OECD) made no clear progress phasing out fossil-fuel support 2015-19, based on BNEF analysis. They have expanded such subsidies or still provide more of such funding and concessions on a per-capita basis relative to the rest of the G-20. In comparison, six other nations are moving in the right direction.

- Eliminating fossil-fuel supports can be a slow and politically delicate process. However, other policies can be implemented to offset these supports without the same potential downsides. These include financial incentives for renewables and energy storage, capacity mechanisms in the power market, and 'just transition' strategies to support companies, workers and local communities affected by the shift from fossil fuels to cleaner technologies.
- The need to reduce greenhouse-gas emissions and the expanding number of viable lower-carbon technologies have spurred some policy makers to agree to reduce fossil-fuel subsidies. Indeed, in 2009, G-20 governments [committed to](#) "phase out and rationalize over the medium term inefficient fossil fuel subsidies". They did not clearly define "inefficient" nor did they not specify a deadline, although G-7 countries agreed in 2016 to a deadline of 2025 – a pledge they reiterated at the summit on June 11-13, 2021.
- The G-7 also committed to end support for "unabated international thermal coal power generation". However, this wording could mean that funding higher-efficiency thermal coal power technologies – e.g., ultra supercritical boilers – would still adhere to the commitment because they have comparatively low emissions, as could combined-heat-and-power thermal coal projects. The agreement also did not explain what was meant by the "limited exceptions" to the pledge, which was restricted to international finance alone.
- In an attempt to speed the phase-out process, G-20 governments developed a framework for voluntary peer reviews of fossil-fuel subsidies. The idea was to facilitate sharing of experiences and learnings in phasing out fossil-fuel subsidies between countries. China and the U.S. were the first to undertake such reviews of each other's fossil-fuel support, with the results published in 2016. Germany and Mexico followed in 2017, then Indonesia and Italy in 2019. Argentina and Canada, and France and India, are in the process of undertaking peer reviews.
- The reviews are likely to have varying degrees of success. Each government may choose its own definition of "inefficient fossil-fuel subsidies", making comparisons difficult. Even when such measures have been identified through review, the country decides whether and when to act on the results. A change in political leadership may also affect the implementation of changes: the U.S., for example, began its review under the helm of President Obama but delivered the results under President Trump.

Progress on phasing out fossil-fuel supports

	Change in total support (2015-19)	Per capita (2019)
Argentina	↓ 23%	\$734
Australia	↑ 48%	\$293
Brazil	↑ 3%	\$188
Canada	↑ 40%	\$446
China	↑ 4%	\$104
France	↑ 24%	\$347
Germany	↓ 17%	\$107
India	↓ 4%	\$40
Indonesia	↑ 27%	\$170
Italy	↓ 33%	\$220
Japan	↓ 3%	\$138
Mexico	↑ 3%	\$269
Russia	↓ 4%	\$523
Saudi Arabia	↓ 50%	\$1,962
South Africa	↓ 35%	\$100
South Korea	↓ 29%	\$213
Turkey	↓ 22%	\$35
U.K.	↓ 18%	\$262
U.S.	↑ 37%	\$46

■ Right direction ■ Mixed ■ Wrong direction

Source: BloombergNEF. Note: [Click here](#) for our definitions of 'Right' and 'Wrong direction'

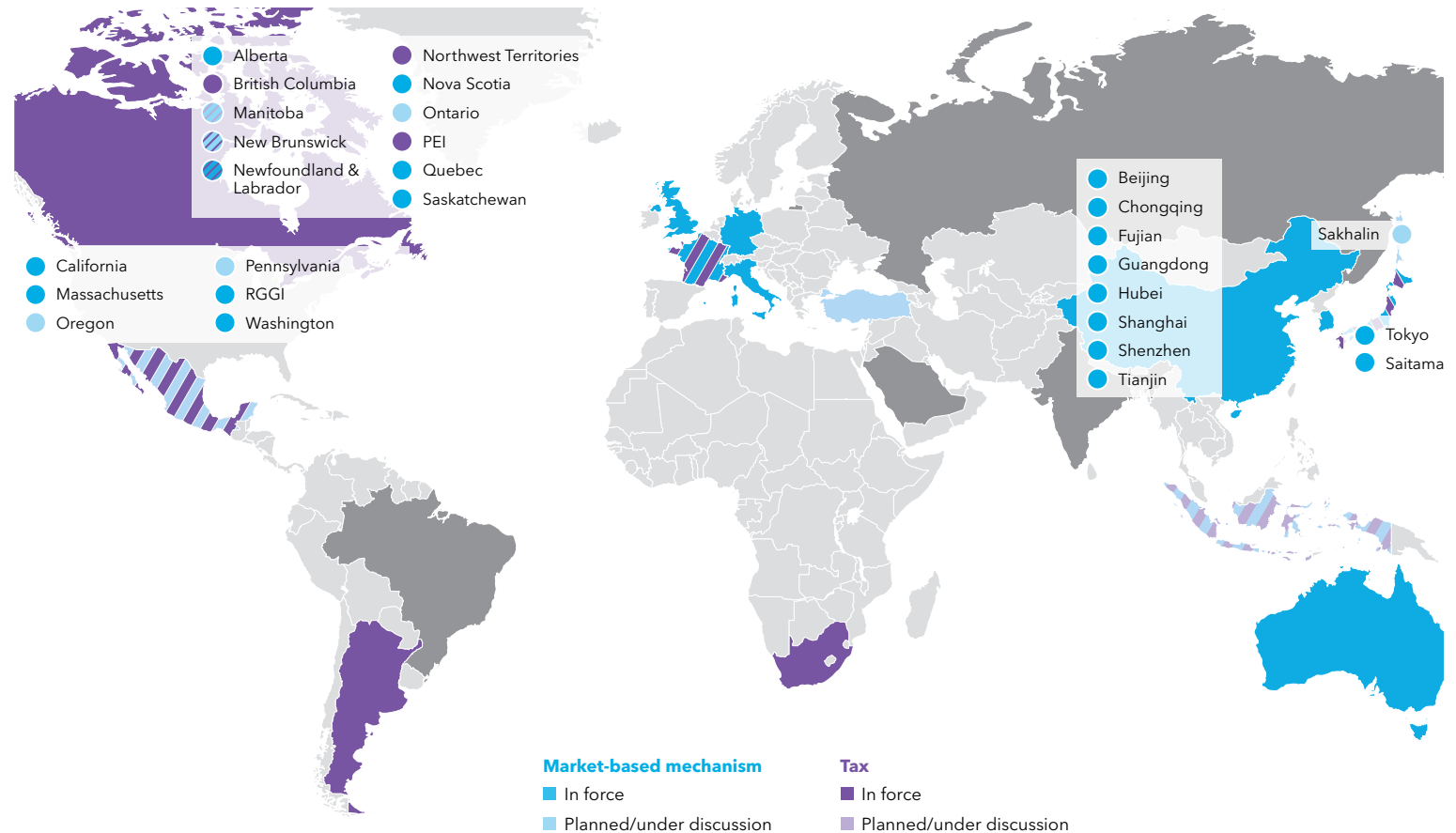
Carbon pricing

Overview

The aim of putting a price on CO₂ is to force polluters to pay for the costs they impose on the environment and thus incentivize them to cut emissions. There are two main ways for governments to price carbon: market-based mechanisms such as emission-trading systems or fixed-price systems like taxes. The design features of an ETS or tax can differ significantly, as can the realized carbon price. Existing schemes vary greatly in terms of price levels, industries covered and regions.

- An emissions-trading or 'cap and trade' scheme places an upper limit, or cap, on the amount of available emission permits. Prices paid by participants are determined by the allowance supply-demand balance, in the absence of measures such as price floors.
- A carbon tax gives participants more certainty on the future cost of carbon, but does not guarantee any specific level of emission reductions. A tax has less flexibility, but is administratively simpler than an emission-trading scheme.
- Carbon pricing is best used as part of a policy suite because it may not provide sufficient incentive for innovation, especially the types and scale of innovation likely to be required to reach a net-zero world. A fluctuating carbon price may not provide the certainty required for companies to make long-term investments. Further, the technologies needed for deep decarbonization are far from commercialization – these projects are unlikely to be scaled up unless there is further financial support available.

Carbon markets and taxes in the G-20



Source: Governments, BloombergNEF. Note: PEI = Prince Edward Island. RGGI = Regional Greenhouse Gas Initiative.

Carbon pricing

Assessment

A total of 12 G-20 countries have established nationwide prices on CO₂ emissions split fairly equally between those with trading markets and others with taxes. A further two nations are conducting trials. For this analysis, each G-20 jurisdiction was assessed based on share of emissions covered by a carbon tax or market, and the average price paid. Where a nation had more than one program, an average was calculated weighted by each scheme's emissions.

- France and Germany have made most progress out of the G-20 countries in terms of implementing carbon pricing. This is in no small part due to their participation in the EU ETS, though they also have national policies in place, increasing the share of emissions covered by a carbon price.
- The EU ETS has become a well-regarded policy measure. Reforms for its fourth trading period (2021-30) will see greater emission reductions and higher carbon prices. Compared with previous compliance periods, the share of allowances allocated for free has shrunk considerably. Half of permits were auctioned over 2013-20, rising to at least 57% through 2021-30.
- Member states must use at least half the proceeds from these sales for 'climate and energy related' purposes. In addition, revenue is allocated to fund dedicated to supporting innovative low-carbon projects and accelerating the low-carbon energy transition in member states with a low GDP per capita. In some carbon-pricing programs (such as British Columbia), revenue is used to support especially affected and/or low-income households and companies.
- In a carbon market, prices tend to start low and rise over time, allowing companies to adapt to their changes in cost without creating a sudden shock for consumers. However, if the price remains too low (or concessions are too generous), the carbon price will have little effect on participants. The EU ETS was an example of this, for instance. The market price, today above 50 euros, was consistently below 10 euros (\$12) 2012-17.
- Eight of the G-20 have made mixed progress regarding carbon pricing, In most cases, the national government has implemented a tax or market. But it will likely have little impact in terms of spurring decarbonization because the price is too low or the concessions to emitters too generous.
- In the case of the U.S., state-level programs collectively cover less than a tenth of national emissions and their prices are relatively low.
- Countries in red have yet to put a price on carbon. Among the group, Indonesia and Turkey seem to be the closest to doing so, although they remain far from actual implementation of mandatory programs.

Progress on carbon-pricing policies

	Emissions covered	Average price
Argentina	20%	\$10
Australia	50%	\$12
Brazil	0%	—
Canada	78%	\$31
China	43%	\$6
France	90%	\$60
Germany	85%	\$49
India	0%	—
Indonesia	0%	—
Italy	45%	\$67
Japan	68%	\$3
Mexico	63%	\$2
Russia	0%	—
Saudi Arabia	0%	—
South Africa	80%	\$8
South Korea	74%	\$12
Turkey	0%	—
U.K.	31%	\$58
U.S.	8%	\$6

■ Right direction
 ■ Mixed
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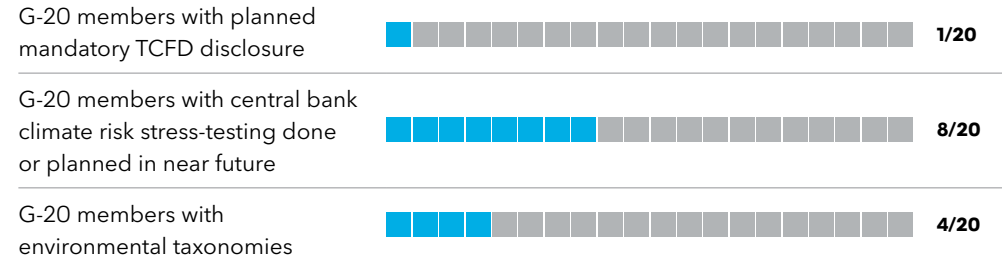
Climate risk disclosure

Overview

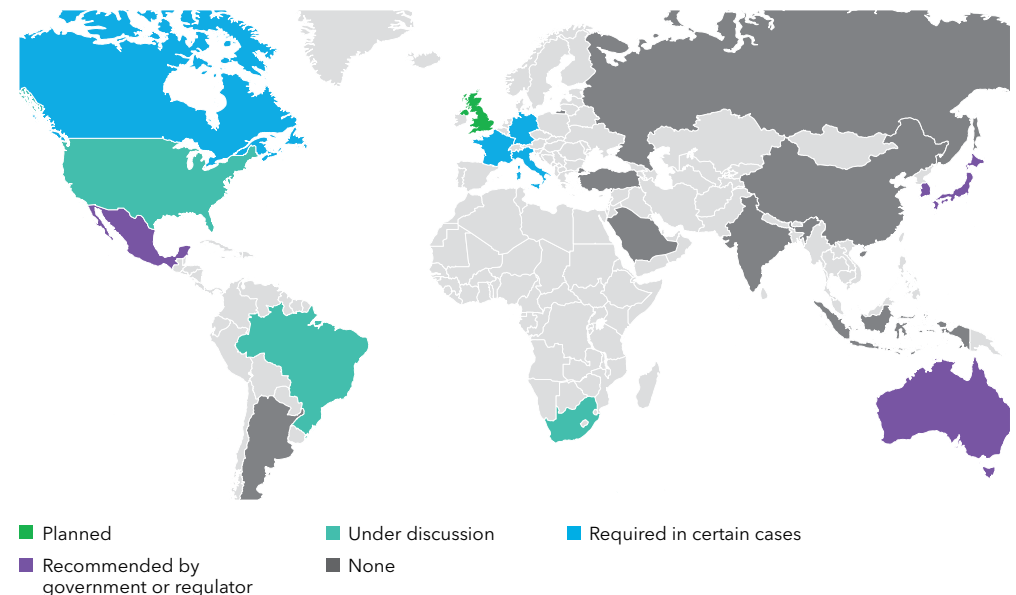
Climate risk encompasses both physical and transition risks linked to climate change. Companies and financial market participants' performance are increasingly affected by physical risks like extreme weather events. With governments expanding efforts to address climate, companies and investors face transition risk in the form of new policies and litigation on the grounds of climate inaction. Growing susceptibility to these risks has financial players looking at climate change when assessing their portfolios and lending activities. Governments are starting to implement policies to ensure the right data is collected and published in order for these risks to be assessed accurately. The ultimate goal is for financial institutions to consider and price the impact of climate externalities into credit risk and valuation models.

- Most G-20 governments have voiced support for voluntary reporting of climate risks. Indeed, the G-7 nations backed "moving towards" mandatory climate-risk disclosure at their 2021 summit in June. But few have legislated it. The EU and the U.K. are the only governments that have enforced climate-risk policies to date. Their efforts have focused on assessing the environmental impacts of companies and investors, and evaluating and managing the effect of climate risks on performance.
- The [Task Force on Climate-related Financial Disclosures](#) (TCFD) is the most widely used disclosure framework, with 2,108 corporate, financial and government supporters. While largely voluntary, it has gained momentum as governments announce support, typically by requiring disclosure under certain circumstances, as is the case in Canada or in the EU. However, only the U.K. plans to enforce mandatory TCFD reporting for listed companies, starting in 2023.
- Central banks can play an important role in supporting climate-risk disclosure, notably by integrating these risks into the 'stress tests' they routinely put on financial institutions to test their financial health. The tests could require them to assess their stability under several potential climate scenarios.

By the numbers



Mandatory TCFD reporting for financial market participants in G-20 countries



Source: BloombergNEF