

# Executive summary

State and Trends of Carbon Pricing 2022



THE WORLD BANK



## **CARBON PRICING CAN PROVIDE THE IMPETUS FOR ECONOMIC TRANSFORMATION AND RECOVERY**

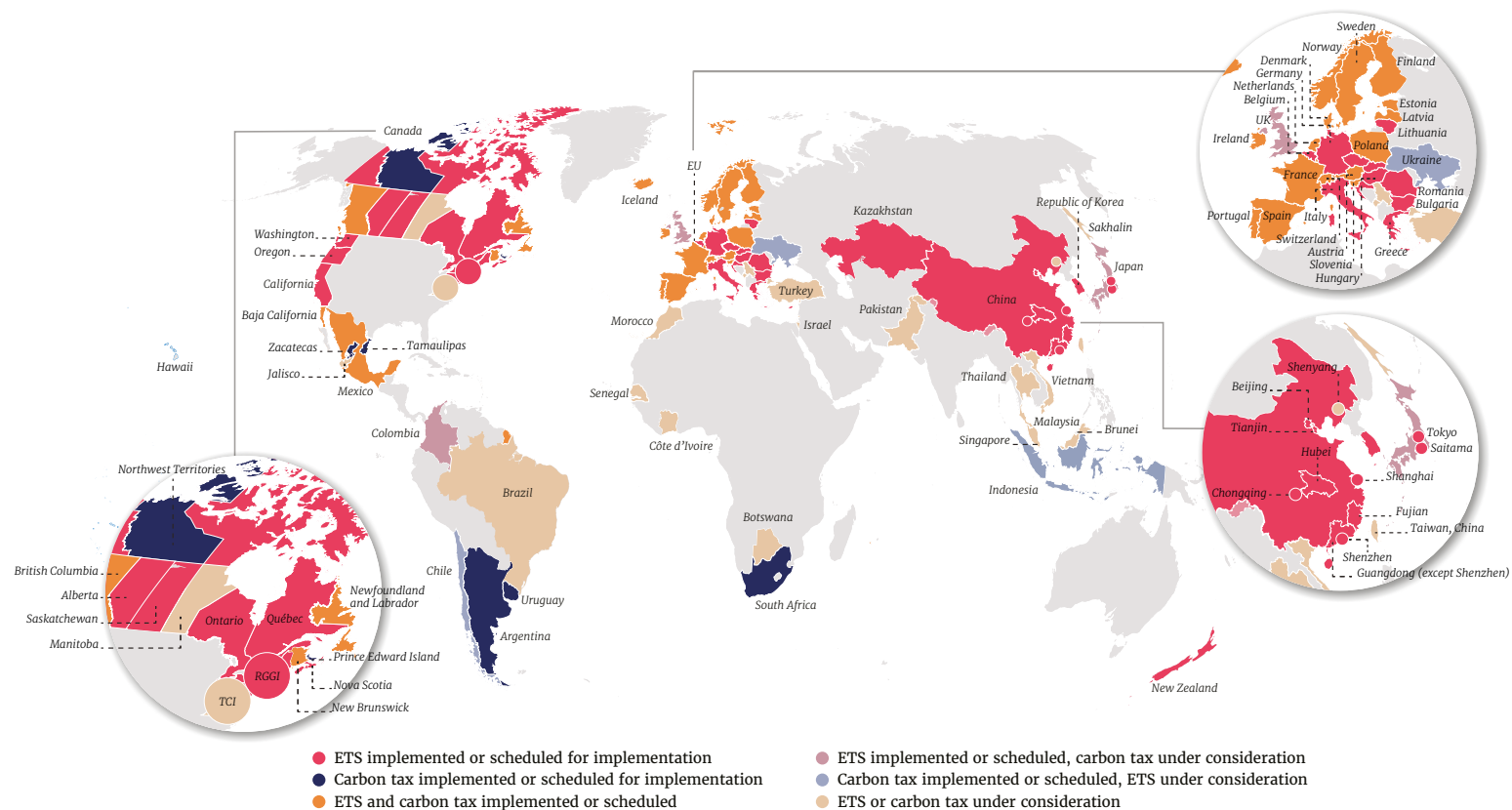
- More ambitious carbon prices can help close the gap between pledges and policy and “keep 1.5 alive.”
- Along with lowering emissions, carbon pricing can improve energy and industrial efficiency, limit reliance on imported energy, promote cleaner air, protect and regenerate landscapes, and provide a valuable source of government revenue.
- But adopting carbon prices remains politically challenging, particularly amid rising inflation and energy prices. There is a clear need to ensure policies are fair, effective, and embedded within integrated climate and social policies.



## **DIRECT CARBON PRICING CONTINUES TO BE ADOPTED BUT GLOBAL COVERAGE REMAINS LOW**

- Worldwide, 68 carbon pricing instruments (CPIs), including taxes and emissions trading systems (ETs), are operating and three more are scheduled for implementation.
- CPIs in operation cover approximately 23% of total global greenhouse gas (GHG) emissions. This represents a small increase in total global coverage as a result of four new systems commencing in the past year.
- The International Maritime Organization is considering placing a price on emissions from international shipping activities. If adopted, this would represent a major step in tackling global GHG emissions.

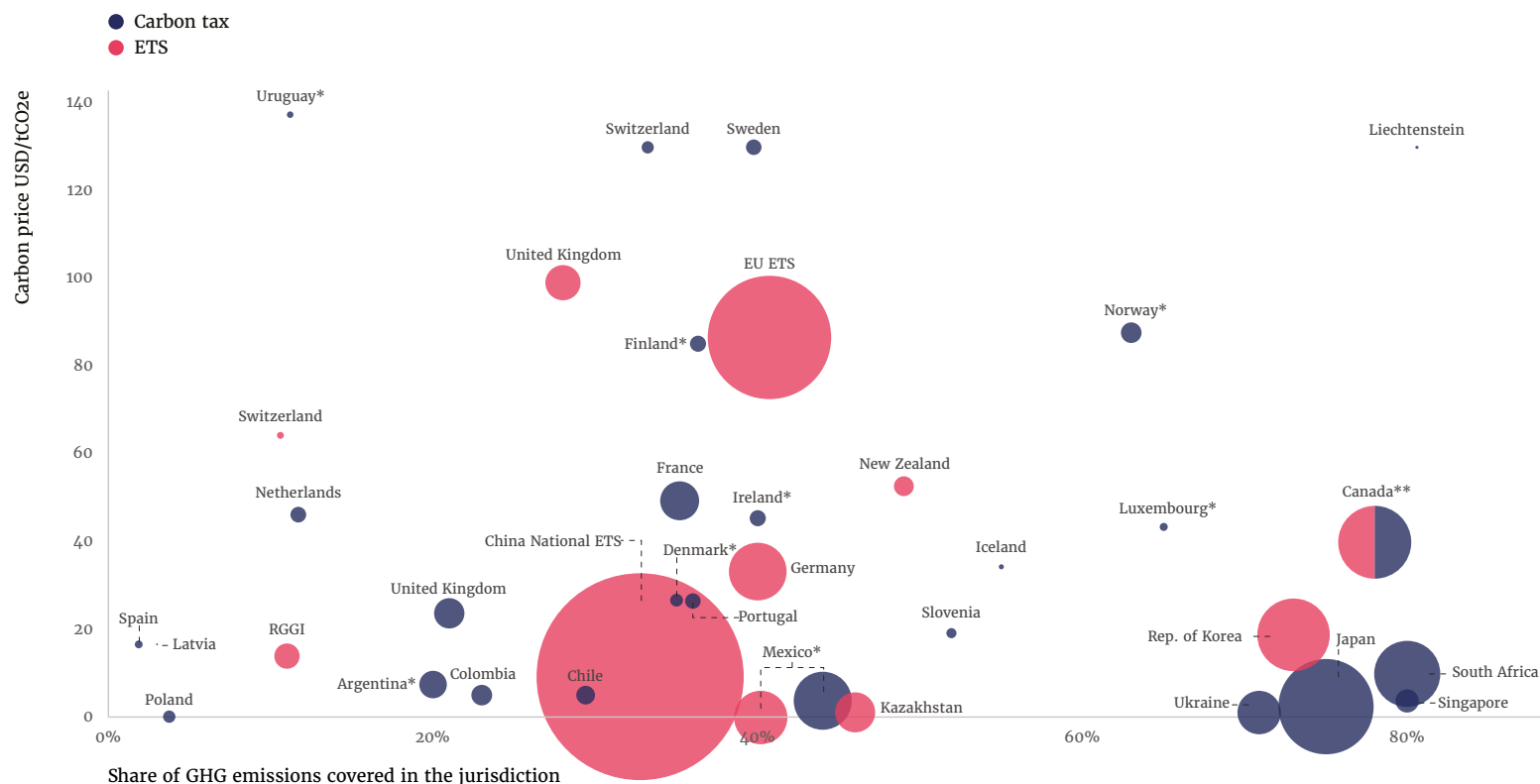
## MAP OF CARBON TAXES AND EMISSIONS TRADING SYSTEMS



Carbon pricing initiatives are considered "scheduled for implementation" once they have been formally adopted through legislation and have an official, planned start date. Carbon pricing initiatives are considered "under consideration" if the government has announced its intention to work towards the implementation of a carbon pricing initiative and this has been formally confirmed by official government sources. TCI refers to Transportation and Climate Initiative. RGGI refers to the Regional Greenhouse Gas Initiative.



## ABSOLUTE EMISSIONS COVERAGE, SHARE OF EMISSIONS COVERED, AND PRICES FOR CPIs ACROSS JURISDICTIONS



Bubble size represents absolute covered total greenhouse gas emissions.

\*For CPIs that have multiple price levels, the price applying to the larger share of emissions is used.

\*\*This is a composite presentation representing total emissions covered by carbon pricing instruments under the Pan-Canadian Framework. It includes a combination of ETS-like and carbon tax-like instruments, implemented at both provincial and federal levels.



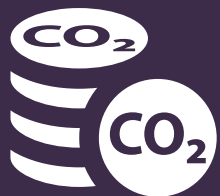
## **CROSS-BORDER APPROACHES TO CARBON PRICING ARE INCREASINGLY GAINING TRACTION**

- The European Union (EU) moved closer to adopting its carbon border adjustment mechanism, and Canada and the United Kingdom are exploring options for similar mechanisms.
- The International Monetary Fund and World Trade Organization are advocating for an international carbon pricing floor.
- Some countries have moved toward the adoption of international climate clubs, including the proposed United States (US)–EU Carbon–Based Sectoral Arrangement on Steel and Aluminum Trade.
- These approaches can fortify domestic support, prevent carbon leakage, and encourage mitigation beyond national borders.



## **CARBON PRICES HAVE HIT RECORD HIGHS IN MANY JURISDICTIONS**

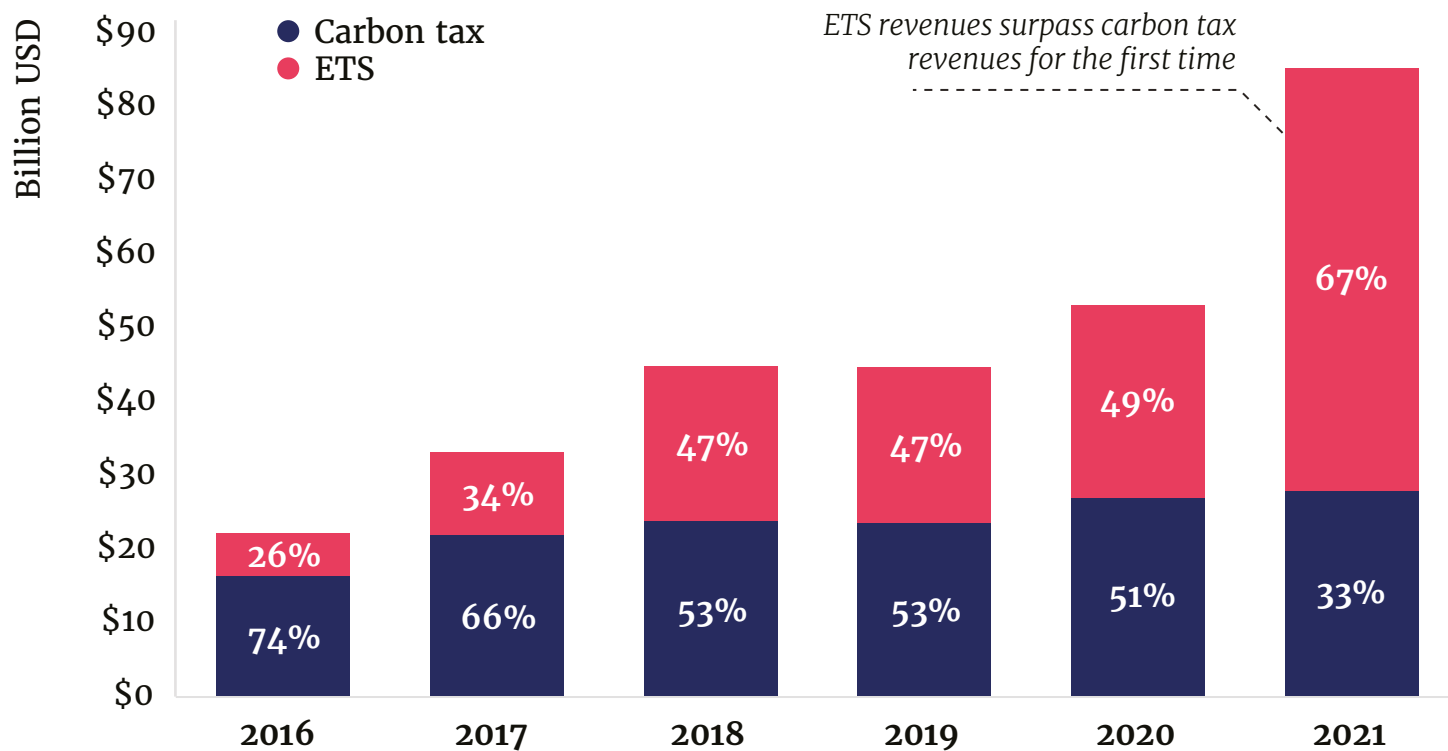
- Record ETS prices were observed in the European Union, California, New Zealand, and Republic of Korea, among other markets, while several carbon taxes also saw prices hit their highest levels yet.
- A combination of policy reforms, anticipated changes, speculative investment interest, and broader economic trends, especially in global energy commodity markets, are driving these ETS price spikes.
- Nonetheless, prices must rise considerably more to meet the Paris Agreement temperature goals, as less than 4% of global emissions are currently covered by a direct carbon price within the range needed by 2030.



## **CARBON REVENUES HAVE INCREASED SHARPLY**

- Global carbon pricing revenue increased by almost 60% in the past year, to around USD 84 billion.
- With prices rising and reduced free allocation, ETS revenues surpassed carbon tax revenues for the first time.
- Increasing carbon pricing revenues can support sustainable economic recovery, finance broader fiscal reforms, or help buffer countries from economic and international turbulence.

## GLOBAL CARBON PRICING REVENUES OVER TIME

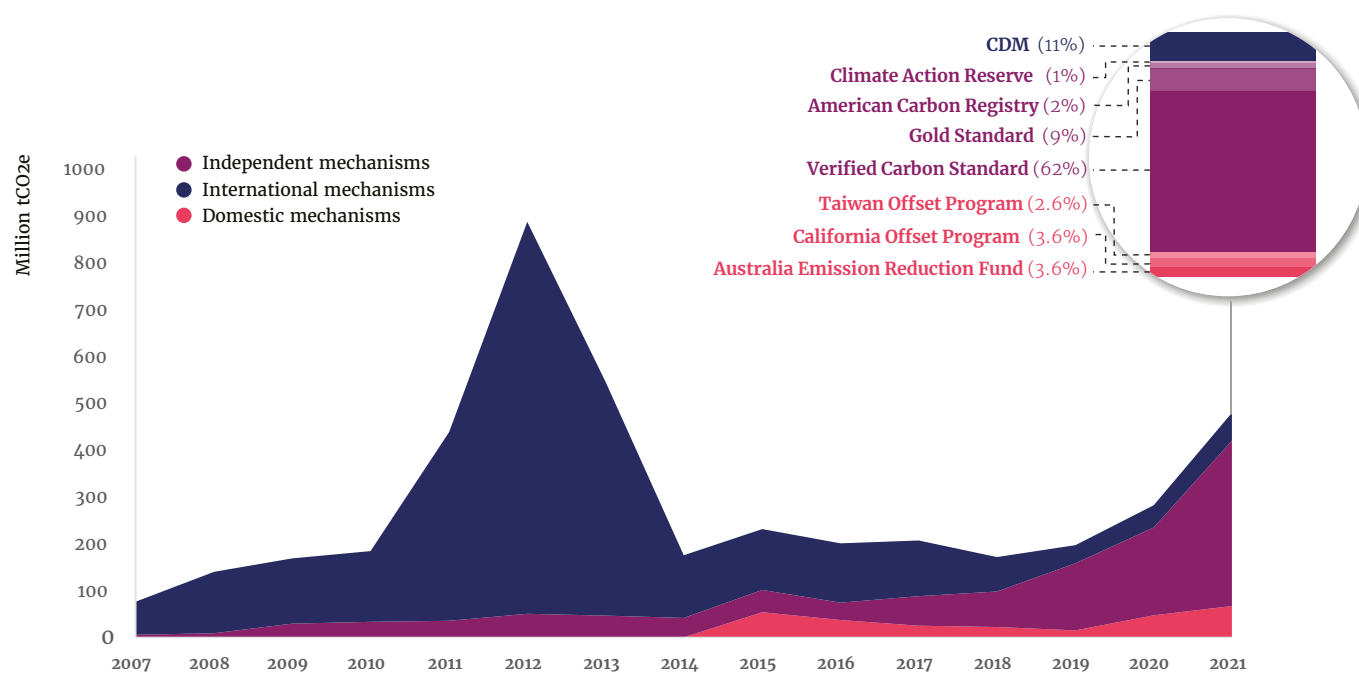




## MARKETS FOR CARBON CREDITS ARE GROWING RAPIDLY

- Credits from independent crediting mechanisms clearly dominate the carbon market.
- Annual voluntary carbon market value exceeded USD 1 billion for the first time, driven by corporate commitments.
- Compliance demand for carbon credits remains limited, though new rules for international carbon markets under Article 6 of the Paris Agreement provide clarity that may enable future growth.

## GLOBAL VOLUME OF ISSUANCES BY CREDITING MECHANISM CATEGORY





## **DIVERSE PURCHASER PREFERENCES MAKE MARKET GROWTH UNEVEN**

- Nature-based credits are in especially high demand: forestry and land use transactions more than doubled between 2020 and 2021.
- Increasing demand for carbon removals has resulted in price increases for these credits.
- The voluntary carbon market continues to be strongly diverse, with purchasers placing widely different values on characteristics such as sector, geography, and perceived co-benefits.





## **NEW FINANCIAL SERVICES, TECHNOLOGIES AND GOVERNANCE FRAMEWORKS ARE SHAPING CARBON MARKETS**

- Financial actors are becoming more active in the carbon market, while blockchain has enabled a new wave of decentralized financial innovations that show the technology's potential but have reignited some long-standing concerns about transparency and quality.
- Diverse governance frameworks are emerging from stakeholders and institutions that aim to address concerns regarding the integrity of carbon credits and how companies use them.
- New rules on Article 6 increase certainty while also adding complexity to carbon credit markets and may lead to increasingly divergent approaches emerging across actors and geographies.