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POLICY BRIEF

Green Policies and International Trade: Averting a Collision Course

Christine McDaniel and Barbara C. Matthews

September 2024

In November, nearly 200 countries will gather in Baku, Azerbaijan, for the 2024 United Nations Climate Change Conference where a main topic will be the best green trade policies. A growing number of green policies by national governments around the world are under fire for either lacking ambition or for failing to be economically viable.[1]

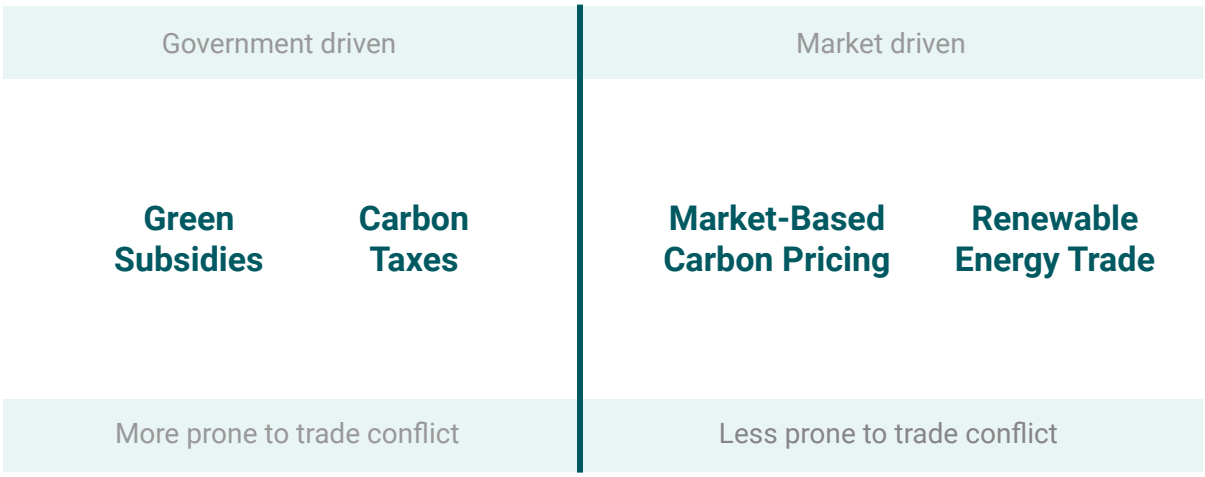
This year's electoral outcomes in advanced economies are expected to create more uncertainty around climate and energy transition policies. In Europe, farmers protested green policies, while voters shifted the European Parliament to the right and climate activists disrupted travel. Similar tensions are rising in developing economies where protests erupted over the removal of fossil fuel subsidies. In the US, climate policy faces uncertainty, as a second Trump administration would likely reverse Biden's energy policies, and even under a Harris administration, conflicts with the European Union (EU) over green subsidies and carbon tariffs are expected. A recent US Supreme Court decision also increases uncertainty by expanding judicial review of regulatory decisions, potentially delaying climate action.

This policy brief describes the range of tools governments use to accelerate their transition to green energy, explaining the economics of each component and the trade policy challenges each one brings.

The Climate Policy Tool Kit

As figure 1 depicts, some tools in this climate policy tool kit, such as green subsidies and carbon taxes, can be expensive and ineffective, and often create trade tensions. Other tools, however, such as market-based carbon-pricing schemes and renewable trade partnerships, are less costly ways forward for the energy transition. Market-based carbon pricing and freer trade and investment in green energy also align with consumer demand and business interests, leading to voluntary adoption.

FIGURE 1. Government- and market-driven policy tools and their propensity for conflict



Green subsidies

Green subsidies generally refer to government payments or tax breaks that aim to incentivize renewable energy production or use and to decrease carbon emissions. By their nature, subsidies increase production and can cause excess industrial capacity where production exceeds demand. Excess industrial capacity can distort prices, trade, and cross-border competition. For this reason, the WTO Subsidies Agreement attempts to constrain the use of domestic subsidies. Green subsidy proponents argue that the WTO Subsidies Agreement does not apply to green subsidies. They advocate instead that all sustainability subsidies qualify for a full exemption from trade rules.[2] They rely on GATT Article XX—the General Exceptions article that lays out several specific instances in which WTO members may be exempted from GATT rule—to justify a full exemption from the prohibitions against domestic subsidies that distort trade. Initiatives to extend Article XX to climate change policies have been emerging for over a decade.[3] The WTO's dispute resolution processes specifically extended the "health, safety, and welfare" exception to policies that protect "exhaustible natural resources"[4] so long as those policies apply equally to domestic and foreign producers.[5] In addition, the policies must not be arbitrary, unjustifiable, or disguised as trade restrictions.[6]

Green subsidies have resulted in excess industrial capacity in renewable energy components such as solar panels, electric vehicles, wind turbines, and electrolysers used in hydrogen production.[7] The most high-profile example of overcapacity fueled by green subsidies exists in China. Geopolitical and economic tensions with China, paired with generous Chinese industrial subsidies, provided the United States, the EU, and Canada with a solid legal foundation to impose countervailing duties and tariffs on Chinese components for renewable energy (solar panels, wind turbines) and

electric vehicles. These initiatives relied on GATT Article XXI (national security) rather than GATT Article XX (exceptions).

Controversy and trade policy conflict concerning green subsidies are likely to continue escalating as advanced economies, particularly the US and EU, deploy their own generous subsidy structures to promote domestic production of renewable energy and emissions reduction components. This broad-based shift towards a green industrial policy prioritizes the security of domestic supply regarding renewable energy components consistent with the decades-old GATT exemptions while tacitly agreeing with green subsidy proponents who believe the WTO Subsidies Agreement does not apply to renewable energy inputs.

The United States' Inflation Reduction Act of 2022 created direct and indirect green subsidies such as investment and tax credits. Eligibility for these subsidies, however, is tied to domestic content requirements for products manufactured within the United States, Mexico, and Canada and is subject to a three-way trade treaty among these nations. The EU has been quick to object and respond.[8] Academics in Europe quantified the adverse impact on transatlantic trade associated with the Inflation Reduction Act's green subsidies and domestic content provisions.[9] To address EU concerns, the United States extended the clean vehicle tax credit to commercial vehicles produced by EU companies.[10] The United States also launched bilateral talks (a Clean Energy Incentives Dialogue) with the EU to explore mechanisms for providing most-favored-nation (MFN) and national treatment status to EU electric vehicle imports.[11] These talks have stalled with no conclusive outcome to date.[12]

Subsidy and import restrictions within the Inflation Reduction Act also caused trade tensions to soar with other key US trading partners such as Australia, Japan, and South Korea. These tensions seem set to increase in the coming years as domestic industries apply sharper analysis to cross-border tariff structures. The US automotive industry is seeking to broaden the conversation beyond climate change. In a recent hearing, an industry representative noted that "the Europeans, for example, have a tariff on passenger vehicles that is four times the US tariff. Other countries will have tariff multiples of 15 times our current tariff."[13]

As the allocation of domestic government subsidies to combat climate change gathers momentum, some international trade law scholars seek to decrease tensions proactively by changing the focus from trade distortions created by green subsidies to advocacy for nations to provide advance notice to trade counterparties regarding new subsidies.[14] A notice-based center of gravity regarding green subsidies provides trade partners with the opportunity to adjust expectations and engage in dialogue regarding implementation, potentially decreasing debilitating trade disputes. On the other hand, early dialogue can also raise unrealistic expectations regarding changes to draft laws and rules. Regardless, policymakers at the national level owe a primary responsibility to their domestic constituency.

A government's permissive framework regarding subsidies will create a slippery slope that normalizes government engagement in market decisions, effectively mainstreaming trade distortions within the preferred economic sector.

Government-defined carbon pricing: Taxes and tariffs

Few topics are more controversial in trade than carbon taxes. A carbon tax is a government-defined carbon price and is usually measured per metric ton of emitted carbon dioxide. The tax can be levied on domestic products or imports. When a government implements a "carbon border adjustment" the policy goal is often articulated in terms of fighting "carbon leakage." The import tax specifically seeks to ensure that foreign and domestic goods incorporate the same carbon price into their cost basis, thus leveling the playing field when imported goods arrive from countries that do not incorporate a carbon price through either carbon trading or through domestic taxation.

As of May 2022, the World Bank reported that 27 different carbon-tax regimes exist globally.[15] Research to date is mixed on the economic impact of such taxes.[16] Measurement challenges make it difficult to compare carbon-pricing processes. Some regimes focus on factory facilities. More ambitious initiatives additionally incorporate estimates of emissions associated with transporting goods throughout the supply chain. Some even seek to incorporate estimates of carbon emissions arising from employees' commutes to work. Standardized measurement mechanisms do not exist even within the same country; calibration of measurement tools can also create variability in emissions estimates.

Carbon border tariffs create a significant risk of retaliatory and anticompetitive tariffs because the importing jurisdiction cannot directly validate or measure the carbon content embedded within the imported item. Initiatives to conduct onsite inspections abroad or to require mandatory measurement equipment will raise objections regarding the extraterritorial extension of domestic law. The inability to measure direct carbon emissions leaves the importing jurisdiction with only one choice: estimation of embedded carbon emissions based on existing internal carbon measurement processes to achieve price parity between domestic and imported goods.

Exporting jurisdictions that have deployed market-based carbon pricing or domestic carbon taxes may seek mutual recognition for their preferred carbon price as the foundation for the import tax. Exporting jurisdictions that do not impose direct (market) or indirect (tax) prices for carbon emissions may be quick to impose retaliatory tariffs.

The European Union illustrates the scale and scope of the challenges of government-defined carbon pricing. EU laws and regulations have created both explicit carbon-pricing processes internally and a carbon border adjustment on imports. The EU carbon import tariff is in a transitional phase until the end of 2025. Beginning in January 2026, all EU importers will be required to use the European Commission's automated process to estimate and report embedded carbon intensity so that the appropriate amount of import tax can be levied at the border. Importers will be

required to purchase Carbon Border Adjustment Mechanism (CBAM) certificates for a fee and surrender the corresponding number of certificates each year.[17]

No parallel initiatives exist within the United States. The Biden administration's many climate-related initiatives have not extended to carbon border taxes. Taxation initiatives must emanate from the House of Representatives, which has been controlled by the Republicans (who oppose most climate-related initiatives) since 2022. Bills have been introduced to Congress to create a federally mandated carbon price,[18] but none are expected to become law before the federal election in November 2024.

The potential for transatlantic tariff wars and trade conflicts will increase materially in this decade if the United States and EU remain on different policy trajectories. Assuming that the United States does not create mandatory carbon pricing for all domestically produced goods before January 2026, US exporters will be required to use EU mechanisms to estimate and declare their carbon emissions and pay the required tariff to cover those embedded emissions.[19] The EU can be expected to defend its approach based on national treatment as well as trade policy exceptions noted above that permit trade restrictions to protect domestic health, safety, and welfare.

Market-based carbon pricing

Carbon pricing establishes an explicit cost for emissions stemming from economic activity. Carbon-pricing cost calculations can be controversial because they account for broader environmental and social impacts that were previously excluded from economic pricing.[20] Those costs are then expressed as an upward price adjustment to goods and services related to the activity. Carbon prices can be set through market mechanisms, government-mandated pricing mechanisms, or directly through government taxes.

Most market-based carbon pricing currently operates in the context of "cap-and-trade" systems. A cap-and-trade system requires policymakers to

- set a national cap on total greenhouse gas emissions,
- allocate credits to companies for permissible emissions, and
- create a mechanism by which companies with lower emissions can sell their emissions to companies with higher emissions levels.

Government restrictions on the amount of permissible emissions and available credits for those emissions restrict supply and, thus, indirectly drive the market price. Once the emissions cap is set, market participants drive the price for emissions permits. Companies trade these allowances in an open market, and prices fluctuate based on supply and demand.

In this way, carbon emissions trading creates a direct market signal and allows for price discovery through trading activities. If the government decreases the amount of permissible carbon

emissions or limits the number of credits, then market mechanisms can be expected to increase the price of carbon emissions (and vice versa). A market-based carbon price creates incentives for companies to invest in energy efficiency.

Renewable energy trade

Advanced and developing economies are not waiting for the WTO to articulate multilateral rules regarding trade in renewable energy, rare earth minerals, nuclear energy, or hydrogen. A patchwork of bilateral partnerships is forming that provides preferential access to these resources without the legal formalities of a trade treaty:

- The EU is allocating capital from governments, central banks, and international organizations to support development of the hydrogen market and hydrogen infrastructure because "hydrogen supply chain projects are now considered of strategic interest in the Net-Zero Industry Act."[21]
- Several nations are allocating subsidies to emerging markets to accelerate the transition away from coal-fired power plants.[22]
- The United States launched a "Critical Minerals Dialogue" with Central Asian governments to "advance cooperation on securing and strengthening critical mineral supply chains."[23]

Trade liberalization in renewable energy can stimulate investment and competition, which in turn leads to cheaper renewable energy and higher utilization rates. International partnerships can also facilitate technology transfer in renewable energy. Partnering with another country and committing to more open trade and investment in renewable energy increases the scope for larger markets and lower costs in renewable energy.

Efforts underway include US–Israel cooperation in green technologies including EV battery technology and electric aircraft batteries. The US–Brazil Energy Forum was established in 2023 and is a "bilateral dialogue for technical, policy, trade, and investment cooperation focused on accelerating clean energy transitions."[24] The dialogue includes the exchange of technical information in carbon capture, storage, and utilization; methane mitigation; grid modernization; and other areas. Countries don't have to be "like-minded" to cooperate. For instance, Annika Seiler and her colleagues discuss how "just energy transition partnerships" can be narrowly focused and still help accelerate decarbonization efforts.[25]

Conclusion

Government-mandated solutions, such as green subsidies and carbon border tariffs, are creating trade frictions. Market-based approaches are more likely to provide opportunities for productive cross-border engagement and to align with both consumer demand and business interests. Specifically, market-based carbon pricing and renewable trade partnerships can work with the

grain of the global trading system and support the green transition while minimizing the adverse impact on global trade flows.

About the Authors

Christine McDaniel is a senior research fellow at the Mercatus Center at George Mason University. Her research focuses on international trade, globalization, and intellectual property rights. McDaniel has held several positions in the US government, including deputy assistant secretary at the Treasury Department and senior trade economist in the White House Council of Economic Advisers. She holds a PhD in economics from the University of Colorado and received her BA in economics and Japanese studies from the University of Illinois at Urbana–Champaign.

Barbara C. Matthews is a nonresident senior fellow at the Atlantic Council's GeoEconomics Center. She is a globally recognized public-policy and quantitative finance leader and founder and CEO of BCMstrategy, Inc., a data company that helps measure public-policy volatility and anticipate public-policy trajectories. Matthews served as the first US Treasury attaché to the European Union and as senior counsel to the US House of Representatives Financial Services Committee. A member of the Bretton Woods Committee and the Council on Foreign Relations, she is also a faculty mentor at the Maxwell School's National Security Strategies program at Syracuse University. Matthews holds a BA in international relations from Georgetown University as well as two law degrees: a JD and an LLM in comparative and international law, both from Duke University.

Notes

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12. European Commission, "Joint Statement of EU–US Trade and Technology Council of 31 May 2023 in Lulea, Sweden," May 31, 2023.

13. Office of the United State Trade Representative, "Public Hearing for the 2024 Biennial Review on Trade in Automotive Goods Under the United States–Mexico–Canada Agreement," February 7, 2024.

14. Jennifer Hillman and Inu Manak, Rethinking International Rules on Subsidies (Council Special Report, Council on Foreign Relations, September 2023).

15. The World Bank, "State and Trends of Carbon Pricing 2022," 2022, https://hdl.handle.net/10986/37455.

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