Bridging the Divide: Assessing the Viability of International Cooperation on Border Carbon Adjustments

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ABSTRACT

International cooperation on climate change and trade is intensifying, as highlighted by numerous initiatives launched at the multilateral, plurilateral, and bilateral levels. This is an encouraging development, signaling the important role of trade policy in supporting decarbonization efforts and facilitating adaptation to climate change. At the same time, many of these initiatives eschew one of the most contested issues at the interface of trade and climate policies: Border Carbon Adjustments (BCAs). Europe's Carbon Border Adjustment Mechanism (CBAM) is unlikely to be the last or only BCA, with various jurisdictions contemplating similar measures as they adopt increasingly ambitious climate change mitigation policies and pursue other objectives such as improved national security or industrial policy. With many jurisdictions pursuing their own BCA designs and implementation strategies, however, comes an

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increased risk of uncoordinated proliferation of divergent approaches, which in turn can translate into greater uncertainty, higher transaction and administrative costs, and repercussions for international cooperation, including climate diplomacy. This Article argues for international cooperation on or relating to BCAs and assesses the prospects for such cooperation. It applies an analytical framework that examines both the "input legitimacy" and "output legitimacy" of international cooperative initiatives, focusing on three emerging models of cooperation relating to BCAs, namely the Climate Club launched at the United Nations Climate Change Conference in Dubai (COP28), the transatlantic talks on a Global Arrangement on Sustainable Steel and Aluminum (GASSA), and the Inclusive Forum on Carbon Mitigation Approaches (IFCMA) launched by the Organisation for Economic Co-operation and Development (OECD).

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INTRODUCTION

Trade policy and climate action are closely intertwined. According to the Intergovernmental Panel on Climate Change, roughly a quarter of global carbon dioxide emissions are embedded in the international trade of goods and services.[1] This creates a loophole in emissions accounting and makes it harder to tackle these emissions.[2] At the same time, trade policy can contribute to achieving the objectives of the Paris Agreement on climate change to limit global warming to 1.5 degrees Celsius, for example by facilitating the global diffusion of low-carbon goods and services, disciplining fossil fuel subsidies, and greening aid for trade.[3] It therefore makes sense for countries to discuss how they can leverage trade policies to stimulate stronger climate action and help achieve wider development goals.

In the debate on how to align trade and climate policy, the issue of border carbon adjustments (BCAs) has—for better or worse—taken center stage. In a globalized economy, with countries ramping up climate action at different paces to meet their Paris Agreement goals, there is a risk of carbon leakage, which is commonly understood as the movement of greenhouse gas (GHG) emissions due to the relocation of manufacturing, investment, and fuel consumption from jurisdictions with more stringent climate policies to countries with weaker climate policies.[4] BCAs have emerged as a trade-related policy measure to address this risk.

The idea of adopting such measures lingered in the background of climate policy discussions for years, with European and American policymakers entertaining the idea, but not following through.[5] However, the European Union's (EU)

1. IPCC, CLIMATE CHANGE 2022: MITIGATION OF CLIMATE CHANGE 244 (2022).

2. DANIEL MORAN ET AL., THE CARBON LOOPHOLE IN CLIMATE POLICY: QUANTIFYING THE EMBODIED CARBON IN TRADED PRODUCTS (2018), https://perma.cc/D6CB-RAK2.

3. Kasturi Das et al., *Making the International Trading System Work for Climate Change: Assessing the Options*, 49 ENV'T L. REP. 10553 (2019); Carolyn Deere Birkbeck, PRIORITIES FOR THE CLIMATE-TRADE AGENDA: HOW A TRADE MINISTERS' COALITION FOR COOPERATION ON CLIMATE ACTION COULD HELP (2021), https://perma.cc/2JKB-T248.

4. Michael Grubb et al., *Carbon Leakage, Consumption, and Trade*, 47 ANN. REV. ENV'T & RES. 753 (2022).

5. Harro van Asselt & Thomas Brewer, *Addressing Competitiveness and Leakage Concerns in Climate Policy: An Analysis of Border Adjustment Measures in the US and the EU*, 38 ENERGY POL'Y 42 (2010).

announcement of a Carbon Border Adjustment Mechanism (CBAM) in 2019[6] and CBAM's subsequent adoption in 2023[7] have moved the debate on BCAs from theory to practice. The EU is unlikely to be the only jurisdiction adopting such a border measure: Countries including Canada and the United Kingdom (UK) have held consultations to determine whether they should follow suit, and several United States (U.S.) senators have tabled or are preparing bills that include a fee on goods entering the United States.[8]

Although the environmental goal of these measures—preventing the shift of carbon-intensive production to third countries with fewer carbon constraints—is laudable, they remain highly controversial, especially among less developed countries wary of "green protectionism."[9] BCAs are usually adopted for a variety of reasons, which not only include preventing carbon leakage, but often also protecting the international competitiveness of domestic industries and inducing other countries to step up their climate change mitigation efforts. BCAs also raise difficult normative questions about their social and economic impacts on developing countries, including those countries least responsible for the climate crisis.[10] Beyond these concerns about protectionism and fairness, there is a growing risk of divergent approaches, with the EU's CBAM linked to the policy instrument of carbon pricing, in contrast to U.S. proposals that do not include such a link due to the failure of past efforts to introduce a federal carbon price.[11]

Against this background, international cooperation could help address some of these concerns and strengthen the alignment of climate and trade policies. This Article therefore assesses options for international cooperation on BCAs. In doing so, it takes into account ongoing developments on BCAs at the domestic level (particularly in the EU and the United States), as well as at the international level, including the launch of the Climate Club initiated by the Group of 7 (G7), transatlantic talks on a Global Arrangement on Sustainable Steel and Aluminum (GASSA), and the creation of the Inclusive Forum on Carbon Mitigation Approaches (IFCMA) by the Organisation for Economic Co-operation and Development (OECD). These initiatives have either been recently launched or remain under development. Although there are still important unanswered

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6. *Communication from the Commission*, at 1, COM (2019) 640 final (Nov. 12, 2019).

7. Regulation 2023/956 of the European Parliament and of the Council of May 10, 2023, Establishing a Carbon Border Adjustment Mechanism, 2023 OJ (L 130/52) (EC).

8. *See infra* Part III.

9. James Bacchus, *Legal Issues with the European Carbon Border Adjustment Mechanism*, 125 CATO INST. (Aug. 9, 2021), https://perma.cc/D2DR-8KD8; Andrei Marcu et al., *Border Carbon Adjustments in the EU: Issues and Options*, EUROPEAN ROUNDTABLE ON CLIMATE CHANGE & SUSTAINABLE TRANSITION (2020), https://perma.cc/6ZNQ-KVMU.

10. UNITED NATIONS TRADE CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), A EUROPEAN UNION CARBON BORDER ADJUSTMENT MECHANISM: IMPLICATIONS FOR DEVELOPING COUNTRIES (July 14, 2021), https://perma.cc/7W2Q-AWM6.

11. Frederick Hewett, *Putting A Price on Carbon: It Was Hot, Now It's Not*, WBUR (Aug. 3, 2020), https://perma.cc/YK4C-5GXK.

questions about their exact scope and the nature of some of their future activities, this Article evaluates the potential of these initiatives to further international cooperation on BCAs.

The Article is structured as follows: Part I sketches the evolving context of international trade and climate cooperation, including the adoption of significant legislative initiatives in the EU and United States, and the launch of various international initiatives. Part II examines the implications of existing or proposed BCAs (including the EU CBAM) for third countries. Part III discusses the rationales and possible goals for international cooperation on BCAs. Part IV examines three international cooperative initiatives—the Climate Club, the GASSA, and the IFCMA—to identify their inclusiveness, institutional strength, and propensity to contribute to the identified goals for international cooperation on BCAs. Part IV also sketches some of the limitations of, and obstacles to, international cooperation, reflecting on the role of these initiatives as well as multilateral institutions such as the World Trade Organization (WTO) and the United Nations Framework Convention on Climate Change (UNFCCC) process.

I. THE EVOLVING TRADE AND CLIMATE CONTEXT

The 1990s ushered in an era of rapid progress on multilateralism and international trade cooperation, as the collapse of the former Soviet Union ended nearly a century of ideological divergence. The newly arrived unipolar moment[12] kicked off a period of democratization and market reforms[13] that culminated in the creation of the WTO. Recent years, however, have seen an equally dramatic pivot towards nationalist retrenchment and protectionist trade policies. Spurred by populist domestic politics,[14] growing geopolitical tensions, and widespread disenchantment with the unintended effects of globalization,[15] economic integration and trade cooperation have given way to a new dynamic of strategic autonomy and unbridled use of political and market power. This dynamic has paralyzed the governance of international trade[16] and brought about widespread "geoeconomic fragmentation."[17]

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12. Charles Krauthammer, *The Unipolar Moment*, 70 FOREIGN AFF. 23 (1990).

13. FRANCIS FUKUYAMA, THE END OF HISTORY AND THE LAST MAN (1992).

14. Dani Rodrik, *Populism and the Economics of Globalization*, 1 J. INT'L BUS. POL'Y 12 (2018); David M. Driesen et al., *Industrial Policy, Populism and the Political Economy of Climate Action*, 14 NATURE CLIMATE CHANGE 414 (2024).

15. ANTHEA ROBERTS & NICOLAS LAMP, SIX FACES OF GLOBALIZATION: WHO WINS, WHO LOSES, AND WHY IT MATTERS (2021).

16. Bernard M. Hoekman & Petros C. Mavroidis, *Preventing the Bad from Getting Worse: The End of the World (Trade Organization) As We Know It?*, 32 EUR. J. INT'L L. 743 (2021); Peter Van den Bossche, *Is There a Future for the WTO Appellate Body and WTO Dispute Settlement?* (WTI Working Paper No. 01/2022, 2022), https://perma.cc/Q358-DC5U.

17. INT'L MONETARY FUND, WORLD ECONOMIC OUTLOOK: A ROCKY RECOVERY (2023), https://perma.cc/J99A-KNXN; *see also* INT'L CHAMBER OF COMMERCE, ICC 2023 TRADE REPORT: A FRAGMENTING WORLD (2023), https://perma.cc/NA7A-CMCJ; Pinelopi Goldberg & Tristan Reed, *Is the*

Paradoxically, this challenging context for multilateral and regional cooperation has also witnessed a surge in cooperative initiatives on trade and climate policy, breaking with a decade-long pattern of indecision and gridlock.[18] Over the last five years, advances on this front have included: the anchoring of provisions related to climate change in preferential trade agreements;[19] the negotiation of a new generation of trade agreements such as the Agreement on Climate Change, Trade, and Sustainability between Costa Rica, Fiji, Iceland, New Zealand, Norway, and Switzerland announced in 2019,[20] reflecting a trend that could see significant future proliferation;[21] and the 2020 launch of the Trade and Environmental Sustainability Structured Discussions, which has attracted the participation of WTO members representing over 80% of world trade, and features discussions on "how trade-related climate measures and policies can best contribute to climate and environmental goals and commitments while being consistent with WTO rules and principles."[22]

In 2023 alone, the nexus of trade and climate cooperation saw: the launch of a ministerial-level global forum dedicated to trade and climate and sustainable development issues, the Coalition of Trade Ministers on Climate;[23] a joint effort of the WTO, the World Bank, and the World Economic Forum called "Action on Climate and Trade" intended to help developing economies use trade to meet their climate change mitigation and adaptation goals;[24] a Clean Energy Economy Action Plan agreed to by the leaders of the G7 leading industrialized nations that highlights the role of trade and trade policies in accelerating decarbonization and a clean energy transition globally;[25] a Transatlantic Initiative on Sustainable Trade announced by the EU and the United States as part of the regular EU-U.S. Trade and Technology Council process, establishing a work program to

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Global Economy Deglobalizing? And If So, Why? And What Is Next?, BROOKINGS INST. (Mar. 30–31, 2023), https://perma.cc/97D5-LWN2.

18. Das et al., *supra* note 3; Susanne Droege et al., *The Trade System and Climate Action: Ways Forward under the Paris Agreement*, 13 S.C. J. INT'L L. & BUS. 195 (2017).

19. World Trade Organization, *Trade and Climate Change: Climate Change in Regional Trade Agreements*, Information Brief n° 2, WTO (2022), https://perma.cc/7E3Z-DAST; *see also* Jean-Frédéric Morin & Sikina Jinnah, *The Untapped Potential of Preferential Trade Agreements for Climate Governance,* 27(3) ENV'T POL. 541 (2018).

20. Ronald Steenblik & Susanne Droege, *Time to ACCTS? Five Countries Announce New Initiative on Trade and Climate Change*, INT'L INST. FOR SUSTAINABLE DEV. (Sept. 25, 2019), https://perma.cc/TL9N-6BT3.

21. Noémie Laurens, Clara Brandi & Jean-Frédéric Morin, *Climate and Trade Policies: From Silos to Integration*, 22 CLIMATE POL'Y 248 (2022).

22. World Trade Organization, Ministerial Statement on Trade and Environmental Stability of 14 December 2021, WTO Doc. Wt/MIN(21)/6/Rev.2 (2021), https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN21/6R2.pdf&Open=True.

23. Coalition of Trade Ministers on Climate, Coalition Launch Statement (Jan. 2023), https://perma.cc/V87W-EJVP.

24. *Action on Climate and Trade: A Developing World Imperative for Climate-Adjusted Trade Flows*, WORLD ECON. F. (Apr. 19, 2023), https://perma.cc/BM4W-75SN.

25. G7 Clean Energy Economy Action Plan (May 20, 2023), https://perma.cc/59GP-ZNJ9.

"accelerate the transition to a climate neutral and circular economy to the benefit of businesses, workers, and consumers on both sides of the Atlantic";[26] and a dedicated "Trade Day" and "Trade Pavilion" organized as part of the United Nations Climate Change Conference in Dubai (COP28).[27]

Although less explicitly targeted at the intersection of trade and climate cooperation, several other recent initiatives are nonetheless seen as potential forums for discussions on the implications of trade on decarbonization and vice versa. Among these is IFCMA, an initiative announced in 2022 by the OECD to promote data and information sharing, mutual learning, and inclusive multilateral dialogue on emissions reduction efforts across a "diverse set of countries—developed, emerging and developing."[28] Also in 2022, the G7 leading industrialized nations and several other countries launched a so-called "Climate Club" to accelerate climate action. The Climate Club is "inclusive in nature and open to countries that are committed to the full implementation of the Paris Agreement."[29] These initiatives emphasize their cooperative, open, and inclusive nature, yet seek to address politically sensitive issues such as emissions leakage and the comparability of climate efforts—both of which are closely related to the use of trade-related climate measures such as BCAs.

Other initiatives have adopted a sectoral focus. This includes another transatlantic initiative, the Global Arrangement on Sustainable Steel and Aluminum (GASSA), which has been under negotiation since 2021 and aims to facilitate trade in low-carbon steel and aluminum while simultaneously addressing global overcapacity in the sector. Although it also professes openness to "like-minded countries," the GASSA more explicitly brandishes trade restrictions to advance economic and environmental policy goals.[30] Such declared recourse to controversial means of implementation has in turn raised the political stakes between the two jurisdictions negotiating the arrangement as well as for trade partners who stand to be affected by limited market access. In addition, President Donald Trump's re-election will likely have important implications for and could further complicate ongoing negotiations. As policy developments at the intersection of

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26. EU-U.S. Trade and Technology Council, Joint Statement of 31 May 2023 in Lulea, Sweden. Annex I: Transatlantic Initiative on Sustainable Trade Work Programme (May 31, 2023) (EC), https://perma.cc/2XKC-LJT2.

27. World Trade Organization, WTO Secretariat to Highlight Role of Trade Policy for Climate Action at COP28 in Dubai (Nov. 9, 2023), https://perma.cc/FKZ7-UM7J.

28. Org. for Econ. Coop. & Dev. [OECD], Secretary-General Report to G20 Leaders on the Establishment of the Inclusive Forum on Carbon Mitigation Approaches (Nov. 15, 2022), https://www.oecd.org/en/publications/oecd-secretary-general-report-to-g20-finance-ministers-and-central-ba nk-governors-on-the-establishment-of-the-inclusive-forum-on-carbon-mitigation-approaches-indon esia-october-2022_d47276ee-en.html. *See infra* section V.D.

29. G7 Statement on Climate Club, (June 28, 2022), https://perma.cc/UU29-RJJA. *See infra* section V.B.

30. Joint EU-U.S. Statement on a Global Arrangement on Sustainable Steel and Aluminium (Oct. 31, 2021) (EC), https://perma.cc/5AJU-V7AA. *See infra* section V.C.

trade and climate become more specific in scope and reveal political sensitivities, it seems they also render international cooperation increasingly challenging.

Nowhere is this more apparent than in the unilateral efforts of countries or regions already embracing climate policy measures that directly restrict international trade in goods. Although these efforts still occasionally declare cooperation a desirable goal, they are primarily driven by domestic stakeholder politics and national economic interests. Many of the protectionist tendencies that underlie the current dynamic of economic retrenchment and fragmentation are mediated by industrial policy strategies that invoke climate ambition and deep decarbonization as both justifications and central objectives. These strategies include the border carbon adjustments that will be discussed in greater detail in Section II.A., such as the EU CBAM and several bills recently introduced in the U.S. Congress, but extend well beyond such narrow policies applied to imported goods and comprise a much broader range of government interventions aimed at creating, building, or shaping industries to stimulate technology creation and deployment, spur employment opportunities, diversify production, and build supply chain resilience.[31]

Most ambitious among these interventions is the Inflation Reduction Act (IRA) of 2022,[32] a sweeping investment program that comprises a range of tax incentives, grants, and concessionary loans for clean technology deployment initially estimated by the Congressional Budget Office to amount to approximately US$391 billion over the next decade.[33] The true investment, however, may end up being a multiple of that figure given the uncapped nature of the tax credits and subsequently expanded eligibility rules.[34] Coupled with further fiscal appropriations and expenditures under the previously adopted Infrastructure Investment and Jobs Act of 2021[35] and CHIPS and Science Act of 2022[36] as well as policies adopted by the executive branch, such as a public procurement mandate that recruits the purchasing power of the federal government to advance climate policy objectives,[37] these initiatives affect trade in goods and services between the United States and its economic partners by conditioning incentives and awarding tendered projects on climate criteria and by creating local content or assembly requirements aimed at relocating manufacturing capacities to the United States.

Although the foregoing U.S. efforts may be unrivaled in sheer scope, other regions have not hesitated to leverage similar trade measures as part of their

31. Dani Rodrik, *Green Industrial Policy*, 30 OXFORD REV. ECON. POL'Y 469 (2014).

32. Inflation Reduction Act of 2022, Pub. L. No. 117-169, 136 Stat. 1818 (2022).

33. CONG. BUDGET OFF., ESTIMATED BUDGETARY EFFECTS OF PUB. L. 117-169, TO PROVIDE FOR RECONCILIATION PURSUANT TO TITLE II OF S. CON. RES. 14 (2022).

34. John E.T. Bistline et al., *Economic Implications of the Climate Provisions of the Inflation Reduction Act*, 2023 BROOKINGS PAPERS ON ECON. ACTIVITY, 77, 78–79; BETTY JIANG ET AL., US INFLATION REDUCTION ACT: A TIPPING POINT IN CLIMATE ACTION 6 (Credit Suisse 2022).

35. Infrastructure Investment and Jobs Act of 2021, Pub. L. No. 117-48, 135 Stat. 429 (2021).

36. CHIPS and Science Act of 2022, Pub. L. No. 117-167, 136 Stat. 1366 (2022).

37. Exec. Order No. 14057, 86 Fed. Reg. 70,935 (Dec. 8, 2021).

industrial policy strategies.[38] Under its ambitious European Green Deal, the EU has set out a Green Deal Industrial Plan[39] and adopted related implementation measures, notably the Net Zero Industry Act[40] and Critical Raw Materials Act,[41] that stipulate domestic extraction, processing, manufacturing, and deployment targets for various advanced technologies and materials. They draw on and complement several existing funds and financial instruments, such as the Green Deal Investment Plan, the NextGenerationEU Recovery and Resilience Facility, the RePowerEU initiative, the Innovation Fund, and Horizon Europe, as well as loosened restrictions on domestic subsidies under the Temporary Crisis and Transition Framework for State Aid[42] to mobilize the necessary investment flows.

Similarly, China—as a centrally planned economy—has heavily relied on government interventions to strengthen the competitiveness of its domestic industries and expand its share in global markets. Most recently, the Made in China 2025 plan, adopted in 2015, identified ten strategically important sectors—including several low-carbon technologies, such as electric vehicles, advanced rail and shipbuilding, and renewable energy—that would benefit from heavy direct investment in advanced manufacturing and new guidelines to limit foreign competition.[43] The Plan's stated ambition has been to achieve global dominance in those industries, an objective that is also reflected in the 14th Five-Year Plan and its mandate to "[d]evelop and expand strategic emerging industries."[44]

Common to all these unilateral policy initiatives are direct and often forceful interventions in trade flows justified by objectives that include climate policy, often through support for domestic manufacturing or restrictions on foreign goods and services. Although ostensibly serving to advance greenhouse gas emission

38. David Kleimann et al., *Green Tech Race? The US Inflation Reduction Act and the EU Net Zero Industry Act*, 46 WORLD ECON. 3420 (2023).

39. *Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: A Green Deal Industrial Plan for the Net-Zero Age*, COM (2023) 62 final (Feb. 1, 2023).

40. Regulation (EU) 2024/1735 of the European Parliament and of the Council of 13 June 2024 on Establishing a Framework of Measures for Strengthening Europe's Net-Zero Technology Manufacturing Ecosystem and Amending Regulation (EU) 2018/1724, 2024 O.J. (L 2024/1735).

41. Regulation (EU) 2024/1252 of the European Parliament and of the Council of 11 April 2024 on Establishing a Framework for Ensuring a Secure and Sustainable Supply of Critical Raw Materials and Amending Regulations (EU) No. 168/2013, (EU) 2018/858, (EU) 2018/1724 and (EU) 2019/1020, 2024 O.J. (L 2024/1252).

42. Communication from the Commission Temporary Crisis and Transition Framework for State Aid Measures to Support the Economy Following the Aggression against Ukraine by Russia, 2023 O.J. (C 101/3), https://perma.cc/N8PU-X2U8.

43. Notice of the State Council on the Publication of "Made in China 2025" (promulgated by the St. Council, May 8, 2015) No. 28 (China); *see* Georgetown Ctr. for Sec. & Emerging Tech., Unofficial Translation, https://perma.cc/7SJL-L6S5.

44. The 14th Five-Year Plan for National Economic and Social Development and the Long-Range Objectives Through the Year 2035 (promulgated by Nat'l People's Cong., Mar. 12, 2021) art. 9 (China). *See* Georgetown Ctr. for Sec. & Emerging Tech., Unofficial Translation, https://perma.cc/894U-BYX7.

reductions, these initiatives have been criticized for fragmenting markets and thereby increasing costs for materials and components essential to decarbonization,[45] or for disguising outright protectionism to promote domestic economic interests[46] at the expense of market access and economic opportunities for developing countries.[47] Also common to these unilateral policies is a relative dearth of meaningful attempts to engage in international cooperation, despite the clear and often intended impacts on international trade.

There are exceptions to this pattern: the aforementioned transatlantic process to elaborate the GASSA and a flurry of hastily negotiated cooperation agreements on critical minerals and other raw materials to mitigate diplomatic tensions following the passage of the IRA. There is evidence of some willingness to collaborate, yet this willingness appears limited to close strategic allies and motivated by overriding geopolitical considerations. Ultimately, the previously described rise in activities at the nexus of trade and climate policy may stem less from a desire to bridge the enduring gap between both issues than from a recognition that decades of progress on trade liberalization are now threatened by the recent wave of unilateral market interventions to advance economic, strategic, and environmental interests. The next sections of this Article further discuss the international dimensions of these interventions and potential ways to strengthen cooperation and harness benefits while limiting risks.

II. THE EXTERNAL DIMENSIONS OF BCAS

A. THE GLOBAL DIFFUSION OF BCAS

As the Introduction highlighted, BCAs have seen growing momentum as a policy option at the intersection of climate change and international trade, with a proliferation of policy announcements and concrete developments already evincing far-reaching international reactions. Most importantly, after more than a decade of hesitant debate driven by individual Member States and domestic stakeholder constituencies, the European Union adopted its CBAM, which recently took effect.

Concerns about the legal and diplomatic repercussions impeded earlier action on BCAs in Europe. Only the convergence of the successful adoption of the Paris

45. John Paul Helveston et al., *Quantifying the Cost Savings of Global Solar Photovoltaic Supply Chains*, 612 NATURE 83, 83–87 (2022); PRERNA PRABHAKAR & HEMANT MALLYA, SUSTAINABILITY-DRIVEN NON-TARIFF MEASURES: ASSESSING RISKS TO INDIA'S FOREIGN TRADE, COUNCIL ON ENERGY, ENVIRONMENT AND WATER (2023), https://perma.cc/LC7W-2RKS.

46. Pooja Rajawat & Jayam Jha, *Tracing Protectionism in EU's Carbon Border Adjustment Mechanism (CBAM)*, MOD. DIPL. (June 16, 2023), https://perma.cc/6M23-X83C; Arvind Ravikumar, *Carbon Border Taxes Are Unjust*, MIT TECH. REV. (July 27, 2020), https://perma.cc/J3MT-XPTE.

47. The Afr. Climate Found. & the Firoz Lalji Inst. for Afr., *Implications for African Countries of a Carbon Border Adjustment Mechanism in the EU*, THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE (2023), https://perma.cc/5BLM-HRQW; Ravikumar, *supra* note 46; UNCTAD, *supra* note 10 at 7.

Agreement, a broader deterioration in international trade relations, and a surging carbon price under the EU Emissions Trading System (EU ETS) altered the parameters of political debate in Brussels to allow the rapid embrace of a previously shunned policy instrument. From its first announcement in the Political Guidelines of the incoming European Commission President Ursula von der Leyen in July 2019,[48] to its publication in the Official Journal in May 2023,[49] the CBAM saw accelerated passage by the European institutions despite major external shocks, including the COVID-19 pandemic, a pronounced energy crisis, and the Russian invasion of Ukraine.

From October 2023, the CBAM requires importers of six product categories—cement, iron and steel, aluminum, fertilizer, electricity, and hydrogen—to declare the emissions embedded in these goods in one of two ways. Importers can either declare by using emissions data from foreign producers, or they can use default assumptions about the carbon intensity of these goods once they enter the customs territory of the EU. From 2026, importers will additionally need to purchase and annually surrender certificates in a quantity equal to the verified emissions from the preceding year, with certificates priced at the same level as EU ETS allowances. From that date until 2034, the CBAM will successively replace the free allocation of emission allowances, the mechanism that has served until now as the primary safeguard against emissions leakage under the EU ETS by mostly exempting industrial emitters from a need to pay the carbon price on their emissions as an incentive for those emitters to remain in countries with more stringent regulation.

Although in force, the CBAM Regulation merely defines overarching objectives and sets out basic obligations, while also creating an institutional and procedural framework for its implementation by the European Commission and Member State authorities. Important aspects have yet to be operationalized based on several provisions in the CBAM Regulation that mandate reviews of CBAM performance and empower the European Commission to adopt implementing and delegated acts on specific issues. This includes emissions reporting, verification of emission reports and accreditation of verifiers, and accounting for carbon prices paid in the country of origin of imported goods. The Implementing Regulation setting out the rules and process for emissions reporting during the transitional period was adopted through the comitology procedure and entered into force in August 2023.[50]

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48. URSULA VON DER LEYEN, POLITICAL GUIDELINES FOR THE NEXT EUROPEAN COMMISSION 2019-2024, at 6 (2020), https://perma.cc/HYU9-SBYP.

49. Regulation (EU) 2023/956, *supra* note 7.

50. Commission Implementing Regulation (EU) 2023/1773 Laying Down the Rules for the Application of Regulation (EU) 2023/956 of the European Parliament and of the Council as Regards Reporting Obligations for the Purposes of the Carbon Border Adjustment Mechanism During the Transitional Period, 2023 O.J. (L228/94) [hereinafter Commission CBAM Implementing Regulation].

In the United States, BCAs have similarly been discussed for more than a decade,[51] yet the absence of domestic constraints on industrial emissions have prevented BCAs from acquiring greater purchase in the federal policy debate. California became the first jurisdiction to adopt a BCA at the subnational level, although its scope was limited to electricity imports from neighboring states. More recently, however, combining international trade and climate policy has gained renewed traction as one of the few climate policy options that might secure bipartisan support in the federal legislature, given the ability of such policies to promote domestic industrial policy objectives and strengthen U.S. interests vis-à-vis geopolitical rivals such as China.

Several recent proposals introduced in the U.S. Congress would advance some form of import fee to leverage the perceived U.S. "carbon advantage."[52] A bill introduced in July 2021 by Senator Christopher A. Coons and Representative Scott H. Peters, the FAIR Transition and Competition Act, would impose a fee on imports of petroleum, natural gas, coal, and several primary goods such as aluminum, steel, iron, and cement, basing the fee on the "domestic environmental cost" incurred by U.S. producers under a portfolio of federal and state climate policies.[53]

In June 2022, Senator Sheldon Whitehouse introduced his bill for a Clean Competition Act that would similarly place a fee on imports of fossil fuels and industrial primary products, as well as finished goods containing a minimum share of covered primary goods. Unlike the proposed fee in the FAIR Transition and Competition Act, however, this fee would begin at US$55 per ton, increasing at 5% above inflation per year, and would only be due on the share of emissions that exceeds an annually declining U.S. emissions intensity baseline for each product category; the methods to determine embedded emissions would be differentiated by country of origin.[54] With some design modifications, the Clean Competition Act was reintroduced in December 2023.[55]

While these two bills were introduced by Democratic legislators, a more recent legislative proposal for a "foreign pollution fee" was introduced in November 2023 by a Republican lawmaker, Senator William M. Cassidy.[56] As described by its sponsor, this proposal would counter China and its challenge to U.S. military,

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51. van Asselt & Brewer, *supra* note 5, at 45.

52. The notion of a US "carbon advantage" was first coined in Catrina Rorke & Greg Bertelsen, *America's Carbon Advantage*, CLIMATE LEADERSHIP COUNCIL (2020), https://perma.cc/GBX7-4Z38; *but see* SHUTING POMERLEAU, NISKANEN CTR., IS THE U.S. REALLY A GLOBAL LEADER IN LOW-CARBON INDUSTRY? (2023), https://perma.cc/ZK9N-NZGY.

53. Fair, Affordable, Innovative, and Resilient Transition and Competition (FAIR) Act, S. 2378, 117th Cong. (2021).

54. Clean Competition Act, S. 4355, 117th Cong. (2022).

55. Clean Competition Act, S. 3422, 118th Cong. (2023).

56. Foreign Pollution Fee Act of 2023, S. 3198, 118th Cong. (2023).

geopolitical, and economic might.[57] Like the other proposals described above, its scope would be broader than the EU CBAM and include various energy products such as fuels, batteries, solar panels, and wind turbines, alongside common industrial goods. Covered goods would be subject to a foreign pollution fee if their average carbon intensity in the country of origin exceeds the average carbon intensity of comparable U.S. products by 10% or more, with the fee level calculated to effectively cap the overall carbon intensity of imports. Unlike the Clean Competition Act introduced by Senator Whitehouse, the Foreign Pollution Fee Act would not create any new compliance obligations for domestic producers of covered goods. The bill does, however, envision opportunities for international partnerships, allowing trade partners to avoid the foreign pollution fee under certain conditions, but requiring them to apply similar measures to imports from third countries, provide verified emissions data to the United States, and lower trade barriers for U.S. products.

Spurred by the evolving global context and growing climate policy ambition, several additional jurisdictions have likewise begun exploring BCAs as a domestic policy option. These jurisdictions include Canada, which has launched formal consultations on carbon leakage,[58] and the United Kingdom, which has followed initial consultations[59] with the announcement that it would introduce a CBAM from January 1, 2027, on imports of certain carbon intensive imported goods from the aluminum, cement, ceramics, fertilizer, glass, hydrogen, iron, and steel sectors.[60] BCAs are also at various stages of consideration in Australia,[61] Japan,[62] and Taiwan.[63] Some proposals, like one allegedly under discussion in India to levy a fee on imports from countries with higher per capita or cumulative greenhouse gas emissions,[64] are more likely an expression of protest against the introduction of the EU CBAM than reflective of an earnest concern about emissions

57. Bill Cassidy, *A Tariff for the Climate: How a Foreign Pollution Fee Can Protect the Environment—and Help America Stand Up to China*, FOREIGN AFF. (Oct. 5, 2023), https://perma.cc/F3VV-K85Q.

58. Dep't of Fin. Gov't of Canada, *Consultation on Border Carbon Adjustments* (2023), https://perma.cc/9LN7-AMBH.

59. HM TREASURY & DEP'T FOR ENERGY SEC. & NET ZERO, GOV'T OF THE UNITED KINGDOM, ADDRESSING CARBON LEAKAGE RISK TO SUPPORT DECARBONIZATION (2023), https://perma.cc/6GWG-5MF9.

60. HM TREASURY & HM REVENUE & CUSTOMS, GOV'T OF THE UNITED KINGDOM, CONSULTATION: INTRODUCTION OF A UK CARBON BORDER ADJUSTMENT MECHANISM FROM JANUARY 2027 (2024), https://perma.cc/WFQ9-CTLW.

61. DEP'T OF CLIMATE CHANGE, ENERGY, THE ENV'T & WATER, AUSTRALIAN GOV'T, PUBLIC CONSULTATION ON THE PROPOSED APPROACH TO ASSESS AND ADDRESS CARBON LEAKAGE RISK, AS PART OF THE CARBON LEAKAGE REVIEW (2023), https://perma.cc/23XZ-DUHM.

62. *See* MINISTRY OF ECONOMY, TRADE, & INDUSTRY, 世界全体で˝のカーボンニュートラル実現 のための経済的手法等のあり方に関する 研究会. 中間整理 (INTERIM REPORT OF THE STUDY GROUP ON ECONOMIC METHODS TO ACHIEVE WORLDWIDE CARBON NEUTRALITY) (2021).

63. *See* Climate Change Response Act art. 31 (2023) (Taiwan), https://perma.cc/27YP-H26V.

64. Abhishek Law, *India to Raise at WTO EU's Plan to Levy Carbon Tax on Imports*, HINDU BUSINESSLINE (Jan. 27, 2023), https://perma.cc/PL6F-S8UK.

leakage. Yet increased mention of BCAs in domestic policy debates shows a clear surge in interest across developing countries and emerging economies, including Brazil and Mexico.

If reactions to the EU's adoption of the CBAM are any indication, the gradual expansion of BCAs will elicit widespread criticism.[65] Still, in a remarkable demonstration of the "Brussels Effect," which describes how the EU leverages access to its market to influence political choices and corporate behavior abroad,[66] the CBAM has triggered spillover effects: From changing international perceptions around BCAs as a viable policy response to persistent climate policy asymmetries in the post–Paris Agreement world to the dramatic acceleration of carbon pricing initiatives across its major trading partners,[67] the CBAM is already exerting important effects beyond its territorial boundaries. These spillover effects are partly due to specific features of the CBAM design which account for external dimensions, such as physical or policy developments in foreign trade partners. Such links to external aspects can also become an entry point for cooperation across BCAs. The next section discusses how the design and implementation of BCAs can reflect external developments, drawing on the CBAM and other recent BCA proposals as relevant case studies.

B. HOW BCAS ACCOUNT FOR EXTERNAL DIMENSIONS

Various features in the design and implementation of BCAs introduce an external dimension that relates to circumstances or developments in third countries. Such features render the application of the BCA or elements thereof conditional on factors beyond the territory of the implementing jurisdiction. Because these features account for or actively influence circumstances and developments in trade partner jurisdictions, they are inherently relevant to bilateral, regional, or multilateral cooperation on BCAs. This subsection surveys the various design and implementation aspects of BCAs that have such an external dimension, providing examples from the EU CBAM and BCAs recently proposed in the United States to illustrate their potential relevance for cross-border cooperation.

First, BCAs may condition their geographic scope—that is, the countries to whose goods they are applied—on criteria such as development status or the achievement of a certain level of climate policy ambition. All goods originating from countries that satisfy such criteria would be exempted from the application of the BCA or otherwise enjoy favorable treatment under the BCA. Several proposals for BCAs discussed in the United States, for instance, would have

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65. *See* Daniel Bergen et al., Perception of the Planned EU Carbon Border Adjustment—An Expert Survey 5 (2021); Indra Overland & Rahat Sabyrbekov, *Know Your Opponent: Which Countries Might Fight the European Carbon Border Adjustment Mechanism?*, 169 ENERGY POL'Y, no. 113175, Oct. 2022, at 1 (discussing potential opposition to EU activation of CBAM).

66. ANU BRADFORD, THE BRUSSELS EFFECT: HOW THE EUROPEAN UNION RULES THE WORLD (2020).

67. THE WORLD BANK, STATE AND TRENDS OF CARBON PRICING 28 (2022).

altogether exempted from their geographic scope Least Developed Countries (LDCs), countries eligible for official development assistance, or countries responsible for a *de minimis* share of global emissions.[68] Likewise, these proposed BCAs would have exempted countries deemed to have taken comparable climate action, countries that are parties to relevant cooperative agreements, or countries whose goods are as carbon intensive as or less carbon intensive than the same goods produced in the United States.[69] The most recent U.S. legislative proposal, the Foreign Pollution Fee Act, attaches consequences to average income levels in trade partner countries, distinguishing between low or lower-middle income and upper-middle income countries to afford the former some concessions not enjoyed by advanced emerging economies such as China.[70]

By contrast, the EU CBAM does not exempt any countries based on development status. While legislators debated the option of including such an exemption,[71] the European Commission cautioned against it, stating that "blanket exemptions from a CBAM should be avoided, as setting up a mechanism that will encourage LDCs to increase their level of emission" would "run counter to the overarching objective of the CBAM."[72] Instead, the CBAM Regulation now merely states in a recital to its preamble that "[t]he Union should provide technical assistance . . . to developing countries and to least developed countries as

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68. *See* American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. §§ 768(a)(1)(E)(ii)–(iii) (2009) (providing exemptions for "any foreign country that the United Nations has identified as among the least developed of developing countries" or "any foreign country . . . responsible for less than 0.5 percent of total global greenhouse gas emissions"); *see also* FAIR Transition and Competition Act, S. 2378, 117th Cong. § 9904(b)(2)(A) (2021) (exempting "any country included on the list of Least Developed Countries on the most recent Development Assistance Committee List of Official Development Assistance Recipients published by the Organisation for Economic Co-operation and Development"); *see also* Clean Competition Act, S. 4355, 117th Cong. § 4691(b)(3)(D) (2022) (excluding covered imported goods "produced in a relatively least developed country (as described in Section 124 of the Foreign Assistance Act of 1961 (22 U.S.C. 2151v))").

69. *See* American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. § 767(c)(1)–(3) (2009). § 767(c)(1)–(3) recognized three exemptions: "(1) The country is a party to an international agreement to which the United States is a party that includes a nationally enforceable and economy-wide greenhouse gas emissions reduction commitment for that country that is at least as stringent as that of the United States." "(2) The country is a party to a multilateral or bilateral emission reduction agreement for that sector to the [sic] which the United States is a party." "(3) The country has an annual energy or greenhouse gas intensity . . . for the sector that is equal to or less than the energy or greenhouse gas intensity for such industrial sector in the United States." *Id*.; *see also* FAIR Transition and Competition Act, S. 2378, 117th Cong. § 9904(b)(2)(B)(ii) (2021) (exempting any country which "the Secretary . . . determines enforces laws and regulations designed to limit or reduce greenhouse gas emissions that are at least as ambitious as Federal laws and regulations designed to limit or reduce greenhouse gas emissions.").

70. Foreign Pollution Fee Act of 2023, S. 3198, 118th Cong. § 203 (2023).

71. *See* EUR. PARL. DOC. (TA-9-2021-0071) (2021) ("Least Developed Countries and Small Island Developing States should be given special treatment in order to take account of their specificities and the potential negative impacts of the CBAM on their development.").

72. *Commission Staff Working Document, Impact Assessment Report Accompanying the Document Proposal for a Regulation of the European Parliament and of the Council Establishing a Carbon Border Adjustment Mechanism*, at 30, COM (2021) 564 final (Jul. 14, 2021).

identified by the United Nations (LDCs)," without specifying whether and how such assistance will be provided.[73] The absence of any direct concessions for developing countries has been criticized for contravening the principle of common but differentiated responsibilities and respective capabilities of the UNFCCC, and for effectively weakening the legal prospects of the CBAM in the event of a challenge before the WTO dispute settlement mechanism.[74]

While the CBAM may not provide for exemptions based on development status, it does exclude the countries and territories listed in an annex to the CBAM Regulation.[75] Countries listed in this annex are those that are fully integrated into the EU ETS, namely the European Economic Area (EEA) member states Iceland, Liechtenstein, and Norway, as well as countries with an emissions trading system that is linked to the EU ETS, currently only Switzerland. The rationale for this exclusion is that carbon prices in these countries are comparable to those in the EU, obviating the concern about emissions leakage due to differences in the carbon cost faced by industrial emitters. Neighboring countries may also be temporarily exempted from coverage of electricity imports if their electricity markets are integrated with the EU internal market for electricity through market coupling.[76] Additionally, the annex excludes several offshore territories of the EU that have no relevant industrial emissions.

A second way BCAs can account for external factors is by reflecting the factors in the calculation of the adjustment itself. Rather than exempt entire countries from the scope of the BCA, the level of the adjustment imposed on imported goods can be prorated to credit a carbon price or climate policy cost borne by those goods in the country of origin. The EU CBAM chose this approach, which explicitly provides for "a reduction in the number of CBAM certificates to be surrendered in order to take into account the carbon price paid in the country of origin for the declared embedded emissions."[77] At first glance, this approach appears to be a logical way to avoid pricing the same emissions twice, which would overshoot the stated objective of preventing carbon leakage and raise questions of fairness; it also creates a strong incentive for third countries to introduce their own carbon pricing systems, which in turn further reduces the risk of carbon leakage.[78] At the same time, it gives rise to challenging questions about the

73. Regulation (EU) 2023/956, *supra* note 7, at recital 71.

74. *See* Ilaria Espa & Kateryna Holzer, *From Unilateral Border Carbon Adjustments to Cooperation in Climate Clubs: Rethinking Exclusion in Light of Trade and Climate Law Constraints*, 13 EUR. Y.B. OF INT'L ECON. L. 389–410 (2023); *see also* Gracia Marín Durán, *Securing Compatibility of Carbon Border Adjustments with the Multilateral Climate and Trade Regimes*, 72 INT'L & COMP. L.Q. 73, 74 (2023); Ilaria Espa et al., *The EU Proposal for a Carbon Border Adjustment Mechanism (CBAM): An Analysis under WTO and Climate Change Law*, 20 OIL, GAS & ENERGY L. (SPECIAL ISSUE) no. 1, 2022, at 1, 3–4.

75. Regulation (EU) 2023/956, *supra* note 7, at Annex III.

76. *Id.* art. 7.2.

77. *Id.* art. 9.

78. JOS DELBEKE & PETER VIS, EUR. UNIV. INST., HOW CBAM CAN BECOME A STEPPINGSTONE TOWARDS CARBON PRICING GLOBALLY 3 (2023), https://perma.cc/5TMX-VZLD.

various forms of carbon pricing that can be considered eligible for credit, and has been criticized by third countries for interfering with their sovereign right under general international law and the Paris Agreement to determine their own climate policy choice.[79]

Recent proposals for a BCA in the United States would mostly not account for a carbon price paid abroad, not least because the United States currently has no domestic carbon price in place at the federal level that can be adjusted for by third countries.[80] This raises the question of whether and how policies other than a carbon price could be accounted for in the calculation of the adjustment under a BCA, given that such policies do not express the compliance burden they impose—and thus the carbon cost—in monetary terms that can be easily credited against the BCA payment obligation. Here, the FAIR Transition and Competition Act provides an example of how this compliance burden under climate policy regimes other than a carbon price could be converted into monetary terms. The Act would require determining the "domestic environmental cost" incurred, that is, the estimated compliance cost faced by emitters under one or more climate policies. Although any such conversion will always remain vulnerable to diverging views on the appropriate estimation methodology and more broadly elicit questions about the comparability of climate policy efforts, a question that also arises in the context of cooperative initiatives such as the IFCMA (*see* section IV.D.).

While consideration of external factors in the geographic scope of a BCA and calculation of the adjustment it imposes are the main ways in which BCAs can integrate an external dimension, other design and implementation features will also typically consider developments beyond the territory of the imposing jurisdiction. One such feature is the determination of embedded emissions, which relates to physical processes occurring in third countries, that is, the countries of origin of covered goods. A BCA can opt to assume default values reflecting aggregated data on producer-, sectoral-, or country-level emissions in different countries, obviating the need for emissions accounting by foreign producers. Such default values—which could, for instance, consist of the average carbon intensity of products originating from a particular country or region—have the advantage of greater administrative simplicity, but sacrifice many of the benefits of product-specific emissions data while also increasing the legal risk under general international law and WTO law.[81] By contrast, the EU CBAM in its implementing regulation on emissions reporting during the transitional period has opted for an approach similar to that applied under the EU ETS, setting out

79. *See* ANDREI C. MARCU ET AL., EUROPEAN ROUNDTABLE ON CLIMATE CHANGE & SUSTAINABLE TRANSITION, METHODS FOR CREDITING CARBON PRICES UNDER THE CBAM 8 (Oct. 5, 2023), https://perma.cc/8E6K-YZPF.

80. An exception is the revised version of the Clean Competition Act, S. 3422, 118th Cong. § 4692 (a)(1)(D) (2023).

81. Michael A. Mehling & Robert A. Ritz, *From Theory to Practice: Determining Emissions in Traded Goods under a Border Carbon Adjustment*, 39 OXFORD REV. ECON. POL'Y 123, 128–30 (2023).

detailed rules and procedures for product-specific emissions monitoring, reporting and verification (MRV) for each category of covered goods.[82] In this system, default values only acquire relevance if importers are unable to, or refuse to, report specific embedded emissions.

Aside from extending the reach of domestic MRV rules and procedures to foreign emissions, this approach may also have implications for institutional structures in third countries when it comes to accrediting legal entities mandated with independent verification of the emission reports submitted under the EU CBAM, a procedure for which detailed rules and eligibility criteria have yet to be set out. Compared to the EU approach, U.S. BCA proposals have tended towards applying default rather than reported emission values, at times explicitly mentioning the risk of circumvention if producers are allowed to report actual emissions and export "only their cleanest products."[83] Although, the proposals often allow for a procedure through which foreign producers can petition for a revision based on actual individual or sectoral data.[84] A more recent legislative proposal, the PROVE IT Act introduced by Senators Christopher A. Coons and Kevin J. Cramer in June 2023, would direct the Department of Energy to calculate the average emissions intensity of several industrial goods produced both in the United States and in key trading partners,[85] creating a foundation of emissions data for the future implementation of a BCA based on such estimated—rather than actually reported—emissions intensity values.

Finally, a BCA can also incorporate an external dimension through the targeted use of revenues collected through its application. Earmarking such revenue for investments in developing countries was already proposed over a decade ago by various academic scholars to reduce international opposition to the introduction of BCAs and better align it with international climate finance commitments and common but differentiated responsibilities and respective capabilities under the UNFCCC.[86] Neither the EU CBAM nor any of the U.S. legislative proposals expressly provide for such a revenue allocation to third countries. Both instead assign revenues to the general budget or to domestic investments in decarbonization and assistance to vulnerable communities. The only suggestion that the EU may offer financial support to third countries in relation to CBAM is provided in the proposal's recital, which indicates that the EU "is committed to working with

82. *Commission CBAM Implementing Regulation*, *supra* note 50.

83. William M. Cassidy, *Foreign Pollution Fee Policy Details* 2 (Nov. 3, 2023), https://perma.cc/GH5C-B52A ("Pollution intensity calculations are based on a national average related to a covered product to prevent bad actors from only exporting their cleanest products.").

84. *See, e.g.*, FAIR Transition and Competition Act, S. 2378, 117th Cong. § 9904(b)(2)(B)(ii) (2021).

85. PROVE IT Act of 2023, S. 1863, 118th Cong. § 2(a)(8)(B) (2023).

86. *See, e.g.*, Marco Springmann, *Carbon Tariffs for Financing Clean Development*, 13 CLIMATE POL'Y 20; Michael Grubb, *International Climate Finance from Border Carbon Cost Levelling*, 11 CLIMATE POL'Y 1050.

and supporting low and middle-income third countries towards the decarbonization of their manufacturing industries."[87]

As the foregoing survey of external dimensions has shown, existing and proposed BCAs differ widely in how they consider factors outside the territory of the imposing jurisdiction. This further underscores the potential benefits of international cooperation and highlights how the external dimension of BCAs could promote or facilitate such cooperation, for instance through strategic use of revenue. Still, leveraging any such opportunities for greater coordination will also face considerable challenges, as the experiences with existing cooperative initiatives have already shown. Before tracing progress in such initiatives and the barriers they have encountered in Part IV, the next Part offers a more detailed analysis of the rationale of international cooperation.

Table 1. External Dimensions of BCAs.

BCA Name / External Dimension	Carbon Border Adjustment Mechanism (CBAM)	FAIR Transition and Competition Act *(Coons/Peters)*	Clean Competition Act *(Whitehouse)*	Foreign Pollution Fee Act *(Cassidy)*
Jurisdiction	EU	US (federal)	US (federal)	US (federal)
Year	2023	2021	2022	2023
Status	In force	Proposed	Proposed	Proposed
Geographic scope	Exemption of EEA members and countries with linked ETS; no exemption for LDCs	Exemption for LDCs and countries that do not impose a BCA against the United States and enforce constraints that "are at least as ambitious" as U.S. federal emission constraints	Exclusion of LDCs	Concessions for lower and lower middle-income countries
Calculation of adjustment	Deduction of carbon price effectively paid	No deductions	No deductions	No deductions
Determination of embedded emissions	MRV for each imported product	Default values, with petition procedure for importers	Default values, with petition procedure for importers	Default values, with consideration of voluntarily reported MRV data and option of facility-specific agreements
Use of revenues	Accrues to EU budget; no earmarking	Accrues to States for a Resilient Communities Grant Program and to support RD&D, transfer, export and commercialization of low-carbon technologies	Accrues to competitive grant program for reductions in carbon intensity and a State Department Economic Support Fund	No specification

87. Regulation (EU) 2023/956, *supra* note 7, at recital 74.

III. THE RATIONALES AND GOALS OF INTERNATIONAL COOPERATION ON BCAS

A. WHY COOPERATE?

The international dimensions of BCAs discussed in Part II underscore the need for countries adopting them (or considering doing so) to engage with third countries. Indeed, international cooperation arguably is a *sine qua non* for legal as well as political and diplomatic reasons.

International cooperation is a core principle of international (environmental) law, reiterated both in general declarations[88] and in more specific instruments, such as the Rio Declaration on Environment and Development.[89] This principle has been reiterated in the context of climate change.[90] The preamble of the UNFCCC states that "the global nature of climate change calls for the widest possible cooperation by all countries."[91] Moreover, the UNFCCC principle governing the relationship with the international economic system calls on Parties to "cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties."[92] The Paris Agreement further requires its Parties to consider "the concerns of Parties with economies most affected by the impacts of response measures, particularly developing country Parties."[93]

International trade law also stresses the importance of cooperation. An early WTO Committee on Trade and Environment report emphasized "multilateral solutions based on international cooperation and consensus as the best and most effective way for governments to tackle environmental problems of a transboundary or global nature."[94] Moreover, the WTO Appellate Body in its interpretation of the *chapeau* of Article XX of the General Agreement on Tariffs and Trade (GATT)—a provision that could be used to save measures that are deemed to violate the main rules of the GATT—has emphasized the importance of cooperation in the form of "'serious good faith' efforts to reach an international agreement."[95] In short, not only does international law offer clear normative guidance for states

88. *See, e.g.*, G.A. Res. 2625 (XXV), at 122 (Oct. 24, 1970).

89. *See* U.N. Conf. on Env't & Dev., *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26 (Vol. I), principles 7, 12, 27 (Aug. 12, 1992).

90. *See, e.g.*, G.A. Res. 77/165, Protection of Global Climate for Present and Future Generations of Humankind, preamble (Dec. 14, 2022); *see also* Int'l Law Comm'n, *Report of the International Law Commission Seventy-second Session*, UN DOC. A/76/10, at 35–38 (Aug. 6, 2021) (Guideline 8 of the 'Draft Guidelines on the Protection of the Atmosphere').

91. United Nations Framework Convention on Climate Change, preamble, May 9, 1992, S. Treaty Doc. No. 102-38, 1771 UNTS 107.

92. *Id*. art. 3.5.

93. Paris Agreement to the United Nations Framework Convention on Climate Change, art. 4.15, Dec. 12, 2015, T.I.A.S. No. 16-1104.

94. Comm. on Trade and Env't Report*, Report (1996) of the Committee on Trade and Environment*, para. 171, WTO Doc. WT/CTE/1 (Nov. 12, 1996).

95. Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products (Recourse to Article 21.5)*, ¶ 115ff, WTO Doc. WT/DS58/AB/RW (Oct. 22, 2001).

to cooperate, cooperation may also help the state adopting a trade measure in case such a measure is challenged and deemed to violate the main disciplines of the GATT.

Additionally, from the perspective of international politics and diplomacy, international cooperation can help states avoid exacerbating tensions created by the adoption of BCAs for several reasons:

- International cooperation can mitigate the risk of countries adopting protectionist policies disguised as measures to advance climate change mitigation.
- International cooperation can help address the risk that unilateral BCAs lead to retaliatory measures from third countries,[96] which third countries may adopt irrespective of whether a BCA is deemed compatible with WTO law.[97] Although formal steps to retaliate against the EU CBAM have yet to materialize, the possibility cannot be ruled out,[98] with some countries openly contemplating a judicial challenge.[99]
- International cooperation can help to assuage concerns about the fairness and economic impacts of BCAs vis-à-vis developing countries and help to build trust through dialogue and develop jointly agreed upon guidance. Unilateral BCAs present risks for international climate diplomacy, particularly if they involve a developed country adopting a measure that restricts market access for developing countries. Such measures need to be seen against a broader Global North-South backdrop in which developed countries have failed to meet pledges to provide financial support[100] and have long resisted efforts to finance loss and damage arising from climate change impacts.[101] For instance, during the 28th Session of the Conference of the Parties in Dubai, United Arab Emirates, in 2023, Brazil submitted a formal request on behalf of the BASIC group of

96. Jean Fouré et al., *Border Carbon Adjustment and Trade Retaliation: What Would Be the Cost for the European Union?*, 54 ENERGY ECON. 349 (2016).

97. DIRECTORATE-GEN. FOR EXTERNAL POLICIES, EUR. PARLIAMENT, BRIEFING: TRADE RELATED ASPECTS OF A CARBON BORDER ADJUSTMENT MECHANISM 6 (2020), https://perma.cc/K9JC-MANE.

98. Paola Tamma, *EU's Carbon Border Levy Risks Death by a Thousand Cuts*, POLITICO (July 6, 2021), https://perma.cc/E7XC-RL2K.

99. Anil Nair, *India to Challenge EU's Carbon Border Tax at WTO*, POL'Y CIRCLE (Sept. 19, 2023), https://perma.cc/DF9M-SVCA.

100. *Climate Finance Shadow Report 2023: Assessing the Delivery of the $100 Billion Commitment*, OXFAM (June 5, 2023), https://perma.cc/VG59-EVZK.

101. Linda Siegele, *Financing for Loss and Damage under the UNFCCC: Have We Come Full Circle?*, 32(3) REV. EUR. COMP. & INT'L ENV'T L. 403 (2023); *see also* Silvia Weko, *The Future for Global Trade in a Changing Climate: What to Know about the Implications of the EU's Carbon Border Adjustment Mechanism on International Trade*, CHATHAM HOUSE (Dec. 5, 2022), https://perma.cc/7FXS-RHGU.

countries (comprising Brazil, China, India and South Africa) to include "concerns with unilateral trade measures related to climate change and their potential adverse impact on equitable and just transitions" on the provisional agenda of the summit,[102] which—had it not subsequently been dropped from the agenda—could have seriously delayed or derailed progress in the already tense negotiations. To the extent that developing countries consider BCAs unfair,[103] the use of BCAs may otherwise lead to further entrenchment of international negotiation positions.

- International cooperation can lead to the diffusion of best practices in the design and implementation of BCAs.[104] This would, however, require an international exchange resulting in the discussion of and agreement on practices including procedures for decision making.

B. GOALS OF INTERNATIONAL COOPERATION ON BCAS

At a general level, there is therefore a clear case for countries to pursue international cooperation on BCAs. More specifically, several different (and non-mutually exclusive) goals can be pursued with international cooperation on BCAs:

1. Increasing Transparency of BCAs

First, international cooperation can be aimed at strengthening transparency around BCAs, including their regulatory design and implementation. International cooperation could, for instance, seek to share information: (i) about the rationale(s) for a country's adoption of a BCA (and why other measures were not considered appropriate); (ii) on the possible effects of BCAs, including effects on greenhouse gas emissions, and on international trade flows; and (iii) on certain design elements and their implementation (for example, how BCAs are calculated, what kind of information importers need to provide, the extent to which other policies are credited, etc.). Transparency is important for diplomacy and, in turn, for building trust among countries. Transparency is also important for businesses and other actors potentially impacted by BCAs, allowing them to adapt their practices where possible.[105]

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102. Conf. of the Parties, Provisional Agenda and Annotations: Note by the Executive Secretary, Addendum: Supplementary Provisional Agenda, ¶ 4, U.N. Doc. FCCC/CP/2023/1/Add.2 (Nov. 23, 2023).

103. The Afr. Climate Found. & the Firoz Lalji Inst. for Afr., *supra* note 47; Ravikumar, *supra* note 46.

104. Dave Sawyer & Renaud Gignac, *Border Carbon Adjustments: The Case for a Cooperative, Principles-Based Approach*, CANADIAN INST. FOR CLIMATE CHOICES (2022), https://perma.cc/DFW3-S2YA.

105. Int'l Legal Expert Grp. on Trade-Related Climate Measures & Policies, For. on Trade, Env't, & the SDGs, Principles of International Law Relevant for Consideration in the Design and Implementation of Trade-Related Climate Measures and Policies (2023), https://perma.cc/LX93-XPKL.

2. Developing Shared Objectives and Principles for BCAs

Another goal of international cooperation can be the development of an agreed-upon set of objectives and principles for BCAs. This would allow countries adopting BCAs to align activities without ceding control over the process and content of BCA deployment. For instance, they could agree on a set of shared understandings on: (1) legitimate objectives of BCAs and the circumstances that justify their use; (2) core principles to adhere to in the development of BCAs, such as transparency, openness, fairness, and due process; (3) best practices in BCA design and implementation, including for the determination of emissions embedded in traded goods, recognition of climate efforts by trade partners, or revenue use; and (4) addressing the impacts of BCA implementation on vulnerable countries.[106]

3. Improving Comparability of Domestic Climate Policies

Because BCAs aim to level differences among uneven climate policies, international cooperation could also work to clarify how different climate change mitigation policies compare to one another (that is, the extent to which different policies can be considered equivalent[107]). Where BCAs credit third countries' climate policies (for example, the EU CBAM where credit is based on the carbon price paid in a third country[108]) or exempt countries on the basis of mitigation efforts,[109] an indirect comparison of different policies takes place. Such a comparison is arguably relatively straightforward in the context of two countries where an explicit carbon price prevails.[110] But with countries adopting a wide range of policy instruments—for example, carbon pricing, regulatory standards, and subsidies, often combined in a complex mix with varying sectoral coverage—international cooperation could seek to develop concrete methodologies for comparing such policies (and their costs and/or mitigation effects).[111] These methodologies could also account for the specific circumstances of developing countries.

106. Aaron Cosbey, *Principles and Best Practice in Border Carbon Adjustment: A Modest Proposal*, INT'L INST. FOR SUSTAINABLE DEV. (2021), https://perma.cc/T98X-52XV; Sawyer & Gignac, *Border Carbon Adjustments: The Case for a Cooperative, Principles-Based Approach*, *supra* note 104.

107. Emily Lydgate, *Climate Equivalence and International Trade* (Robert Schuman Ctr. for Advanced Studies Research Paper No. 2022_64, 2022).

108. Regulation (EU) 2023/956, *supra* note 7, at art. 9.

109. Early bills including BCAs in the United States exempted countries that had taken "comparable action" to the United States. For a discussion, *see* van Asselt & Brewer, *supra* note 5, at 45.

110. Even such a comparison is by no means simple. *See* ANDREI C. MARCU ET AL., *supra* note 79, at 8.

111. Notwithstanding academic proposals for such methodologies (*see, e.g.*, Joseph E. Aldy & William A. Pizer, *Alternative Metrics for Comparing Domestic Climate Change Mitigation Efforts and the Emerging International Climate Policy Architecture*, 10(1) REV. ENV'T. ECON. POL'Y 3 (2016)), suggestions to implement this in practice have thus far failed. A notable example is the World Bank's proposal for an "independent rating system and independent, private sector rating agencies," put forward

4. Promoting Harmonization

If BCAs or similar measures targeting the carbon footprint of imports are increasingly adopted, there will be a growing need for harmonization of technical standards related to the embedded emissions of traded goods. Such standards could involve (minimum) product carbon standards, or standards related to the monitoring, reporting, and verification (MRV) of embedded emissions.[112] International cooperation to develop such standards could help to address the risk of a patchwork of diverging requirements, which would significantly increase transaction costs and would likely pose challenges for exporters (especially micro-, small, and medium-sized enterprises) in certain developing countries and least developed countries with limited technical and financial resources.[113] Experience with relevant efforts to date, such as the IFCMA operated by the OECD (*see* sections I and IV.D), suggests that countries with existing MRV standards will be reluctant to abandon deeply established methodologies and procedures. This finding calls for creative and sovereignty-sensitive approaches to harmonization. One such approach could be in the form of mutual recognition agreements, under which countries could accept each other's standards as equivalent.

5. Contributing to Global Climate Action

Finally, international cooperation could contribute to an increase in global climate action. BCAs could be an important avenue to create domestic buy-in for increased climate ambition. BCAs can also trigger spillover effects by inducing climate action in trading partners. International cooperation with trading partners could ensure that the BCAs are not just used as "sticks" but are combined with "carrots" that also allow third countries to increase their own climate ambition (for example, through financial support or technology cooperation). Third countries may also decide to increase their own ambition to ensure that any benefits from stronger climate policies accrue at the domestic level (for example, from revenues through carbon pricing).[114]

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as part of its Networked Carbon Markets initiative. *See* World Bank, *Globally Networked Carbon Markets* (Dec. 2013), https://perma.cc/K97Z-LV2V.

112. THERESA WILDGRUBE ET AL., ADELPHI, THE EU CBAM AND A CLIMATE CLUB SYNERGIES AND POTENTIAL OBSTACLES FOR FULL INTEGRATION (2022), https://perma.cc/EGQ9-YZ7L.

113. *See, e.g.*, Susannah Rodgers, *"Trepidation" as SMEs Get to Grips with EU's CBAM Reporting Rules that Run Deep*, CARBON PULSE (Oct. 5, 2023), https://perma.cc/Y2W4-AEWS; *see also* CHRIS KARDISH & THERESA WILDGRUBE, GERMAN ENV'T AGENCY, CARBON BORDER ADJUSTMENT MECHANISM ADMINISTRATIVE STRUCTURE AND IMPLEMENTATION CHALLENGES 25–26 (2022), https://perma.cc/8L52-EF7Z.

114. Sawyer & Gignac, *Border Carbon Adjustments: The Case for a Cooperative, Principles-Based Approach*, *supra* note 104.

IV. ASSESSING INTERNATIONAL COOPERATION ON BCAS

A. FRAMEWORK FOR ASSESSMENT

In principle, international cooperation can be pursued through a wide array of venues. This Part explores the prospects of pursuing cooperation through three recently formed bilateral or plurilateral initiatives that directly or indirectly link to the adoption of BCAs, namely: the Climate Club, the GASSA, and the IFCMA.[115] Specifically, we examine the potential for and limitations of these emerging initiatives to advance international cooperation on BCAs and how they may complement multilateral forums such as the WTO and UNFCCC.

International cooperation on BCAs can vary along several dimensions:

- The number of parties, ranging from bilateral to plurilateral to multilateral initiatives;
- The type of participants, including states and non-state actors (for example, businesses, investors, or civil society organizations);
- Whether behavior is governed in an ad hoc, one-off way, or whether institutions are established for long-term cooperation; and
- The legal form, ranging from informal arrangements without any legal status to legally binding treaties.[116]

Each of these dimensions can bear on the legitimacy of international cooperation. We draw on two forms of legitimacy—input and output legitimacy—to evaluate the merits of existing or proposed cooperative forums. First, we concentrate on two core features of international cooperative initiatives: their inclusiveness and institutional strength. Both features can be linked to an initiative's *input legitimacy*, which refers to the quality of the process through which decisions are made.[117] Inclusiveness relates to the procedural legitimation of authority, whereas

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115. BCAs have also been discussed in the WTO context, including through its Committee on Trade and Environment and the TESSD. *See, e.g.*, WTO, *Report of the Meeting Held on 12 June 2023*, WT/CTE/M/78 (Aug. 29, 2023); *see also* Trade and Env't Sustainability Structured Discussions, *Informal Working Grp. Meetings Held on 16-17 Mar. 2023*, WTO doc. INF/TE/SSD/R/16 (Apr. 17, 2023). Unilateral trade measures have been regularly discussed in the context of the UNFCCC's Forum on the Impact of the Implementation of Response Measures. This Forum, however, has been characterized by highly contentious debates, and little substantive progress has been made over many years. *See* ANNELA ANGER-KRAAVI & NICHOLAS CHAN, POCKET GUIDE TO RESPONSE MEASURES UNDER THE UNFCCC 9–10 (Anju Sharma eds., Oxford Climate Policy 2021).

116. *See* DANIEL BODANSKY & HARRO VAN ASSELT, THE ART AND CRAFT OF INTERNATIONAL ENVIRONMENTAL LAW 152–73 (2d ed. 2010).

117. FRITZ SCHARPF, GOVERNING IN EUROPE: EFFECTIVE AND DEMOCRATIC? 6–10 (1999). According to Bodansky, "[i]nput-based legitimacy derives from the process by which decisions are made, including factors such as transparency, participation, and representation." Daniel Bodansky, *Legitimacy in International Law and International Relations*, *in* INTERDISCIPLINARY PERSPECTIVES ON INTERNATIONAL LAW AND INTERNATIONAL RELATIONS: THE STATE OF THE ART 321, 330 (Jeffrey L. Dunoff & Mark A. Pollack, eds., Cambridge University Press 2012).

institutional strength can be seen as a means of assessing the source upon which authority is based.[118]

When assessing these two features, we consider the following:

- Inclusiveness, which refers to the extent to which an initiative is open to participation with other states and non-state actors. On one end of the spectrum is a completely closed (that is, exclusive) club to which no new members would be allowed. On the other end of the spectrum is an initiative that is open to participation by any state. Between these ends of the spectrum, participation may be conditioned on certain criteria. An initiative's inclusiveness offers an indication of its ability to respond to the demands and concerns of actors beyond those spearheading the initiative. Although inclusiveness does not mean that an initiative will be "pro-development," it is more likely that an inclusive initiative can better take developing country interests into account.
- Institutional strength, which refers to (1) the extent to which an initiative is embedded in more permanent structures; (2) the capacity of an initiative (that is, the material or other resources of which it can avail itself); and (3) the extent to which it is capable of standard-setting (including with legally binding rules). On one end of the spectrum there are ad hoc initiatives that may have limited funding and cannot go beyond political statements. On the other end are initiatives hosted by permanent bodies (for example, UN agencies or the OECD), which can avail themselves of a sizeable secretariat and financial support from members. Permanent bodies can also develop legally binding rules. An initiative's institutional strength partly determines whether it provides an enduring and central forum for international cooperation on BCAs.

For each of the three initiatives—the Climate Club, the GASSA, and the IFCMA—we will discuss their relative inclusiveness and purported institutional strength, based on public documents.

Second, we will assess the propensity for these three initiatives to contribute to one or more of the five goals discussed in Part V, which are:

(1) Increasing transparency of BCAs;
(2) Developing shared objectives and principles for BCAs;
(3) Improving comparability;
(4) Promoting harmonization; and
(4) Contributing to global climate action.

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118. Daniel Bodansky, *The Legitimacy of International Governance: A Coming Challenge for International Environmental Law?*, 93 AM. J. INT'L L. 596, 608, 614–15, 617 (1999).

By doing so, we also offer an initial indication of the possible *output legitimacy* of these initiatives to ascertain how likely they are to be effective in achieving certain goals.[119]

B. THE CLIMATE CLUB

The first potential forum for cooperation on BCAs evaluated here is the Climate Club initiated by the Group of Seven (G7) largest advanced economies. In 2021, the German government prepared to preside over the G7. The German Finance Ministry suggested building upon an existing G7 initiative for a minimum corporate tax that 38 OECD member countries had thus far joined.[120] Accordingly, the German G7 presidency promoted the idea that G7 members should introduce a price on carbon and develop a system with a common BCA over time, drawing on a "climate club" proposal by Nobel laureate William Nordhaus.[121] In Nordhaus' proposal, tariffs help to establish a club of countries cooperating on carbon pricing. To incentivize club cooperation, a trade penalty for non-cooperating countries is established. A BCA could serve that purpose.

The initial G7 Climate Club idea thus sought to include some form of border measure. Based on the theoretical concept, this type of cooperation must be exclusive, as it aims to deter partners without a carbon price from free riding on the (carbon pricing) efforts of the climate club members. Such free riders could potentially benefit from (1) the global mitigation effects of carbon pricing by the club members and (2) the competitive advantages on account of a carbon price differential if they do not put a price on carbon. A BCA would level the carbon price differential and prevent carbon leakage when non-club members trade with club members. Early in the G7 Climate Club iterations it became clear that a common national policy approach towards tackling emissions among G7 members (that is, a joint carbon price) would not be feasible. In particular, the United States expressed reservations against any mention of carbon pricing, as it had repeatedly sought—and failed—to adopt a federal carbon price. U.S. climate policy efforts are instead increasingly determined by fiscal and other financial incentives such as those afforded under the IRA (*see supra* Part I).

After extensive negotiations among G7 members about membership potential, national climate policy tools, and potential comparability of climate action in key sectors, the "Climate Club"[122] was announced in December 2022. The OECD and International Energy Agency (IEA) were designated as hosts for the Interim

119. *See* Bodansky, *Legitimacy in International Law and International Relations*, *supra* note 117, at 330.

120. Alan Rappeport, *Finance Leaders Reach Global Tax Deal Aimed at Ending Profit Shifting*, N.Y. TIMES (Oct. 8, 2021), https://perma.cc/W6XJ-WZ26.

121. William Nordhaus, *Climate Clubs: Overcoming Freeriding in International Climate Policy*, 105 AM. ECON. REV. 1339 (2015).

122. *See The Climate Club*, CLIMATE CLUB, https://perma.cc/N6P4-D3MB.

Secretariat.[123] The terms of reference of the initiative list contained three pillars of cooperation: (1) advancing ambitious and transparent climate change mitigation policies; (2) transforming industries; and (3) boosting international climate cooperation and partnerships.[124] The first pillar calls on members to share assessments and best practices for mitigation policies in the sectors covered by the club.[125] The second pillar seeks to advance "the enabling conditions for substantial sectoral industry decarbonization by discussing and aiming to align, as far as possible, methodologies, standards, sectoral strategies and milestones and expanding markets for green industrial products."[126] It seeks to build on existing international initiatives on industrial decarbonization, such as the G7 Industrial Decarbonization Agenda and Hydrogen Action Pact, the Breakthrough Agenda, the Clean Energy Ministerial Industrial Deep Decarbonization Initiative, and the First Movers Coalition.[127] As part of the third pillar, the G7 calls for voluntary financial support for developing countries' climate policy agendas[128] through the development of a global matchmaking platform. At the United Nations Climate Change Conference in Baku (COP29), the Climate Club formally launched the global matchmaking platform, in collaboration with the United Nations Industrial Development Organization.

An official launch of the Climate Club followed during the United Nations Climate Change Conference in Dubai (COP28) in December 2023.[129] In terms of inclusiveness, the Climate Club now defines itself as an inclusive forum for high climate ambition and as open to all interested partners beyond the G7.[130] Indeed, since its initial announcement in 2022, the Climate Club's membership has increased considerably. It formally launched with 36 members, comprising both developed and developing countries, and membership has since grown to 43. This includes the EU and all G7 countries, along with additional countries from the OECD.[131]

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123. *G7 Establishes Climate Club*, BUNDESMINISTERIUM FÜR WIRTSCHAFT UND KLIMASCHUTZ [FED. MINISTRY FOR ECON. AFFS. & CLIMATE ACTION] (Dec. 12, 2022) (Ger.), https://perma.cc/BS3V-BM7K.

124. *Terms of Reference for the Climate Club*, CLIMATE CLUB (Dec. 12, 2022), https://perma.cc/KEJ8-M7PZ.

125. *Id.*

126. *Id.*

127. *Id.*

128. *Id.*

129. *Climate Club: Accelerating Global Industry Decarbonisation Through Stronger International Collaboration*, CLIMATE CLUB (Dec. 1, 2023), https://perma.cc/YDF4-AJWT.

130. *See The Climate Club*, CLIMATE CLUB, *supra* note 122.

131. Climate Club members as of December 11, 2024 are Chile (Co-Chair), Germany (Co-Chair), Argentina, Australia, Austria, Bangladesh, Belgium, Canada, Colombia, Costa Rica, Croatia, Denmark, Egypt, the EU, Finland, France, Indonesia, Italy, Ireland, Japan, Kazakhstan, Kenya, Korea, Luxembourg, Mozambique, Morocco, Netherlands, New Zealand, Norway, Peru, Poland, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Thailand, Türkiye, Ukraine, the United Kingdom, the United States, Uruguay, and Vanuatu. *Id.*

In terms of its institutional strength, the Climate Club is highly dependent on political momentum and strong leadership from a few countries. The initiative will therefore be contingent on the support of the subsequent G7 presidencies. Each presidency will decide how much focus the club should put on UNFCCC negotiations and how attractive the forum can be. The annual G7 summits add to its strength but do not automatically deliver on progress. A Climate Club Task Force under the G7 is planned for, and its interim secretariat will be hosted by the OECD and IEA, with a close link to the IFCMA (*see* section IV.D). The International Monetary Fund and World Bank are also invited to cooperate.[132] These institutional settings help to strengthen the Climate Club's resources but have yet to be operationalized by the task force that includes the G7 and other club members. The development of common standards or rules for BCA cooperation are not part of the terms of reference. Moreover, the club is not grounded in a legally binding agreement, which would underpin members' obligations to cooperate.

The following discusses the propensity of the Climate Club to contribute to the five goals identified in Part III:

1. Increasing Transparency of BCAs

The Climate Club does not cooperate on BCAs directly, yet it will increase transparency on progress made in the decarbonization of industry. Increasing transparency is part of the Club's first pillar, which includes sharing information on best practices for emissions reduction by various policy approaches, including carbon pricing. Detailed progress will be made available under the IFCMA (*see* section IV.D), which aims to develop a comprehensive database of different policy approaches and accounting methodologies. This would then inform the Climate Club in case BCAs become a subject in future elaborations of its scope and mandate.

2. Developing Shared Objectives and Principles for BCAs

The Climate Club has a clear mission to improve both ambition of national climate action and mutual transparency regarding actions taken by members. Such improved transparency indirectly helps clarify the role of BCAs for member countries, such as EU Member States that have joined the Club and have already begun implementing the EU CBAM (*see* section II.A). Even if the Climate Club offers a forum to discuss the ramifications of the CBAM in the context of EU climate ambitions, it will be less likely to allow negotiations on BCA objectives and principles.

132. *Terms of Reference for the Climate Club*, *supra* note 124.

3. Improving Comparability

Members of the Climate Club signed up to engage in the advancement of comparable methodologies to measure, estimate, and collect emissions data. The Club will rely on the IFCMA for the details of climate action comparability, in particular the emission intensities of energy-intensive sectors that are decarbonizing. The task force will mainly inform G7 leaders on the progress of the Climate Club and the governance details, but it will not produce its own analysis on metrics and methodologies for comparing climate action.

4. Promoting Harmonization

Setting harmonized rules or obligations is not part of the mandate of the Climate Club. The Club instead relies on initiatives on certain technologies, including the development of common definitions and emissions accounting methodologies. Progress on those initiatives will determine how far cooperation on standards and development of common metrics for embedded carbon and harmonization can evolve over the next few years. Because BCAs as such are not part of the Club's terms of reference at present, however, there is little prospect of promoting a harmonized approach on BCAs.

5. Contributing to Global Climate Action

The Climate Club focuses on ambition, the transition of energy-intensive sectors toward decarbonization, and voluntary cooperation with developing countries. This helps to promote cooperation on climate action. Cooperation will materialize even if countries do not follow the same implementation approaches in tackling climate change. The key factor in this respect, however, is the political priority each G7 presidency gives to climate action year-on-year, because the G7 presidencies establish varying agendas across economic, social, and security issues in light of domestic and international challenges. Accordingly, there is no guarantee of consistent follow-up on climate action. The U.S. example illustrates this: Under the first Trump Administration (2017-2021), the G7's role as a forum for international policy cooperation, including on climate action, was seriously questioned.[133] Again, because BCAs are not explicitly part of the Climate Club agenda, the role of the club in enhancing ambition is linked to other channels of cooperation.

133. *See, e.g.*, Anne-Sylvaine Chassany et al., *Donald Trump at Loggerheads with Rest of G7 over Climate Change*, FIN. TIMES (May 27, 2017), https://perma.cc/6MEY-YGHC.

Table 2. Climate Club Summary Table.

Input legitimacy	
Inclusiveness	Open to all countries; membership must be applied for.
Institutional strength	Secretariat and permanent resources foreseen, but will neither set standards nor be based on a legally binding agreement.
Output legitimacy	
Increasing transparency of BCAs	Indirectly via IFCMA and regular exchange on national climate actions, with focus on CBAM.
Developing shared objectives and principles for BCAs	Not part of the terms of reference.
Improving comparability	Indirectly, via IFCMA and regular exchange on national climate actions.
Promoting harmonization	Not part of the terms of reference.
Contributing to global climate action	Yes, depending on political priorities by acting G7 presidency and future institutional stand-alone capacities.

C. GLOBAL ARRANGEMENT ON SUSTAINABLE STEEL AND ALUMINUM (GASSA)

The origins of the Global Arrangement on Sustainable Steel and Aluminum (GASSA) can be traced back to tariffs imposed on national security grounds by the Trump Administration in 2018, which included tariffs of 25% on steel and 10% on aluminum. In response to these tariffs, the EU retaliated with tariffs on products such as Harley Davidsons and bourbon. The U.S. tariffs were subsequently challenged at the WTO by both the EU and China.[134]

Once the Biden Administration took office, transatlantic trade relations improved, and in the run-up to COP26 in Glasgow in 2021, the United States and the EU issued a joint announcement on steel and aluminum.[135] In the

134. These tariffs have in the meantime been deemed to violate WTO law by a WTO panel, following a complaint by China. This ruling is being appealed by the United States. *See* Panel Report, *United States—Certain Measures on Steel and Aluminium Products*, WTO Doc. WT/DS544/R (adopted Dec. 9, 2022).

135. Joint EU-US Statement on a Global Arrangement on Sustainable Steel and Aluminium, *supra* note 30.

announcement, the EU agreed to suspend its WTO challenge[136] and remove its tariffs, while the United States introduced a Tariff Rate Quota under which a limited quantity of EU steel could enter the U.S. market free of duties. The deal also marked the launch of negotiations on a Global Arrangement on Sustainable Steel and Aluminum, with an aim to conclude these negotiations within two years.[137] The GASSA aims to address two separate but related issues: (1) "non-market excess capacity," which is an implicit reference to China's subsidization of its steel industry, and (2) the carbon intensity of steel and aluminum production. The arrangement would be open to "like-minded economies" that share the goals of tackling these two issues.[138] Under the arrangement, participants would, among other things, commit to restricting market access for non-participants that are not market-oriented and contribute to non-market excess capacity—again, an implicit reference to China—through anti-dumping and anti-subsidy measures. They would also "restrict market access for non-participants that do not meet standards for low-carbon intensity," and ensure that their domestic policies help lower carbon intensity.[139] As part of the negotiations, the EU and the United States created a technical working group for discussing methodologies for calculating embedded carbon in steel and aluminum products and sharing relevant data.[140]

A U.S. concept proposal was tabled in December 2022, proposing a tiered tariff approach, with tariffs rising along with the carbon intensity of production and additional tariffs applied to non-member countries.[141] An EU concept proposal was released a month after its U.S. counterpart, focusing more on the types of obligations that GASSA members would take on with a view to decarbonizing their own steel and aluminum industries.[142]

Initially, the aim was to conclude GASSA negotiations in October 2023. With the deadline approaching, however, the United States and the EU first decided to postpone the conclusion until the end of 2023[143] and eventually considered an extension by two years to avoid entanglement with the upcoming elections.[144]

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136. *See United States—Certain Measures on Steel and Aluminium Products*, *supra* note 134; *see also Dispute Settlement 548: United States—Certain Measures on Steel and Aluminum Products*, WORLD TRADE ORG., https://perma.cc/YV6A-QCTX (summarizing the dispute).

137. Joint EU-US Statement on a Global Arrangement on Sustainable Steel and Aluminium, *supra* note 30.

138. *Id*.

139. *Id*.

140. *Id*.

141. Ana Swanson, *U.S. Scales Back Hope for Ambitious Climate Trade Deal with Europe*, N.Y. TIMES (Oct. 10, 2023), https://perma.cc/8NPF-Z2XK.

142. David Kleimann, *Section 232 Reloaded: The False Promise of the Transatlantic 'Climate Club' for Steel and Aluminium* 12 (Bruegel, Working Paper 11/2023, 2023), https://perma.cc/923T-9YCC.

143. Press Release, The White House, U.S.-EU Summit Joint Statement ¶ 30 (Oct. 20, 2023), https://perma.cc/HK6Q-J6DL; *see also* Michele Rimini et al., *The EU–U.S. Global Arrangement on Sustainable Steel and Aluminium*, E3G (July 27, 2023), https://perma.cc/D8MJ-9CPC; Swanson, *supra* note 141.

144. Alberto Nardelli, Eric Martin & Jorge Valero, *US, EU Seek to Extend Steel Truce Amid Stalemate on Longer Fix*, BLOOMBERG (Nov. 16, 2023), https://perma.cc/3RBK-TTSQ.

For now, negotiations have stagnated. Reportedly, part of the reason for the delay is the threat by the United States to reimpose tariffs on the EU if its conditions are not met.[145] Another reason for the EU may be that the market restrictions the GASSA would impose are more likely to fall afoul of WTO rules, given the United States' desire to impose tariffs linked to the carbon intensity of production in third countries without necessarily putting in place corresponding measures domestically. By contrast, the EU's CBAM has been carefully and painfully crafted to ensure compliance with international trade rules. Moreover, one of the goals pursued by the United States—exempting steel and aluminum from CBAM—could jeopardize the CBAM by making it more likely to violate WTO rules.[146] For now, the negotiations are on hold; whether a deal can be struck if they resume remains doubtful.

With regard to inclusiveness, although negotiations only involve the two transatlantic blocs for now, the GASSA is in principle open to "like-minded economies," and Canada and the UK have already expressed their interest in the initiative,[147] as has Japan.[148] The U.S. concept proposal links eligibility for membership to "countries' *average* embedded product emissions, applicant economies' contributions to 'non-market excess capacity', and a to-be-agreed minimum percentage of public procurement of low-emission steel and aluminum."[149] The first criterion would make membership dependent on the average carbon intensity of steel and aluminum, as compared to the EU and United States.[150] By contrast, the second criterion, which is related to non-market excess capacity,[151] seems to specifically exclude China from GASSA membership, and discourage GASSA members from trading with or investing in China.[152] This casts doubt on the GASSA's true inclusiveness.[153]

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145. Sarah Anne Aarup & Camille Gijs, *EU-US Metals Talks Go Down to the Wire Ahead of Friday Summit*, POLITICO (Oct. 17, 2023), https://perma.cc/8Z3K-KJAS.

146. Rana Foroohar, *Steel and its Discontents*, FIN. TIMES (Oct. 23, 2023), https://perma.cc/B4G9-D77M; Alan Beattie, *Brussels Defies US Pressure to Join its Anti-China Gang*, FIN. TIMES (Oct. 23, 2023), https://perma.cc/UH8P-FT5J.

147. Reuben Francis et al., *Getting Ahead of the Curve: Primer on Border Carbon Adjustment Policy Proposals*, CLIMATE LEADERSHIP COUNCIL (2023), https://perma.cc/XQ38-5LLH.

148. Charlotte Unger & Rainer Quitzow, *Dream or Reality: Where is the Club for Green Steel?*, 3 NPJ CLIMATE ACTION 1 (2024).

149. Kleimann, *supra* note 142, at 8 (emphasis in original).

150. *Id*.

151. Sub-criteria include "an assessment of the risk of an economy becoming the source of non-market excess capacity, the operation of state-owned or controlled enterprises in an applicant economy, a commitment to refrain from export restrictions on 'relevant raw materials, intermediate inputs, and other related products', trade and investments from non-market economy sources with and in [GASSA] applicants as well as measures taken to address market distortive effects deriving therefrom, and adherence to international labour standards." *Id*.

152. *Id.* at 10.

153. Lydgate, *supra* note 107, at 491 ("[A] club that is used primarily to reinforce geopolitical alliances cannot be seen as truly inclusive.").

Like the U.S. proposal, the EU concept proposal also links membership to the average emissions intensity of U.S. and EU steel and aluminum. In addition, the EU has proposed that members would need to adopt legally binding commitments on decarbonizing the steel and aluminum sectors, including adopting a roadmap to net-zero by 2050 and setting interim decarbonization targets.[154]

Concerning institutional strength, few details have been disclosed on how the GASSA, if agreed, would work. With the United States and the EU still diverging on the functioning of the arrangement, it remains difficult to foresee what institutional structures would be created, and how they would be supported. What is clear is that the EU is pursuing a legally binding agreement, with obligations related to decarbonizing the steel and aluminum industry, as well as obligations related to transparency.[155] To the extent that the EU and the United States would agree on imposing joint carbon intensity-related tariffs, the GASSA would need to develop the regulatory infrastructure—including MRV procedures—to ensure that goods entering the two jurisdictions comply with the commitments under the arrangement.

Next, the analysis turns to the likelihood of the GASSA contributing to the five goals listed in Part IV:

1. Increasing Transparency of BCAs

The GASSA, if adopted, could lead to the adoption of a common border measure among the United States, EU, and any other "like-minded economies" joining the arrangement. The adoption of such a measure is complicated, however, because the EU already has a BCA in force. The relationship between the GASSA and CBAM remains unclear and depends on whose perspective is adopted. From the U.S. perspective, the adoption of the GASSA would lead to an exemption from CBAM.[156] From the EU perspective, the CBAM would continue to apply irrespective of GASSA commitments.[157] From the EU perspective, therefore, the GASSA would not necessarily be a forum to discuss the design and implementation of its CBAM or other BCAs. With that in mind, the GASSA is unlikely to be a key forum to discuss the rationale, design details, or effects of BCAs adopted by different economies. Additionally, the GASSA is only focused on one sector, whereas BCAs tend to affect a variety of energy-intensive industries.

2. Developing Shared Objectives and Principles for BCAs

Given that the GASSA would be unlikely to serve as an institution in which the design and implementation of BCAs could be discussed, it is equally unlikely that it would offer a forum for developing shared objectives and principles.

154. Kleimann, *supra* note 142, at 12.
155. *Id*.
156. Nardelli et al., *supra* note 144.
157. Kleimann, *supra* note 142, at 12.

3. Improving Comparability

The GASSA is not concerned with the effects of individual mitigation policies. Instead, its focus is primarily on the resulting emissions intensity of production in the steel and aluminum sector. As such, it is unlikely to serve as a forum that enhances the comparability of individual carbon mitigation policies.

4. Promoting Harmonization

Although GASSA documents do not indicate this specifically, the technical discussions on methodologies for calculating embedded carbon in steel and aluminum products could lead to a "shared understanding of the particular 'low carbon intensity standards' with which exporters must comply."[158] To the extent that such standards would be used as a benchmark for the common imposition of market restrictions, the GASSA could result in a minimum harmonization of MRV approaches of its members. U.S. and EU stakeholders are, however, likely to disagree about standards, with U.S. industry likely to prefer a carbon intensity standard, whereas EU stakeholders would likely prefer multiple standards.[159]

5. Contributing to Global Climate Action

There have been diverging perspectives on the GASSA's potential contribution to global climate ambition. Some proponents have argued that the GASSA would be "smart industrial policy."[160] They point to how emissions intensity standards pursued by the GASSA would drive decarbonization in third countries and how such standards would be ratcheted up over time as the average emissions intensity in GASSA members decreases further.[161] Others, however, have pointed out that the focus on average carbon intensity is self-serving for the United States, which has one of the lowest carbon intensities of steel production due to a high share of

158. Lydgate, *Climate Equivalence and International Trade*, *supra* note 107 (referring to public statements by EU officials and going beyond this assertion by stating that negotiations are focusing on standards); *see* Giulia Claudia Leonelli, *The Long and Winding Road towards the Creation of Climate Clubs: Transatlantic Negotiations, Potential Regulatory Models and Challenges Ahead*, 32 REV. EUR. COMP. & INT'L ENV'T. L. 453 (2023).

159. Charlotte Unger, *A Limping Coalition of the Willing: Why is Transatlantic Cooperation on Clean Steel Lagging Behind?*, AM.-GER. INST. (Sept. 7, 2023), https://perma.cc/Q98B-97T3.

160. Todd N. Tucker & Jonathan Barth, *How the US and EU Can Snatch Climate-Trade Victory from the Jaws of Defeat*, ENERGY MONITOR (Oct. 19, 2023), https://perma.cc/HL2D-W2QW; *see also* Todd N. Tucker & Timothy Meyer, *A Green Steel Deal: Toward Pro-Jobs, Pro-Climate Transatlantic Cooperation on Carbon Border Measures*, ROOSEVELT INST. (2021), https://perma.cc/898W-7H9Z; Timothy Meyer & Todd N. Tucker, *A Pragmatic Approach to Carbon Border Measures*, 21 WORLD T. R. 109, 110–11 (2022); Joseph E. Stiglitz, Todd N. Tucker & Isabel Estevez, *Fighting Climate Change Through Trade Despite Many Setbacks, Biden Can Still Make Progress*, FOREIGN AFF. (July 25, 2022), https://perma.cc/LJ47-UN44; Jennifer Hillman & Alex Tippett, *A New Transatlantic Agreement Could Hold the Key to Green Steel and Aluminum*, COUNCIL ON FOREIGN REL. (Nov. 19, 2021), https://perma.cc/F59H-EPU6.

161. Todd N. Tucker & Timothy Meyer, *Responding to Critics of the Global Arrangement on Sustainable Steel and Aluminum*, ROOSEVELT INST. (Jul. 18, 2023), https://perma.cc/WRJ3-5QR8.

scrap steel recycling. By omitting any restrictions on domestic industrial emissions, moreover, the U.S. proposal could also lead to perverse environmental effects by shielding the dirtiest producers in the United States while penalizing clean producers from countries with higher average carbon intensity.[162] Moreover, exempting U.S. steel and aluminum from the CBAM—as requested by the US—would also reduce decarbonization incentives and undermine the CBAM.[163] The contribution of the GASSA to global climate ambition, if it takes the shape foreseen by the United States, would therefore be limited.

Table 3. GASSA Summary Table.

Input legitimacy	
Inclusiveness	Open to "like-minded economies", but the U.S. position about current trade and industrial policy practices in China would likely exclude participation by the latter.
Institutional strength	Unclear. Likely to require a legally binding agreement and the development of regulatory infrastructure to impose and enforce market restrictions.
Output legitimacy	
Increasing transparency of BCAs	Unlikely to serve as a forum for sharing BCA design and implementation information.
Developing shared objectives and principles for BCAs	Unlikely to serve as a forum for developing shared objectives and principles for BCAs.
Improving comparability	Unlikely to serve as a forum for enhancing comparability of individual mitigation policies.
Promoting harmonization	Technical discussion on methodologies could lead to shared understanding of low-carbon intensity standards in steel and aluminum sectors.
Contributing to global climate action	Common market restrictions may incentivize decarbonization in third countries, but limited impact if there are no constraints on domestic production and/or if clean producers from third countries are penalized.

162. Lee Harris, *U.S. and EU Struggle to Form Green Steel Club*, AM. PROSPECT (Oct. 11, 2023), https://perma.cc/WG8G-5TS9; Kleimann, *supra* note 142, at 3–4; Inu Manak & Helena Kopans-Johnson, *In Green Steel Discussions, the United States Is Playing Dirty*, COUNCIL ON FOREIGN REL. (Nov. 8, 2023), https://perma.cc/T9QK-XGM4.

163. Kleimann, *supra* note 142, at 12.

D. INCLUSIVE FORUM ON CARBON MITIGATION APPROACHES (IFCMA)

In June 2022, the OECD formally launched its new initiative known as the Inclusive Forum on Carbon Mitigation Approaches ("IFCMA").[164] The inaugural meeting was later hosted in February 2023, bringing together representatives from 104 countries and several international organizations, including the UNFCCC, the WTO, and the World Bank.[165] The Forum aims to enhance the impact of emission reductions efforts globally, through "data and information sharing, evidence-based mutual learning and inclusive multilateral dialogue."[166] Under the auspices of the IFCMA, technical work that seeks to provide a platform to assess the different climate mitigation policies that have been implemented by countries across the world will be carried out through the development and application of a consistent methodology.[167] This will cover a diverse range of both price-based and non-price-based policy instruments, for example clean technology subsidies and carbon pricing. This work will take place in two phases.[168] First, the Forum will develop methodologies for a stocktaking and mapping exercise focusing on four to six pilot countries.[169] These methodologies will then be applied (and refined where necessary) to the broader IFCMA membership. Another prong of IFCMA's technical work is to research methodologies for calculating sector- and product-level carbon intensity metrics. In addition to the technical work, the IFCMA will also host an "inclusive multilateral dialogue," which brings together member countries in various formats and aims to provide a "safe space" for peer and mutual learning.[170]

Regarding inclusiveness, the IFCMA seeks to attract a range of participants from both OECD member countries and non-member countries.[171] The mention of the term "inclusive" in the Forum's name is indicative of its aim to be open in terms of membership. As mentioned, representatives from over 100 countries—including developed and developing countries—participated in the inaugural meeting, and by September 2023, the IFCMA had 56 members, including 13 G20

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164. Org. for Econ. Coop. & Dev. [OECD], *2022 Ministerial Council Statement*, OECD Doc. C/MIN (2022)16/FINAL (June 10, 2022).

165. *Inclusive Forum on Carbon Mitigation Approaches*, OECD, https://perma.cc/9BNM-USHW.

166. *Id*.

167. Kateryna Holzer & Ievgeniia Kopytsia, *Legal Challenges of Tracing Carbon Emissions in Steel Trade*, 4 KOREA EUR. REV. 1 (2023).

168. Nicholas Stern & Hans Peter Lankes, *Collaborating and Delivering on Climate Action through a Climate Club: An Independent Report to the G7*, LONDON SCH. ECON. & POL. SCI. (Oct. 2022), https://perma.cc/42H6-XTJL; Org. for Econ. Coop. & Dev. [OECD], *OECD Secretary-General Report to G20 Finance Ministers and Central Bank Governors on the Establishment of the Inclusive Forum on Carbon Mitigation Approaches* (Oct. 2022), https://perma.cc/76T5-MY89 [hereinafter *OECD Report to G20 Fin. Ministers on Establishment*].

169. Org. for Econ. Coop. & Dev. [OECD], *OECD Secretary-General Report to G20 Leaders on the Work of the Inclusive Forum on Carbon Mitigation Approaches* (Sept. 2023), https://perma.cc/5XYU-P9PJ [hereinafter *OECD Report to G20 Leaders on Work*].

170. *Id*.

171. *OECD Report to G20 Finance Ministers on Establishment*, *supra* note 168.

members such as Argentina and South Africa (but not major emitters such as Brazil, China, India, Indonesia, Russia, or Saudi Arabia).[172] Due to its traditionally restricted membership, the OECD has been previously criticized as representing a "club of rich countries."[173] Accordingly, the IFCMA represents a positive step towards inclusivity by extending participation to non-member countries, with the OECD stating that countries will participate on an "equal footing."[174] However, it remains to be seen whether and to what extent non-OECD member countries will determine the direction of the initiative. Other "inclusive" initiatives developed by the OECD—such as the Inclusive Framework on Base Erosion and Profit Shifting[175]—have been mostly driven by OECD member countries.[176]

With respect to institutional strength, the IFCMA is hosted by a permanent body (that is, the OECD). In terms of its organizational structure, the OECD has a decision-making body in the form of the OECD Council, which can adopt legally binding instruments. In addition, the OECD is backed by a strong secretariat, comprising over 3,000 employees.[177] While the OECD may set standards and adopt binding decisions through its Council, however, this is not necessarily the case for the IFCMA. Unlike other initiatives of the OECD—for example the Inclusive Framework on Base Erosion and Profit Shifting, which serves to establish global standards—the IFCMA is explicitly not intended to act as a standard-setting body. Instead of laying down common standards, the Forum aims to help facilitate the collection and exchange of information between countries and discern best practices.[178] Nevertheless, through its technical work, the Forum could inform future standard-setting initiatives.

Having briefly evaluated the inclusiveness and institutional strength of the IFCMA, we will now assess to what extent the Forum may contribute to the five goals outlined in Part III.

1. Increasing Transparency of BCAs

The IFCMA can help strengthen transparency around climate mitigation policies by developing a comprehensive database of different policy approaches and by showcasing their actual effectiveness in reducing emissions through a consistent accounting methodology. Doing so could help countries determine whether and to what extent to credit policy efforts in third countries when designing and

172. *OECD Report to G20 Leaders on Work*, *supra* note 169.

173. Sol Picciotto, *The G20 and the "Base Erosion and Profit Shifting (BEPS) Project"*, GER. INST. OF DEV. & SUSTAINABILITY (Apr. 2017), https://perma.cc/498T-EFBS.

174. *OECD Report to G20 Finance Ministers on Establishment*, *supra* note 168, at 2.

175. *First Meeting of the New Inclusive Framework to Tackle Base Erosion and Profit Shifting Marks a New Era in International Tax Co-operation*, OECD (June 30, 2016), https://perma.cc/AS8V-SMEZ.

176. Picciotto, *supra* note 173.

177. *About: Organisational Structure*, OECD, https://perma.cc/NYY9-YKBE.

178. *OECD Report to G20 Leaders on Work*, *supra* note 169.

implementing BCAs, for example through bilateral agreements.[179] Although the Forum is not focused on strengthening transparency around BCAs as such, its remit—which includes taking stock of mitigation policy instruments (and policy packages) and their effects on emissions—is sufficiently broad to include a discussion of BCAs as part of mitigation policy packages.

2. Developing Shared Objectives and Principles for BCAs

Developing shared objectives and principles for BCAs is not directly within the scope of the IFCMA. Insofar as sharing information on mitigation policies and their effects includes the sharing of information on BCAs (as discussed under the first goal), however, this may feed into the IFCMA's aim of enhancing "international collaboration on climate policies to minimize negative cross-border spillover risks."[180] This may be specifically achieved through the "inclusive multilateral dialogue," which is intended, among other things, to discuss best practices.

3. Improving Comparability

One of the main areas in which the IFCMA can contribute is by enhancing comparability, specifically through the methodologies that it will employ to assess the effectiveness of different carbon mitigation approaches in tackling emissions, as well as through its work on carbon intensity metrics. Indeed, the IFCMA is explicitly seeking to enhance "understanding of the comparative impact of the full spectrum of carbon mitigation approaches deployed around the world."[181] By doing so, the IFCMA may inform future developments concerning the creation of a metric that explicitly compares price-based policies against non-price-based policies with respect to a so-called "carbon price equivalent" (that is, the carbon price required to generate the same level of emission reductions that would be brought about by a certain policy).[182] Although the IFCMA may thus inform discussions about comparability, it expressly does not seek to "rank" countries.[183] How the initiative will walk the fine line of shedding light on the comparative impacts of mitigation policies without suggesting that one is more effective than another remains to be seen.

179. *See* DELBEKE & VIS, *supra* note 78, at 7.
180. *OECD Report to G20 Leaders on Work*, *supra* note 169, at 4.
181. *Id*.
182. Stern & Lankes, *supra* note 168.
183. *OECD Report to G20 Leaders on Work*, *supra* note 169, at 9.

4. Promoting Harmonization

Although standard-setting is explicitly not one of the aims of the IFCMA, its technical work could lay the foundations for the development of harmonized standards. Much depends here on the extent to which the methodologies developed on mapping and assessing the effects of mitigation policies find support among the IFCMA membership. The work on carbon intensity metrics may also inform future standards. The OECD has noted that the IFCMA will explore "how governments might support the widespread calculation and use of carbon intensity metrics, whilst minimizing trade frictions and disproportionate costs for firms, including through international coordination and cooperation."[184]

5. Contributing to Global Climate Action

Overall, the IFCMA aims to improve the combined impact and effectiveness of carbon mitigation approaches globally. This also involves avoiding undesirable spillovers such as carbon leakage that may arise from countries unilaterally pursuing their own mitigation policies.[185] By enhancing understanding and highlighting the impacts of different emission reductions efforts through technical analysis and evidence-based learning, the IFCMA may lay the groundwork for determining what the most optimal and effective policies are for tackling climate change. The Forum may also clarify what role, if any, BCAs can play in policy packages. Although the work of the IFCMA seeks to identify capacity constraints in evaluating climate mitigation policies, the Forum as such does not provide any mechanism for providing capacity-building or financial support.

184. *Id*. Hufbauer and colleagues suggest a role for the OECD in developing a common MRV standard for industrial carbon emissions. *See* GARY CLYDE HUFBAUER ET AL., PETERSON INST. FOR INT'L ECON., EU CARBON BORDER ADJUSTMENT MECHANISM FACES MANY CHALLENGES 20 (2022), https://perma.cc/89CJ-Y3FT.

185. *OECD Report to G20 Finance Ministers on Establishment*, *supra* note 168.

Table 4. IFCMA Summary Table.

Input legitimacy	
Inclusiveness	Reasonably high degree of inclusiveness with 56 members from OECD and non-OECD countries.
Institutional strength	High. OECD acts as a permanent host. Potential of legally binding decisions via OECD Council. Yet no standard-setting mandate for IFCMA.
Output legitimacy	
Increasing transparency of BCAs	Indirectly, as no BCA focus. High potential for creating more transparency on mitigation policies. Shares information relevant for crediting policy efforts under a BCA.
Developing shared objectives and principles for BCAs	Indirectly, as no BCA focus. Potential for shared objectives through sharing information on national climate policies, including anti-leakage measures.
Improving comparability	High. Core task is to develop methodologies to compare emission reduction measures and their impacts. No ranking of countries intended.
Promoting harmonization	No mandate for developing common standards, but can lay foundation for their development.
Contributing to global climate action	Indirectly. Will deliver information on effectiveness of national policy measures and best practices, including BCA application.

E. THE PROSPECTS OF INTERNATIONAL COOPERATION ON BCAS

1. Cooperation at the Bilateral and Plurilateral Levels

We present our findings—which are necessarily preliminary, given the still inchoate nature of the initiatives assessed in this article—in Figure 1 and Table 5 below. As we establish, none of the three initiatives we have examined emerges as an ideal forum for advancing international cooperation on BCAs. However, the potential of one of the initiatives—the IFCMA—is significant.

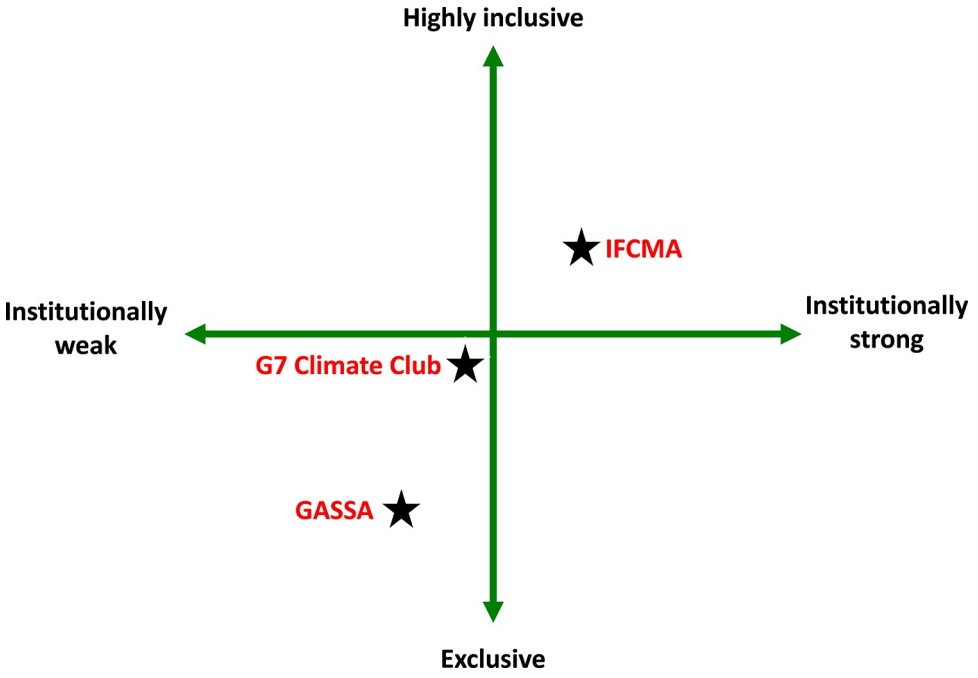

Figure 1. Comparison of Inclusiveness and Institutional Strength.

Regarding inclusiveness, the IFCMA performs best, with the participation by a wide range of countries suggesting that the "inclusive" part of the Forum's title is taken seriously. Before its full launch at the end of 2023, the Climate Club also added new members. The GASSA, by contrast, is still primarily the subject of transatlantic negotiations, and even if those negotiations are successful, it is uncertain whether it will attract many "like-minded economies."

Likewise, concerning institutional strength, the IFCMA seems to fare reasonably well. It can draw on the OECD's institutional infrastructure and resources, and even though it may not have the goal of setting standards, it could lay the groundwork for other standard-setting organizations. Although the Climate Club can also build on the institutional resources at the OECD (and the IEA), it is more prone to the changing political priorities of G7 presidencies. For the GASSA, details on its institutional embedding remain sparse, but its rules would likely be legally binding.

Table 5. Comparison of Contribution to the Five Goals of International Cooperation on BCAs.

	Climate Club	GASSA	IFCMA
Enhancing transparency	(✓)	X	(✓)
Developing shared objectives and principles	X	X	(✓)
Improving comparability	(✓)	X	✓
Promoting harmonization	X	(✓)	(✓)
Contributing to global climate action	(✓)	(X)	(✓)

Legend: ✓ = contributes strongly; (✓) = contributes somewhat; (X) = contributes marginally; X = does not contribute.

With respect to contribution to the five goals, we again find the IFCMA likeliest to perform best. Its contribution to the goal of improving comparability is the clearest, but it also has the potential to contribute to all other goals. That is not the case for the Climate Club, which is likely to rely on the technical work of the IFCMA regarding comparability. It is even less so for the GASSA, which may at best help harmonize its members' standards and at worst impede climate action.

Overall, the preceding survey of three ongoing collaborative initiatives militates against expecting rapid progress on international cooperation on BCAs that meaningfully advances the goals discussed in Part IV. With only one jurisdiction having introduced a significant BCA—the EU with its CBAM—and others still at different stages in the political discussion of this policy instrument, the time may not yet have arrived to actively explore the possibilities and potential benefits of cooperation.

Factors complicating international cooperation include deeply entrenched path dependencies, such as the legislative and policy frameworks put in place for reducing emissions (for example, the EU ETS legislation dating back to 2003) or for MRV (for example, the EU greenhouse gas monitoring framework dating back to 1992). Domestic politics can, moreover, significantly affect the prospects for international cooperation. For instance, the steel industry has an outsized influence in swing states (such as Ohio and Pennsylvania) in the United States, where electoral politics have heavily influenced policy considerations.[186] As the EU CBAM is already demonstrating, the operationalization of BCAs risks setting in motion new path dependencies that will render it even more difficult in the future to advance goals such as alignment either on objectives and principles or on harmonization.

186. Beattie, *supra* note 146.

The sobering outcome of the latest negotiations between the United States and the EU on the GASSA came partly because the EU already had an advanced BCA from which the United States sought an exemption—a concession that the legislative architecture of the CBAM would not have allowed without substantial revisions and that entailed the risk of revisiting a carefully crafted and delicate political compromise enshrined in the existing CBAM Regulation.

For the time being, therefore, these collaborative efforts may have to limit themselves to preparing a foundation for future cooperative engagement on BCAs. To the extent that they can progress mutual understanding on the comparability of mitigation approaches, the development of joint metrics, and generally improved transparency around domestic climate policy design and implementation, they may pave the ground for more robust cooperation in the long term. In this regard, the IFCMA—with its conscious choice to focus on methodologies and data collection—may be a useful starting point, which in turn can benefit the Climate Club and the GASSA, should the latter resume discussions on the inclusion of carbon intensity requirements for steel and aluminum.

In the short term, if each initiative successfully leverages its potential, the GASSA may serve as a bellwether for the prospects of identifying common ground on how traded goods and their embedded emissions should be handled under various national carbon constraints such as carbon pricing and product standards. The IFCMA, by contrast, might prove an important effort to achieve clarity on data and methodologies related to carbon intensities of products, as well as on national climate policy efforts. Finally, the Climate Club could prove a viable approach to maintaining cooperation on decarbonization, inclusiveness, partnerships, and climate ambition alive, even if it cannot yet serve as a forum to advance instruments such as BCAs. Progress under each one of these efforts can build on progress under the others, yet all depend in equal measure on political will and an alignment of domestic priorities to leverage their true potential.

2. Cooperation at the Multilateral Level

The analysis in this section has been focused on plurilateral initiatives relevant to BCA cooperation. Although the GASSA is emerging as a bilateral initiative, it was envisioned from the outset to evolve into a plurilateral forum. Truly multilateral cooperation on BCAs, by contrast, has not made much headway so far. Two multilateral regimes, the UNFCCC and the WTO, have faced demands for more proactive engagement at the intersection of climate and trade, including in the context of the EU CBAM. China, for instance, has called for dedicated multilateral discussions at the WTO to enhance the understanding of the EU CBAM and other future BCAs. The proposed dedicated discussions are aimed at enhancing "the understanding of the policy objectives, means of implementation and potential impacts of the relevant measures, with a view to clarifying understandings, identifying controversies, and diffusing trade tensions by way of enhancing the

inclusiveness of such measures and improving their conformity with WTO rules and basic principles of international law."[187]

Notwithstanding their own sets of limitations, multilateral approaches would score favorably in terms of their inclusivity and legitimacy, making them a prospective avenue for BCA cooperation in the more distant future. The WTO offers a useful case in point: as a multilateral forum with 164 members, its breadth and diversity as well as a mature and highly sophisticated institutional infrastructure afford it advantages that none of the initiatives discussed earlier in this article can match. Its Committee on Trade and Environment offers an established forum to discuss trade and climate policy issues, and the established mechanism of Trade Policy Reviews allows it to take up national measures—including climate policy tools such as BCAs—that might impact trade, thereby increasing transparency for all WTO member states.

As such, it could seem a well-placed forum for multilateral cooperation on BCAs. At the same time, the WTO has also been facing protracted political gridlock among its members, impeding or halting virtually all attempts at a reform that would improve integration of climate concerns into the governance of world trade. Its legacy as a product of the post-World War II global order has been challenged by profound geopolitical changes since the late 1990s (*see* Part I). Enforcement of multilateral trade rules and principles has been undermined by an increasing number of regional and bilateral trade agreements among WTO parties.

Accordingly, despite its inherent potential, the WTO currently has limited political latitude to develop any meaningful rules or guidelines relevant to BCA cooperation.[188] A dispute on the EU CBAM, raised by a trade partner of the EU, could secure legal clarity on the WTO-legality of this particular BCA, but that can hardly be considered a means of deliberate cooperation on BCA design and implementation.

Similarly, the UNFCCC—which has even larger membership than the WTO—remains hampered by political gridlock and the need for consensus to take decisions. Since its inception, negotiations have been characterized by fault lines between developed and developing countries, and these have also become apparent in discussions around use of unilateral trade measures such as BCAs.

During the 28th Session of the Conference of the Parties to the UNFCCC (COP28) in December 2023, for instance, a coalition of major developing country emitters—Brazil, South Africa, India, and China—requested that "unilateral and coercive" trade measures such as the EU CBAM be included in the summit

187. Communication from China, *Further Elaboration on Dedicated Multilateral Discussions on the Trade Aspects and Implications of Certain Environmental Measures*, WTO Doc. JOB/TE/81 (June 12, 2023), https://perma.cc/5AN4-DYRJ.

188. *See generally* Kasturi Das et al., *Making the International Trading System Work for Climate Change: Assessing the Options*, 49 ENV'T L. REP. 10553 (2019).

agenda, noting that these jeopardize trust and "violate the objectives and principles of the Convention and its Paris Agreement, and seriously undermine multilateral cooperation."[189] While the COP29 Presidency was able to prevent inclusion of this issue in the summit agenda, this incident shows that the UNFCCC is an unlikely setting to foster constructive discussions on BCAs.

For the time being, forums such as the WTO and the UNFCCC thus appear to be too burdened by their own internal divisions and by the broader headwinds currently facing multilateral cooperation and have hence not been included in this survey.

CONCLUSIONS

International cooperation on climate change and trade is intensifying, as highlighted by numerous initiatives launched at the multilateral, plurilateral, and bilateral levels. This is an encouraging development that underscores the major role that trade policy can play in supporting countries in their efforts to decarbonize and adapt to the impacts of climate change. At the same time, many of these initiatives eschew one of the most contested issues at the interface of trade and climate policies: BCAs.

The EU CBAM is unlikely to be the last or only BCA, with various jurisdictions contemplating similar measures as they adopt increasingly ambitious climate change mitigation policies and pursue other policy objectives, such as improved national security or industrial policy. With many jurisdictions pursuing their own BCA designs and implementation strategies, however, come increased risks of uncoordinated proliferation of divergent approaches, which in turn can translate into greater uncertainty, higher transaction and administrative costs, and impediments to international cooperation—including climate diplomacy—more generally.

By targeting traded products, BCAs inherently have an external dimension. In the concrete design of BCAs, the spillover effects are mostly determined by provisions on the geographic scope (that is, the extent to which countries are exempted), the calculation of the adjustment (for example, whether and what kind of mitigation policies in third countries are credited), the determination of embedded emissions (for example, whether based on actual emissions in the country of origin or some kind of default values), and the use of revenues (for example, whether BCA revenues are recycled back to the affected trading partners). These external dimensions of BCAs both add relevance to, and can serve as an anchor for, international cooperation.

Cooperation is not only one of the core principles underpinning the international legal order, including the international climate and trade regimes; it is also a way to help address some of the adverse impacts associated with BCAs. These

189. Letter from Brazil on Behalf of BASIC (Braz., China, India & S. Afr.), Request of Items for Inclusion in SBI/SBSTA, COP28, CMP18 & CMA5 Agendas (Nov. 26, 2023), https://perma.cc/3FQD-4E2F.

include the risks that BCAs could lead to green protectionism and tit-for-tat trade retaliation. International cooperation could further ensure that BCAs become part of broader diplomatic efforts on climate change, considering the interests and priorities of countries in the Global South, among other things, that would be adversely affected by BCA implementation. Moreover, international cooperation could reduce the risk of multiple—and possibly diverging—approaches to BCAs emerging in different parts of the world.

In this Article, we have focused on two core features of international cooperation, namely inclusiveness and institutional strength, both of which can be linked to an initiative's input legitimacy, which refers to the quality of the process through which decisions are made. The rationale for international cooperation points to different goals that can be pursued with international cooperation on BCAs, which, if achieved, represent the output legitimacy of such cooperation. In this Article, we identified five possible goals, namely:

(1) promoting transparency (that is, sharing information on the design, implementation, and effects of BCAs);
(2) developing objectives and principles for BCAs (that is, identifying best practices that could guide future design and implementation);
(3) improving comparability by developing methodologies that allow for the comparison of different types of mitigation policies and their effects;
(4) promoting harmonization with a view to developing product or MRV standards; and
(5) broadly contributing to global climate ambition, by either strengthening domestic or third-country climate policies.

We have applied this analytical framework to three emerging models of cooperation relating to BCAs, namely the Climate Club, the GASSA, and the IFCMA. For each of these three initiatives, we have discussed the extent to which they can be considered inclusive, as well as their purported institutional strength based on publicly available documents. In addition, we have assessed the propensity of the three initiatives to contribute to one or more of the five goals mentioned above.

Our analysis suggests that none of the three initiatives discussed in this Article stands to emerge as an ideal candidate for international cooperation on BCAs. At the same time, we acknowledge that this remains an evolving context. What the analysis reveals is a real risk that domestic interests and short-term political priorities will take precedence over the acknowledged benefits of international cooperation unless any cooperative initiatives are thoroughly aligned with all participating jurisdictions' domestic policy approaches and geopolitical positions. Finding a "landing zone" for international cooperation on BCAs among trading partners with often conflicting domestic contexts and priorities will be challenging, as evidenced by the recent breakdown of the GASSA negotiations among only two partners with broadly aligned interests.

Inevitably, this observation gives rise to the question of whether, in the current geopolitical context, there can be *any* way forward on international cooperation on BCAs. While domestic interests and other overriding priorities may mute the appeal of such cooperation in the near term, we believe that the many benefits—political, economic and environmental—of cooperation as well as its ability to foster the perceived legitimacy and thus sustain international acceptance of BCAs will, over time, exercise growing pressure to engage in some form of cooperation. Much will also depend on the broader context of BCA cooperation, and whether it is accompanied, for instance, by efforts to honestly engage on the costs of implementation and the risks of protectionism—or whether such cooperation includes mechanisms to extend support for developing countries that face difficulties complying with the attendant obligations.

Ongoing initiatives such as the Climate Club and the IFCMA already appear to recognize this dilemma: As different countries advance their respective industrial decarbonization strategies, they are at different stages in those processes and have embraced different approaches. With the timing thus being arguably premature for meaningful cooperation on BCAs, these initiatives have instead opted to focus on broader procedural and facilitative aspects—such as data collection or information exchange—while emphasizing their openness to broad participation, and the importance of offering support to economically less advanced countries. As the sole initiative that initially sought to bring two closely aligned jurisdictions together behind a common policy effort, the GASSA has hit a serious impasse.

On the positive side, while it remains too early to anticipate the success of the Climate Club and the IFCMA, the crosscutting and facilitative efforts they are currently pursuing, including the collection of data and advancement of common metrics and methodologies, may prepare the ground for more robust long-term engagement on BCA cooperation and may help accommodate a more diverse set of mitigation actions and policy approaches. Additionally, through their transparency and inclusiveness, they can strengthen the legitimacy and acceptance of future cooperative efforts.

One thing is clear: In one form or another, BCAs are becoming an increasingly relevant part of the evolving climate policy landscape. Their future role is, however, less clear, and BCAs may prove to be a temporary symptom of a difficult transition period in industrial decarbonization or may proliferate and endure. Still, the challenges they pose to established forms of international economic and environmental cooperation are not trivial, nor are the costs arising from uncoordinated and unilateral initiatives. Current circumstances may not favor cooperation, yet failure to engage on the design and implementation of BCAs beyond jurisdictional boundaries will also exact a growing price. The combination of shallow efforts to facilitate debate and information exchange, coupled with the growing prospect of economic and political fragmentation, may ultimately be what translates into rising pressure to cooperate, until such time as a group of actors is ready to navigate the varied and challenging landscape of BCA cooperation.