EU Agreed on World's First CBAM – Summary Bulletin

Phasing out free allowance to steel and other sectors by 2034 in transition to the Carbon Border Adjustment Mechanism (CBAM)

Tensions of Potential Green Trade War

*Miki Yanagi, **Soichi Morimoto

— The EU will impose reporting obligation of embedded emission on imported goods from October 2023, and will start charging through Carbon Border Adjustment Mechanism (CBAM) certificate which reflects EU-ETS auctions price from 2026 by the agreed regulation.

— Hydrogen added to steel and other material goods including ammonia as imported goods subject to CBAM. Organic Chemical goods proposed by the European Parliament are deleted from the CBAM goods list with reservations, weakening the impact on the United States, which has large exports to the EU.

— The EU will phase out free allowances of EU-ETS（Emission Trading Systems）while phasing in the CBAM from 2026 to 2034.

This paper dealt with "pivotal agreement" which was mainly written by authors in December 2022 using the press release. On 10 May 2023, the co-legislators (the Council and the European Parliament) signed the CBAM Regulation. The regulation then officially entered into force the day following its publication in the Official Journal of the EU on 16 May 2023. Thus, the author partially rewrites this paper by using * mark, which reflects the published regulation in the Official Journal of the EU.

1. Background and Objectives

The European Union has considered the CBAM over the past three years since the inauguration of European Commission (EC) President Ursula von der Leyen under plans to legislate the CBAM by the end of 2022.

In July 2021, the EC, the EU's executive arm, presented a proposal on the CBAM.[1] By June 2022, the European Parliament and The Council proposed their respective amendment to the proposal. After a trialogue among the EC, the European Parliament and the Council on these proposals, the European Parliament and the Council reached this pivotal agreement on December 18, 2022. The political agreement was published through their respective press releases (European Parliament 2022c, 2022d, Council of the Europe Union 2022b).

* Senior Researcher, Climate Change Group, Climate Change and Energy Efficiency Unit

** Senior Researcher, Climate Change Group, Climate Change and Energy Efficiency Unit

This paper aims to summarize the CBAM as a bulletin. Therefore, it must be noted that when specific CBAM acts (Implementing Act and Delegated Act, both to be decided before October 2023) are published, interpretation may change.

2. What is the CBAM?

The CBAM is designed to adjust carbon pricing costs regarding imports at the border. CBAM certificates reflecting EU-ETS prices will be used to adjust gaps between carbon prices paid in third countries of origin for imports and EU-ETS prices. The unprecedented mechanism is feared to be incompatible with most-favored-nation treatment and other basic principles under the General Agreement on Tariffs and Trade (GATT). If so, a challenge may be whether the CBAM could be justified under GATT Article 20 for general exceptions.[2]

The EU has considered the "Fit for 55" policy package to achieve a goal of cutting greenhouse gas emissions by 55% or more from 1990 by 2030 under its Nationally Determined Contributions for the Paris Agreement. As part of the policy package, the EU has considered terminating the free allowance of EU-ETS designed to counter carbon leakage under the EU-ETS and introducing the CBAM as a substitute. As the CBAM has been viewed as indispensable for avoiding adverse effects on industrial competitiveness when free allowances are terminated in EU-ETS.

Carbon pricing will be levied at the border on imports from countries where climate change countermeasures are insufficient. Additionally, carbon costs for exports may be refunded as a rebate at the border. Whether the unprecedented BCAM's compatibility with WTO rules depends on a specific design of the border carbon adjustment.

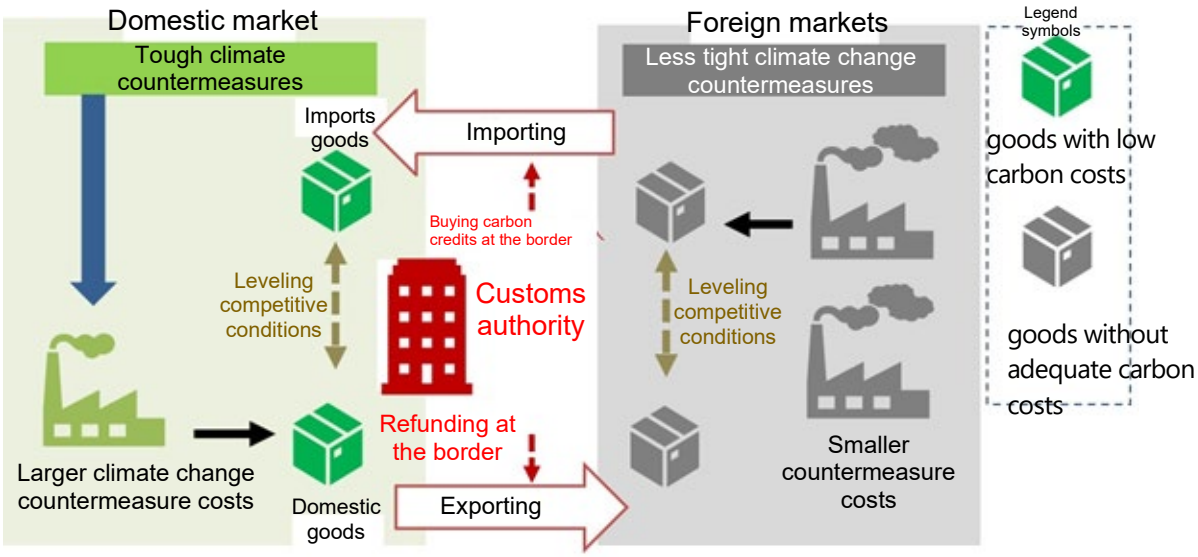


Chart 1: Concept of carbon border adjustment
Source: Prepared by the authors

[2] Yanagi (2022) discussed issues regarding the CBAM's compatibility with World Trade Organization (WTO) rules, based on earlier studies.

3. Key points of the CBAM regulation

The pivotal agreement reached in December calls for raising a cut in emissions between 1990 and 2030 to 62% from 43% for the EU-ETS covered sectors. Free allowance will be terminated for iron & steel, cement, aluminum, fertilizer, hydrogen and other sectors in 2034, with the CBAM introduced as a tool for preventing carbon leakage. Key points of CBAM regulation are as follows:

- ✓ **Commencement of requirements: A requirement for reporting Green House Gases (GHG) emissions from imported goods listed will commence in October 2023. A requirement for paying for CBAM certificates for imported goods in each sector will commence in 2026, representing an effective levy[3].**
- ✓ **Termination of free allowance and transition to the CBAM: Free allowance will be phased out by 2034, with the CBAM being phased in at that pace. The transition to the CBAM will be slow between 2026 and 2030 before the reduction of free allowance accelerates (Chart 3).**

Marcu et al. (2020) indicated major components of the CBAM design. We compiled the CBAM agreement between the European Parliament and the Council into Chart 2 according to the components. Reviews are noted below the chart.*

Table1: Summary of CBAM design components under the trialogue agreement (December 2022)

	CBAM components:
1)	Scope of trade subject to adjustment: Limited to imports However, the EC will review carbon leakage risks regarding exports(rebate) before * 1 January 2028, and propose a WTO-compatible proposal as necessary.
2)	Policy subject to adjustment: EU-ETS
3)	Countries subject to levies on imported goods: In the absence of provisions for exceptions, all non-EU countries are seen as subject to the CBAM. There is no exception for Least Developed Countries (LDCs).

[3] The European Parliament press release indicates the simplification of the 2023 reporting requirement, saying “a simplified system would be in force.” As for the reporting requirement, specific rules to be published in the future will have to be checked.

4)	Targeted Goods: Iron & steel, cement, aluminum, fertilizer (*including ammonia), electricity, hydrogen, some precursors,[4] and some downstream steel products, such as screws and bolts
	While the EC proposal cited “iron & steel, cement, aluminum, fertilizers and electricity” as target sectors, the European Parliament proposal include**d** “iron & steel, cement, aluminum, fertilizers, electricity, hydrogen, ammonia, polymers (plastics, etc.) and organic chemicals.” The regulation excluded organic chemicals*.
5)	Scope of product emissions: direct emissions (*Steel and aluminum, Hydrogen) and indirect emissions (*cement, fertilizer, electricity) under certain conditions (*Need to check Implementation Act or Delegated Act to see if on-site power generation is included)
6)	How to convert installations emissions into goods emissions: Unknown
7)	Emissions for adjustment: *Actual emissions of goods. If that data is not available, use the benchmark (bottom X% for EU-ETS) (* X% will be decided later).
8)	Prices for application: the price of the CBAM certificate is linked to the EU-ETS weekly average prices(*).
9)	How to use government revenue: New own resource for EU, The EC proposal called for such revenue into the EU’s exclusive financial resources, which is estimated€ 2.1 billion. by the European committee. As for LDCs’ supports, the Union should continue to support low and middle-income third countries through the Union budget, especially LDCs,

Source: Prepared by the authors according to the compilation by March et al. (2020)
Note: Countries that export target goods to the EU are described at the end of this paper.

∗ **Review: <u>Before the end of the transitional period</u>,** the EC shall present a report subjecting organic chemicals and other goods including polymers to the CBAM. The EC shall assess how to monitor indirect emissions, embedded emissions in the transport of the goods, and the expansion of the CBAM’s coverage to include **precursor** of listed goods.
The criteria to be used to identify goods to be included in the subject list, which are also contained in the report. At least one year before the end of the transitional period, the Commission shall present a report to the European Parliament and to the Council that identifies products further down the value chain of the goods. (＊)

[4] The Council’s press release puts “precursors” just after “iron and steel,” leading some people to interpret “precursors” as goods related to iron and steel, according to some media reports. However, it is not certain whether the interpretation is true or not.

＊ **An assessment:** Before 1 January 2028, as well as every two years thereafter, the EC shall conduct an assessment of the CBAM's impact on carbon leakage, including in relation to exports, the sectors covered, international trade, including resource shuffling, the practice of circumvention, and LDCs.[5] (＊)

* The EC shall assess the goal of subjecting all EU-ETS sectors to the CBAM by 2030. (＊)

It should be noted that both the European Parliament and the Council, in full compatibility of WTO rules, have said that CBAM will only apply to the proportion of emissions that do not benefit from EU-ETS free allowances. In addition, while the EU-ETS is an installation-based regulation, CBAM requires specifying the amount of emissions for each good, but it is considered extremely difficult to measure the amount of emissions in goods units. According to media reports, consideration of the bill on the EU's own resources may be considered in 2023.

4. Attention-attracting points

The following summarizes political issues related to the business community.

1) Reducing free allowance and moderate transition to the CBAM

How to reduce EU-ETS free allowance and transition from the EU-ETS to the CBAM was a key political issue. The EC proposed that free allowance be reduced at a certain pace from 2026. The agreement between the European Parliament and **The Council** calls for a moderate cut in free allowance at the beginning of the CBAM in an apparent bid to allow the business community to secure several years for the transition.

EC Proposal (July 2021)[6]

2026: 0%, 2027: 10%, 2028:20%, 2029: 30%, 2030: 40%, 2031: 50%, 2032:60%,
2033: 70%, 2034: 80%, 2035: 90%, 2036:100%

↓

European Parliament amendments (June 2022)

2026: 0%, 2027: 7%, 2028: 16%, 2029: 31%, 2030: 50%, 2031: 75%, 2032:100%

Council amendments (June 2022)

2026: 5%,2027:10%, 2028: 15%, 2029: 22.5%, 2030: 30%, 2031: 40%, 2032:50%, 2032:70%, 2032:90%, 2032:100%

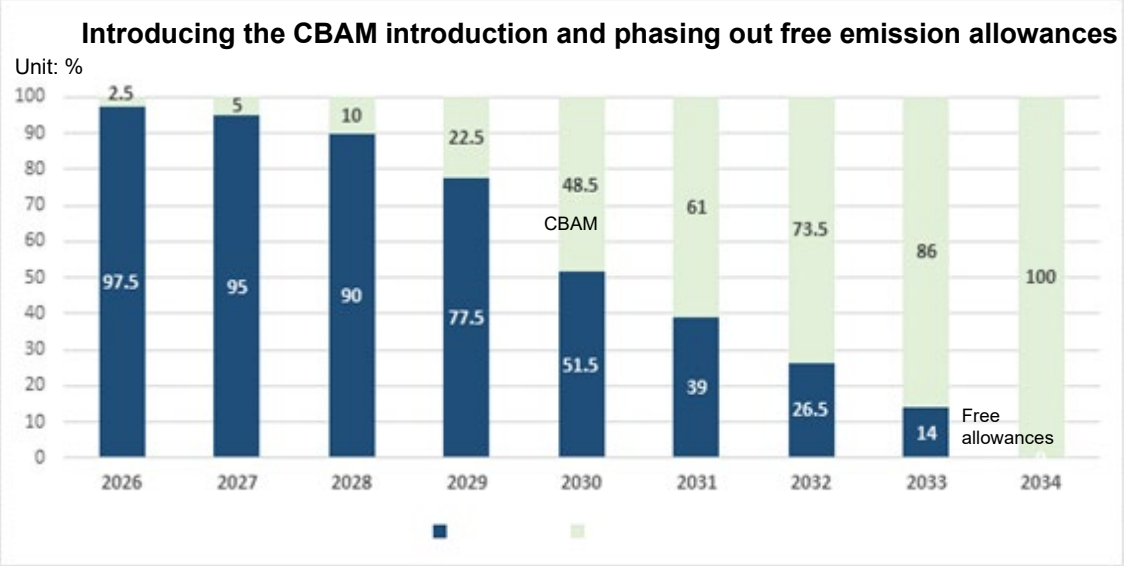
[5] According to our analysis, the CBAM is feared to affect aluminum product imports from Mozambique.

[6] When the source indicates a free emission allowance reduction rate, we interpret the rate as a CBAM share.

↓

Trialogue agreement (December 2022)

2026: 2.5%, 2027: 5%, 2028: 10%, 2029: 22.5%, 2030: 48.5%, 2031: 61%, 2032: 73.5%, 2033: 86%, 2034: 100%



2) Giving up on export rebates as a consideration to export industries

EU industries have concerns that export competitiveness will decline if free allowance of EU-ETS is declined and CBAM is limited to charging imports amid rising carbon pricing.[7]

The European Parliament amendments included an “export rebate” option to leave free allowance for goods of exports, taking the business community’s request into account. The Council and the EC rejected the option, which they interpreted as running counter to WTO rules. The trialogue agreement notes that the EC would assess carbon leakage risks regarding exports by 2025 and propose a WTO-compatible bill as necessary.

The trialogue agreement includes no export refund option but calls for increasing the Innovation Fund from the current 450 million allowances to 575 million allowances to support the business community’s acceleration of decarbonization. The fund is financed by EU-ETS auction revenue. “In addition, an estimated 47.5 million allowances will be used to raise new and additional financing to address any risk of export-related carbon leakage,” according to the agreement. How to use revenue from allowance sales is not specified.[8] Given the

[7] The European Steel Association, European Aluminum, the European Cement Association, Fertilizers Europe, etc.
“CBAM sectors statement on ETS and CBAM Trialogues,” November 7, 2022

[8] The diversion of free emission allowances and the composition of the fund are left vague.

trialogue history, using such revenue for export refunds could be difficult as it may run counter to GATT and the Agreement on Subsidies and Countervailing Measures.[9]

Peter Liese, a center-right member of the European Parliament elected from Germany, said that the following five points were agreed on:

- There is a legal guarantee that the reduction of free allowance will be suspended if problems arise with the enforcement of the CBAM.
- The EU member countries appropriate an additional €3.5 billion from EU-ETS revenue for supporting exporters' transition to carbon neutrality.
- The EU member countries may use additional funds from state revenue for supporting the industry sector.
- Special calls of the Innovation Fund will be established for relevant industries (special calls may top €50 billion by 2030).
- There is a revision clause for introducing additional measures if the CBAM is bogged down.

5. Summary (in place of conclusion)

The key point of the trialogue CBAM agreement is that the EU will phase out the free allowance of EU-ETS for steel and other hard to abate sectors while phasing in the CBAM. As for details, attention should be paid to two points – (1) organic chemicals goods imported mainly from the United States were out of the list and (2) no export rebate was endorsed.

As for the first attention-attracting point, the exemption was designed to avoid a trade dispute with the United States. As for the second one, the export refund has the potential to run counter to WTO rules (ASCM). Both points are related to a potential green trade war. Organic chemical imports and export refunds could be covered by the CBAM through the EC's future assessment. In this sense, the seeds of a trade war are still left. As for iron and steel, cement, fertilizer (including ammonia), hydrogen and other goods subjected to the CBAM, trade disputes could emerge with China and other Global South countries. India may plan to challenge CBAM. For exporters of the CBAM-covered goods to the EU, see Chart 4.

Reportedly, U.S. Trade Representative Katherine Tai proposed a methodology for adjusting carbon contents based on carbon intensity from iron and steel goods during negotiations with the EU on tariffs under Article 232 of the U.S. Trade Expansion Act,

[9] METI (2022) details export refund's potential to run counter to the WTO agreement and the Agreement on Subsidies and Countervailing Measures.

exploring U.S.-EU cooperation.[15] On the other hand, the European business community is alert to the U.S. Inflation Reduction Act,[10] which provides tax credit incentives for decarbonization technologies that satisfy country of origin requirements. The EU iron and steel sector has claimed that the EU should assess the U.S. act's impact on the European business community and discuss appropriate measures to level the playing field, indicating a seed of U.S.-EU confrontation (EUROPER 2022).

Even at a time when the division of the world deepens, Japan should address the rules-based approach for CBAM. In Japan, the Green Transformation (GX) League is now considering an Emissions Trading System and carbon surcharge[11]. When a carbon border adjustment measure is required due to carbon price hikes, Japan should learn from EU experiences and address the measure, which is in the form of the indirect carbon tax. In a manner compatible with WTO/GATT rules to avoid any green trade war seed.

Impacts of rulemaking for hydrogen should be watched

Hydrogen has been subject to the CBAM. The EC seeks to produce 10 million tons of hydrogen from renewable energy (hereinafter referred to as green hydrogen) and import 10 million tons of green hydrogen under the REPower EU Plan announced in May 2022 to phase out the EU's dependence on Russian fossil fuels.

When the CBAM is implemented for imported hydrogen, emissions from imported hydrogen may have to be monitored. The EU's method to monitor emissions may become an international de facto standard.

Regarding hydrogen, the EU taxonomy has established a quantitative standard to certify a substantial contribution to climate change mitigation. The EC is trying to define green hydrogen. The EU has thus activated rulemaking regarding hydrogen.

---

[15] A U.S.-EU agreement in October 2021 called for a global arrangement to address global overcapacity in the steel sector while reducing trade in steel goods that emit massive amounts of carbon (October 2021).

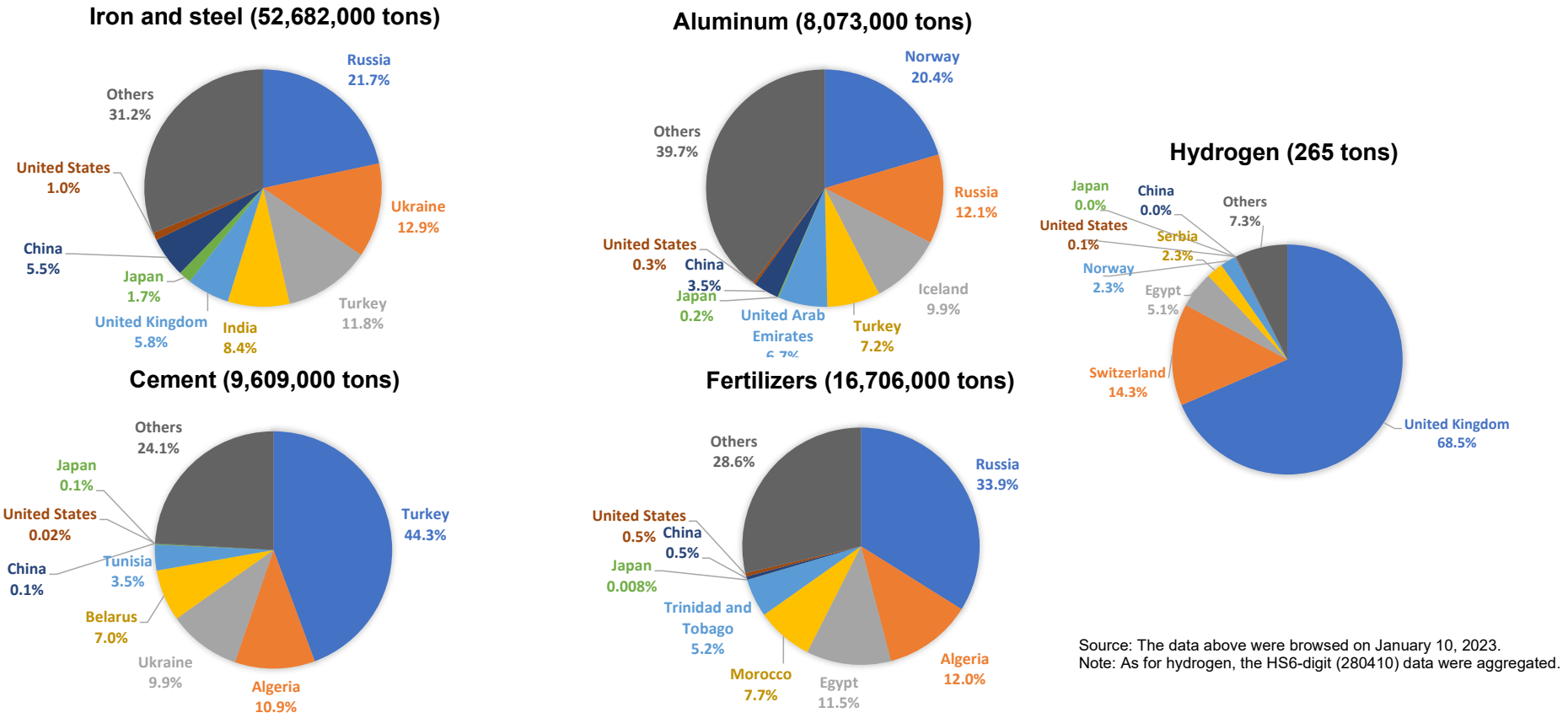
[10] Ueno (2022) details the Inflation Reduction Act and country of origin requirements. For instance, a tax credit worth $3,750 is provided for a clean automobile with a battery for which a certain percentage of key minerals are extracted or processed in the United States or any country that has a free trade agreement with the United States or reused in North America (September 2022).

[11] In Japan, Green Transformation (GX) related legislation was passed and enacted by the 211 Diet on May 2023, which deal with Japanese Emission Trading Systems. Studies are underway to make the ETS operational in FY2026. A phased introduction of " auctions" for power utilities is being considered starting in FY2033 (This foot note is added by author in Mat2023).

In May 2022, the EC published a draft proposal on the definition of green hydrogen for the transportation sector,[12] setting forth a plan to certify green hydrogen, which satisfies the requirement that green water electrolysis operates when renewable electricity is integrated into the grid.[13] As the business community complained that an additional requirement in the draft proposal was too strict, the time requirement for renewable power generation was weakened, according to reports up to January 2023.

If the EU's rulemaking regarding hydrogen produces global de facto standards, it may exert a great impact on other countries, which are trying to expand hydrogen imports. In this sense, the EU rulemaking should be watched closely.

[12] European Commission (2022a). This proposal is planned to be implemented from January 2027.
[13] IEEJ (2022)



Source: The data above were browsed on January 10, 2023.
Note: As for hydrogen, the HS6-digit (280410) data were aggregated.

Source: The data above were browsed on January 10, 2023.

Chart 4: Breakdown of imports into the EU by the exporter for 5 CBAM-covered sectors (in volume, 2021)
Source: Based on European Commission (2021a), the authors aggregated "Eurostat, 'Extra-EU trade since 2000 by mode of transport, by HS2-4-6.'"
Note: European Commission (2021a) covers the CN4-8-digit product list. The above chart represents HS6-digit aggregation (deltas for some 8-digit goods are minor). For each sector, the aggregation covered the five largest exporters to the EU, as well as Japan, the United States, China and other countries. Hydrogen imports from Japan and China are zero. Data are as of the day for browsing and may be revised retroactively.

Acknowledgment: We thank experts in Japan and other countries for providing arguments and comments on this topic.

References:

Council of the European Union (2022a), “Fit for 55 packages: Council reaches general approaches relating to emissions reductions and their social impacts," 2022/06/29 https://www.consilium.europa.eu/en/press/press-releases/2022/06/29/fit-for-55-council-reaches-general-approaches-relating-to-emissions-reductions-and-removals-and-their-social-impacts/

Council of the Europe Union (2022b), “'Fit for 55': Council and Parliament reach a provisional deal on EU emissions trading system and the Social Climate Fund,” 2022/12/18 https://www.consilium.europa.eu/en/press/press-releases/2022/12/18/fit-for-55-council-and-parliament-reach-provisional-deal-on-eu-emissions-trading-system-and-the-social-climate-fund/

EUROFER (2022), “Upcoming decisions crucial to test EU determination to keep industry in Europe, says EUROFER” (December 2022)

European Commission (2021a), “Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a carbon border adjustment mechanism,” COM/2021/564 final. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0564

European Commission (2021b), “Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757,” COM(2021)551final https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0551

European Commission (2022a), “Supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a Union methodology setting out detailed rules for the production of renewable liquid and gaseous transport fuels of non-biological origin.”

https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/7046068-Production-of-renewable-transport-fuels-share-of-renewable-electricity-requirements-_en

European Commission (2022b), “Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757,” 2022/07/15 https://data.consilium.europa.eu/doc/document/ST-10796-2022-INIT/x/pdf/

European Parliament (2022a), “Carbon border adjustment mechanism ***Amendments adopted by the European Parliament on 22 June 2022 on the proposal for a regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism (COM(2021)0564 – C9-0328/2021 – 2021/0214(COD).” https://www.europarl.europa.eu/doceo/document/TA-9-2022-0248_EN.html

European Parliament (2022b), “CBAM: Parliament pushes for higher ambition in new carbon leakage instrument,” 2022/06/22 https://www.europarl.europa.eu/news/en/press-room/20220603IPR32157/cbam-parliament-pushes-for-higher-ambition-in-new-carbon-leakage-instrument

European Parliament (2022c), “Deal reached on new carbon leakage instrument to raise global climate ambition,” Press Releases ENVI, 2022/12/13 https://www.europarl.europa.eu/news/en/press-room/20221212IPR64509/deal-reached-on-new-carbon-leakage-instrument-to-raise-global-climate-ambition

European Parliament (2022d), “Climate change: Deal on a more ambitious Emissions Trading System (ETS),” Press Releases ENVI, 2022/12/18 https://www.europarl.europa.eu/news/en/press-room/20221212IPR64527/climate-change-deal-on-a-more-ambitious-emissions-trading-system-ets

Liese, P. (2022), “Peter Liese after historical agreement in ETS: ETS II price will be less than half the ETS I price,” 2022/12/19 https://www.peter-liese.de/en/32-english/press-releases-en/3897-peter-liese-after-historical-agreement-in-ets-ets-ii-price-will-be-less-than-half-the-ets-i-price

Marcu, A., Mehling, M. and Cosbey, A. (2020), “USA-EU Town Hall on Border Carbon Adjustment: An Update on Developments in the EU,” European Roundtable on Climate Change and Sustainable Transition.

Takahiro Ueno (2022), “Climate Change-Related Investment under U.S. Inflation Reduction Act,” Central Research Institute of Electric Power Industry Socio-Economic Research Center, SERC Discussion Paper 22009
https://criepi.denken.or.jp/jp/serc/discussion/download/22009dp.pdf

METI (2022), “Trade and Environment: Outline of CBAM and Its Compatibility with WTO Rules,” 2022 Review Report on Unfair Trade Practices, pp. 187-202
https://www.meti.go.jp/shingikai/sankoshin/tsusho_boeki/fukosei_boeki/report_2022/honbun.html

Motoshi Tomita, Kenta Horio (2022), “Climate Change Mitigation in EU Taxonomy – Analysis of Screening Standards in Major Sectors,” Central Research Institute of Electric Power Industry Report, SE21001
https://criepi.denken.or.jp/jp/serc/discussion/download/21005dp.pdf

IEEJ (2022), “Global Warming, Energy Efficiency, Renewable Energy Trends,” IEEJ Newsletter No. 226

Miki Yanagi (2022), “Chapter 9 Carbon Neutrality and Trade Challenges – Focusing on Carbon Border Adjustment Mechanism,” “Towards Developing Rule-Oriented International Economic System – International Economy Series 1,” edited by Japan Economic Foundation, pp.138-150
https://eneken.ieej.or.jp/data/11117.pdf

Miki Yanagi, Soichi Morimoto and Hiroko Nakamura (2021), “The Carbon Border Adjustment – Collaboration or Confrontation? –” IEEJ 438th Forum on Research Works, July 2021
https://eneken.ieej.or.jp/report_detail.php?article_info__id=9730

Contact : report@tky.ieej.or.jp