



IMPACTS OF THE EU CARBON BORDER ADJUSTMENT MECHANISM ON THE WESTERN BALKANS AND UKRAINE: POLICY OPTIONS FOR GOVERNMENTS

A Discussion Paper

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INDEX

EXECUTIVE SUMMARY

1. INTRODUCTION: THE EU CBAM AND ITS RELEVANCE FOR THE WESTERN BALKANS AND UKRAINE

SCOPE OF THE EU CBAM

TIMELINE FOR THE INTRODUCTION OF THE EU CBAM

EU SUPPORT FOR TRADING PARTNERS

DISCOUNTS AND EXEMPTIONS

IMPACT ON TRADING PARTNERS

3. CBAM IMPACTS ON UKRAINE

3.1. RELEVANCE OF UKRAINE'S CBAM-COVERED EXPORTS TO THE EU

3.2. POTENTIAL EFFECTS OF THE EU CBAM ON THE PRE-INVASION UKRAINIAN ECONOMY

3.3. IMPACT OF THE WAR ON UKRAINE'S CBAM-COVERED SECTORS

3.4. FUTURE OPTIONS FOR UKRAINE'S MOST AFFECTED CBAM-COVERED SECTORS

3.5. UKRAINE'S CLIMATE POLICY AND PLANS FOR CARBON PRICING

3.6. TRANSFORMING THE CBAM CHALLENGE INTO AN OPPORTUNITY FOR UKRAINE

2. CBAM IMPACTS ON AND POTENTIAL SOLUTIONS FOR THE WESTERN BALKANS

2.1. RELEVANCE OF CBAM FOR THE WESTERN BALKAN ECONOMIES

2.2. THE WESTERN BALKANS' CLIMATE POLICY AND PLANS FOR CARBON PRICING

2.3. TRANSFORMING THE CBAM CHALLENGE INTO AN OPPORTUNITY FOR THE WESTERN BALKANS

4. POLICY RECOMMENDATIONS

Recommendations for countries affected by the EU CBAM

TAKING STOCK AND SETTING PRIORITIES

IMPLEMENTING CARBON PRICING

IMPLEMENTING REGULATORY LEGISLATION AND SUPPORT SCHEMES

BOX RECOMMENDATIONS FOR THE EU

5. CONCLUSION

6. LITERATURE

EXECUTIVE SUMMARY

The EU is set to launch the world's first Carbon Border Adjustment Mechanism (CBAM) to help level the playing field for EU companies facing rising carbon prices under the European Emissions Trading System (EU ETS). The EU CBAM will start with a pilot phase without financial obligations in October this year and enter into force with financial obligations in 2026. As the EU CBAM acts as an import duty, countries with lower emission standards exporting significant quantities of CBAM-covered goods (electricity, aluminium, iron and steel, hydrogen, cement, fertilisers) to the EU will be affected as their exports will become more expensive. Ukraine and some of the Western Balkan countries are among the trading partners that are likely to be most affected by the CBAM. However, while at first glance the CBAM might appear as to be a potential economic burden, a closer look reveals that it can be turned into an opportunity to accelerate the zero carbon transition and green growth. In this discussion paper, we look at how governments and companies could use the incentive provided by the EU CBAM to speed up the transition of their energy systems and industries and to better position themselves in the green markets of the future. We argue that the impact of the EU CBAM can be minimised by implementing measures such as carbon pricing instruments and advancing targeted cooperation between affected countries and the EU.

1. INTRODUCTION: THE EU CBAM AND ITS RELEVANCE FOR THE WESTERN BALKANS AND UKRAINE

In December 2022, Member States, the European Parliament, and the European Commission agreed to introduce a Carbon Border Adjustment Mechanism (CBAM) in the context of the reform of the EU ETS. They formally adopted the new instrument in April 2023. The overall objective of the EU CBAM is to replace the current carbon leakage instruments and enable the rapid and comprehensive industry transformation needed to meet the EU's climate goals. It will

introduce a fee that reflects the carbon intensity of production and mirrors the carbon price of the EU ETS on certain carbon-intensive goods imported into the EU. This way, the EU CBAM aims to create a level playing field to minimise competitive disadvantages for EU companies associated with the EU ETS once the full auctioning of allowances will kick in. It will be the first of its kind globally.

This discussion paper briefly analyses the overall impact of the EU CBAM on the Western Balkans and Ukraine and derives a first however not necessarily complete set of policy recommendations, mostly to policy makers in affected trading partner countries. The paper contributes to the debate on how to react to the EU's CBAM. Before examining the Western Balkans and their vulnerability as well as the situation in Ukraine, we briefly introduce the EU CBAM and its relevant key characteristics.

SCOPE OF THE EU CBAM

The EU CBAM will cover imports of iron and steel, cement, fertilisers, aluminium, electricity, and hydrogen. The EU aims to cover all industrial sectors at risk of carbon leakage by 2030. In the first years, the EU CBAM will only apply to direct emissions, with the exception of cement and fertilisers. For these sectors, it will also apply to so-called scope-2 emissions, that is, indirect emissions associated with the consumption of purchased electricity, steam, and heat during the production phase. As the EU CBAM only applies to imports into the EU, it will not cover exports from the EU to third countries. From 2025, however, the Commission will be required to assess the risk of carbon leakage for EU exports every two years and to propose measures to address it if necessary.

TIMELINE FOR THE INTRODUCTION OF THE EU CBAM

The EU will gradually introduce the CBAM starting in 2026. The phase-in for the industry sectors reflects the withdrawal of free allocation under

the EU ETS. This means that the EU CBAM fee in these sectors will be small in the 2020s and increase each year until it reaches the full EU ETS price from 2034 onwards. For the energy sector, which does not benefit from free allocation under the EU ETS, the full CBAM will start in 2026.

EU SUPPORT FOR TRADING PARTNERS

In reaction to the CBAM, the EU does currently not aim to provide any additional financial support to affected trading partner countries with below average GDP per capita to accelerate their industry transformation. CBAM revenues are currently earmarked for the general EU budget. Only in a recital to the CBAM Regulation does the EU mention the non-binding intention to establish own resources to support low-income countries based on CBAM revenues.¹ Whether, when or to what extent this could be implemented, is subject to further discussions.

DISCOUNTS AND EXEMPTIONS

In principle, no group of countries is exempt from the EU CBAM. However, there are three conditions under which a country or certain of its companies can be exempt from paying the CBAM fee. First, if a country is participating in the EU ETS, it is exempt. Second, if a trading partner country has implemented a domestic carbon price in the relevant sectors, this price will be deducted from the CBAM fee. For example, if the EU ETS carbon price is EUR 90 per tonne of CO₂e (a realistic level) and the national carbon tax (applied to a relevant sector) in a country X is EUR 40 per tonne of CO₂e, the CBAM fee will be EUR 50 per tonne. The same applies to export duties based on the carbon content of products, if they are (or will be) implemented. Third, if a country's electricity market is integrated with the EU's electricity market, the country's electricity sector will be exempt from any CBAM obligation, if it fulfils a set of additional criteria (such as a legislative 2050 climate neutrality commitment,

commitments on the implementation of an emissions trading system for electricity until 2030 with a price equivalent to that of the EU ETS, or ambitious renewable energy targets).²

IMPACT ON TRADING PARTNERS

The EU CBAM will affect the economies of third countries, in particular those with significant exports of the aforementioned goods to the EU and those with a high CO₂e intensity of industry production. Exporting certain goods to the EU will become more expensive, making exports less competitive, if compared to a scenario without a CBAM. This could reduce the market share in the EU. In the medium term and if not mitigated, this in turn could have negative effects on the GDP or regional employment in the exporting country, especially if a major industry production site produces to a substantial share for the EU market.

While the EU CBAM may appear to be a burden on the affected economies, it can also be an incentive for trading partners to accelerate the transformation of their industry and energy sector. By implementing certain measures, countries can mitigate the effects of the EU CBAM. For example, exporting companies in these countries can implement measures to reduce emissions and minimise their carbon footprint or look for alternative markets and shift their exports to other countries. Furthermore, governments can support companies in their efforts to reduce emissions by providing incentives or financial support. They can also mirror the EU ETS price and introduce a carbon price similar to that of the EU. Alternatively, they can implement an export fee based on the carbon footprint of production, which should be similar in scale to the EU carbon price.

Countries outside the EU in general could and should use the CBAM as an incentive to invest in clean technologies, energy efficiency, and

¹ EU CBAM Regulation, 2023, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0956>, (last accessed on 2023/03/13)

² EU CBAM Regulation, 2023, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0956>

renewable energy, as the economic success of countries will anyway depend more and more strongly on the carbon footprint of its economy. The more climate-friendly the production, the more competitive the product and the entire company will be on the EU market. Reducing greenhouse gas emissions and accelerating the energy and industry transition has many benefits apart from better positioning in future markets, including health benefits from reduced air pollution and more attractive jobs. This should be an additional incentive for governments to act quickly. The sooner effective instruments are in place to reduce emissions, the greater the potential benefits.

Countries estimated to be most affected by the EU CBAM due to their export structure and carbon intensity include Belarus (cement and fertiliser, however depending on future sanctions), Bosnia and Herzegovina (cement and electricity), Russia (fertiliser, iron and steel, electricity, aluminium, however depending on future sanctions), Turkey (cement, iron and steel), and Ukraine (historically mainly iron and steel, however depending on the country's reconstruction after the war).³ As the following chapter will show, other countries in the Western Balkans are also likely to be affected significantly. Ukraine, Bosnia and Herzegovina and Serbia have been amongst the most carbon intensive EU trade partners before Russia's war on Ukraine. Given their heightened exposure to the CBAM, mitigating measures might be particularly relevant in these countries.⁴

2. CBAM IMPACTS ON AND POTENTIAL SOLUTIONS FOR THE WESTERN BALKANS

The European Union is an important trading partner for all six countries of the Western Balkans: Albania, Bosnia and Herzegovina (BiH),

Kosovo, Montenegro, North-Macedonia, and Serbia. These countries, also called the WB6, are currently in the process of becoming European Union member states. As the EU accounts for about 75% of the total trade of several of these countries and a substantial share of their exports to the EU will likely be covered by the CBAM, it could have a significant impact on the economies of the WB6. This chapter provides insight to the impact of the CBAM on the Western Balkans presents details about their individual export structures and CBAM covered goods and discusses possible pathways to turn the challenge of CBAM into positive effects for the carbon neutrality transition.

2.1. RELEVANCE OF CBAM FOR THE WESTERN BALKAN ECONOMIES

At the Sofia Summit in November 2020, the six leaders of the WB6 adopted the Declaration on the Green Agenda for the Western Balkans, which includes the transition to carbon neutrality by 2050.⁵ All WB6 countries have to increase their efforts to fulfil this pledge. CBAM could become another driving force behind the new goal. However, each WB6 country has a different export structure and carbon intensity. Countries that are more exposed to the effects of the CBAM will have an even greater need to accelerate the transition of their economies.

The export structures of **Kosovo** and **Albania** show that they will be less exposed to the introduction of the CBAM. Although Kosovo's power generation is almost entirely based on coal, it will not be strongly affected by the CBAM for the time being as its exports to the EU are minimal. In 2021, only about 1% of its GDP consisted of exports to the EU that will be affected by the CBAM in the future.⁶ Albania is also unlikely to be significantly affected by the CBAM, as it relies on hydropower rather than coal for its energy production and industry.⁷

³ Germanwatch, 2021, [Less confrontation, more cooperation](#), (last accessed on 2023/05/09)

⁴ Overland and Sabyrbekov, 2022, [Know your opponent: Which countries might fight the European carbon border adjustment mechanism?](#) (last accessed on 2023/06/21)

⁵ DG NEAR, 2021, [A Green Agenda for the Western Balkans](#), p.2

⁶ Taylor Kira on Euractiv, 2023, [EU's carbon levy poses new test for Western Balkan integration](#) (last accessed on 2023/04/28)

⁷ Ember, 2023, [countries and regions](#), (last accessed on 2023/04/28)

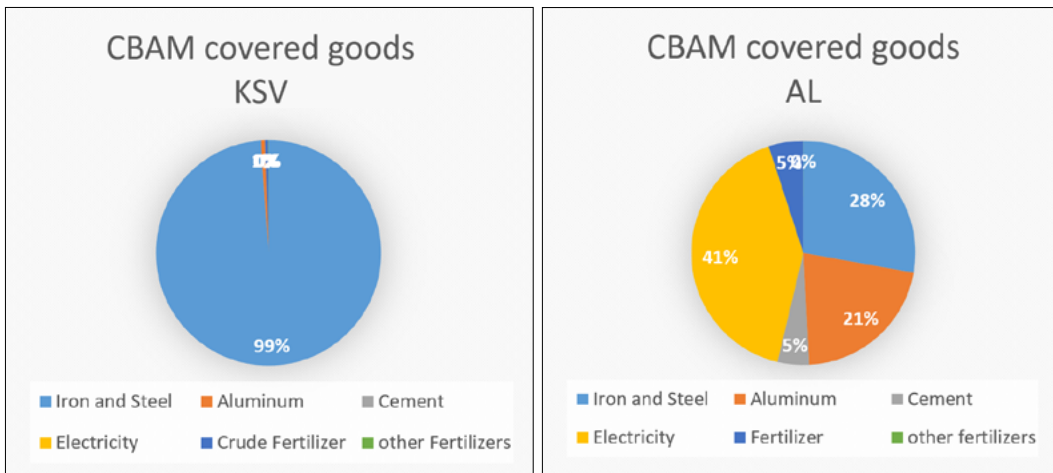


Fig. 1: Exports of individual goods as a share of total exports of CBAM covered goods Kosovo and Albania; Source: own illustration, based on Eurostat data 2021

Montenegro and **Bosnia and Herzegovina**, are significantly more exposed to the CBAM. Both countries heavily rely on coal for their energy

production and export large shares of electricity to the EU, among other products covered by the CBAM.

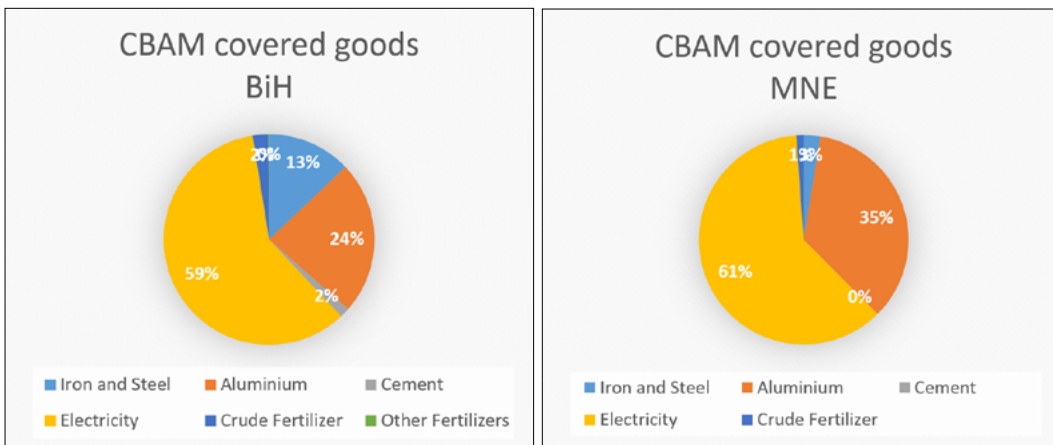


Fig. 2: Exports of individual goods as a share of total exports of CBAM covered goods Bosnia and Herzegovina and Montenegro; Source: own illustration, based on Eurostat data 2021

The largest sectors covered by the CBAM in Bosnia and Herzegovina and Montenegro are electricity and aluminium. However, the relevant aluminium plant in Montenegro was closed in December 2021,⁸ which strongly decreased the share of aluminium in its exports and slightly alters its exposure to the CBAM according to the latest available data. Both countries export mainly electricity from lignite-fired power plants to the EU. In Bosnia and Herzegovina, coal accounted for 70% of the electricity generation mix in 2020, whereas in Montenegro, it accounted for almost 46% in the same year.⁹

Subsequently, their electricity exports will be subject to CBAM taxation. Models created by the Agora think tank¹⁰ indicate that the region's coal-fired power plants could become unprofitable after the introduction of the CBAM, as they depend on the higher-priced exports to the EU.

For **Serbia**, whose economy is also dependent on coal-based electricity exports to the EU, the CBAM is expected to have a similar impact. In **North Macedonia**, exports of iron and steel account for the largest share of the exports to the EU and the country's iron and steel production uses a significant amount of coal.

⁸ Montenegro aluminium producer Kombinat Aluminijuma Podgorica (KAP) faced a shutdown because of high energy prices. The power supply contract signed between KAP and Elektroprivreda Crne Gore (EPCG), a state-owned power supply company in Montenegro, expired by the end of 2021 (source: serbia-energy.eu)

⁹ CEE Bankwatch Network, 2022, The Western Balkan Power Sector, p.12

¹⁰ Sonja Risteska et al., Agora Energiewende, 2022, [The EU's Carbon Border Adjustment Mechanism](https://www.agora-energie-wende.de/en/publications/the-eus-carbon-border-adjustment-mechanism) (last accessed on 2023/01/23)

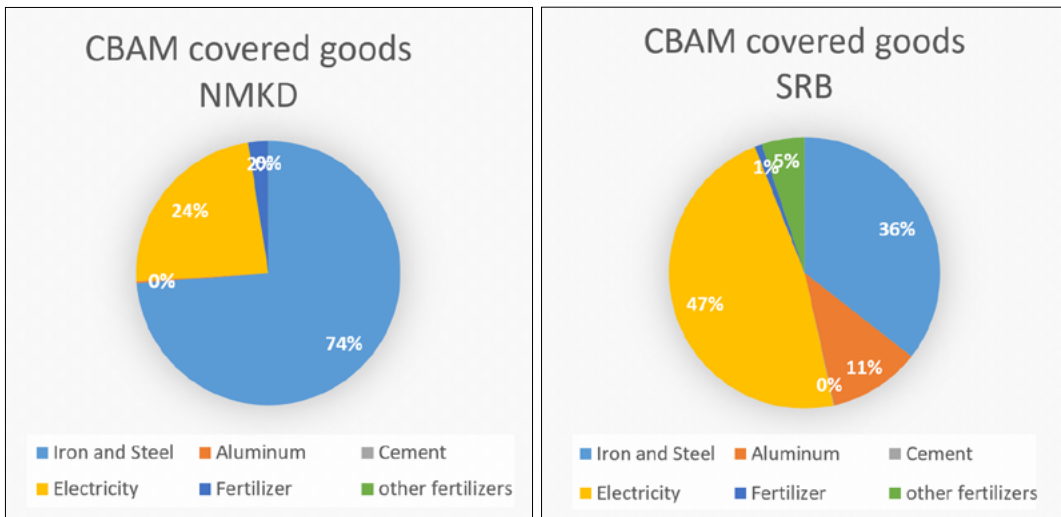


Fig. 3: Exports of individual goods as a share of total exports of CBAM covered goods NMKD and SRB; Source: own illustration, based on Eurostat data 2021

A second major factor determining the exposure of an economy to the CBAM is the carbon intensity of the export sectors that are covered by the mechanism. In the Western Balkans, this intensity is significantly higher than the EU average, indicating that exporters from the WB6 are likely to be greatly affected by the CBAM. For example, the average carbon intensity of electricity generation in Bosnia and Herzegovina, Montenegro, Serbia, and Kosovo is 1.4 tCO₂/MWh, while the EU average is 0.255 tCO₂/MWh.¹¹

To predict the potential impact of the CBAM on the Western Balkans, it is important to consider

the share of exports to the EU covered by the CBAM in each country's total exports. Figure 3 shows that most of the Western Balkan countries have particularly large trade volumes with the European Union. Especially Montenegro, Kosovo, and Bosnia and Herzegovina export a large share of CBAM products to the EU. The third column shows the extent to which the countries are exposed to the introduction of the CBAM and thus their vulnerability to it. In this respect, it is mainly Bosnia and Herzegovina and North Macedonia that will be most affected, followed by Montenegro and Serbia.

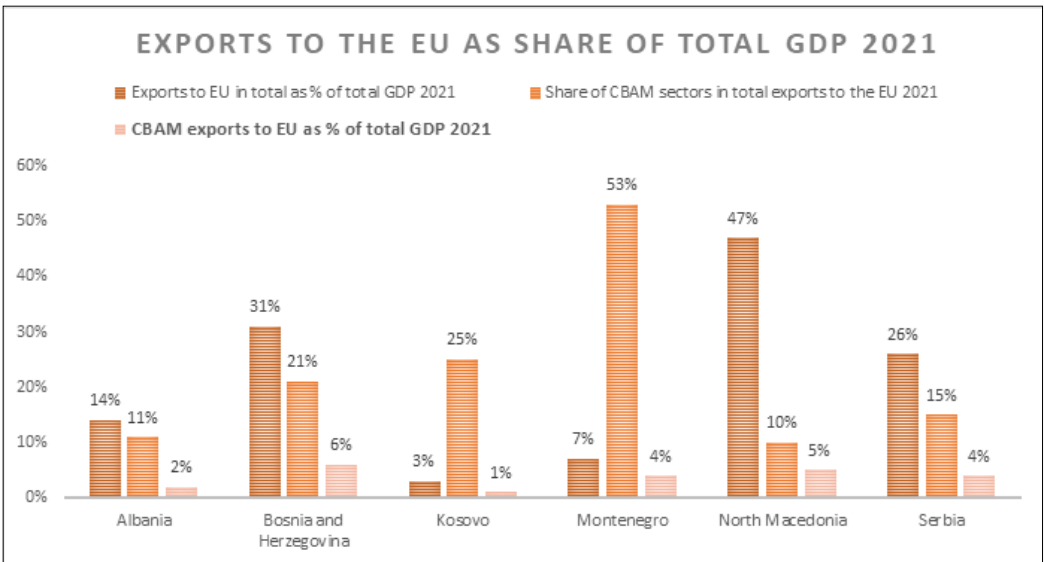


Fig. 4: Exports to the EU as share of total GDP 2021; Source: own illustration, based on Eurostat data 2021

¹¹ Sonja Risteska et al., Agora Energiewende, 2022, [The EU's Carbon Border Adjustment Mechanism](#), p. 10 (last accessed on 2023/01/23)

2.2. THE WESTERN BALKANS' CLIMATE POLICY AND PLANS FOR CARBON PRICING

It is not only the structure of a country's export industry and its carbon intensity that determine the risk posed to its economy by the CBAM. A third important factor is a country's existing and projected climate policies. A country with some experience of climate policy legislation is likely to be better equipped to develop its climate policy in line with the needs to avoid the CBAM levee.

For the Western Balkans as a whole, the EU accession process and their membership of the Energy Community have a significant influence on existing and potential climate policies. The Energy Community is an international organisation established between the EU and a number of third countries to extend the EU energy market to South East Europe and beyond. By signing the Energy Community Treaty, the signatory states have committed to gradually adopt the EU *acquis communautaire*¹² for energy, to develop an appropriate regulatory framework, and to liberalise their energy markets in line with the agreed requirements. Furthermore, all WB6 countries are required to align their respective policies with the EU's 2030 climate and energy framework as part of Chapter 27 of the accession negotiations. In particular, they must strive to introduce a carbon pricing mechanism, ideally an emissions trading system (ETS),¹³ which only Montenegro has done so far. Upon accession, it would be aligned with that of the EU. All countries are currently working on their National Energy and Climate Plans (NECPs), as required by EU law, either at the draft or at the revision level. However, the gradual and sometimes slow application of EU law to national law only fulfils the legal obligations; a functioning climate policy should lead to action on the ground.

¹² The European Union (EU) *acquis* is the collection of common rights and obligations that constitute the body of EU law, and is incorporated into the legal systems of EU Member States. (EUR-Lex)

¹³ European Commission, 2021, Instrument for Pre-Accession Assistance (IPA III) [Programming Framework](#) for the period 2021-2027, p. 36

In this respect, all WB6 countries are lagging behind.

The region can count on financial and technical support to introduce renewable energy measures and phase out coal. The EU Instrument for Pre-Accession Assistance (IPA III) includes the *Window 3: Green agenda and sustainable connectivity*.¹⁴ Window 3 explicitly aims to promote climate neutrality and recommends the introduction of domestic emissions trading systems. In addition to the earmarked IPA funding, the EU is targeting investments of up to EUR 20 billion through the Western Balkans Guarantee Facility as part of the Western Balkans Investment Framework.¹⁵ All WB6 countries could generate revenues by introducing their own ETS. The average annual CO₂ emissions from fossil fuel power and heat generation in the Western Balkans for the period 2015 to 2020 amounted to 57 million tonnes. Assuming a moderate carbon price of EUR 50 per tonne, the six countries would collectively raise about EUR 2.8 billion per year for a just and sustainable energy transition.¹⁶

Montenegro is one of the more advanced WB6 countries in terms of climate policy ambition and implementation. The country has had a national ETS in place since 2020. However, after the closure of Montenegro's only aluminium factory, there are now only two participating installations left, the Pljevlja coal plant and the Tosčelik steel mill.¹⁷ Bosnia and Herzegovina, on the other hand, has only received EU candidate status in December 2022, which should accelerate its climate policy development.¹⁸ The latest 2022 EU progress reports on both countries show that Montenegro has made 'some progress' in

¹⁴ European Commission, 2021, Instrument for Pre-Accession Assistance (IPA III) [Programming Framework](#) for the period 2021-2027, p.36

¹⁵ European Commission, 2023, [The Western Balkans Investment Framework](#) (last accessed on 2023/04/21)

¹⁶ CEE Bankwatch Network, 2022, the Western Balkan power sector, highlighted by the authors, p.4

¹⁷ International Carbon Action Partnership, 2023, Montenegro, <https://icapcarbonaction.com/en/ets/montenegro> (last accessed on 2023/06/18)

¹⁸ DG NEAR, 2022, [The European Council grants candidate status to Bosnia and Herzegovina](#) (last accessed on 2023/01/23)

implementing an EU ETS while Bosnia and Herzegovina has made no progress in introducing an effective carbon pricing instrument.

In response to the EU's CBAM plans, the authorities in Bosnia and Herzegovina have started to prepare a legal framework for the introduction of a CO₂ tax in 2026. Similarly, the Government of North Macedonia has been preparing a carbon pricing mechanism since 2022 with a view to harmonise it with the EU ETS by 2030.¹⁹ Both governments seem to want to avoid the application of the (full) CBAM to their countries.

2.3. TRANSFORMING THE CBAM CHALLENGE INTO AN OPPORTUNITY FOR THE WESTERN BALKANS

A fourth major factor that determines the vulnerability of a country to the CBAM is the ability and readiness of its government and companies to respond to the EU's new trade obligations. Governments can use policies such as carbon pricing, compulsory emissions standards, lead markets, subsidies, research and development support to create the framework for accelerated emission reductions by companies. With sufficient political will in the Western Balkans and support from the EU and other international actors, it is possible to conceive of a scenario in which the introduction of CBAM acts as an additional incentive to decarbonise the region and improve its economic prospects.

In theory, the Western Balkans have a lot to gain from an accelerated transition of the industry and power sectors. Except for hydropower-driven Albania, all of the WB6 countries could drastically reduce their CBAM exposure, for example by accelerating the deployment of wind and solar energy.²⁰ For North Macedonia alone, the IRENA sees the potential for almost 60% renewables in

¹⁹ Vladimir Spasić, 2022, [Balkan Green Energy news](#), Which Western Balkan countries intend to introduce carbon tax? (last accessed on 2023/05/18)

²⁰ See, e.g.: Germanwatch & Balkan Green Foundation, 2018, Phasing in Renewables. Towards a prosperous and sustainable energy future in Kosovo: challenges and possible solutions. <https://www.germanwatch.org/de/15789>

the power sector by 2030; for Serbia, the figure is still 46%.²¹

The introduction of a carbon pricing mechanism for the industry and power sectors in the form of a CO₂ tax or an emissions trading system is the best option for WB6 countries to respond to the CBAM. It is also a measure that several of them have already announced. The income of a CO₂-price instrument would stay in the country and can be used, e.g., to create a subsidy program to support the affected industry or to finance social compensation.

The CO₂ price for the industry sector should be fully implemented by 2029/2030, when the CBAM levee starts to reach a significant level.²² For electricity exports to the EU, the CBAM levee will be fully charged from the start in 2026, unless countries obtain an exemption for the power sector under Art. 2.7 of the CBAM regulation, an option that is subject to a number of challenging conditions.

WB6 countries could follow Montenegro's example and introduce a national emissions trading system in the upcoming years. By doing this, they could build on the experience of their neighbouring country. This strategy would prepare countries to join the EU ETS at the end of the EU accession process. WB6 countries could also strive to join the EU ETS before completing the EU accession, which would likely accelerate their overall EU accession. A functioning national ETS would prepare a country for such an early participation in the EU ETS.

However, due to the small size of the WB6 countries and therefore the small number of companies/installations participating in a national ETS, the introduction of a carbon levy rather than an ETS may be a more feasible option in the first years. A better functioning carbon market could be introduced through a

²¹ IRENA, 2020, Renewable energy prospects for Central and South-Eastern Europe Energy Connectivity (CESEC), International Renewable Energy Agency, Abu Dhabi, p.84 and p. 86

²² see also EU COM REGULATION (EU) 2023/956, [establishing a carbon border adjustment mechanism](#), article 2.7 (last accessed on 2023/06/15)

regional Western Balkan ETS. The Director of the Energy Community Secretariat, Artur Lorkowski, is currently recommending this approach,²³ proposing to merge national CO₂ pricing in the WB6 into a single regional system by 2030.²⁴ The Energy Community could then become the administrative body for such a regional ETS. It remains to be seen whether this approach is politically feasible.

In addition to recommending carbon pricing schemes, the Agora Energiewende think tank and Enervis highlight that the Western Balkans should halt all plans for new lignite power plants and instead plan a coordinated coal phase-out to prepare for the EU CBAM. The authors also recommend that the Western Balkan countries complete their regional electricity market integration by 2030.²⁵

3. CBAM IMPACTS ON UKRAINE

Ukraine has both a high share of carbon-intensive exports and not very stringent environmental and climate legislation. On 24 February 2022, the Russian Federation invaded Ukraine, causing civilian casualties, the displacement of millions of people, and extensive destruction of infrastructure. As a result, Ukraine's GDP fell by 30.4% in 2022, its sharpest economic decline since its independence in 1991.²⁶ Industry is one of the most affected sectors of the Ukrainian economy, with total damage caused to industrial enterprises reaching USD 13 billion in November 2022 – and rising.²⁷

²³ Energy Community Secretariat Director Artur Lorkowski, 2023, *As CBAM carbon border tax looms, EU wants to help Western Balkans to adapt* (last accessed on 2023/06/16)

²⁴ Vladimir Spasić, 2022, *Balkan Green Energy news, Which Western Balkan countries intend to introduce carbon tax?* (last accessed on 2023/05/18)

²⁵ Sonja Risteska, Christian Redl et al, Agora Energiewende and Enervis, 2022, *The EU's Carbon Border Adjustment Mechanism: Challenges and Opportunities for WB-6* (last accessed on 2023/06/16)

²⁶ Ministry of Economy of Ukraine, 2023, *Minekonomiky poperedno otsiniue padinnia VVP v 2022 rotsi na rivni 30.4%* [Ministry of Economy preliminary estimates a 30.4% drop in GDP in 2022] (last accessed on 2023/05/02)

²⁷ Kyiv School of Economics, 2022, *As of November 2022, the total amount of losses, caused to the infrastructure of Ukraine, increased to almost \$136 billion* (last accessed on 2023/05/02)

The ongoing war has caused a major shift in Ukraine's foreign trade. In 2022, total exports of Ukrainian goods decreased by 35.1%, while exports to the EU increased by 4.2%.²⁸ Ukraine received candidate status for EU membership in June 2022, which marks a new stage in the process of closer cooperation between the EU and Ukraine.

There is currently no relevant carbon price in Ukraine (see section 1.1.5), which could reduce a CBAM fee. Therefore, the impact of the CBAM on Ukraine should be taken into account in future post-war reform and reconstruction efforts. In light of this, the EU CBAM could be perceived as an additional burden on Ukraine's industry, potentially exacerbating an already challenging and investment-intensive recovery. However, it could also play an important positive role in this process by incentivising Ukraine to rebuild on the basis of renewable energy and energy efficient technologies. It is clear that the negative impacts of CBAM could best be mitigated if Ukraine's reconstruction is green. Given the new dynamics of EU-Ukraine trade relations brought about by the war and Ukraine's candidate status for EU membership, addressing the CBAM will also be fundamental for Ukraine to continue its EU accession process.

3.1. RELEVANCE OF UKRAINE'S CBAM-COVERED EXPORTS TO THE EU

The EU is Ukraine's most important trading partner, accounting for 39.5% of its trade in 2021.²⁹ This figure is likely to increase during the EU accession process. In turn, Ukraine was the EU's 15th largest trading partner in 2021, accounting for about 1.2% of the EU's total trade. In the same year, total trade between the EU and Ukraine reached USD 55.7 billion, having almost doubled since the EU-Ukraine *Deep and Comprehensive*

²⁸ Diia Business, 2022, *Dashboard shchodo exportu Ukrainy [Dashboard on Ukraine's exports]* (last accessed on 2023/05/02)

²⁹ European Commission, 2023, *EU trade relations with Ukraine: Facts, figures and latest developments* (last accessed on 2023/05/08)

Free Trade Agreement entered into force in 2016.³⁰

With a GDP of USD 200 billion in 2021³¹ and exports to the EU reaching a value of about USD 27 billion in 2021³², Ukraine's exports to the European Union accounted for 13.4% of the country's GDP in the same year.

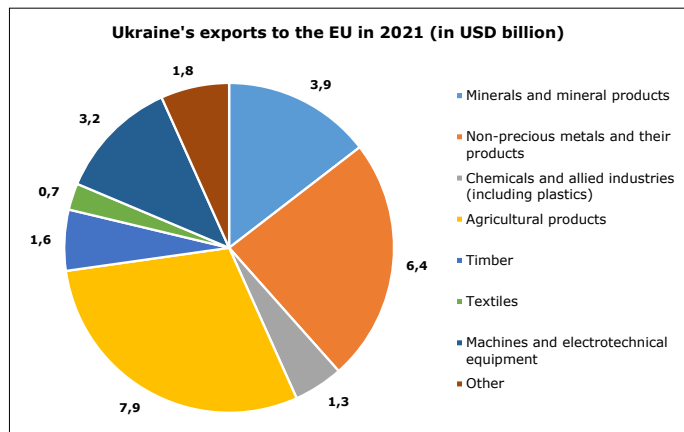


Fig. 1: Ukraine's exports to the EU in 2021 (Source: own illustration, based on the State Statistics Service of Ukraine 2023/05/15)

According to the State Statistics Service of Ukraine, exports from the CBAM sectors to the EU, excluding hydrogen, electricity, and cement, amounted to about USD 5.8 billion in 2021.³³ The State Customs Service of Ukraine reports that electricity exports to the EU amounted to about USD 220 million in the same year. For hydrogen, the EU was not a target destination for Ukraine's exports, which went primarily to South Korea, China, and the United States. Cement exports to the EU were also insignificant, amounting to about USD 40 million in 2021.

Overall, Ukraine's exports from the sectors covered by the CBAM could be estimated at USD 6 billion, corresponding to about 22% of its total exports to the EU in 2021.

³⁰ European Commission, 2023, [EU trade relations with Ukraine: Facts, figures and latest developments](#) (last accessed on 2023/05/08)

³¹ The World Bank Data, 2021, [GDP \(current US\\$\) – Ukraine](#) (last accessed on 2023/05/09)

³² State Statistics Service of Ukraine, 2021, [Commodity pattern of foreign trade of Ukraine with EU, 2021](#) (last accessed on 2023/05/15)

³³ State Statistics Service of Ukraine, 2021, [Commodity pattern of foreign trade of Ukraine with EU, 2021](#) (last accessed on 2023/05/15)

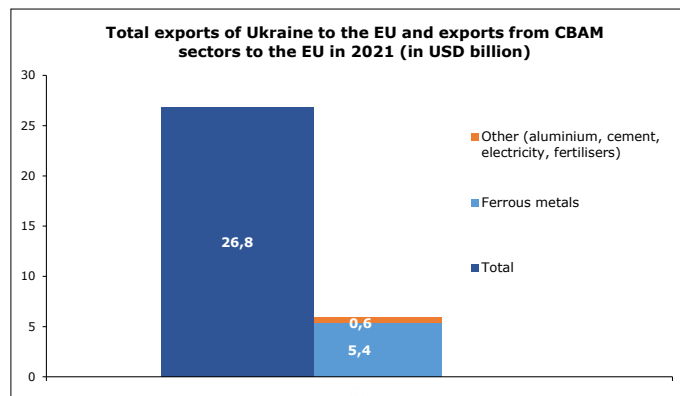


Fig. 2: Total exports of Ukraine to the EU and exports from CBAM sectors to the EU in 2021 (Source: own illustration, based on the State Statistics Service of Ukraine and the State Customs Service of Ukraine 2023/05/15)

3.2. POTENTIAL EFFECTS OF THE EU CBAM ON THE PRE-INVASION UKRAINIAN ECONOMY

Although there is not much literature examining the effects of the CBAM on Ukraine, some studies published before the large-scale Russian invasion suggest that Ukraine would be significantly affected once the EU CBAM is fully implemented.

Based on data from 2019, a study on the role of the EU CBAM in increasing the ambition of climate policy in Ukraine found that 36.1% of Ukrainian exports to the EU could potentially be subject to the EU CBAM.³⁴

A modelling study on the potential impacts of the EU CBAM, on the other hand, indicated that the EU's trading partners would face limited negative impacts of the CBAM.³⁵ However, prior to the Russian invasion, the study estimated that Ukraine would be the most affected country because of the high carbon intensity of its iron and steel production and the fact that the EU is a major destination for Ukraine's exports in the relevant industrial sectors. The study considered a very low EU ETS price of USD 26/tCO₂e. Although current EU ETS prices are three to four times higher and may further rise, current

³⁴ IASS Potsdam, 2021, [The Role of the EU CBAM in Raising Climate Policy Ambition in Trade Partners](#) (last accessed on 2023/05/23)

³⁵ Chepeliev, 2021, [Possible Implications of the European Carbon Border Adjustment Mechanism for Ukraine and Other EU Trading Partners](#) (last accessed on 2023/05/15)

EU legislation stipulates that the CBAM will be phased in only gradually until 2034 for the majority of sectors. This means that the reference carbon price relevant for the calculation of the CBAM fee will be significantly lower, especially in the 2020s. Even though the study estimates the impact to be 'moderate', it suggests a potential reduction in per capita income of 0.4%, which is not insignificant. Chemicals, iron, and steel were identified as the most impacted sectors.³⁶

A 2021 study on the impact of the CBAM on the Ukrainian mining and metallurgical industry estimates that their losses could amount to EUR 155-200 million per year under an EU ETS carbon price of EUR 42/tCO₂e.³⁷ Assuming a more realistic EU carbon price of EUR 90, and taking into account the decision to gradually phase in the CBAM, a similar level of the CBAM charge would be reached in 2030 (namely EUR 43).

3.3. IMPACT OF THE WAR ON UKRAINE'S CBAM-COVERED SECTORS

According to Ukrainian officials, about 50% of Ukraine's installed power generation capacity was either destroyed, damaged, or occupied by autumn 2022.³⁸ Zaporizka Nuclear Power Plant (ZNPP), the largest nuclear power plant in Europe, has been occupied by the Russian military forces since early March 2022. The plant covered about 25% of electricity production in Ukraine. As of April 2023, Ukraine lost about 78% of its thermal power capacities³⁹. Around 15% of solar capacity and around 90% of installed wind capacity has either been completely destroyed or damaged and/or is located in areas occupied by Russia. Consequently, the Russian invasion has reduced the

available renewable capacity by 2.5 GW, which is about 25% of Ukraine RES capacities.⁴⁰ About 6% of the total installed RES capacity has been destroyed or damaged.⁴¹

Following the Russian invasion and Ukraine's request for emergency synchronisation with the *European Network of Transmission System Operators for Electricity* in March 2022, Ukraine started exporting electricity from its main grid to the European Union.⁴² After Ukraine decoupled from the Russian and Belarusian energy systems, the EU became Ukraine's main market for electricity exports. However, following massive missile strikes on 10 October 2022, which severely damaged Ukraine's energy infrastructure, Ukraine stopped exporting electricity to the EU.

Before the war, more than a quarter of all steel and steel products manufactured in Ukraine were exported to the EU, making it an important export sector. Cast iron and steel together accounted for 85% of Ukraine's pre-war exports from CBAM sectors.⁴³ However, 90% of Ukraine's steel mills have ceased operations as of April 2022. The Azovstal and Illyich metallurgical plants, which accounted for over 40% of Ukraine's steel production, were both destroyed during the siege of Mariupol.⁴⁴ Similarly, iron production in Ukraine has been reduced by 69.8% compared with 2021.⁴⁵ Congestion on the railways, which are now the main means of goods transport, including for exports, and the resulting increase in transport costs may also remain an issue after the war.⁴⁶

⁴⁰ Energy Community, 2022, [Ukraine: Annual Implementation Report](#) (last accessed on 2023/05/15)

⁴¹ Energy Charter Secretariat, 2023, [Ukrainian energy sector evaluation and damage assessment](#) (last accessed 2023/05/29)

⁴² Previously, only the so-called Burshtyn Island had been connected to the EU grid.

⁴³ Resource & Analysis Center „Society and Environment“, 2021, [Vplyv mekhanizmu vuhletsevoho koryhuvannia importu \(CBAM\) na torhivliu z ES \[Effects of the CBAM on trade with the EU\]](#) (last accessed on 2023/05/16)

⁴⁴ Eleuterio, 2022, [Steel Market: The Impact of Russia's Invasion of Ukraine](#) (last accessed on 2023/06/16)

⁴⁵ Kolisnichenko, 2023, [Ukraine increased the export of pig iron by 24.4% m/m in December 2022](#) (last accessed on 2023/05/16)

⁴⁶ Papatolios, 2022, [Not just grain: Ukrainian iron ore and steel](#)

³⁶ Chepeliev, 2021, [Possible Implications of the European Carbon Border Adjustment Mechanism for Ukraine and Other EU Trading Partners](#) (last accessed on 2023/05/15)

³⁷ GMK Center, 2021, [Vplyv CBAM na metalurhiynu haluz \[CBAM effects on the metallurgy industry\]](#) (last accessed on 2023/05/15)

³⁸ Ministry of Energy of Ukraine, 2023, [50% of Ukraine's energy infrastructure has been damaged](#) (last accessed on 2023/05/16)

³⁹ Energy Charter Secretariat, 2023, [Ukrainian energy sector evaluation and damage assessment - X](#) (as of May 24, 2023) (last accessed 2023/05/29)

Since the start of the war, the EU has become the main export destination for exports of iron, steel, and other products. As a result of Russia's continued bombardment and blockade of Ukraine's seaports, exporters have been forced to move away from sea shipments and now rely on rail transport. However, rail transport has proved less competitive in terms of volumes shipped, leading to a decline in Ukrainian exports from the CBAM sectors to the EU. In addition to the logistical challenges, the extensive damage to production facilities ultimately led to a dramatic drop in Ukraine's exports.

In 2022, total exports of aluminium from Ukraine decreased by 42.7% compared with 2021. Following a similar trend, aluminium exports to the EU amounted to USD 88.3 million in 2022, a decrease of 17.4% compared with 2021.⁴⁷

The Ukrainian cement market had seen a positive development in recent years, although Ukraine's cement exports were rather insignificant. After the start of the Russian invasion, the cement market in Ukraine experienced a drastic decline. Before the war, Ukraine had nine cement manufacturing plants. Baltsem, a cement manufacturing plant in the Kharkiv region, was severely damaged and suspended its operations. As a result of the war, in early 2023, total production to meet domestic consumption needs and exports did not exceed 50% of 2021 production levels.⁴⁸

After the start of the Russian invasion, Ukraine introduced a ban on fertiliser exports to give priority to domestic farmers. It was lifted in July 2022. As with other exports, fertiliser producers faced numerous logistical challenges because of Russian blockades of seaports.

Overall, Ukraine's relief and reconstruction needs are massive – and growing with the ongoing war. Estimates of the cost vary, usually ranging

suppliers bend under export pressure (last accessed on 2023/05/19)

⁴⁷ Diia Business, 2022, [Dashboard shchodo exportu Ukrainy \[Dashboard on Ukraine's exports\]](#) (last accessed on 2023/05/02)

⁴⁸ Kroka, 2023, "Zoloto budivnytstva". Yak ukrainski vyrobnyky tsemetnu adaptuvalysia do roboty v umovakh viyny ["Gold for building." How Ukrainians cement producers adapted to work under conditions of war] (last accessed on 2023/05/09)

from USD 200 billion to USD 1 trillion. The two core figures are USD 411 billion, an updated cost estimate by the World Bank,⁴⁹ and USD 750 billion, as suggested by the Ukrainian government in its National Recovery Plan.⁵⁰

3.4. FUTURE OPTIONS FOR UKRAINE'S MOST AFFECTED CBAM-COVERED SECTORS

Among the goods covered by the CBAM, electricity and ferrous metals are the most significant exports from Ukraine to the EU. Rebuilding their production facilities will be one of the major issues in Ukraine's reconstruction efforts. Different developments are possible.

Although the EU CBAM could play a role in incentivising decarbonisation in the industry, this may not necessarily be the case for the power sector. The CBAM regulation states that electricity importers can use their actual emissions for reporting purposes and as a basis for calculating the CBAM fee if emissions are lower than the EU's default value. This means that contracts with Energoatom, the Ukrainian state company that operates nuclear power plants, would benefit from reporting low emission values. This would allow Ukraine to export significant amounts of electricity to the EU with hardly any CBAM fee and no pressure to develop renewables.

According to the government's current plans for the energy sector, the development of renewable energy sources is expected to proceed very slowly.⁵¹ Over the next ten years, the government aims to develop 5-10 GW of renewable capacity. At the same time, the Draft Recovery Plan envisages the construction of 30 GW of renewable capacity exclusively for the production and export of green hydrogen to EU member states. Ukrainian environmental organisations,

⁴⁹ World Bank Group, 2023, [Ukraine: Rapid Damage and Needs Assessment](#) (last accessed on 2023/05/17)

⁵⁰ National Recovery Council, 2022, [Ukraine's National Recovery Plan](#) (last accessed on 2023/05/19)

⁵¹ National Recovery Council, 2022, [Ukraine's National Recovery Plan](#) (last accessed on 2023/05/19)

however, recommend that Ukraine's post-war recovery should prioritise domestic consumers. If the Ukrainian government decides to follow this path, some of the green hydrogen production should be made available to Ukrainian producers. For steel producers, for example, this could reduce the CBAM fee to zero.

Before the war, the steel sector was considered one of the sectors most affected by the EU CBAM because of its high share of basic oxygen furnace capacity, a very emission-intensive method of steel production. However, steel production facilities concentrated in Eastern Ukraine have been severely damaged or destroyed. Given their inefficiency, they are unlikely to be rebuilt in the same way. As a result, iron and steel may become less important as exported goods from Ukraine in the future. Another possible scenario is that when production facilities are rebuilt, they are to be based on more sustainable methods such as the electric arc furnace (EAF), gas-based or even green hydrogen-based direct reduction. The CBAM could thus become a driver for an accelerated green transition in post-war Ukraine. The GMK Center think tank has calculated that the CBAM is likely to benefit EAF steel producers, whose emissions are normally three to four times lower than those of Ukraine's pre-war steel producers. Hydrogen-based steelmaking processes have the potential to produce near-zero emission steel. However, they are not yet commercially viable on a large scale.

Theoretically, it is also possible that the EU could temporarily exempt Ukraine from the CBAM. According to Article 30.7 of the CBAM Regulation, provisional measures could be applied to address exceptional circumstances where an "unforeseeable, exceptional and unprovoked event has occurred that is outside the control of one or more third countries subject to the CBAM, and that event has destructive consequences on the economic and industrial infrastructure of such country".⁵² However, it seems reasonable

⁵² Official Journal of the European Union, 2023, [Regulation \(EU\) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism](#) (last accessed on 2023/05/30)

to assume that this provision would only apply to Ukraine in case Russia's war on Ukraine continues until CBAM's full implementation starts in 2026.

3.5. UKRAINE'S CLIMATE POLICY AND PLANS FOR CARBON PRICING

In climate policy, Ukraine has made some progress with the recent adoption of several key legislative and regulatory acts. In July 2021, Ukraine submitted its updated Nationally Determined Contribution (NDC) to the UNFCCC. It includes a greenhouse gas (GHG) emissions target that, for the first time, is intended to achieve a minor reduction in emissions. Ukraine has committed to an economy-wide absolute GHG emission reduction of 65% by 2030 compared to 1990 levels. However, by 2019, the country had already reduced its GHG emissions by 62.4% compared to 1990.⁵³ According to the government's NDC modelling, Ukraine's total financing needs between 2020 and 2030 would amount to EUR 540 billion to implement the updated NDC. In the past, Ukraine has struggled to access climate funds. Despite having a lower GDP than many Annex II countries that have received funding from the Green Climate Fund (GCF) in the past, as a UNFCCC Annex I country, Ukraine is not eligible for GCF funding or similar international climate funds.⁵⁴

Ukraine has had a carbon tax since 2011, which was introduced as part of an environmental tax on air pollution from stationary sources. It covers mainly the industry, power, and building sectors and applies to all types of fossil fuels and CO₂ emissions from facilities emitting at least 500 tCO₂e per year. Although the carbon tax covers just over 70% of the country's GHG emissions, its main problem is the price level, which is too low to provide incentives for measures to reduce emissions. The tax rate tripled from UAH 10/

⁵³ WWF Ukraine, 2022, [Nature-based solutions in water, forestry and agricultural sectors for the post-war restoration of Ukraine and further sustainable development, taking into account climate change](#) (last accessed on 23.05.2023).

⁵⁴ Climate Action Tracker, 2021, [Ukraine](#) (last accessed on 2023/05/23)

tCO₂e to UAH 30/tCO₂e in 2021, but this is still less than USD 1/tCO₂e. Ukraine's carbon tax is primarily used as a fiscal instrument, rather than supporting the energy transition, with revenues allocated to the state budget of Ukraine and divided between the general budget and special funds of local budgets. In 2020, the carbon tax, paid by 7,347 companies, amounted to USD 32.9 million (UAH 940 million).⁵⁵

As a result of the EU-Ukraine Association Agreement, which entered into force on 1 September 2017, Ukraine committed to implementing climate change policies, including a national ETS. Annex XXX of the Association Agreement includes a commitment to implement the EU Directive 2003/87/EC, which encompasses the introduction of an ETS for GHG emissions within five years after the entry into force of the Agreement. To implement its national ETS, Ukraine must adopt national legislation and designate a competent authority. Furthermore, it needs to identify relevant installations and GHGs, develop a national allocation plan to distribute allowances, and a system to issue allowances to be traded among installations in Ukraine. Finally, the establishment of monitoring, reporting, verification (MRV) and enforcement systems, and public consultation procedures is an integral part of setting up an ETS.⁵⁶

The Ukrainian government introduced a system for MRV in January 2021. This was a necessary step to ensure the environmental integrity of a future ETS. It was announced that the full implementation of the ETS in Ukraine would be completed after 2025, following at least three years of reliable data from the MRV system. In 2022, an estimated 1,200 installations submitted their first monitoring reports for 2021.⁵⁷ However, from March 2022, companies have been exempt from liability for failing to submit or delaying

the submission of their monitoring reports for the period of martial law and for three months following its end. As a result, the majority of 2022 monitoring reports were not submitted.

The government held five public working sessions in 2022 to discuss the key elements of an ETS, including sectors, allocation of allowances, and the overall functioning of the market and its oversight. Its scope, the cap and the approach to allocating allowances have yet to be identified. In addition to the ongoing war, the lack of up-to-date data on GHG emissions is an obstacle to the introduction of the ETS. As at least three years of complete data from the MRV system are needed to move forward with the implementation of the ETS, its launch in 2025 is not realistic. A new timeline is therefore needed.

3.6. TRANSFORMING THE CBAM CHALLENGE INTO AN OPPORTUNITY FOR UKRAINE

The early development of a robust carbon pricing mechanism with a possible link to the EU ETS in the long term would exempt Ukraine from the CBAM, or at least reduce the CBAM fee for exporters, and support the modernisation of Ukraine's energy and industry sectors. This is relevant as Ukraine's EU accession will likely take longer than the introduction of CBAM. To mitigate potential negative effects of a high carbon price, Ukraine's carbon pricing revenues could be used to help manufacturers invest in reducing their carbon footprint to (near) zero.⁵⁸

However, additional financial support for the build-up of a zero-carbon industry and power market is also key. With Ukraine's need to rebuild its economy and infrastructure, the country will likely receive significant funds from abroad. A considerable portion of international recovery funding should be targeted towards building a more resilient zero-carbon industry and power sector.

⁵⁵ Ieremenko, 2021, [Tsina vuhletsiu v Ukraini ta praktyky vykorystannia nadhodzhen vid podatku na CO₂ \[Carbon price in Ukraine and examples of utilising revenues from a carbon tax\]](#) (last accessed on 2023/05/17)

⁵⁶ International Carbon Action Partnership, 2022, [Ukraine](#) (last accessed on 2023/05/23)

⁵⁷ International Carbon Action Partnership, 2021, [Ukraine plans to launch ETS in 2025](#) (last accessed on 2023/05/23)

⁵⁸ For Ukraine's options according to the CBAM Regulation see chapter 1

Additionally, as Ukraine has been granted candidate status for EU accession, it will be eligible for the Instrument for Pre-Accession Assistance (IPA), which supports the implementation of necessary political and economic reforms and prepares the country for EU membership. Here, too, it will be key for the EU and Ukraine to use these funds wisely for the zero-emission build-up and just transition of the economy.

Ukrainian exporters consider the establishment of a dedicated international fund or a fund similar to the EU Just Transition Fund that supports the decarbonisation of affected EU trading partners to be a fair option.⁵⁹ Particularly with regard to the transformation of mono-industrial Ukrainian cities, Ukraine could advocate for the EU to create a just transition fund for Ukraine, or to grant Ukraine a status in the EU Just Transition Fund that includes technical assistance and other non-budgetary aspects of the Fund. In theory, part of the IPA funds could be used for a separate just transition fund. However, ensuring that local authorities have access to funding can make a significant difference in regions especially affected by the transition.

In addition, a good option for future programmes to help Ukraine recover and rebuild could be the creation of a renewable technology mechanism for industrial reconstruction. To power low-carbon industrial facilities, it is important to increase the rate of growth of renewable energy production in Ukraine. An attractive but affordable incentive system could incentivise prosumers and communities to invest in renewables. Renewables have low operating costs but relatively high upfront investment requirements. Reducing capital costs through state guarantees and supporting investors with the necessary power grid access could be a way forward for the Ukrainian government and international partners, as long as such support is in line with EU State aid rules, as required under the Energy Community Treaty.

Green hydrogen could contribute to industrial decarbonisation, particularly in sectors covered by the CBAM. However, it should be considered with caution because of possible trade-offs with other more energy efficient ways of using renewable electricity. As the production of green hydrogen is very energy intensive, priority should be given to the 'low-hanging fruit' of using renewable energy to replace coal-fired power generation as well as gas and coal-fired heating systems (e.g. by heat pumps). In many sectors, such as heating, urban public transport, and some industries, direct electrification would be much more affordable and efficient than using renewable hydrogen.

4. POLICY RECOMMENDATIONS

Recommendations for countries affected by the EU CBAM

As signatories to the Paris Agreement, all countries are committed to meeting their Nationally Determined Contributions (NDCs) and contributing to the goal of stopping global heating at well below 2°C while striving for 1.5°C. This means that all countries will have to reduce emissions and implement a zero-carbon economy. Given the potential negative effects of the EU CBAM, countries may want to focus on the affected sectors first. In general, **reducing the carbon intensity of products exported to the EU or introducing a carbon price in the relevant sectors can reduce the negative effects of the EU CBAM.** The lower the carbon footprint of exports and the closer the national carbon price is to that of the EU, the lower the CBAM fee and thus the impact on the economy. In the following, we briefly summarise how affected countries could turn the EU CBAM from an economic burden into an opportunity for green growth.

TAKING STOCK AND SETTING PRIORITIES

As a first step, countries could **identify the sectors and companies most affected by the EU CBAM** in order to target policies and measures accordingly. In a second step, the government, in close cooperation with the concerned companies, could identify emission reduction measures that are relatively easy or cheap to implement

⁵⁹ IASS Potsdam, 2021, [The Role of the EU CBAM in Raising Climate Policy Ambition in Trade Partners](#) (last accessed on 2023/05/23)

(so-called low-hanging fruits) or that have immediate economic (monetary) benefits short and medium term (such as energy efficiency measures). Subsequently, they could identify emission reduction measures that require higher investment or more profound changes in production. This way, governments can develop a prioritised project pipeline, taking into account both the cost and the estimated emission reduction potential of a given project or measure. As a next step, they could **identify and prioritise the necessary support measures** and decide who is best placed to provide the required support (for example, the government, the EU, other foreign contributors). In parallel, the government could identify appropriate measures and policies to create an enabling environment for private sector engagement towards a carbon-neutral transformation. Depending on national circumstances, the government could, for example, implement carbon pricing policies, regulatory legislation, or support schemes.

IMPLEMENTING CARBON PRICING

For most countries, it makes sense to implement carbon pricing instruments to limit any adverse effects of the EU CBAM on the national economy. A domestic carbon price in the relevant sectors will be deducted from the CBAM fee and reduce the overall CBAM burden. It also acts as an effective incentive for producers to reduce the emission intensity of their products. Carbon pricing can therefore play an important role in the climate-friendly transformation of the energy and industry sectors. In addition, it generates revenues that can and should be recycled to support the just transition.

Carbon pricing can be implemented either as a carbon tax or as an emissions trading system (ETS). The introduction of a carbon tax provides investment security for companies, given the predefined price path, and makes government revenues relatively predictable. In contrast, an ETS with its emissions cap offers more precision and (higher) certainty of reaching a specific emission reduction target.

In most cases, it can be recommended to start with a moderate carbon price and gradually increase it until it reaches the EU level. As the EU CBAM will be gradually phased in (for all sectors except electricity) starting from 2026, with full application according to current ruling by 2034, a sensible option could be to start phasing in carbon pricing as soon as possible and reach the EU level by 2030 at the latest, when the CBAM phase-in will stand at 48.5% of emissions in covered sectors, according to the timeline currently agreed. This will allow countries to keep CBAM fees low across the board.

Carbon pricing can be applied to the whole economy or only to the sectors covered by the EU CBAM. If the main objective is to avoid CBAM fees, it may be enough to introduce carbon pricing in the affected sectors. However, the broader the scope of carbon pricing, the greater the benefits in terms of promoting the low-carbon transformation of the economy, supporting energy sovereignty and generating revenues.

For EU candidate countries, the requirements of the EU accession process are also important to consider, as they will oblige them to reach the EU level of climate ambition and to join all EU legislation and targets. In principle, candidate countries have a choice between a carbon tax and an emissions trading system. However, given the prospect of joining the EU ETS, it may make sense to prioritise the establishment of a national ETS (maybe in the beginning with an upper and lower price cap). This would allow the respective country to kill two birds with one stone: reduce any negative CBAM impacts and prepare for EU accession. However, from an administrative point of view, a carbon levy is often easier and quicker to set up than an ETS. In addition, an ETS requires a certain number of market players to be able to function properly. Therefore, for some very small countries or countries with very limited administrative capacity, the introduction of a carbon tax may be the preferred option.

The **revenues generated** by the carbon tax or, in the case of an ETS, the auctioning of emission allowances, should be used in ways that support

a just transition and further minimise negative impacts of the EU CBAM. For example, the government could provide financial support to companies for investments into emission reduction technologies. This support could include Carbon Contracts for Difference, grants or low-interest loans (see next section). Revenues can also be recycled to address the social aspects of the structural changes associated with the green transition, for example by financing vocational retraining in coal mining areas affected by the phase-out of coal.

IMPLEMENTING REGULATORY LEGISLATION AND SUPPORT SCHEMES

In addition to, or as an alternative to, carbon pricing, governments could implement regulatory legislation to drive the green transition in the sectors covered by the EU CBAM. Financial support schemes could be financed by the carbon price.

Appropriate policies will always depend on national circumstances and can be categorised into supply, financing, and marketing.

Supply: Public authorities should aim to ensure the availability of sufficient renewable electricity. This may include a legally binding phase-out of coal and/or a feed-in tariff for renewable electricity.

Financing: Facilitating investment is essential. To achieve this, governments can set up targeted subsidy programmes or reduce the cost of capital for companies through government guarantees, amongst others.

Marketing: Governments could create and promote green lead markets, for example through green public procurement and ambitious emission standards.

BOX RECOMMENDATIONS FOR THE EU

By introducing the CBAM, the EU will be at the forefront of promoting the compatibility of high carbon prices with the competitiveness of heavy industries. However, it should not pursue its green transition at the expense of economically weaker countries. Instead, it should underline its commitment to international climate cooperation, multilateralism, and the principles of the Paris Agreement.

In this context, the EU should cooperate with and support low-income countries whose economies will be affected by the CBAM with regard to the transition to a modernised, low-carbon industry and energy system. Such assistance should be both technical and financial. By supporting less affluent trading partners, the EU would not only demonstrate that it takes its responsibility to promote climate justice seriously. It would also contribute to the emission reductions needed to keep the 1.5 degree target within reach.

As a first and essential step, the EU should use its CBAM revenues to support the affected countries in their efforts to decarbonise. The bulk of EU CBAM revenues should support low-carbon development and the just transition in countries in need. As a further step, the EU should provide technical support and additional funding where needed.

There are several suitable channels for providing financial support. First, the EU could establish bilateral climate partnerships or make a targeted contribution to existing partnerships such as JETPs. In a previous study, we have shown that the number of countries substantially affected by the EU CBAM is very limited.⁶⁰ In this context, a viable option would be to implement a small number of tailor-made climate (industry or power sector transition) partnerships with affected trading partners. CBAM induced climate partnerships could focus specifically on sectors covered by the CBAM, or more broadly

⁶⁰ Germanwatch, 2021, [Less confrontation, more cooperation](#), (last accessed on 2023/05/09)

support the decarbonisation of industry and/or the power sector.

Second, the EU could establish a new multilateral Just Industry Transition Fund with preferential or exclusive access for low or middle-income trading partners affected by the CBAM. The fund could be managed either by the EU or by a supranational organisation such as the OECD.

Countries could have varying degrees of access to the financial resources, depending on

- the extent to which they are affected by the CBAM,
- their per capita GDP, or
- their ambition with respect to the green transformation.

Third, the EU could open or strengthen specific windows in existing funds, such as the IPA (for EU candidates), the EU Just Transition Fund (for EU candidates) or reconstruction funds (for Ukraine). The EU Just Transition Fund is a funding scheme for the energy transition to a sustainable, climate-neutral economy. In case it will include acceding countries the fund should receive a top up, for example through EU revenues generated from CBAM.

Depending on the country concerned, financial support could target the expansion of renewable energy and energy efficiency or specific industrial sectors and processes.

In addition to financial support, the EU should also provide technical assistance. This could include support for monitoring and reporting emissions at company-level and support for climate policies such as carbon pricing. The EU could support peer-to-peer learning and enable state-of-the-art technology transfer.

The EU would also benefit from developing exchange formats or specific capacity building programmes that demonstrate how third countries can use the CBAM as an opportunity to accelerate their industry transformation and increase the ambition of their NDCs. These programmes could focus on how to reduce CBAM fees, for example through the introduction of carbon pricing.

Furthermore, the EU should make a major effort to communicate the rationale and functioning of the EU CBAM to stakeholders outside the EU. It could develop communication formats to highlight that the EU CBAM is not intended as a protectionist, unilateral tool to gain competitive advantage, but rather as a tool to achieve ambitious climate goals.

In addition, the EU should communicate its willingness to cooperate and offer support. Member States could e.g. engage their embassies in order to reinforce the positive impact that the CBAM can have in advancing the green transition in trading partner countries. As the EU CBAM can be (and is partly already working as) an important incentive for third countries to accelerate their industry transition, the EU should make a major effort to maximise this positive incentive.

5. CONCLUSION

The EU CBAM is a milestone in EU climate policy as it allows the EU to reconcile rising carbon prices with the international competitiveness of its companies. It therefore plays an important role in enabling the EU to achieve its ambitious climate targets. At the same time, negative effects on the EU's trading partners cannot be ruled out. Exports of those countries that are not able to act could gradually become more expensive and in some of these countries, entire regions may depend on a carbon-intensive industry that heavily depends on the EU market. Our analysis of the Western Balkans and Ukraine shows, however, that the negative effects can be kept in check and that the EU CBAM in fact presents an opportunity to accelerate the transition to climate neutrality.

The Western Balkans are at different stages of the EU accession process, which would, as a rule, include the establishment of a national carbon pricing system and a later inclusion into the EU's ETS as an EU accession precondition, anyway. Therefore, the EU CBAM is an additional incentive to quickly adopt and implement the relevant EU legislation in these countries.

For Ukraine, our analysis carries a high degree of uncertainty, given the unpredictability of Russia's war against the country. However, we argue that the EU CBAM presents opportunities for guiding the reconstruction of the country. This should also be made a priority in any negotiations with contributing countries.

Global greenhouse gas emissions must peak by 2030 if the international community is to keep the temperature goal of the Paris Agreement within reach, and all countries must step up their efforts to reduce emissions. Trading partner countries should therefore not consider the EU CBAM a burden, but rather an additional stimulus to drive the necessary transformation towards climate neutrality. Governments could use carbon pricing instruments, regulatory measures, and financial support schemes to accelerate their green transition and minimise the negative impact of the EU CBAM. The EU should provide financial and technical support to low and middle-income countries affected by the CBAM to enable a rapid decarbonisation of the economy.

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THANK YOU

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