

# European Union Carbon Border Adjustment Mechanism

July 2024



## Executive Summary

- The European Union (EU) Carbon Border Adjustment Mechanism (CBAM) is a key policy tool implemented by the EU within the context of the EU Green Deal, which aims to achieve the EU's climate targets.
- According to the EU Commission, the EU CBAM aims "to put a fair price on the carbon emitted during the production of carbon-intensive goods that are entering the EU, and to encourage cleaner industrial production in non-EU countries".<sup>1</sup>
- The EU CBAM applies to certain products imported into the EU from non-EU countries. Initially it will apply only to a limited number of carbon-intensive product categories, including cement, iron and steel, aluminium, fertilisers, electricity, and hydrogen.
- The transitional, or pilot, phase of the EU CBAM commenced on 1 October 2023, initially only enforcing a reporting requirement. Once the definitive phase commences on 1 January 2026, the EU CBAM will include a charge levied on the carbon emissions embedded in designated imported products.
- According to the Presidential Climate Commission, the high emissions intensity of electricity generation in South Africa, relative to many other countries, will mean a large cost differential to the detriment of South African producers as the CBAM expands over time and includes indirect emissions for all CBAM goods.
- The EU CBAM, is, however, designed to take into consideration "actual values" of embedded emissions, allowing for decarbonising efforts at company level to result in a lower CBAM payment if certain conditions are met. The CBAM also deducts the effective carbon prices already paid outside the EU.
- In 2023, ZAR43.40 billion worth of South African exports earmarked for the EU fell within the ambit of the EU CBAM. This exposure presents a potential export risk of approximately 2.13% of South Africa's total global exports, with an associated decline in nominal Gross Domestic Product (GDP) of 0.62%.
- Of this, ZAR180.62 million worth of Western Cape exports designated for the EU fell within the ambit of the EU CBAM in 2023. This placed at risk approximately 0.09% of the Western Cape's total global exports, with an associated decline in provincial nominal GDP of 0.02%.
- The significance of this risk for both South Africa and the Western Cape is particularly pronounced in key sectors, namely iron and steel, as well as aluminium and hydrogen.
- The EU CBAM is a bellwether for the tensions resulting from increasing climate regulations and the international trade system. The mechanism has raised the ire of many developing countries, including South Africa, who have taken a strong stand against the EU CBAM and similar unilateral trade measures at various international fora, including the World Trade Organisation (WTO) and UN Climate Change Conference (COP28).

<sup>1</sup> European Commission. Taxation and Customs Union. Carbon Border Adjustment Mechanism. Available [here](#).

## 1. What is a CBAM?

A Carbon Border Adjustment Mechanism (CBAM) is a policy tool that aims to increase the consistency of applying carbon pricing to goods produced in different jurisdictions yet traded between those jurisdictions. It essentially aims to equalise the carbon price between foreign and domestic products, thereby preventing carbon leakage.

Carbon leakage occurs through relocating the production of carbon-intensive goods from a jurisdiction with more ambitious climate regulations and decarbonisation enforcement, to jurisdictions with less strict enforcement. Or it occurs if imports replace equivalent products in countries with stricter climate regulations – and thus incur higher production costs.

Until recently, there have been relatively few operative examples of CBAMs with no national or supranational jurisdictions having implemented such a system. Furthermore, CBAMs have not been considered for wide ranges of different products, nor have they been considered in relation to trade across international borders. This has changed with the European Union's (EU's) introduction of its own CBAM. Beyond the EU, the most notable system in place is in California where a CBAM imposes measures for electricity which is generated outside the state boundaries but imported into California. The EU CBAM could serve as a catalyst for various other countries, such as Japan and Canada, to introduce their own CBAMs.<sup>2</sup>

In December 2023, the UK government announced their plans to implement a CBAM from 2027 onwards and set out which sectors would be impacted.<sup>3</sup> Aiming to encourage domestic decarbonisation in line with their climate goals,<sup>4</sup> they launched consultations in March 2024. This involved publishing a [draft document](#) for public comment.<sup>5</sup> In terms of scope, while there is significant overlap with the EU CBAM in that it similarly covers fertiliser, iron, steel, aluminium, hydrogen and cement, it excludes electricity and goes further in covering glass and ceramics. Australia has announced that it would commission a review to examine the feasibility of an Australian CBAM in the context of the Safeguard Mechanism reforms. A number of proposals have also been put forward in the United States Congress related to a carbon intensity fee on traded goods.<sup>6</sup> Essentially, exporting countries appear increasingly to be facing the choice of either taxing their companies at home or allowing them to be taxed in the EU. Over time, should CBAMs become increasingly common, it is likely that countries will be more inclined to try and capture this additional revenue source internally. Despite these steps being taken by various countries, there is also a strong argument being made that CBAMs are unilateral measures that undermine the principles of multilateralism and should not be implemented.

## 2. What is the EU CBAM?

The CBAM falls under EU Green Deal and forms part of the “Fit for 55” legislative package, which supports the EU's target of reducing net greenhouse gas emissions by at least 55% by 2030 and achieving climate neutrality by 2050.

The EU CBAM takes the form of a charge levied on the carbon emissions embedded in certain products imported into the EU from non-EU countries. It applies to a limited number of carbon-intensive product categories (listed below), all of which currently fall within the ambit of the EU Emissions Trading System (EU ETS).

The EU CBAM has been designed to work in conjunction with the EU ETS. It aims to ensure that the pricing of carbon for carbon-intensive goods imported to the EU is equivalent to the pricing of carbon for domestic production in the EU. This aims to reduce the risk of the EU's climate objectives being undermined through carbon leakage as it ramps up measures aimed at meeting its climate targets. The EU CBAM initially targets those industries most at risk of carbon leakage. According to the EU, its CBAM is also expected to encourage and support the reduction of greenhouse gas (GHG) emissions in third countries.<sup>7</sup>

From October 2023 to the end of 2025, the EU CBAM will apply only as a reporting obligation. From 2026 onwards, the purchasing of CBAM certificates will be required. The EU CBAM will be phased in gradually, parallel to a phasing out of the free allowances afforded through the EU ETS. This phasing period is expected to last nine years with planned completion in about 2034.

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<sup>2</sup> Ernst & Young. The Carbon Border Adjustment Mechanism: Can carbon pricing be your new competitive edge?. April 2023. Available [here](#).

<sup>3</sup> Factsheet: UK Carbon Border Adjustment Mechanism. Updated December 2023. Available [here](#)

<sup>4</sup> Norton Rose Fulbright. Carbon Border adjustment Mechanism in the UK: What is and how does it interact with the EU CBAM?. February 2024. Available here. KPMG. UK CBAM announced for 2027. January 2024. Available [here](#).

<sup>5</sup> Ernst & Young. UK: Consultation launched on proposed UK Carbon Border Adjustment Mechanism. March 2024. Available [here](#)

<sup>6</sup> Ernst & Young. Carbon Pricing and the new competitive edge: The EU's Carbon Border Adjustment Mechanism and what it means for your business. December 2022. Available [here](#).

<sup>7</sup> European Commission. Carbon Border Adjustment Mechanism: Questions and Answers. 14 July 2021. Available [here](#).

### 3. What products are subject to the EU CBAM?

The EU CBAM will initially apply to products within the following categories:

- cement
- iron and steel
- aluminium
- fertilisers, including nitrates
- electricity
- hydrogen

A comprehensive list is included in Annex I of **Regulation (EU) 2023/956 of the European Parliament and of the Council establishing a carbon border adjustment mechanism (CBAM Regulation)**. A copy of Annex I can also be found at the end of this factsheet.

The product scope will be reviewed by the end of the transitional period to assess the feasibility of including other goods that are included in the EU ETS. The European Parliament have signalled that they aim to expand the scope to include plastics and chemicals by 2026 and to all sectors covered by the EU ETS by 2030.<sup>8</sup>

### 4. What type of emissions are subject to the EU CBAM?

The application of the EU CBAM requires the calculation of embedded emissions in imported CBAM goods. This includes direct and indirect emissions, depending on the product.

During the transitional phase, both direct and indirect emissions will need to be reported for all CBAM goods.

After 1 January 2026, the CBAM scope excludes indirect emissions for the charges to be levied on iron & steel, aluminium and hydrogen. Thus, after 1 January 2026, only direct emissions will be taken into account for these products.<sup>7</sup> Direct and indirect emissions will be taken into account for cement and fertilisers. It should be noted that this may be subject to change.

A full list of goods for which only direct emissions are to be taken into account can be found in Annex II of the **CBAM Regulation**. A copy of Annex II can also be found at the end of this factsheet.

According to the European Commission, for the purposes of the CBAM, the concept of embedded emissions is based on the principles and requirements for a carbon footprint of products (CFP), but is not fully aligned, as the CBAM is narrower. The difference in scope is because the CBAM is intended to cover the same emissions as would be covered by the EU ETS if the production were situated in the EU. The system boundaries of emissions covered by the EU ETS, and therefore the CBAM, are narrower than those in a CFP.<sup>9</sup>

The Guidance Document on CBAM Implementation provides the following definitions:<sup>10</sup>

- 'Embedded emissions' means emissions released during the production of goods, including the embedded emissions of relevant precursor materials consumed in the production process.
- 'Direct emissions' means emissions from the production processes of goods, including emissions from the production of heating and cooling consumed during the production processes, regardless of the location of the production of the heating and cooling.
- 'Indirect emissions' means emissions from the production of electricity, which is consumed during the production processes of goods, regardless of the location of the production of the consumed electricity.

The Regulation states that the Commission will have to establish a timetable for the gradual inclusion by 2030 of all EU ETS covered products, their indirect emissions, and, eventually, the emissions from international transportation.

### 5. When will the EU CBAM start being enforced?

The EU CBAM commenced with its transitional phase on 1 October 2023. The transitional phase will serve as a pilot; during this time, the CBAM will carry no financial obligations for importers and will be applied solely for data collection purposes. EU CBAM importers are required to report a set of data, including emissions embedded in their goods, without paying a financial adjustment for the embedded emissions. The first reporting period ended on 31 January 2024.

The permanent (or "definitive") system is set to commence on 1 January 2026.

From 2026 to 2033, there will be a gradual phase-in of the EU CBAM's application as free allocations under the EU ETS are phased out in parallel.

<sup>8</sup> Ricardo. FAQ: The Carbon Border Adjustment Mechanism (CBAM). 04 September 2023. Available [here](#)

<sup>9</sup> European Commission. Guidance document on CBAM implementation for installation operators outside the EU. 8 December 2023

<sup>10</sup> European Commission. Guidance document on CBAM implementation for Importers of goods into the EU. Available for download [here](#).

From 2034, all embedded emissions of CBAM-covered goods will require CBAM certificates and no free allocation will be given under the EU ETS for these goods.<sup>11</sup>

## 6. Does the CBAM apply to imports from all non-EU countries? Will the CBAM take into account carbon taxes paid in the country of origin?

The way in which the EU CBAM cost is applied to imports will take into account the effective price of carbon already paid in the country of origin.

Goods originating in countries that fully apply the EU ETS, (thus EU countries plus Iceland, Lichtenstein and Norway), or that have concluded an agreement fully linking their emissions trading system with the EU ETS, such as Switzerland, are entirely excluded from the EU CBAM.<sup>12</sup> The CBAM applies to imports from all other countries.

It is purported that the EU CBAM will ensure that imported products will get “no less favourable treatment” than EU products, due to three design features:

- the EU CBAM takes into consideration “actual values” of embedded emissions; this will mean that the decarbonising efforts of companies exporting to the EU will result in a lower CBAM payment
- the price of the CBAM certificates to be purchased for the importation of the CBAM goods will be the same as for EU producers under the EU emissions trading system (EU ETS) and
- the effective carbon prices paid outside the EU will be deducted from the adjustment to avoid a double price.<sup>13</sup>

The Commission will develop secondary legislation before the end of the transitional period to establish how to calculate the effective carbon price paid abroad. During the transitional period, reporting needs to include the price of carbon in a country of origin for the embedded emissions in the imported goods, taking into account any rebate or other form of compensation available, for information purposes.<sup>14</sup>

## 7. What is the EU emissions trading system?

Introduced in 2005, the EU ETS is a cornerstone instrument of the EU’s policy framework to reduce GHG emissions. It makes polluters pay for their GHG emissions and helps reduce emissions over time.<sup>15</sup>

The EU ETS currently applies to around 40% of the EU’s emissions, covering emissions from roughly 10,000 installations in the energy and manufacturing sectors, and aircraft operators flying within the EU.

The EU ETS works on the ‘cap and trade’ principle. A cap sets a limit on the total amount of greenhouse gases that can be emitted by the installations and aircraft operators covered by the system. The cap is reduced annually in line with the EU’s climate target.<sup>16</sup>

The cap is expressed in emission allowances, with one allowance equating to the right to emit one tonne of CO<sub>2</sub>eq (carbon dioxide equivalent). Companies must surrender enough allowances to fully account for their emissions for each year. Within the cap, companies primarily buy allowances on the EU carbon market, but they also receive some allowances for free. Allowances can be traded among companies as needed.

The EU ETS operates in all EU countries as well as Iceland, Liechtenstein and Norway.<sup>17</sup>

In April 2023, the EU adopted a broad set of laws to implement the “Fit for 55” policy package, including a significant reform of the EU ETS. The reforms effectively place emissions trading at the heart of the EU’s decarbonisation agenda.

The reforms include, among other things, a more ambitious reduction target of 62% by 2030 for the EU ETS sectors; the phase-out of free allocation in some sectors accompanied by the phase-in of the EU CBAM; the expansion of the EU ETS to cover maritime shipping; and a new and separate ETS for buildings, road transport, and additional sectors (ETS 2).<sup>18</sup>

A new, separate emissions trading system, called ETS 2, was created in 2023, covering fuel combustion in buildings, road transport and additional sectors (mainly small industry not covered by the existing EU ETS).<sup>19</sup> ETS 2 will launch in 2027 or 2028, though with several safeguards.<sup>20</sup>

<sup>11</sup> European Commission. Questions and Answers: Carbon Border Adjustment Mechanism (CBAM). 28 November 2023.

<sup>12</sup> European Commission. Questions and Answers: Carbon Border Adjustment Mechanism (CBAM). 28 November 2023.

<sup>13</sup> European Commission. Questions and Answers: Carbon Border Adjustment Mechanism (CBAM). 28 November 2023.

<sup>14</sup> European Commission. Questions and Answers: Carbon Border Adjustment Mechanism (CBAM). 28 November 2023.

<sup>15</sup> International Carbon Action Partnership. EU Emissions Trading System (EU ETS) Fact Sheet. Available [here](#).

<sup>16</sup> European Commission. What is the EU ETS?. Available [here](#).

<sup>17</sup> European Commission. What is the EU ETS?. Available [here](#).

<sup>18</sup> International Carbon Action Partnership. EU adopts landmark ETS reforms and new policies to meet 2030 target. 23 May 2023.

<sup>19</sup> European Commission. ETS 2: buildings, road transport and additional sectors. Available [here](#).

<sup>20</sup> Marcu, A., López Hernández J.F., De Graeve, B. (2023): “EU ETS Review. Political agreement after trilogues”. ERCST. January 2023.

## 8. How are indirect embedded emissions of imported goods calculated?

The EU CBAM Implementing Regulation<sup>21</sup> provides specific methodologies for the calculation of embedded emissions (Annex III of Implementing Regulation) for reporting during the transitional period. These are expanded on in guidance documents on implementation published in December 2023.

This section will provide a high-level overview of the approach to indirect embedded emissions during the transitional phase.

During the transitional period of the CBAM, indirect embedded emissions have to be reported separately from the direct embedded emissions, for all goods covered. Indirect emissions are determined by multiplying the electricity consumed in the production process with the relevant emission factor for electricity. This can be based on the grid or on actual values.<sup>22</sup>

As a general rule, the default value provided by the European Commission should be used for the emission factor. However, there are certain conditions under which the operator may use actual data for the emission factor, set out in Annex IV section 6:

- If there is a direct technical link between the installation in which the CBAM product is produced and the electricity generation source; or
- If the operator of that installation has concluded a power purchase agreement with a producer of electricity (provided certain conditions are met).<sup>23</sup>

According to the European Commission,<sup>24</sup> “the default values represent the average emission factors of the country of origin’s electricity grid, based on data from the International Energy Agency (IEA).” These are made available to reporting declarants through the CBAM Transitional Registry. The default values in the CBAM Transitional Registry represent the five-year-average emission factors for electricity covering the years 2016 to 2020. They are provided for around 150 countries. If a default value is not available for a specific country, the Registry attributes the world average emission factor as provided by the IEA.

If a reporting declarant does not want to use the default values made available by the Commission, there is also the possibility of using any other emission factor of the country of origin’s electricity grid based on publicly available data representing either the average emission factor or the CO<sub>2</sub> emission factor.

The default values referred to in this section apply only until the end of the transitional period on 31 December 2025. From 2026 onwards, another set of default values will apply.

## 9. How will the EU CBAM impact South Africa?

There is a significant difference between the carbon price of South African (about 10–12 US\$/tonne of CO<sub>2</sub> emitted) and EU emissions allowances (about 109 US\$/tonne of CO<sub>2</sub> emitted in March 2023).<sup>25</sup> Therefore, importers of CBAM goods from South Africa will still need to buy and submit CBAM certificates to cover the difference.<sup>26</sup> Indirect emissions are particularly problematic for South Africa, as the emissions intensity of electricity generation in South Africa is significantly higher than not only that of the EU, but also of many other countries that export to the EU. This, according to the Presidential Climate Commission, would result in a large cost differential to the detriment of South African producers. The European Environment Agency reports, for example, that the average EU GHG emissions intensity of electricity generation in 2020 was about 200gCO<sub>2</sub> e/kWh, compared to about 720gCO<sub>2</sub> e/kWh in South Africa in the same year.<sup>27</sup>

According to Trade and Industrial Policy Strategies (TIPS)<sup>28</sup>, South Africa is one of a number of countries worldwide which are vulnerable to the EU CBAM. This is due to the high carbon intensity of South Africa’s exports to the EU and the volume of CBAM exports. Being heavily reliant on coal-based power generation makes South Africa one of the most carbon-intensive exporters in the world. Thus, there is significant urgency to focus efforts on decarbonisation, and on ensuring that exporting industries are enabled to take measures to decarbonise at company level.

The CBAM also imposes significant financial and compliance costs, with exporting firms needing to account for, report and verify the embedded emissions in their products.

The section below presents a trade analysis showing the exposure of South African and Western Cape exports to the EU CBAM.

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<sup>21</sup> Commission Implementing Regulation (EU) 2023/1773 of 17 August 2023.

<sup>22</sup> European Commission. Questions and Answers: Carbon Border Adjustment Mechanism (CBAM). 19 July 2024.

<sup>23</sup> Guidance Document on CBAM implementation for Installation Operators outside the EU. 8 December 2023.

<sup>24</sup> European Commission. Default values for the transitional period of the CBAM between 1 October 2023 and 31 December 2025. 22 December 2023.

<sup>25</sup> Deloitte. EU Carbon Border Adjustment Mechanism (CBAM) and how it impacts South African business. October 2023

<sup>26</sup> Deloitte. EU Carbon Border Adjustment Mechanism (CBAM) and how it impacts South African business. October 2023

<sup>27</sup> Presidential Climate Commission Working Paper: Carbon Border Adjustment Mechanisms and Implications for South Africa. February 2023.

<sup>28</sup> Maimele, S. Responding to the European Union’s Carbon Border Adjustment Mechanism (Cbam): South Africa’s Vulnerability and Responses. Trade and Industrial Policy Strategies (TIPS). July 2023.

## 10. Trade analysis for South Africa and the Western Cape under the EU CBAM

### 10.1 Introduction

This evaluation provides a comprehensive overview of the potential repercussions of the EU CBAM on exports originating from both South Africa and the Western Cape. The extended analysis incorporates a risk calculation methodology that assesses the EU CBAM's impact on specific sectors covered by the mechanism. To gauge this risk, the approach involves determining the value of exports covered by the EU CBAM within a relevant product sector that is intended for the EU market. This value is then divided by the global exports of that specific product, offering insight into the proportion of EU CBAM-covered exports susceptible to potential vulnerability or risk. This methodology enables the identification of the percentage of total exports that could be at risk as the EU CBAM drives up the cost of embedded emissions in these products destined for the EU market.

The assessment implies that the risk posed by the EU CBAM to exports is heightened when the policy encompasses a significant percentage of products within a specific industry, and when a substantial portion of global exports of CBAM-regulated goods is directed towards the EU market. Conversely, the risk diminishes when the CBAM covers a smaller share of products within an industry, and/or when the proportion of these products exported to the EU is relatively low compared to global exports.

Please note that in the following section "CBAM exports" or "CBAM goods" refers to all products within a product sector that fall under the EU CBAM, as detailed in Annex 1. "EU CBAM exports" refers specifically to CBAM exports destined for the EU.

Key findings:

- A share of 2.13% of South Africa's global exports are exposed to potential risk, with 0.09% of the Western Cape's exports susceptible to the conditions imposed by the EU CBAM in 2023. These conditions carry the potential for a 0.62% reduction in South Africa's nominal GDP, coupled with a corresponding 0.02% decrease in the nominal GDP of the Western Cape. Notably, both risks are predominantly influenced by the export dynamics of iron and steel, as well as aluminium.
- In 2023, approximately 66% of South Africa's global iron and steel exports fell under the ambit of the EU CBAM. Of these, CBAM exports of iron and steel valued at ZAR30.79 billion are destined for the EU market. Consequently, around 11.64% of South Africa's total iron and steel exports face potential risk due to the implications of the EU CBAM.
- Regarding the Western Cape, the risk to the province's iron and steel exports is less pronounced, having been approximately 2.74% in 2023.
- The EU was the second largest global export region for South Africa's aluminium exports in 2023. With the EU CBAM policy applicable to about 97.26% of aluminium exports and ZAR12.58 billion worth of CBAM-covered aluminium exports destined for the EU, an approximate 30.73% of South Africa's aluminium exports are at risk.
- With reference to aluminium exports from the Western Cape, approximately 5.27% of these exports are at risk, as ZAR52.2 million in CBAM-covered exports are destined for the EU.
- Cement and fertiliser exports from both South Africa and the Western Cape face marginal risk from EU CBAM conditions, and there is zero risk for electrical energy exports, as these commodities are not currently exported to the EU.
- In 2023, 3.83% of hydrogen exports from the Western Cape were at risk. This was partially influenced by the slight increase in hydrogen exports to the EU, combined with the fact that 100% of hydrogen exports were covered by the EU CBAM.

## 10.2 Potential Impact of EU CBAM on South African exports

### 10.2.1 Total CBAM trade

The European Union remains a pivotal market for South African exports, with 18% of the total value of exports having been directed towards the EU in 2023. Therefore, the introduction of the EU CBAM poses a notable risk to the short-term prospects of South Africa's exports. This vulnerability is magnified by the fact that a total of ZAR43.40 billion worth of South African exports earmarked for the EU fall within the ambit of the EU CBAM.

This exposure translates into an export risk of approximately 2.13% for South Africa's total exports. The significance of this risk is especially pronounced in key sectors, namely iron and steel as well as aluminium. If not effectively addressed, these sectors hold the potential to diminish South Africa's nominal GDP by 0.62% as shown in Table 1.

**Table 1: South Africa’s Total and Sectoral Risk Due to CBAM, 2023**

Sector	Total Global Exports	CBAM exports to the EU	Risk to Sectoral Exports (%)	GDP at risk (%)
Total exports (Rbn)	R2039.59	R43.40	2.13%	0.62%
Iron and steel (Rbn)	R264.50	R30.79	11.64%	0.44%
Aluminium (Rbn)	R40.92	R12.58	30.73%	0.18%
Cement and Kaolin (Rm)	R1665.53	R3.98	0.24%	0.00%
Fertilizers (Rm)	R10718.33	R32.13	0.30%	0.00%
Electrical energy (Rm)	R11250.33	R0.00	0.00%	0.00%
Hydrogen (Rm)	R1.37	R0.00	0.15%	0.00%

Source: Quantec, 2024

## 10.2.2 Sectoral analysis: South Africa

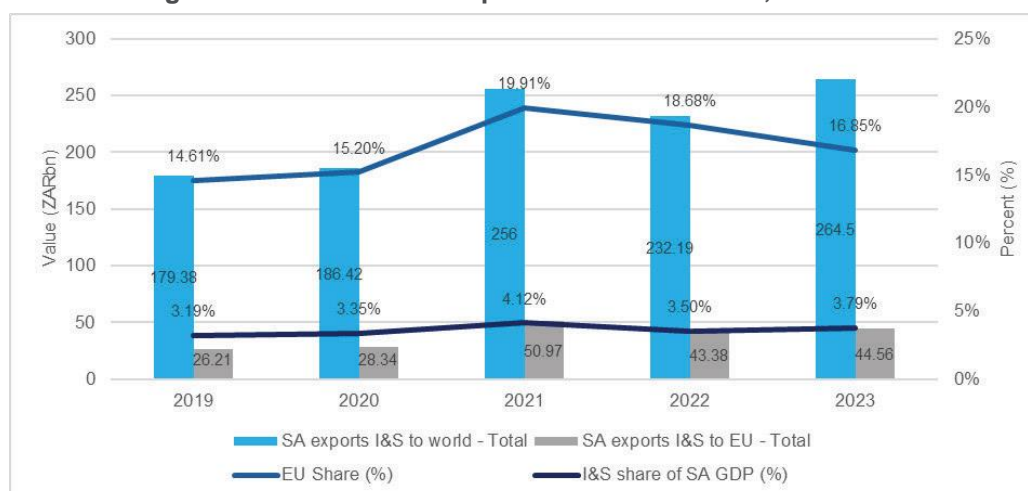
### 10.2.2.1 Iron and steel

The iron and steel sector is a cornerstone of South Africa’s industrialisation and economic progress, and significantly influences the nation’s economic landscape. This is illustrated by the sector’s contribution to the country’s nominal GDP in 2023, which grew to close on 4%, edging slightly higher than the 3.19% recorded in 2018. This contribution can be largely attributed to the sector’s robust export activities.

The export figures for iron and steel have surged over the past five years, demonstrating a trajectory of sustained growth (while also experiencing increasing challenges for the sector in South Africa). Export values catapulted from ZAR179.38 billion in 2018 to an impressive ZAR264.5 billion in 2023. This upward trend underscores the sector’s resilience and its ability to adapt to changing global dynamics, positioning itself as a formidable player in the international market.

In tandem with this growth, the EU market has emerged as an increasingly significant destination for South Africa’s iron and steel exports. Figure 1 shows that the EU’s share of these exports grew to 16.85% in 2023, a marked increase from the approximately 14.61% recorded in 2018. This upward trend reflects the growing importance of the EU market as a key partner for South Africa’s iron and steel sector.

**Figure 1: South Africa’s Exports of Iron and Steel, 2019–2023**



Source: Quantec, 2024

The value of global iron and steel exports that would be subject to the EU CBAM reached a considerable ZAR175.45 billion in 2023, constituting approximately 66.33% of the total iron and steel exports from South Africa. Figure 2 demonstrates the sector’s exposure to the regulatory framework of the EU CBAM.

Within this context, the risk exposure of the iron and steel exporting sector becomes more pronounced, especially considering the subset of ZAR30.79 billion worth of iron and steel exports designated for the EU and falling under the application of the EU CBAM. This situation poses a substantial risk, potentially impacting about 11.64% of the country’s iron and steel exports in 2023. When factoring in the risk imposed in the preceding year (2022), this percentage elevates to around 15.11%, indicating an evolving situation from the impact of trade regulations on the iron and steel sector.

**Figure 2: South Africa’s Iron and Steel Export Risk Due to CBAM, 2019–2023**

	Global I&S exports (ZARbn)	CBAM exports of I&S to World (ZARbn)	I&S exports covered by CBAM (%)	CBAM exports of I&S to EU (ZARbn)	Risk to SA I&S exports (%)
2019	179.38	139.81	77.94%	22.27	12.41%
2020	186.42	141.34	75.82%	21.13	11.33%
2021	256	191.75	74.9%	42.47	16.59%
2022	232.19	181.74	78.27%	35.09	15.11%
2023	264.5	175.45	66.33%	30.79	11.64%

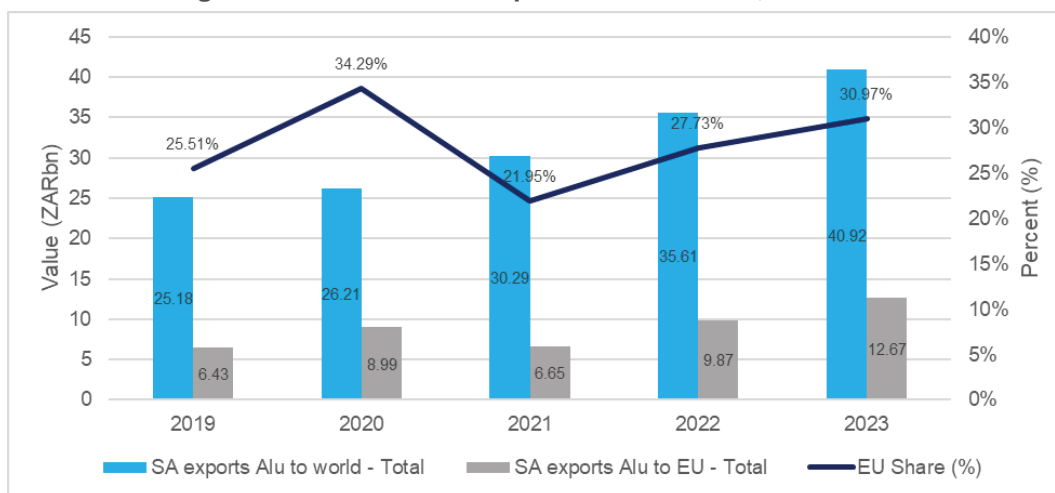
Source : Quantec, 2024

### 10.2.2.2 Aluminium

The export trajectory of aluminium and aluminium products from South Africa has demonstrated a significant increase, surpassing its pre-Covid levels. Figure 3 shows that in 2019, the country exported aluminium worth ZAR25.18 billion, and this figure escalated to ZAR40.92 billion in 2023. Despite experiencing a slight decrease in aluminium exports to the EU in 2021, there was a strong recovery in 2022, with the EU accounting for 27.73% of South Africa’s aluminium exports, valued at ZAR35.61 billion. By 2023, the EU’s share of South Africa’s aluminium exports had risen to 30.97%, reaching a value of ZAR40.92 billion.

This surge in aluminium exports to the EU positions Europe as South Africa’s leading export destination for aluminium in 2023, second only to North America. The shift in export dynamics highlights the evolving market preferences and trade relationships that South Africa is navigating, signalling the EU’s growing significance as a key destination for the country’s aluminium exports.

**Figure 3: South Africa’s Exports of Aluminium, 2019–2023**

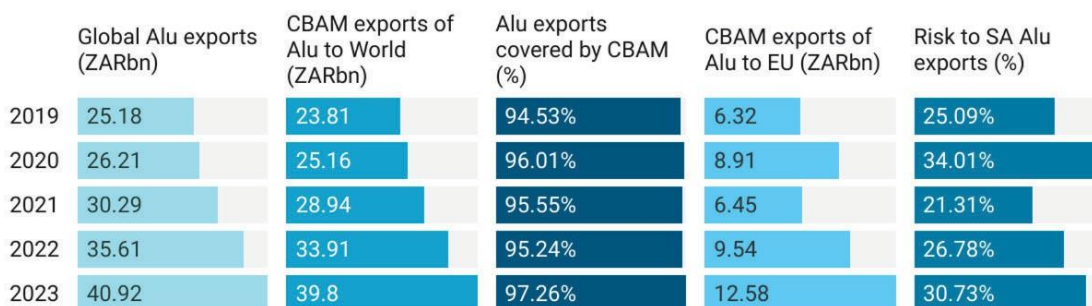


Source: Quantec, 2024

Aluminium exports are particularly exposed to the EU CBAM, with it affecting approximately 97.26% of all aluminium exports in terms of value in 2023. This underscores the considerable impact of the EU CBAM on South Africa’s aluminium export sector. In specific terms, the value of CBAM-covered aluminium exports from South Africa to the EU amounted to a significant ZAR12.58 billion in 2023, considerably higher than the ZAR9.54 billion in 2022. These figures, which can be seen in Figure 4, demonstrate the increased risk exposure for South African aluminium exports.



**Figure 4: South Africa’s Aluminium Export Risk Due to CBAM, 2019–2023**



Source: Quantec, 2024

### 10.2.2.3 Cement, fertilisers, electrical energy and hydrogen

In Figure 5, it can be seen that the influence of the CBAM on South Africa’s electrical energy exporting sector is negligible, given that the country does not currently export these products to the EU. There was a slight uptick in hydrogen exports to the EU of ZAR2,032 in 2023, with 100% of these exports originating from the Western Cape. Although the impact of the CBAM on these exports is negligible, it is crucial to highlight that all of these products fall within the scope of the EU CBAM, necessitating future compliance with CBAM regulations if the EU emerges as a potential market for electricity and hydrogen.

Conversely, the risk profile for the cement and fertiliser sectors is marginal. South Africa’s cement exports to the global market reached ZAR1.65 billion in 2023, with only a nominal ZAR3.98 million worth of cement exported to the EU falling under the EU CBAM. Similarly, while South Africa’s global exports of fertilisers were noteworthy, only ZAR32.13 million was destined for the EU and covered by the EU CBAM. Consequently, exports in these two sectors face marginal potential risks, estimated at 0.24% for cement and 0.30% for fertilisers. It is evident that even with the marginal risk, vigilance and strategic considerations will be crucial for these sectors in the face of evolving international trade dynamics.

**Figure 5: Export Risk of Other CBAM-affected Sectors in South Africa, 2023**



Source: Quantec, 2024

## 10.3 Potential Impact of EU CBAM on Western Cape Exports

### 10.3.1 Total CBAM trade

In 2023, global exports in goods from the Western Cape amounted to ZAR202.58 billion, while the subset of exports falling under the EU CBAM reached a total value of ZAR180.62 million for the same period. Consequently, overall exports from the province face a potential decrease of 0.09%, carrying an associated nominal GDP loss of 0.02%. This is demonstrated in Table 2.

As expected, it is evident that this risk is primarily concentrated in the sector specialising in the export of iron and steel, where 2.74% of such exports are susceptible to potential losses. The anticipated impact on nominal GDP would be an estimated at -0.01%. In addition, the aluminium sector, although still subject to challenges posed by the EU CBAM, faces a comparatively higher level of susceptibility than the iron and steel sector, with a potential risk of 5.27%. The associated impact on the Western Cape’s nominal GDP is modest, registering at 0.01%. This nuanced assessment underscores the sector-specific variations in risk exposure within the Western Cape’s economic landscape as influenced by the EU CBAM.

**Table 2: Western Cape’s Total and Sectoral Risk Due to CBAM, 2023**

	Total Global Exports	CBAM exports to the EU	Risk to Sectoral Exports (%)	Nominal GDP at risk (%)
Total exports (ZARm)	R202580.46	R180.62	0.09%	0.02%
Iron and steel (ZARm)	R4334.63	R118.64	2.74%	0.01%
Aluminium (ZARm)	R990.91	R52.20	5.27%	0.01%
Cement, incl Koalin (ZARm)	R3.55	R0.00	0.00%	0.00%
Fertilizers, incl nitrates (ZARm)	R560.92	R9.79	1.74%	0.00%
Electrical energy (ZARm)	R0.00	R0.00	0.00%	0.00%
Hydrogen (ZARm)	R0.05	R0.00	3.83%	0.00%

Source : Quantec, 2024

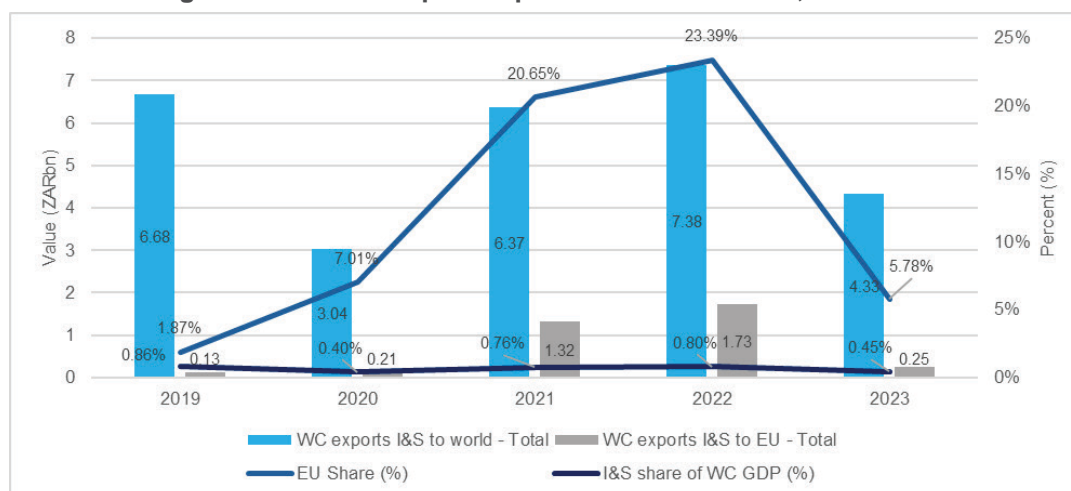
## 10.3.2 Western Cape

### 10.3.2.1 Iron and steel

Figure 6 shows that exports of iron and steel from the Western Cape grew significantly, reaching ZAR6.37 billion in 2021 and surging further to ZAR7.38 billion in 2022. This positive trend followed a considerable slump of ZAR3.04 billion in 2020, which could be partially attributed to barriers imposed by the Covid-19 pandemic. Following this period, the value of iron and steel exports from the Western Cape plummeted to ZAR4.33 billion in 2023, with the EU’s share of these exports decreasing significantly from 23.39% in 2022 to a share of only 5.78% in 2023.

While the contribution of iron and steel exports to the overall Western Cape economy might be considered marginal, it remains a noteworthy factor in the region’s economic landscape. The industry’s influence is evident through its contribution to nominal GDP, with iron and steel exports adding approximately 0.45% to nominal GDP in 2023. This underscores the industry’s importance as a major contributor to economic growth and stability in the Western Cape.

**Figure 6: Western Cape’s Exports of Iron and Steel, 2019–2023**



Source: Quantec, 2024

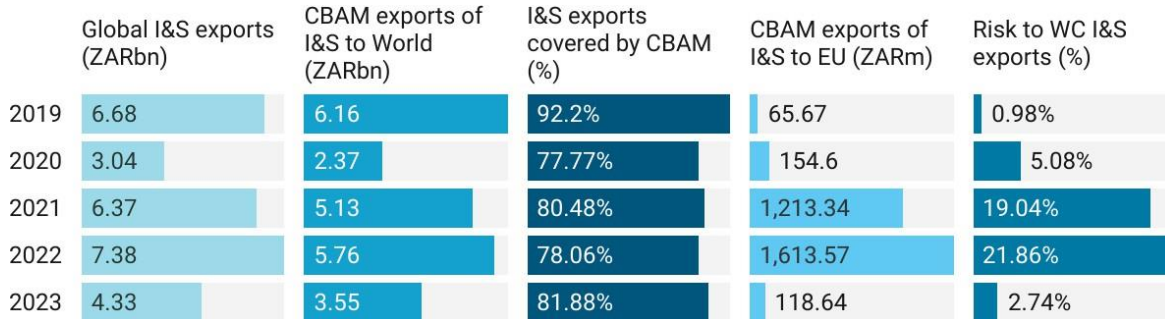
The significance of iron and steel exports, within the framework of the EU CBAM, becomes particularly pronounced when examining the data for 2022 and 2023. A considerable 78.06% of the total value of iron and steel exports from the Western Cape falls within the parameters defined by the EU CBAM, with this figure increasing to 81.88% in 2023, as shown in Figure 7.

In addition, the total value of iron and steel exports subject to the EU CBAM reached ZAR1.62 billion in 2022. As a result, a considerable 21.86% of the Western Cape’s iron and steel sector exports faced potential losses due to the implications of the EU CBAM. However, this risk plunged to 2.74% in 2023, primarily due to significant declines in CBAM iron and

steel exports destined for the EU, which decreased to ZAR118.64m.

This dynamic underscores the sector’s vulnerability to policy changes and trade dynamics, necessitating a strategic approach for navigating the evolving landscape of international trade regulations. The interplay between the Western Cape’s iron and steel exports and the EU CBAM highlights the complex and interconnected nature of climate regulations and global trade, and the impact of this on regional economies.

**Figure 7: Western Cape’s Iron and Steel Export Risk Due to CBAM, 2019–2023**



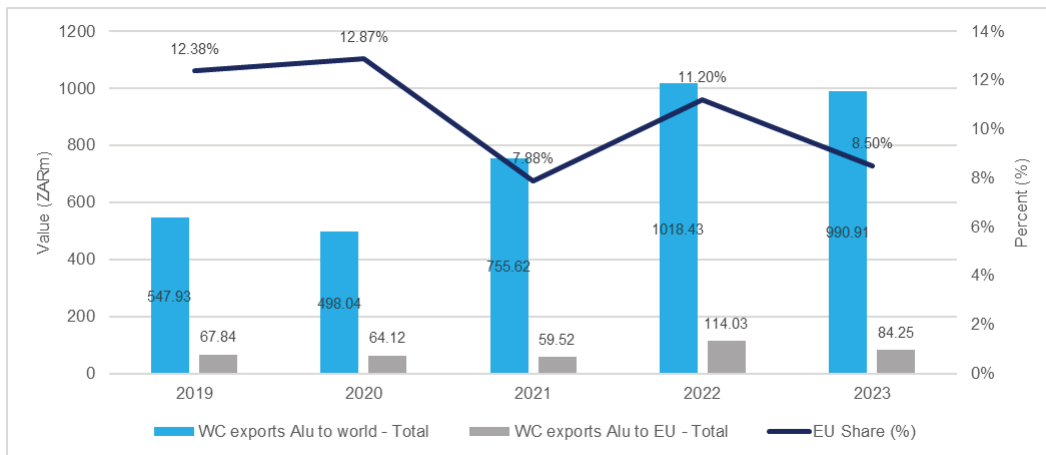
Source : Quantec, 2024

### 10.3.2.2 Aluminium

Aluminium exports from the Western Cape to global markets have surged significantly, particularly in the aftermath of the Covid-19 pandemic. From the relatively subdued figure of ZAR498.04 million in 2020, the export value soared to ZAR1.01 billion in 2022, reflecting a robust recovery and increasing market demand for aluminium products from the region. However, aluminium exports contracted by 3% in 2023 to a value of ZAR990.91 million, as shown in Figure 8.

Looking at the geographical distribution of these aluminium exports, the EU has consistently held a pivotal position as a key market for the Western Cape. In 2018, the EU accounted for 12.38% of the total aluminium exports from the region, which illustrates the major role played by this economic bloc. While there has been a gradual decline in this share over the last five years, with the EU accounting for approximately 8.50% in 2023, the province continues to maintain a substantial presence in the European aluminium market.

**Figure 8: Western Cape’s Exports of Aluminium, 2019–2023**



Source: Quantec, 2024

The dynamics of aluminium exports from the Western Cape have become increasingly intricate, especially in the context of the EU CBAM. As Figure 9 demonstrates, in 2023, the total value of aluminium exports covered by the EU CBAM amounted to ZAR546.14 million, representing 55.12% of the overall aluminium exports from the Western Cape. This statistic underscores the profound impact of the EU CBAM on the aluminium sector in the region.

Looking more closely, the aluminium exports subject to the EU CBAM policy and destined for the EU reached a value of ZAR52.2 million in 2023. This figure is slightly lower than the ZAR60.7 million recorded in 2022, which indicates a sustained high level in aluminium exports covered by CBAM-related factors. Consequently, the total risk exposure of the Western Cape’s aluminium sector is calculated at 5.27%, representing a discernible decline from the higher risk level of 10.81% observed in 2020 but slight lower than the 5.95% reflected in 2022.

This evolving landscape suggests a nuanced relationship between the growth trajectory of aluminium exports and the associated risks posed by the EU CBAM. The data implies that as the volume of aluminium exports continues to ascend, the potential risks to the aluminium sector in the Western Cape will intensify. Navigating these intricacies requires a proactive and adaptive approach, in which stakeholders in the aluminium sector should closely monitor policy developments, trade dynamics, and market trends so as to strategically position themselves in the changing global trade environment.

**Figure 9: Western Cape’s Aluminium Export Risk Due to CBAM, 2019–2023**

	Global Alu exports (ZARm)	CBAM exports of Alu to World (ZARm)	Alu exports covered by CBAM (%)	CBAM exports of Alu to EU (ZARm)	Risk to WC Alu exports (%)
2019	547.93	207.4	37.85%	47.21	8.62%
2020	498.04	238.39	47.86%	53.84	10.81%
2021	755.62	415.14	54.94%	49.93	6.61%
2022	1,018.43	509.37	50.02%	60.7	5.96%
2023	990.91	546.14	55.12%	52.2	5.27%

Source : Quantec, 2024

### 10.3.2.3 Cement, fertilisers, electrical energy and hydrogen

The spectrum of risk associated with the EU CBAM’s policy across various sectors reveals varying degrees of impact on the Western Cape economy. Notably, certain sectors stand out as having a relatively lower risk compared to others.

Within this context, the fertiliser exporting sectors face the greatest risk among the other sectors examined, as shown in Figure 10. The potential risk, if CBAM adherence is not maintained, is estimated at 1.74%. This heightened risk is attributed to CBAM exports within the fertiliser sectors, which reached a total value of ZAR9.79 million in 2023. Of interest is the risk to the hydrogen exporting sector, which is valued at 3.83%, as ZAR2,032 of the ZAR53,108 of global hydrogen exports was destined for the EU in 2023.

In contrast, the cement sector exhibits a more negligible risk profile: cement exports with a nominal value of ZAR3.55 million are subject to the EU CBAM policy as of 2023. This signifies a relatively lower exposure to the potential economic repercussions of non-compliance with CBAM regulations in the cement industry. Furthermore, it is important to highlight that there have been no exports of electrical energy to the EU from the Western Cape. Consequently, this sector currently faces no risk from the EU CBAM.

This assessment underscores the need for a sector-specific understanding of the EU CBAM’s implications on the Western Cape’s economy. As industries grapple with these dynamics, strategic planning and adherence to evolving policy frameworks become important in navigating potential risks and leveraging opportunities within the intricate landscape of international trade regulations.

**Figure 10: Risk to Exports in Other CBAM-affected Sectors in Western Cape, 2023**

	WC total global exports (ZARm)	Exports covered by CBAM (%)	CBAM exports to the EU (ZARm)	Sectoral export Risk (%)
Cement, incl Kaolin	3.55	100%	0	0%
Fertilizers, incl nitrates	560.92	69.33%	9.79	1.74%
Electrical energy	0	100%	0	0%
Hydrogen	0.05	100%	0	3.83%

Source: Quantec, 2024

## 11. South Africa's response to the EU CBAM

The South African government has been vocal in its opposition to the EU CBAM. In July 2023, South Africa commented on the EU's draft implementation regulations of the CBAM during the transitional period, stating that US\$1.5 billion worth of exports from South Africa to the EU were at risk, and that the African continent would lose at least US\$ 26 billion per annum to the EU through such carbon border taxes. South Africa has argued that the EU CBAM undermines the spirit of multilateralism, as well as the guiding principles of the United Nations Framework Convention on Climate Change (UNFCCC) and the agreements negotiated under it. These include the Paris Agreement's principle of equity and common but differentiated responsibilities and respective capabilities (CBDR&RC) in light of national circumstances. South Africa has also raised the question of compatibility with WTO provisions on non-discrimination. The country requested the EU to reconsider the strict implementation timelines for developing countries.<sup>29</sup>

In November 2023, South Africa, together with other members of the BASIC bloc (Brazil, China, India and South Africa), submitted an official request at the Conference of the Parties of the UNFCCC (COP28). They appealed for their concerns regarding unilateral trade measures related to climate change to be included as an agenda item for discussion at the Conference of the Parties of the UNFCCC (COP28). The letter called for collective opposition to measures to restrict trade and investment through setting up new green trade barriers, such as unilateral carbon border taxes with the pretext of addressing climate change, which are incompatible with multilateral rules under the WTO and the Paris Agreement.<sup>30</sup> While not officially adopted, the issue was taken up as part of other agenda items.

South Africa's government also raised concerns about measures like the EU CBAM that have the potential to reverse climate finance from developing to developed countries because products from developing countries (that do not have an equivalent carbon tax) will be liable for carbon border taxes in the EU, thus financing the EU fiscus.<sup>31</sup>

In its final assessment of the outcomes of COP28, South Africa welcomed the fact that the final text included recognition that unilateral measures to combat climate change should not constitute a means of arbitrary or unjustifiable discrimination, or a disguised restriction on international trade.<sup>32</sup>

How this interaction between climate regulation and international trade will ultimately play out is yet to be seen. However, there are legitimate concerns related to the ability of exporting businesses in developing countries to meet the increasing wave of climate-related regulations and standards at the same pace as those in developed countries.

During the 13th WTO Ministerial Conference at the end of February 2024, a group of countries including South Africa, Brazil and the Africa Group, released a ministerial declaration<sup>33</sup> expressing concern about the increase in unilateral and protectionist measures which undermine the multilateral trading system and impact negatively on the access of developing countries' exports to global markets. The declaration highlights the hybrid nature of trade-related environmental measures and calls for a harmonised application of international environmental law and international trade law, recognising principles such as special and differential treatment for developing countries, and the principle of Common by Differentiated Responsibilities and Respective Capabilities.

### About Wesgro

Wesgro is the official tourism, trade and investment promotion agency for Cape Town and the Western Cape. Ensuring Cape Town and the Western Cape is a sought-after source market, Wesgro's Trade unit is responsible for supporting businesses in the province with exporting their goods and services to the rest of the world.

Key services offered by the Trade team include: export training and mentoring; trade and networking events; connecting exporters to the wider trade ecosystem (export councils and industry associations); trade research and intelligence; trade missions and exhibitions; B2B facilitation; supporting with trade barriers; and the management of the online Cape Trade Portal ([www.capetradeportal.com](http://www.capetradeportal.com)).

If you have questions about the EU CBAM or are interested in finding out more about exporting from the Western Cape, please contact us at the Cape Trade Portal (<https://capetradeportal.com/get-in-touch/>).

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<sup>29</sup> DTIC Comment on EU Green Deal: Reporting Obligation During the Transitional Period of the Carbon Border Adjustment Mechanism. 11 July 2023.

<sup>30</sup> Agenda item proposal by the BASIC group of countries to be included in the provisional agendas of SBI/SBSTA, COP28, CMP18 and CMA5. 26 November 2023

<sup>31</sup> Omarjee, L. SA, Brazil and others want COP28 to tackle 'unilateral, coercive' trade measures. News24. 28 November 2023

<sup>32</sup> SA welcomes COP28 agreement global adaptation efforts on climate change. 14 December 2023. Available [here](#).

<sup>33</sup> Ministerial Declaration on the Contribution of the Multilateral Trading System to Tackle Environmental Challenges. WT/MIN(24)/28. 29 February 2024.

*Disclaimer: Please note that the information and data presented in this document is provided in good faith. It is intended to provide a basic introduction and a high-level overview of some of the relevant points pertaining to the EU CBAM. This is not a comprehensive source of information upon which to base decisions and readers are strongly encouraged to consult the EU resources and seek professional advice before making any decisions.*

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## ANNEX I<sup>34</sup>

### List of goods and greenhouse gases

1. For the purpose of the identification of goods, this Regulation shall apply to goods falling under the Combined Nomenclature ('CN') codes set out in the following table. The CN codes shall be those under Regulation (EEC) No 2658/87.
  
2. For the purposes of this Regulation, the greenhouse gases relating to goods referred to in point 1, shall be those set out in the following table for the goods concerned.

#### Cement

CN code	Greenhouse gas
2507 00 80 – Other kaolinic clays	Carbon dioxide
2523 10 00 – Cement clinkers	Carbon dioxide
2523 21 00 – White Portland cement, whether or not artificially coloured	Carbon dioxide
2523 29 00 – Other Portland cement	Carbon dioxide
2523 30 00 – Aluminous cement	Carbon dioxide
2523 90 00 – Other hydraulic cements	Carbon dioxide

#### Electricity

CN code	Greenhouse gas
2716 00 00 – Electrical energy	Carbon dioxide

#### Fertilisers

CN code	Greenhouse gas
2808 00 00 – Nitric acid; sulphonitric acids	Carbon dioxide and nitrous oxide
2814 – Ammonia, anhydrous or in aqueous solution	Carbon dioxide
2834 21 00 – Nitrates of potassium	Carbon dioxide and nitrous oxide
3102 – Mineral or chemical fertilisers, nitrogenous	Carbon dioxide and nitrous oxide
3105 – Mineral or chemical fertilisers containing two or three of the fertilising elements nitrogen, phosphorus and potassium; other fertilisers; goods of this chapter in tablets or similar forms or in packages of a gross weight not exceeding 10 kg  Except: 3105 60 00 – Mineral or chemical fertilisers containing the two fertilising elements phosphorus and potassium	Carbon dioxide and nitrous oxide

<sup>34</sup> Annex I of Regulation (EU) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism

## Iron and steel

CN code	Greenhouse gas
<p>72 - Iron and steel</p> <p>Except:</p> <p>7202 2 – Ferro-silicon</p> <p>7202 30 00 – Ferro-silico-manganese</p> <p>7202 50 00 – Ferro-silico-chromium</p> <p>7202 70 00 – Ferro-molybdenum</p> <p>7202 80 00 – Ferro-tungsten and ferro-silico-tungsten</p> <p>7202 91 00 – Ferro-titanium and ferro-silico-titanium</p> <p>7202 92 00 – Ferro-vanadium</p> <p>7202 93 00 – Ferro-niobium</p> <p>7202 99 – Other:</p> <p>7202 99 10 – Ferro-phosphorus</p> <p>7202 99 30 – Ferro-silico-magnesium</p> <p>7202 99 80 – Other</p> <p>7204 – Ferrous waste and scrap; remelting scrap ingots and steel</p>	Carbon dioxide
2601 12 00 – Agglomerated iron ores and concentrates, other than roasted iron pyrites	Carbon dioxide
7301 – Sheet piling of iron or steel, whether or not drilled, punched or made from assembled elements; welded angles, shapes and sections, of iron or steel	Carbon dioxide
7302 – Railway or tramway track construction material of iron or steel, the following: rails, check-rails and rack rails, switch blades, crossing frogs, point rods and other crossing pieces, sleepers (cross-ties), fish- plates, chairs, chair wedges, sole plates (base plates), rail clips, bedplates, ties and other material specialised for jointing or fixing rails	Carbon dioxide
7303 00 – Tubes, pipes and hollow profiles, of cast iron	Carbon dioxide
7304 – Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel	Carbon dioxide
7305 – Other tubes and pipes (for example, welded, riveted or similarly closed), having circular cross-sections, the external diameter of which exceeds 406,4 mm, of iron or steel	Carbon dioxide
7306 – Other tubes, pipes and hollow profiles (for example, open seam or welded, riveted or similarly closed), of iron or steel	Carbon dioxide
7307 – Tube or pipe fittings (for example, couplings, elbows, sleeves), of iron or steel	Carbon dioxide
7308 – Structures (excluding prefabricated buildings of heading 9406 ) and parts of structures (for example, bridges and bridge-sections, lock-gates, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, shutters, balustrades, pillars and columns), of iron or steel; plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel	Carbon dioxide
7309 00 – Reservoirs, tanks, vats and similar containers for any material (other than compressed or liquefied gas), of iron or steel, of a capacity exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Carbon dioxide
7310 – Tanks, casks, drums, cans, boxes and similar containers, for any material (other than compressed or liquefied gas), of iron or steel, of a capacity not exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Carbon dioxide



7311 00 – Containers for compressed or liquefied gas, of iron or steel	Carbon dioxide
7318 – Screws, bolts, nuts, coach screws, screw hooks, rivets, cotters, cotter pins, washers (including spring washers) and similar articles, of iron or steel	Carbon dioxide
7326 – Other articles of iron or steel	Carbon dioxide

## Aluminium

CN code	Greenhouse gas
7601 – Unwrought aluminium	Carbon dioxide and perfluorocarbons
7603 – Aluminium powders and flakes	Carbon dioxide and perfluorocarbons
7604 – Aluminium bars, rods and profiles	Carbon dioxide and perfluorocarbons
7605 – Aluminium wire	Carbon dioxide and perfluorocarbons
7606 – Aluminium plates, sheets and strip, of a thickness exceeding 0,2 mm	Carbon dioxide and perfluorocarbons
7607 – Aluminium foil (whether or not printed or backed with paper, paper-board, plastics or similar backing materials) of a thickness (excluding any backing) not exceeding 0,2 mm	Carbon dioxide and perfluorocarbons
7608 – Aluminium tubes and pipes	Carbon dioxide and perfluorocarbons
7609 00 00 – Aluminium tube or pipe fittings (for example, couplings, elbows, sleeves)	Carbon dioxide and perfluorocarbons
7610 – Aluminium structures (excluding prefabricated buildings of heading 9406) and parts of structures (for example, bridges and bridge-sections, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, balustrades, pillars and columns); aluminium plates, rods, profiles, tubes and the like, prepared for use in structures	Carbon dioxide and perfluorocarbons
7611 00 00 – Aluminium reservoirs, tanks, vats and similar containers, for any material (other than compressed or liquefied gas), of a capacity exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Carbon dioxide and perfluorocarbons
7612 – Aluminium casks, drums, cans, boxes and similar containers (including rigid or collapsible tubular containers), for any material (other than compressed or liquefied gas), of a capacity not exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Carbon dioxide and perfluorocarbons
7613 00 00 – Aluminium containers for compressed or liquefied gas	Carbon dioxide and perfluorocarbons
7614 – Stranded wire, cables, plaited bands and the like, of aluminium, not electrically insulated	Carbon dioxide and perfluorocarbons
7616 – Other articles of aluminium	Carbon dioxide and perfluorocarbons

## Chemicals

CN code	Greenhouse gas
2804 10 00 – Hydrogen	Carbon dioxide

## ANNEX II<sup>35</sup>

List of goods for which only direct emissions are to be taken into account, pursuant to Article 7(1)

### Iron and steel

CN code	Greenhouse gas
72 - Iron and steel Except: 7202 2 – Ferro-silicon 7202 30 00 – Ferro-silico-manganese 7202 50 00 – Ferro-silico-chromium 7202 70 00 – Ferro-molybdenum 7202 80 00 – Ferro-tungsten and ferro-silico-tungsten 7202 91 00 – Ferro-titanium and ferro-silico-titanium 7202 92 00 – Ferro-vanadium 7202 93 00 – Ferro-niobium 7202 99 – Other: 7202 99 10 – Ferro-phosphorus 7202 99 30 – Ferro-silico-magnesium 7202 99 80 – Other 7204 – Ferrous waste and scrap; remelting scrap ingots and steel	Carbon dioxide
7301 – Sheet piling of iron or steel, whether or not drilled, punched or made from assembled elements; welded angles, shapes and sections, of iron or steel	Carbon dioxide
7302 – Railway or tramway track construction material of iron or steel, the following: rails, check-rails and rack rails, switch blades, crossing frogs, point rods and other crossing pieces, sleepers (cross-ties), fish- plates, chairs, chair wedges, sole plates (base plates), rail clips, bedplates, ties and other material specialised for jointing or fixing rails	Carbon dioxide
7303 00 – Tubes, pipes and hollow profiles, of cast iron	Carbon dioxide
7304 – Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel	Carbon dioxide
7305 – Other tubes and pipes (for example, welded, riveted or similarly closed), having circular cross-sections, the external diameter of which exceeds 406,4 mm, of iron or steel	Carbon dioxide
7306 – Other tubes, pipes and hollow profiles (for example, open seam or welded, riveted or similarly closed), of iron or steel	Carbon dioxide
7307 – Tube or pipe fittings (for example, couplings, elbows, sleeves), of iron or steel	Carbon dioxide
7308 – Structures (excluding prefabricated buildings of heading 9406 ) and parts of structures (for example, bridges and bridge-sections, lock-gates, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, shutters, balustrades, pillars and columns), of iron or steel; plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel	Carbon dioxide
7309 00 – Reservoirs, tanks, vats and similar containers for any material (other than compressed or liquefied gas), of iron or steel, of a capacity exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Carbon dioxide
CN code	Greenhouse gas

<sup>35</sup> Annex II of Regulation (EU) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism

7310 – Tanks, casks, drums, cans, boxes and similar containers, for any material (other than compressed or liquefied gas), of iron or steel, of a capacity not exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Carbon dioxide
7311 00 – Containers for compressed or liquefied gas, of iron or steel	Carbon dioxide
7318 – Screws, bolts, nuts, coach screws, screw hooks, rivets, cotters, cotter pins, washers (including spring washers) and similar articles, of iron or steel	Carbon dioxide
7326 – Other articles of iron or steel	Carbon dioxide

## Aluminium

CN code	Greenhouse gas
7601 – Unwrought aluminium	Carbon dioxide and perfluorocarbons
7603 – Aluminium powders and flakes	Carbon dioxide and perfluorocarbons
7604 – Aluminium bars, rods and profiles	Carbon dioxide and perfluorocarbons
7605 – Aluminium wire	Carbon dioxide and perfluorocarbons
7606 – Aluminium plates, sheets and strip, of a thickness exceeding 0,2 mm	Carbon dioxide and perfluorocarbons
7607 – Aluminium foil (whether or not printed or backed with paper, paper-board, plastics or similar backing materials) of a thickness (excluding any backing) not exceeding 0,2 mm	Carbon dioxide and perfluorocarbons
7608 – Aluminium tubes and pipes	Carbon dioxide and perfluorocarbons
7609 00 00 – Aluminium tube or pipe fittings (for example, couplings, elbows, sleeves)	Carbon dioxide and perfluorocarbons
7610 – Aluminium structures (excluding prefabricated buildings of heading 9406) and parts of structures (for example, bridges and bridge-sections, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, balustrades, pillars and columns); aluminium plates, rods, profiles, tubes and the like, prepared for use in structures	Carbon dioxide and perfluorocarbons
7611 00 00 – Aluminium reservoirs, tanks, vats and similar containers, for any material (other than compressed or liquefied gas), of a capacity exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Carbon dioxide and perfluorocarbons
7612 – Aluminium casks, drums, cans, boxes and similar containers (including rigid or collapsible tubular containers), for any material (other than compressed or liquefied gas), of a capacity not exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Carbon dioxide and perfluorocarbons
7613 00 00 – Aluminium containers for compressed or liquefied gas	Carbon dioxide and perfluorocarbons
7614 – Stranded wire, cables, plaited bands and the like, of aluminium, not electrically insulated	Carbon dioxide and perfluorocarbons
7616 – Other articles of aluminium	Carbon dioxide and perfluorocarbons

## Chemicals

CN code	Greenhouse gas
2804 10 00 – Hydrogen	Carbon dioxide