FUNDS ON FRIDAY
by Glacier Research

glacier
by Sanlam

31 March 2023
Volume 1175

Towards greater climate ambition – the introduction of the Carbon Border Adjustment Mechanism

Author: Thato Kola, ESG Analyst, Matrix Fund Managers

There is overwhelming evidence for global climate change. It is already possible to attribute increasing frequencies and intensities of extreme weather events such as drought, heat waves, and flooding to anthropogenic drivers. Projections point towards continued warming of the atmosphere and oceans and continued changes in climate extremes. International agreement to reduce greenhouse gas (GHG) emissions through national commitments place increasing pressure on governments to implement aggressive energy and economic transitions through shifts in policy and associated legislation[1]. To this end, carbon pricing schemes, amongst a host of other policy interventions, can have an important role in the transition to a low carbon global economy.

[1] Department of Forestry, Fisheries & the Environment. (2023). The Fourth South African Climate Change Tracking Report.

Glacier Financial Solutions (Pty) Ltd, | A member of the Sanlam Group | Private Bag X5 | Tyger Valley 7536 | Email: client.services@glacier.co.za | Tel +27 21 917 9002 | Fax +27 21 947 9210 | Web www.glacier.co.za | Reg No 1999/025360/07 | Licensed Financial Services Provider
Glacier Management Company (RF) (Pty) Ltd is a registered and approved Manager in Collective Investment Schemes

This document is intended for use by intermediaries. The information contained in this document has been recorded and arrived at by Glacier Financial Solutions (Pty) Ltd in good faith and from sources believed to be dependable, but no representation or warranty, expressed or implied, is made as to its accuracy, completeness, or correctness. The information is provided for information purposes only and to assist the financial intermediary to submit an investment proposal to the client and should not be construed as the rendering of investment advice to clients.

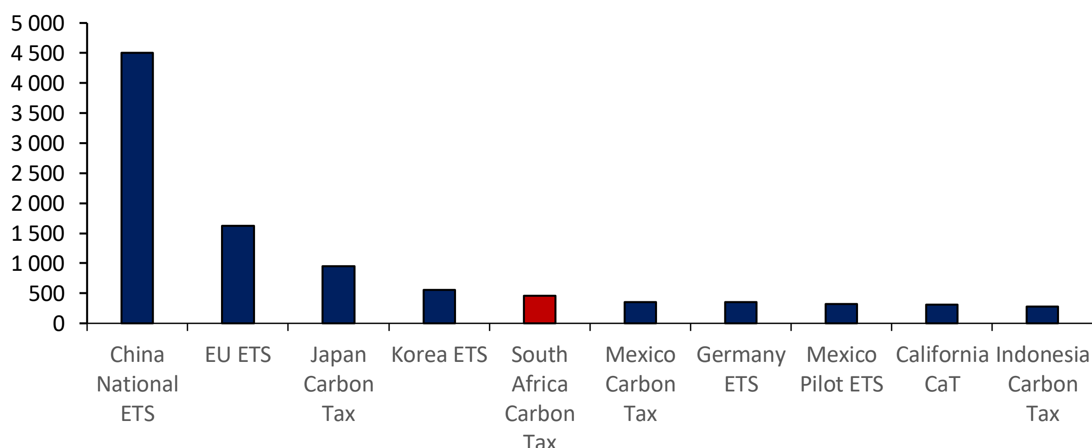
The global carbon pricing market

Carbon pricing is an instrument that captures the external costs of GHG and ties them to their sources through a price, usually in the form of a price on the carbon dioxide (CO_2) emitted. A price on carbon helps shift the burden for the damage from GHG emissions to those who are responsible for it[2]. Carbon pricing schemes have the potential to shift consumption and production away from highly carbon intensive activities towards more sustainable alternatives.

Globally, there are two common types of carbon pricing instruments, which are emissions trading systems (ETS) and carbon taxes. An ETS is a system where carbon emitters can trade emission units to meet their emissions targets. To comply with their emission targets at least cost, regulated entities can either implement internal abatement measures or acquire emission units in the carbon market, depending on the relative costs of these options. By creating supply and demand for emission units, an ETS establishes a market price for GHG emissions. In terms of a carbon tax, the price of carbon is set by defining an explicit tax rate on GHG emissions, i.e., price per ton of CO_2e. With an ETS, there is a variable carbon price but results in more certainty about the amount of emission reductions, while carbon taxes will provide more certainty on the carbon price but there is limited assurance on the resultant emission reductions.

As of April 2022, the World Bank Carbon Pricing Dashboard shows that there have been 71 carbon pricing initiatives around the world which cover about 12.5 Gt CO_2e, equating to about 24.3% of total GHG emissions. The South African carbon tax, which is the only initiative currently implemented on the African continent, covers about 460 Mt CO_2e. This is also the fifth largest carbon pricing scheme in the world in terms of GHG emissions covered.

Figure 1: Selection of the largest carbon pricing initiatives by GHG emissions covered (Mt CO_2e)



Source: The World Bank, Matrix Fund Managers

2 The World Bank. (2023). Carbon Pricing Dashboard. https://carbonpricingdashboard.worldbank.org/what-carbon-pricing

The European Carbon Border Adjustment Mechanism (CBAM)

In December 2022, the trialogue negotiations between the European Commission, the European Parliament and the European Council reached a provisional agreement on key design details of the carbon border adjustment, which is set to be implemented by the European Union (EU)[3].

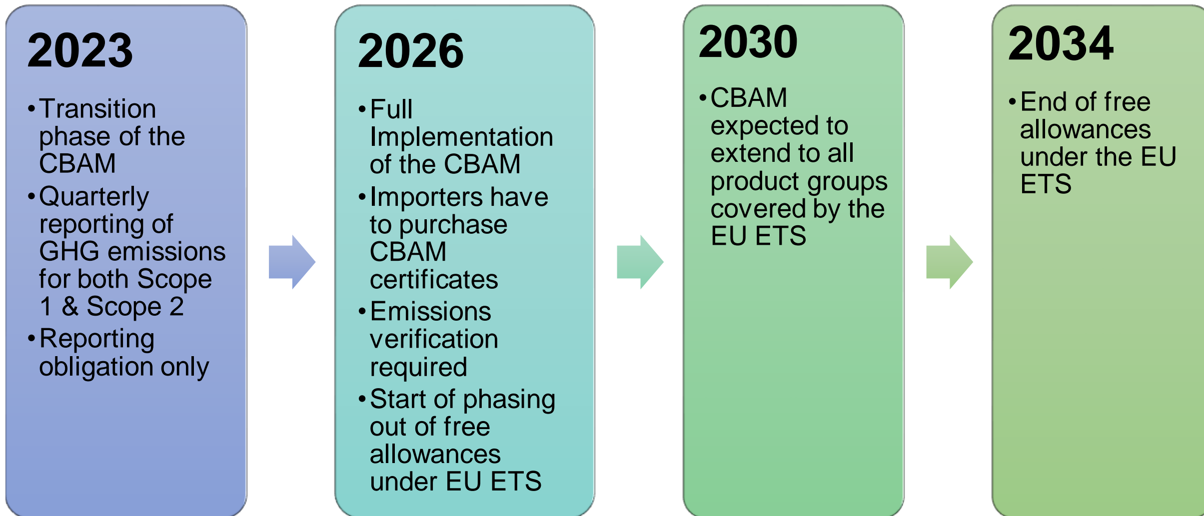
The European Commission, through the establishment of the European Green Deal in 2019, committed to achieving carbon neutrality by 2050. In July 2021, the EU announced a set of proposals, referred to as the "Fit for 55 Package", that is aimed at delivering the objectives of the Green Deal by reducing net GHG emissions by at least 55% in 2030 from the 1990 benchmark level. As part of this package, a CBAM would be gradually introduced to a set of carbon-intensive, hard-to-abate industries.

The EU CBAM will be the first international border adjustment scheme to be implemented and is to be seen as a complement to the EU ETS. In the absence of international coordination on carbon pricing, CBAMs provide a mechanism that aims to increase the consistency in the application of carbon pricing between goods produced in the EU (which are subject to the EU ETS) and producers in foreign jurisdictions which may not have an equivalent system in place[4]. Primarily, the objectives of the CBAM are to raise global climate action in reducing carbon emissions whilst also preventing carbon leakages – the transfer of domestic production to foreign jurisdiction with lower emission ambitions and/or lower carbon prices. Additionally, CBAMs are aimed at reducing the risk of declining competitiveness of domestic producers and provide a source for revenue generation[5].

Based on the trialogue's agreement, the EU CBAM will initially cover the following sectors: iron and steel, aluminum, cement, electricity, some fertilisers and a limited number of downstream products. During the transition phase, which will be from October 2023 to December 2025, importers will be responsible for calculating and reporting quarterly their carbon emissions in line with EU requirements. The full implementation of the EU CBAM will be in place from January 2026. That is, EU importers will have to purchase CBAM certificates that represent the embedded carbon emission of the goods, with the price of the certificate being based on the price of carbon in the EU ETS. Additionally, free allowances on the EU ETS will start to be phased gradually from 2026 and be completely phased out by 2034.

3 CSIS Briefs. (2023). Analyzing the European Union's Carbon Border Adjustment Mechanism.
4 The United Nations. (2022). Carbon Pricing: A development and trade reality check
5 Presidential Climate Commission. (2023). Carbon Border Adjustment Mechanisms and Implications for South Africa

Figure 2: The EU Carbon Border Adjustment Mechanism implementation timeline

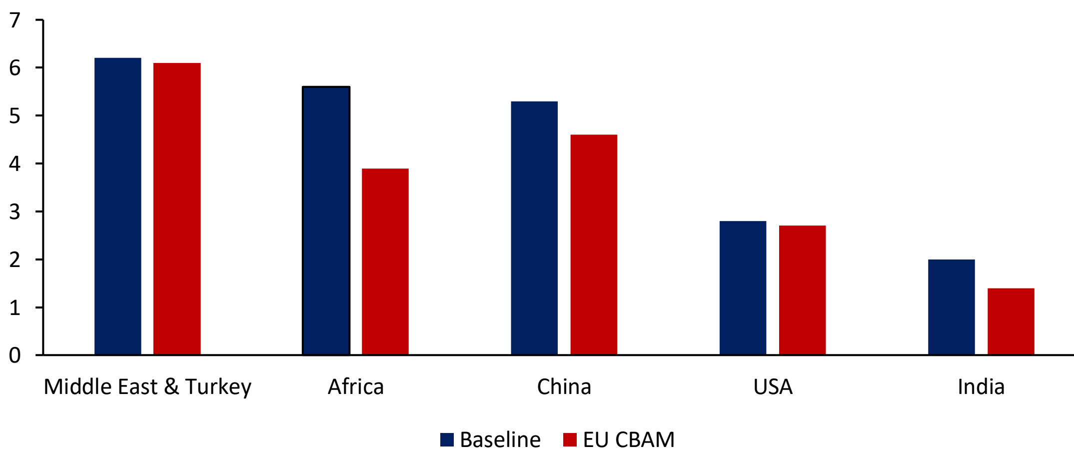


Source: Standard Bank, HSBC

The EU CBAM and global trade

In a recent working paper commissioned by the Presidential Climate Commission, it modelled the likely impact of the EU CBAM on trade from various jurisdictions. Using the baseline scenario in which the EU mitigation policy ambition remains as it was prior to the planned introduction of the CBAM proposal, namely a 40% reduction in GHGs below 1990 levels by 2030, the results showed that exports from lesser developed markets to the EU will be adversely impacted. As reflected in Figure 3 below, African exports to the EU in the affected CBAM sectors will decrease by 30% from €5.6BN to €3.9BN given the increased emission target from 40% to 55% by 2030. Similarly, Indian exports will also see a decrease of 30%, under the same assumptions. The modelling for this study assumes a carbon price of €45-€47 per ton of CO_2e. Should the EU ETS prices be higher than this price (as in the case at current prevailing prices), the impact on exports from developing countries will be much more severe.

Figure 3: Impact of the EU CBAM on exports to the EU (€ Billions)



Source: The Presidential Climate Commission, Matrix Fund Managers

It is precisely these expected negative impacts on global trade that developing countries have voiced concerns regarding the introduction of the EU CBAM. In a joint statement by Brazil, China, India and South Africa that was released in 2021, they expressed "grave concern" about the introduction of carbon border adjustment because it is discriminatory and foregoes the principles of the Paris Agreement of equity, common but differentiated responsibilities and respective capabilities in the light of different national circumstances[6]. This adds to the frustration towards richer nations which have failed to mobilise the agreed-upon funds in relation to climate finance for less developed countries to support their transition to decarbonise their economies.

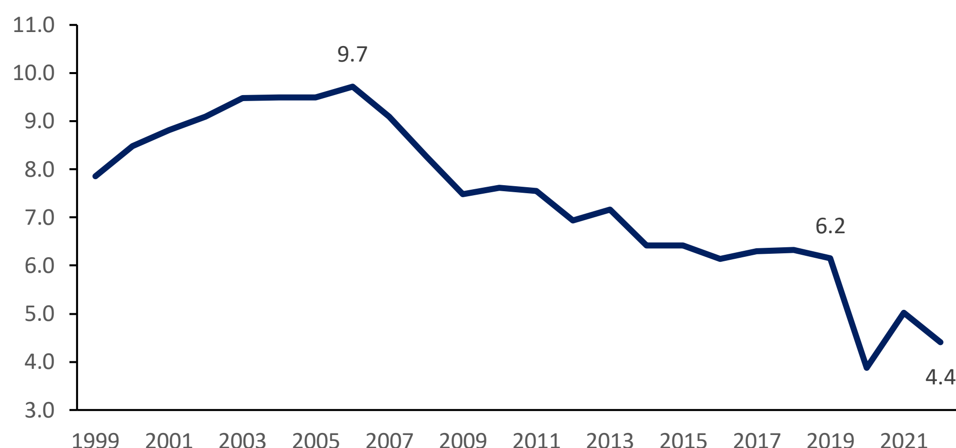
Furthermore, EU trading partners have previously raised concerns about the EU CBAM not being compliant with the World Trade Organisation's rules. There have been concerns raised about whether the CBAM violates the principles of non-discrimination between domestic and foreign producers. However, the EU has insisted that the EU CBAM will be WTO-compatible. It argues that the tax that will be paid by foreign producers will be equivalent to the cost of allowances EU producers will be forced to pay, as such that the CBAM is not inherently discriminatory. In addition, the agreement will require the EU to provide technical support to developing countries to assist to comply with the CBAM. However, proposals around using some of the proceeds from the CBAM towards developing countries were not included in the agreement3.

Implications for the South African steel sector

The South African steel sector is one of the sectors that will likely be negatively affected by the adoption of the EU CBAM. The sector is important to the local economy, having a value-add to total GDP of over 5%[7]. According to data from the World Steel Association, South Africa produced 4.4 million metric tons of crude steel in 2022 (0.2% of total global production), down from 2019 pre-COVID levels of 6.1 million metric tons. Peak steel production occurred in the mid-2000s, with production volumes of 9.7 million metric tons of crude steel being the highest recorded in 2007. The deterioration in steel production in the country has been accompanied by significant losses of employment across the steel industry value chain – from about 184 000 jobs in 2010 to just under 152 000 jobs in 2019, equaling a 17% overall loss of jobs. A key explanation for the reduction in production has been the significant expansion of steel production in China which, by 2022, accounted for 54% of global production, up from 15% in 2000[8].

6 Joint Statement issued at the conclusion of the 30th BASIC Ministerial Meeting on Climate Change hosted by India on 8th April 2021. https://www.gov.za/nr/speeches/joint-statement-issued-conclusion-30th-basic-ministerial-meeting-climate-change-hosted
7 South African Iron and Steel Industry. (2022). A South African Steel Industry Report
8 Department of Trade, Industry and Competition. (2021). The South African Steel and Metal Fabrication Master Plan 1.0

Figure 4: South Africa's total production of crude steel (million metric tons)



Source: World Steel Association, Matrix Fund Managers

In 2019, primary steel exports from South Africa amounted to about 2.4 million tons, with just under 164 000 tons of steel (7% of total exports) being exported to the European Union. The largest export market was the African continent, with just under 1.7 million tons of steels being exported into the region, representing over 68% of total exports in the same year7. With annual purchases amounting to nearly R400 billion and under initiatives such as the African Continental Free Trade Area (AfCFTA), the African market represents significant opportunity for SA steel producers and downstream processors. Given the relatively small amount of steel exports to the EU, the impact of the introduction of the EU CBAM on the sector may likely be minimal for the local steel industry.

The Matrix approach to ESG risk analysis

At Matrix, as part of our responsible investing framework, we have fully integrated material ESG risk analysis into our entire equity investment process. As such, material ESG-related risks such as climate-related risks and opportunities are considered in our investment activities. The introduction of the EU CBAM represents a form of climate-related transition risk – these are risks related to the global transition to a lower carbon economy. In the transition, the associated policy, legal, technology and market changes to address mitigation and adaptation requirements to climate change may pose varying levels of financial and reputational risks to companies. In consideration of such climate-related risk, our ESG integration process can be thought of in three, interrelated parts.

1. ESG factors are considered in the different phases of the investment process. That is, in the:
    a. screening phase,
    b. fundamental research phase
    c. portfolio construction phase.

    This means that we look at ESG factors from the initial phase of screening for research opportunities, to the inclusion ESG factors in our research and valuation models and then when considering position-sizing and managing portfolio exposure.

2. We have an internally developed ESG scorecard, which tracks various ESG metrics which we believe can have a material impact on valuations across companies.
3. The outcomes from the first two parts provide inputs into our stewardship activities. This supports our proxy voting decisions as well as our company engagements.

Looking ahead

In order for carbon pricing schemes such as CBAMs to have a meaningful impact in reducing carbon emissions on a global scale, it largely depends on the level of global coordination among implementing countries and the extent to which these polices are integrated. Uncoordinated carbon pricing policies can undermine climate action and can even lead to trade tensions.

In fact, the extent to which these policies can have a positive effect in increasing global ambition to lowering carbon emissions remains to be seen. The negative, unintentional scenario from the introduction of the CBAM is that global markets start segregating. That is, cleaner products would be directed to Europe and other developed markets, while more carbon intensive products would be directed to the least developed economies. In this scenario, efforts of reducing global emissions would be adversely impacted.

Glacier Research would like to thank Thato Kola for his contribution to this week's *Funds on Friday*

Thato Kola

ESG Analyst

Matrix Fund Managers

Thato joined Matrix in 2018 and is currently the ESG analyst responsible for anchoring the ESG functions across the different business units. Thato has worked as an economics and fixed income analyst and a fund accountant at Matrix Fund Managers before taking over the new role in April 2022. Before joining Matrix, Thato worked as a pension fund accountant at a multinational bank. Thato has a Masters in Commerce degree focusing on Financial Reporting, Analysis and Governance.

.