



# Discussing EU and UK approaches to carbon pricing as a tool towards net-zero emission targets:

Implications for financial markets



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# Foreword

From 31 October until 12 November 2021, the UK will host COP26, in partnership with Italy. Both countries have committed to putting climate change at the heart of this year's multilateral agenda, including through the G7, G20 and COP26 Presidencies.

COP26, which will be held in Glasgow is this year's most important conference on the fight against climate change. About 20,000 government leaders, diplomats and non-governmental organisations will gather in what will be one of the largest in-person meetings since the outbreak of the *COVID-19* pandemic. This year's COP is considered to be critical as both scientists and politicians are of the view that important decisions are needed to prevent the global temperature from rising above 1.5 degrees Celsius in comparison with temperature levels before the start of the Industrial Revolution.

In the run-up to the COP26, national governments and international organisations are presenting their means and targets to battle climate change, and thereby raising the stakes for other countries to follow. Many of these policies aim to reach net-zero CO2 emissions by 2050. Among the most active global players are the European Union and the United Kingdom, both fostering ambitious legislative, regulatory and policy initiatives aiming to facilitate and enhance transition to net-zero by 2050. This includes the European Green Deal, a flagship project of the European Commission under Ursula von der Leyen's leadership, and the recently published UK Net Zero Strategy building on Prime Minister Boris Johnson's November 2020 Ten Point Plan for a Green Industrial Revolution.

Part of the European and UK climate change strategies is the development of carbon pricing frameworks, under which costs are applied to carbon emissions. With carbon pricing being considered as one of the drivers for the decarbonisation of the economy, these measures take prominent place in efforts towards net-zero and encompass multiple sectors of economy. This includes the financial services sector which is increasingly active in the carbon markets. This discussion paper has been produced by the City of London Corporation in cooperation with Norton Rose Fulbright. It aims to provide an overview of carbon pricing mechanisms in the EU, the UK and the wider world, to assess how these carbon pricing tools impact the financial markets, and to add to the discussion on climate-friendly tools and policies in the light of COP26. As such, it is intended to further foster a debate about the role that financial services can play in global efforts towards transition.



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# Executive Summary

## THE AIMS OF THIS REPORT ARE TO:

- provide an overview of both the EU and UK approaches to carbon pricing,
- explain how these approaches compare to other international initiatives,
- and to highlight the implications of these issues for financial markets.

The world continues to adopt more net-zero targets as it battles the impact of climate change. It is encouraging to see the adoption of increasingly ambitious national targets, and the private sector playing its part, e.g. many corporates are encompassing mandatory ESG (Economic, Social, Governance) reporting into their portfolios.

One of the many issues to be discussed during COP26 will be the application of carbon pricing tools and the different approaches around the world to carbon pricing instruments<sup>1</sup>.

Carbon pricing translates “a cost applied to carbon pollution to encourage polluters to reduce the amount of greenhouse gases they emit into the atmosphere”<sup>2</sup>.

The underlying principle is simple: when greenhouse gas (GHG) emissions are more expensive, economic actors are incentivised to account for the costs of their emissions when making commercial decisions. Over a long period of time, lower-emissions producers will see increased market share over their higher-emissions competitors. Similarly, this will also impact consumer behaviour with consumption favouring lower-emissions products<sup>3</sup>. In the best-case scenario, higher-emissions products will be avoided.

The scale of the problem means that cross-border capital flows and cooperation are essential. Sophisticated financial regulation is crucial to enable the sector to address the challenges brought about by climate change.

Carbon pricing is widely considered as an essential tool for climate change mitigation. There is a visible and growing global momentum for carbon pricing, with major initiatives launched in Germany and China this year.

The impact of various European sustainable finance legislative initiatives (taxonomy, disclosure, reporting, etc.) on the financial services industry have been subject to multiple analyses. This will certainly continue to remain at the forefront of the debate in the short to medium-term. These issues are not addressed in this paper. Instead, it focuses on the intersection of carbon pricing initiatives and the role of financial services in the broader carbon markets. It aims to inform a cross-border debate on an issue of crucial importance for citizens across the world.

**Carbon pricing translates “a cost applied to carbon pollution to encourage polluters to reduce the amount of greenhouse gases they emit into the atmosphere”**

1 <https://ukcop26.org>

2 Distributional impacts of a carbon tax in the UK - Grantham Research Institute on climate change and the environment (lse.ac.uk)

3 State and Trends of Carbon Pricing 2021 (worldbank.org)

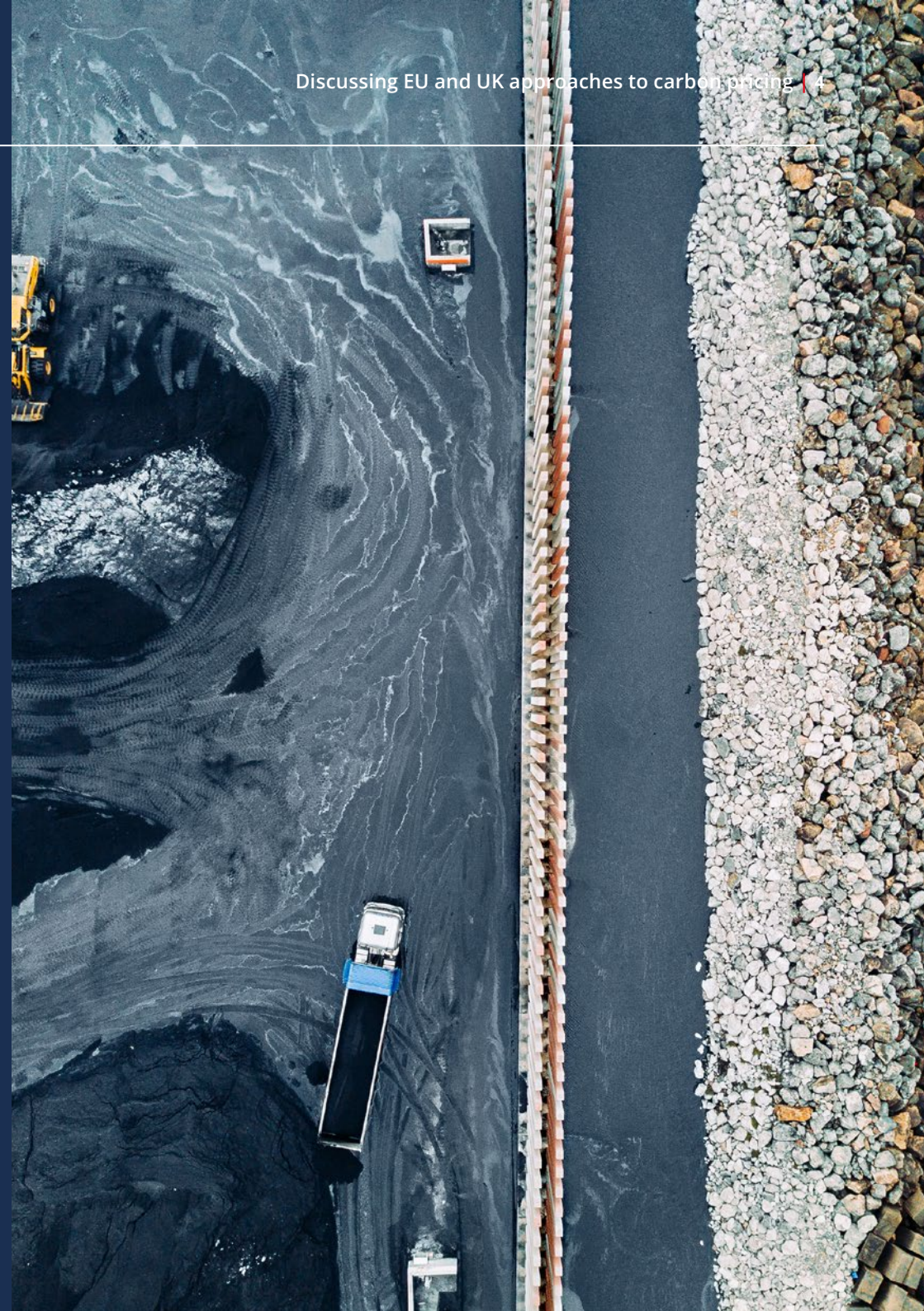
## Section 1

# Carbon pricing mechanisms

The introduction of carbon prices is intended to establish a market value for a reduction in emissions. This is considered a primary driver for companies to reduce emissions. For governments, carbon pricing generates fiscal revenue which can be used to support the green transition. At present, carbon pricing is enacted by governments through two different methods: either through the establishment of a carbon tax or an Emissions Trading System (ETS). In the case of a carbon tax, the government determines the price and lets market forces determine emissions reductions. The two main forms of an ETS are: cap-and-trade and baseline-and-credit<sup>4</sup>.

One key advantage of adopting carbon pricing is the equal treatment of all emissions – no businesses or households take on additional costs of reducing a ton of CO<sub>2</sub> compared to another. Consequently, all actors who participate are incentivised and encouraged to reduce their emissions on a level playing field. Carbon pricing also ensures that emitters carry the cost of their own emissions.

<sup>4</sup> The World Bank. 2021. "State and Trends of Carbon Pricing 2021" (May), World Bank, Washington, DC. Doi: 10.1596/978-1-4648-1728-1. License: Creative Commons Attribution CC BY 3.0 IGO. In a cap-and-trade system there is a limit on emissions with emission permits either auctioned out or distributed for free. Under a baseline-and-credit system, there is no fixed limit on emissions, but polluters that reduce their emissions more than they are obliged to can earn 'credits' that they sell to others.



There has been wide-ranging consensus to price carbon around the world.



Carbon pricing activates incentives throughout the economy, all along the value chain, for taking the costs of emissions into account when making decisions, large and small, about energy use, production processes, technology investments, and consumption habits. No other instrument can do that, and no regulator can fathom standards for all the opportunities to reduce emissions and the ingenuity to develop new products and technologies<sup>5</sup>.

Apart from ambitions to create a functioning compliance market, through an ETS and a carbon tax, global demand for voluntary carbon offsetting is also growing. With the voluntary carbon market (VCM), compensation of emissions is done through carbon credits which can be sold and traded in order to offset

emissions<sup>6</sup>. While the current VCM is smaller than the compliance market, its potential to scale and generate capital is significant.

On an international scale, the 2015 Paris Agreement has focused attention on the need for wide-ranging emissions reductions globally. Under its Article 6, the agreement recognises that some participating parties choose to pursue voluntary cooperation to implement nationally determined contributions (NDCs) which could ease achieving reduction targets and support raising ambitions<sup>7</sup>. Countries are seeking to finalise and implement Article 6 where full adoption could lead to a global price on carbon and generate new channels for climate finance.

As of December 2020, 127 countries, 823 cities, 101 regions, and 1,541 companies have committed to decarbonising their activities by mid-century.<sup>8</sup>

5 <https://www.rff.org/publications/all-publications/the-green-new-deal-and-the-future-of-carbon-pricing/>

6 <https://carbonpricingdashboard.worldbank.org/what-carbon-pricing>

7 [https://unfccc.int/files/meetings/paris\\_nov\\_2015/application/pdf/paris\\_agreement\\_english.pdf](https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english.pdf)

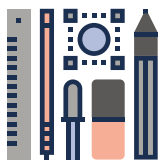
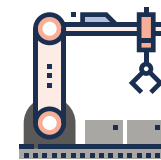
8 [https://newclimate.org/wp-content/uploads/2020/09/NewClimate\\_Accelerating\\_Net\\_Zero\\_Sept2020.pdf](https://newclimate.org/wp-content/uploads/2020/09/NewClimate_Accelerating_Net_Zero_Sept2020.pdf).



AS OF DECEMBER 2020

**127 countries**  
**823 cities**  
**101 regions**  
**1,541 companies**

committed to decarbonizing their activities by mid-century



The critical challenge that lies ahead is how to scale up ambition and policy action appropriately to meet 2050 targets. The International Monetary Fund (IMF) argues that an International Carbon Price Floor (ICPF) is needed to complement and underpin the commitments in the Paris Agreement<sup>9</sup>. Such an ICPF would be negotiated between a small cohort of the largest emitters and the negotiations would focus on the minimum carbon price that each must put on their CO<sub>2</sub> emissions. For instance, China, India, and the US account for 57% of baseline CO<sub>2</sub> emissions in 2030, and the Group of Twenty (G20) makes up 85% (including EU countries) of worldwide emissions<sup>10</sup>. This approach would circumvent the need for an international agreement, allowing regional carbon pricing floors to also become an option, and would present a timely opportunity for countries to recover from the COVID-19 pandemic in a more sustainable manner.

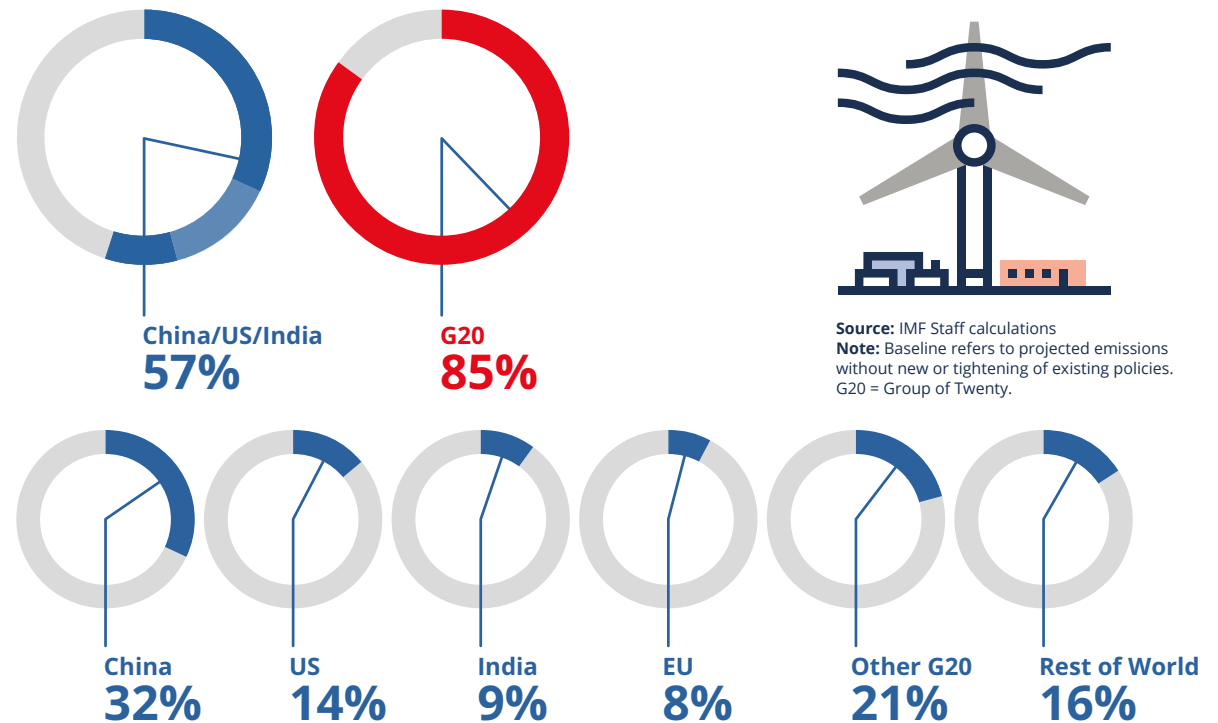
The remainder of this discussion paper addresses the increased regulation of carbon markets and the impact it has on the financial markets. Starting with providing an overview of the global context and its own set of challenges in adopting a worldwide standard on carbon pricing in section 2. Section 3 looks at current initiatives on carbon pricing in the EU and UK and compares their approaches. Section 4 discusses the impact of the introduction and expansion of carbon pricing schemes on the financial markets.

# China+US+India: 57%

# G20: 85%

Baseline CO<sub>2</sub> emissions

China, the US and India account for 57% of baseline CO<sub>2</sub> emissions in 2030, and the Group of Twenty (G20) makes up 85% (including EU countries)



Global share of baseline CO<sub>2</sub> emissions by country and region, 2030

<sup>9</sup> Proposal for an International Carbon Price Floor Among Large Emitters (imf.org)  
<sup>10</sup> Proposal for an International Carbon Price Floor Among Large Emitters (imf.org) (page 4 figure 2)

## Section 2

# Global context and its challenges

At present, 64 carbon pricing initiatives<sup>11</sup> have now been implemented or scheduled for implementation globally, representing 21.5% of GHG emissions; 45 national jurisdictions are covered by the initiatives selected and 35 subnational jurisdictions. In 2020, only 15.1% of emissions were covered by carbon pricing instruments (CPIs) and the increase is largely due to the launch of the national ETS in China. This is an increase of 6 compared to 2020, which had 58 carbon taxes and ETs in operation. Half of the new initiatives implemented or scheduled for implementation in the last 5 years were in upper-middle-income economies, while prior to 2013, such initiatives were implemented almost exclusively in high-income economies.

<sup>11</sup> Carbon Pricing Dashboard | Up-to-date overview of carbon pricing initiatives (worldbank.org)

# 64 21.5%

**64 carbon pricing initiatives** have now been implemented or scheduled for implementation globally, representing **21.5% of global greenhouse gas (GHG) emissions**



If we look at the initiatives across the globe - South Africa became the first African country to price carbon, Singapore was the latest jurisdiction to introduce a carbon tax in Asia, and Mexico's cap and trade pilot system paves the way for emissions trading in Latin America<sup>12</sup>. The World Bank found that, even with such progress, less than 5% of these initiatives are priced at levels consistent with achieving the temperature goals of the Paris Agreement.

All G7 nations (Canada, France, Germany, Italy, Japan, the UK and US) have adopted a net-zero emissions targets for 2050 into law<sup>13</sup>. Likewise, the G20 leaders collectively endorsed a communiqué encouraging the use of carbon pricing mechanisms. It is important to recognise that some nations do not have the necessary investments in research and development to be able to implement their own carbon pricing instruments. And some will not have the necessary resource to adopt new tools. It is possible that a nation will bear additional costs at the expense or benefit of another.

Wider participants	Carbon pricing mechanisms
<b>South Africa</b>	First African nation to launch a carbon tax
<b>Singapore</b>	First carbon pricing scheme in Southeast Asia in 2019
<b>Mexico</b>	Partial carbon tax in place since 2014 and began a pilot emissions trading system in 2020
<b>China</b>	World's largest Emission Trading System operational since 2021
<b>US</b>	Thirteen states with carbon pricing schemes make up 39% of the US economy



<sup>12</sup> Executive Summary.pdf (worldbank.org)

<sup>13</sup> G7 Industrial Decarbonation Agenda, UK G7 Presidency, June 2021



**64**

**Carbon pricing initiatives**



**45**

**National jurisdictions**

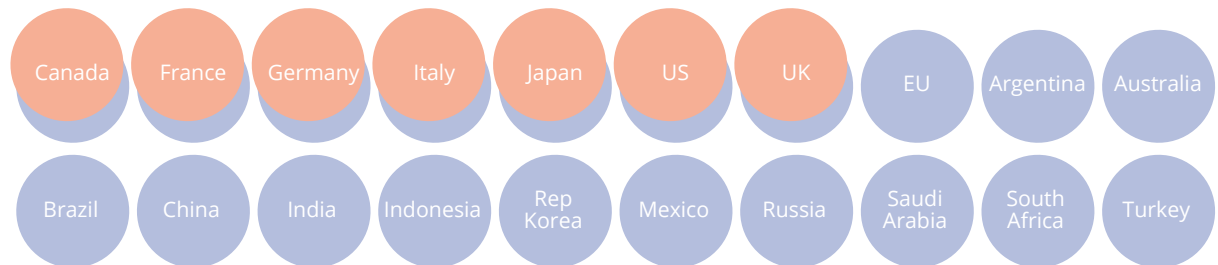


**35**

**Subnational jurisdictions**

**G7  
G20**

**G7  
G20**



## GLOBAL OVERVIEW OF CARBON PRICING MECHANISMS

### US

At the recent Leader's Summit on Climate, host President Biden announced a new target to achieve a 50% reduction from 2005 levels in net greenhouse gas emissions by 2030<sup>14</sup>. Whilst it is unlikely that the Biden Administration will propose a national carbon price in the next couple of years, support for an expansion of state carbon prices seems more likely. The State of California, accounting for 15% of US Gross Domestic Product (GDP), enforces a carbon price through a comprehensive emissions cap and trading scheme that is linked with a similar scheme in the Canadian province of Quebec. In addition, there are eleven other US states

in the north-east and mid-Atlantic, including New York, Massachusetts and Virginia, that jointly adhere to a limited regional programme that applies a carbon price in the electricity sector. In April 2021, after a decade of failed initiatives, the State of Washington's legislature enacted a comprehensive carbon pricing scheme (also cap and trade). Together these 13 states with carbon pricing make up 39% of the US economy.<sup>15</sup>

14 <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>

15 P1031-Carbon-Border-AdjustmentsWEB.pdf (australiainstitute.org.au)

### Central and Eastern Europe and Central Asia

The joint Special Report on Climate Change, The Low-Carbon Transition<sup>16</sup>, maps out the policies needed to reduce carbon emissions in central and eastern Europe and Central Asia. Analysis in the report shows that the introduction of an economy-wide price on carbon would have a big effect on emissions reductions. What is proving a challenge for many countries is the ability to grasp such opportunities but also the need to build awareness and understanding of creating infrastructures that cap emissions and allow trade in carbon permits.

This also requires a great level of financing. Governments are encouraging this through the introduction of the carbon price given that there are no real alternatives to such needed deep reforms. Although CO2 emissions have reduced considerably, the region remains largely carbon intensive<sup>17</sup>.

16 <https://www.lse.ac.uk/granthaminstitute/news/special-report-on-climate-change-published-the-low-carbon-transition/>

17 <https://www.ebrd.com/news/2011/ebirdlse-study-unveils-roadmap-to-low-carbon-economies-in-emerging-europe.html>

### China

China's national ETS launched just this year in February, becoming the largest carbon market in the world. China hopes to achieve carbon neutrality by 2060 and is expected to outline more detailed climate targets including an economy wide CO2 emissions cap, a 20% target for non-fossil energy in total energy consumption and targets on coal consumption.

## Section 3

# EU and UK approaches to carbon pricing

## 3.1 European Green Deal and the UK's decarbonisation efforts

Under the leadership of President Ursula von der Leyen, the European Commission strives to take up a leading role in the global efforts against climate change. The European Green Deal announced in July 2019 sets out an ambitious agenda for the block to achieve, among other goals, a 55% reduction in carbon emissions compared to 1990 levels by 2030 and net-zero emissions of GHG by 2050. Reaching these goals will require a transformational change of the European industry. For this to succeed, a comprehensive and cross-sectoral set of reforms will have to be put in place, focusing on all aspects of the European economy, ranging from energy, transport, building construction, and others. Regulating the carbon markets is the key component of the EU's reform. As part of the July 2021 Fit for 55 legislative package, which implements the European Green Deal, the Commission proposed to reform the well-established Emissions Trading System (ETS), in place since 2005, and to introduce a Carbon Border Adjustment Mechanism (CBAM).



The UK has long advocated for the development of carbon pricing internationally. It established Europe's first emissions trading scheme in 2002, which served as a pilot for the EU ETS<sup>18</sup>. Furthering the government's commitment to bring all GHG to net-zero by 2050, numerous decarbonisation strategies have been announced or are in the process of being developed.<sup>19</sup>

The narrative of decarbonisation also builds on the Prime Minister's Ten Point Plan for a Green Industrial Revolution and other policy initiatives alongside the UK ETS, which include a Fuel Duty Tax, Energy Company Obligation and Climate Change Levy<sup>20</sup>.

The UK government seeks to set the "world's most ambitious climate change target"<sup>21</sup>.

**The UK government seeks to set the "world's most ambitious climate change target"**



<sup>18</sup> Government response to consultation on future of UK carbon pricing (publishing.service.gov.uk)

<sup>19</sup> Government targets for net zero by 2050

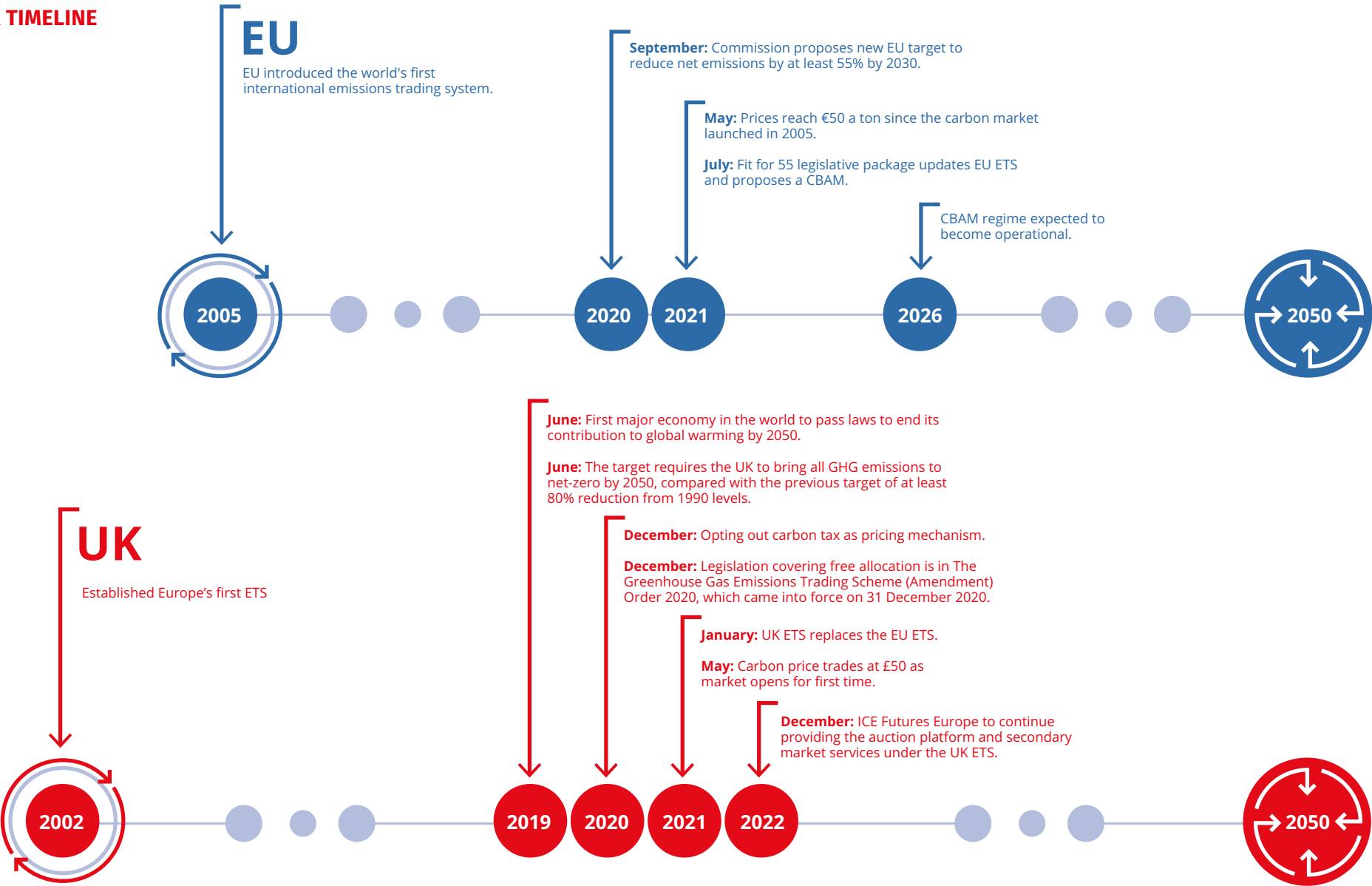
<sup>20</sup> Climate change targets (House of Lords Library)

<sup>21</sup> <https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035>



**The UK has long advocated for the development of carbon pricing internationally. It established Europe's first emissions trading scheme in 2002**

**EU AND UK TIMELINE**



### 3.2 European Union's Emissions Trading System

As part of the Fit for 55 legislative package, the Commission proposed to revise the EU ETS Directive “in a manner commensurate with the 2030 climate ambition to reach at least 55% net GHG emission reductions by 2030 below 1990 levels and with a gradual and balanced trajectory towards climate neutrality by 2050”.<sup>22</sup>

#### THE KEY ELEMENTS OF THE REFORM INCLUDE:

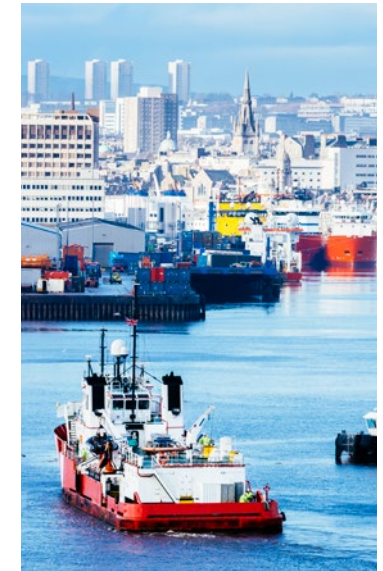
- **Proposed phased-in extension of the EU ETS to maritime transport,**
- **Introduction of a new and separate emissions trading system for buildings and road transport from as soon as 2025,**
- **A change to the linear reduction factor for emission allowances,**
- **One-off cap reduction in the number of emission allowances available.**

The intention behind the latter two initiatives is to ensure that the overall quantity of emission allowances will decrease at a faster pace by 2030. The interlinkage between the reformed EU ETS and the CBAM foresees a gradual reduction of free emissions allocation, to take place over ten years following application of the regulation introducing CBAM and starting before the end of 2025. Finally, to further increase spending on low-carbon investments, Member States will be required to use all revenues stemming from the emission allowances auctions and to the extent that they are not attributed to the EU budget, for climate-related expenditures.

If and when adopted, the revised EU ETS is likely to have significant implications for the European economy. The envisaged phase-out of free emission allowances is expected to increase the price of carbon across the board, i.e. the price of carbon paid by both European producers (via ETS) and importers (via CBAM). Some analysts predict that the price of carbon will nearly double ahead of the 2030 deadline, creating direct cost impacts on affected businesses.<sup>23</sup>

Although it is beyond the scope of this publication to address all technical details of the proposed revised EU ETS, it is worth mentioning that arguably the most controversial element of the proposed amendments to the EU ETS system is the extension of the measure to road transport and to buildings. According to media reports, the proposal created friction in the College of Commissioners.<sup>24</sup>

Having endured such a reportedly bumpy start, the proposal is now set for a legislative review. Considering that the co-legislators are expected to introduce substantial amendments to the Commission proposal, the future of the EU ETS proposal, and in particular its final shape, is uncertain at the time of writing.



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22 Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757 (COM(2021) 551 final), 14 July 2021, link

23 <https://www.euractiv.com/section/emissions-trading-scheme/interview/analyst-eu-carbon-price-on-track-to-reach-e90-by-2030/>

24 <https://www.politico.eu/article/germany-europe-road-transport-fuel-price-climate-change-emissions-trading-scheme/>

### 3.3 United Kingdom’s Emissions Trading System

To determine its carbon pricing approach, the UK government and devolved administrations consulted on The Future of UK Carbon Pricing in 2019 and proposed a UK ETS which would be either a stand-alone scheme or linked to the EU ETS<sup>25</sup>. In December 2020 the UK government’s Energy White Paper opted for a standalone UK ETS. Through the EU-UK Trade and Cooperation Agreement (TCA), the systems could become closer as both sides have committed to cooperate on carbon pricing and consider linking both. A decision on preferred linking parties has not been made yet. Ultimately, both remain similar, and this would be an opportune time to link.

The main difference between the two proposals reflects on the challenges foreseen with the access to a larger EU carbon market. Following its departure from the EU, the UK ceased its participation in the EU ETS on 1 January 2021 and entered Phase I of the UK ETS. The UK scheme appears more ambitious as it provides businesses with greater clarity over the year’s supply of emissions allowances, which in turn enables forward planning and provides better preparedness towards a low-carbon economy. While a standalone scheme keeps the UK in check with its own net-zero ambitions, avoiding linking with the EU ETS comes with its own challenges.

#### COMPARING THE EU AND UK EMISSIONS TRADING SCHEMES

	EU ETS	UK ETS
<b>Sectors</b>	Energy Intensive Industries (EIs), power generation sector, aviation	Energy Intensive Industries (EIs), power generation sector, aviation
<b>Countries</b>	EU and European Economic Area (EEA) countries (plus Northern Ireland electricity sector)	UK
<b>Cap</b>	The cap on emissions continues to decrease annually at an increased annual linear reduction factor of 2.2%	UK cap 5% lower than it would have been under EU ETS
<b>Free allocation</b>	Over the trading period (2013–2020), 57% of the total amount of allowances were auctioned, while the remaining allowances became available for free allocation, but worth noting that each year, free allocation decreases	The UK government will hand out 39.1 million free carbon allowances to industrial companies under the country’s ETS in 2021, its first year of operation, according to government figures released May 11
<b>Average unit price</b>	Increase from €30 (December 2020) to €55 (mid-May 2021)	€50-58 (initial but too early for an average)

The UK government will hand out 39.1 million **free carbon allowances** to industrial companies under the country’s Emissions Trading System in 2021



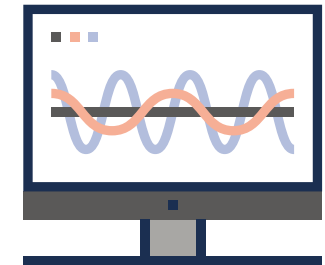
25 <https://www.gov.uk/government/consultations/the-future-of-uk-carbon-pricing>

The UK's carbon trading scheme will cover an estimated third of the country's emissions that are produced by over one thousand power plants, factories and airlines. These companies can already purchase permits that have been auctioned by the UK government since May. With the start of trading in UK carbon allowances, through a cost per unit on CO2 emissions, prices have reached £50.23 per ton<sup>26</sup>. Carbon prices continue to soar with the EU ETS peaking from €30 a ton in December, to €55 a ton in May. The first trades signalled confidence in the UK ETS as a system but given the relatively limited capacity for fuel switching in the UK, domestic power producers could rely heavily on power imports from mainland Europe if UK Allowance (UKA) trade significantly higher than the EU Allowance (EUA), which could also factor in the increased price of carbon.

While both the UK and EU systems have market intervention mechanisms, the EU counterpart is based on prices rising to three times, rather than twice. The UK however, reduced the trigger limits for the first two years of the scheme to address concerns that, as it serves a smaller market than the EU, it could suffer greater volatility. Any intervention would be triggered if the average price remains above £44.74 a ton for three consecutive months<sup>27</sup>. Even though trading began above the threshold that the UK government had set to implement as an intervention, the UK ETS appears to be designed in a way in which carbon prices rise over time. Early interventions may prove counterproductive to the UK's plans in tackling climate change, and even prevent it from paving a leading role towards net-zero on the international stage.

Given the similar scope of both UK and EU ETs it should be easier to link now, unlike other systems as seen with the EU and Swiss ETs which began negotiations to link in 2011 and only entered into force in January 2020<sup>28</sup>. Perhaps the government remains cautious on

linking with the EU system due to certain provisions that may impact the future ability of the UK to link with other chosen third parties. In the Linking Agreement between the EU and Switzerland, both parties can enter into negotiations with a third party with a view to link their respective ETS. The parties must inform each other on the status of negotiations, but if one side does not approve the third-party link then a suspension of the mutual recognition of allowances could follow. Since the UK is aiming to extend its third country partnerships, develop further FTAs and increase trading ambitions around the world, a link to the EU ETS could cause a choppy backdrop to the overall freedoms that come with a standalone UK ETS.



### MARKET STABILITY MECHANISMS

	EU	UK
<b>Adjustment and intervention</b>	Market Stability Reserve (MSR) – an adjustment system that automatically cuts auction volumes when the surplus of allowances exceeds a certain limit and releases the volume of allowances to be auctioned when the surplus falls	Cost Containment Mechanism (CCM) – government intervention used if prices remain high for a sustained period of time. During the first two years of the UK ETS, a CCM will have lower price and time triggers to accelerate government intervention if needed
<b>Auction reserve price</b>	EU-wide implementation might require a unanimous decision of all EU countries and might thus be vetoed by more carbon-intensive countries	Minimum price at which allowances can be sold at auctions currently at £22. This is likely to be discontinued as the UK ETS develops further. Green groups have expressed concerns as it seemed low

26 <https://www.ft.com/content/56e02d3d-8c31-4937-be50-60d4bf9342f7>

27 <https://www.ft.com/content/fbbd38fb-c626-46c2-9cf2-516276a11169>

28 [Linking the Swiss and EU emissions trading systems \(admin.ch\)](#)

### 3.4 European Union’s Carbon Border Adjustment Mechanism

The proposed regulation establishing CBAM aims to create a mechanism that will be an alternative to the EU ETS.<sup>29</sup> To put it simply, while the EU ETS is focused on addressing carbon emissions generated within the EU, the CBAM seeks to proportionately increase the price of the in-scope goods imported to the EU from the jurisdictions that do not have similar measures in place. In particular, the CBAM will apply to imports of goods to the customs territory from those third countries, which are not fully integrated into or linked, to the EU ETS system. In time, the CBAM is intended to replace the EU ETS system of free allowances. In order to provide an equal treatment between EU and non-EU businesses, the CBAM will only begin to apply to the products in direct proportion to the reduction of free allowances allocated under the ETS for those sectors.

The CBAM will apply to the imports from third countries of clearly identified goods from the cement, electricity, fertilisers, iron and steel, and aluminium sectors. Interestingly from the EU-UK perspective, while the Commission’s proposal lists a number of countries from where imports will not be covered by the CBAM, this list currently includes only countries belonging to the European Free Trade Association (EFTA), i.e. Iceland, Liechtenstein, Norway and Switzerland. That said, the draft legislation sets out certain conditions and procedures, which may result in a third country being added to the list of the territories exempt from CBAM application based on compliance.

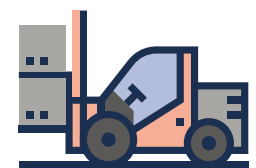
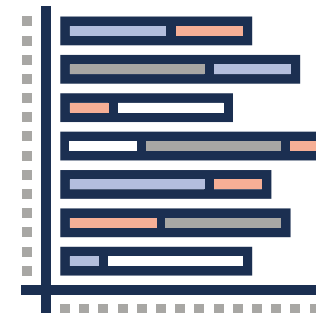
While discussing the technical details of the proposed CBAM goes beyond the scope of this paper, it is worthwhile to mention that the pricing structure behind it will be based on two interlinked concepts of “embedded emissions” and “CBAM certificates”. The former will capture direct emissions released during the production of goods and calculated in accordance with a

methodology set out in the proposed legislation, and the latter will mean electronic certificates corresponding to the ton of embedded emissions in goods. Importantly from the perspective of inter-linkage between the CBAM and the EU ETS is that the price of CBAM certificates is designed to be calculated by the Commission as the average price of the closing prices of EU ETS allowances on the common auction platform for each calendar week.

That said, the proposed CBAM mechanism foresees a mechanism whereby a rebate from the price of the CBAM certificate can be obtained, reflecting any carbon price paid in the country of origin of the goods. Contrary to emission allowances, however, the CBAM certificates are not designed to be traded on secondary markets. The only mechanism foreseen for certificate holders to sell off the excess certificates is to have them repurchased by a competent authority of a Member State.

#### CBAM SECTORS

Cement  
Electricity  
Fertilisers  
Iron and steel  
Aluminium



<sup>29</sup> Proposal for a Regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism (COM/2021/564 final), 14 July 2021 (link).

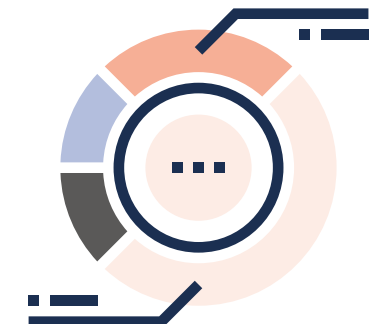
The proposed CBAM regulation will now have to go through a legislative review process, with both the European Parliament and the Council having the right to submit amendments. If and when adopted, the CBAM will be the first such cross-sectoral mechanism in the world. Not surprisingly therefore, the proposal can be expected to be watched very closely in those countries whose exporters will be affected by the rules, if they do not have sufficient domestic measures in place that would allow them to benefit from any of the conditional exemptions. Brazil, China, India and South Africa have raised concerns that CBAM could impose unfair discrimination of European imports of their products. By applying charges that could be higher than the EU's agreed customs duty ceilings, the CBAM could be in violation of World Trade Organisation (WTO) obligations and be inconsistent with the WTO's 'national treatment rule'. Should European producers benefit from free emissions allowances, the EU could be deemed to be acting incoherently within this rule. Some of the most affected products could be Colombia's cement, China's plastics, North Africa's fertilisers, and South America's pulp exports.<sup>30</sup> John Kerry, the US Climate Envoy has warned repeatedly that CBAM should be a "last resort" and that it had "serious implications for economies, for relationships, and trade"<sup>31</sup>. Similar scepticism of the EU CBAM proposal has reportedly been raised by Matthias Cormann, the Secretary-General of the OECD, while speaking with EU finance ministers.<sup>32</sup>

With the EU's CBAM set to start in 2026 exemptions to comply will only be applicable to countries participating in the EU ETS and those having linked their own ETS to the EU's. As the UK ETS is not directly linked to the EU ETS, it cannot currently be exempted from the CBAM and so avoiding vulnerability depends on maintaining similar price levels and market design. For instance, the UK has its own system of free allocation and, if this system is maintained as the EU transitions away from free allocation, UK industries

### CHALLENGES AHEAD

CBAM	Challenges
<b>Legislative review</b>	Both the European Parliament and the Council can now submit amendments to the proposed CBAM which is likely to change its scope and technical detail, making it more complex and nuanced
<b>Exemptions</b>	Will apply to imports of goods to the customs territory from those third countries, which are not fully integrated into or linked, to the EU ETS system
<b>EU-UK relations</b>	CBAM regulation in Northern Ireland would require the consent of the UK. There are limited indications on wanting to link to the EU's scheme

**The proposal can be expected to be watched very closely in those countries whose exporters will be affected by the rules, if they do not have sufficient domestic measures in place that would allow them to benefit from any of the conditional exemptions.**



30 How a new EU climate law could favour some traders over others | World Economic Forum (weforum.org)

31 Kerry 'concerned' about EU carbon border tax implications: FT | Reuters

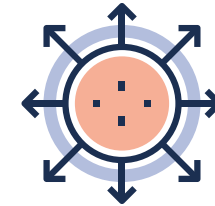
32 Politico | OECD boss: Carbon pricing should come through us

will increasingly face greater exposure to the CBAM since their actual carbon costs will begin to diverge significantly from EU competitors. Given its close trading ties with the EU, the UK risks being among the most exposed trading partners as the CBAM expands to new sectors – exports to the EU account for almost half the value of the UK's total goods exports. The UK has also expressed interest in a CBAM of its own since it faces similar challenges to the EU with industrial competitiveness in the face of significant carbon prices.

One of the main challenges for CBAM in the context of EU-UK relations is the impact on Northern Ireland. Although power plants there are set to remain under the EU ETS, implementing the CBAM regulation in Northern Ireland would require the consent of the UK. But there have been limited indications on wanting to link to the EU's scheme, arguing that doing so could leave the UK with less flexibility to design and shape its own carbon pricing structures. This has given mixed signals about the future prospect for the UK to be added to the EU's exemption list, which if added would benefit UK exporters of CBAM goods, and resolve issues related to Northern Ireland. Under the terms of the NI Protocol Electricity Generations continue to be participants in the EU ETS<sup>33</sup>. A linked system will avoid competitive distortions and align costs for industries between the UK and EEA. If a link is agreed between both parties, all emission allowances that are eligible for compliance in one of the systems will also be eligible for compliance in the other. This would mean that EU operators can use UK allowances and vice versa to compensate emissions.

### 3.5 UK: Carbon Emissions Tax

In a consultation in 2020, the UK government explored the option for a Carbon Emissions Tax and set out that the tax emission allowance would be calculated based on EU ETS benchmark, the carbon leakage exposure factor as well as the amount of carbon dioxide produced during the installation period<sup>34</sup>. Under this system, the UK expected to remain aligned with the rules under Phase IV of the EU ETS, but in December 2020 it was decided to drop the Carbon Emission Tax. There are some signals of future reforms which could see the introduction of carbon tax in the future. Business Secretary Kwasi Kwarteng commented on utilising a "carbon tax route"<sup>35</sup> which suggests active government discussions over carbon taxation and possible integration of such policies.



<sup>34</sup> Carbon Emissions Tax consultation outcome

<sup>35</sup> <https://committees.parliament.uk/oralevidence/1212/html/>

#### UK CARBON TAX

##### Pros:



##### Cons:



<sup>33</sup> <https://www.daera-ni.gov.uk/articles/emissions-trading-schemes>

## Section 4

# Implications for financial markets

The financial industry plays an important role in the implementation of decarbonisation efforts by investing into net-zero projects and advocating for stronger industry standards and frameworks.



## 4.1 Net-zero, carbon and the financial services sector

With emission allowances being a financial instrument for the purposes of both European and UK securities legislation, the reform of a broader carbon market are likely to have implications for financial market participants active in the carbon-trading sector.<sup>36</sup>

**The Markets in Financial Instruments Directive (MiFID) was extended with emission allowances being classified as financial instruments since 2014, this was also implemented under UK MiFID since the expiry of the transition period.**

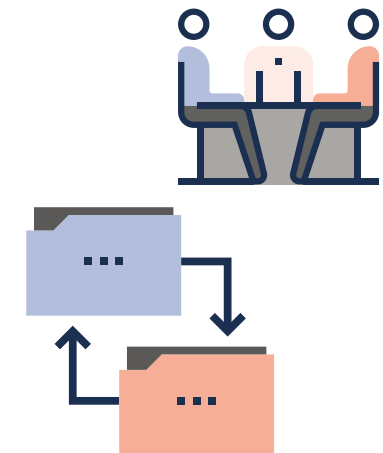
Within the scope of the same regulatory perimeter as applicable to securities and derivatives, trading in emission allowances is therefore now itself a regulated activity. As such, it is also subject to anti-market abuse and market manipulation measures and prohibitions as set out in the Market Abuse Regulation (MAR).

**Under both, emission allowances are subject to anti-market abuse and market manipulation measures.**

The EU and UK legislative frameworks set out who can buy and sell emission allowances, and under what conditions. There are separate rules governing participation in emission allowances auctions conducted by a common auction platform (under EU ETS this is currently EEX in Leipzig), and separate rules applicable to trading emissions in secondary markets. In respect of the former, under EU legislation, the category of “eligible bidders” include, alongside other participants, authorised investment firms, credit institutions, and – subject to conditions – persons exempt from MiFID requirements.<sup>37</sup> Regarding the latter, this

includes persons authorised to undertake investment activities or provide investment services in the EU, or those meeting the relevant exemption criteria. The UK’s FCA consulted on how to authorise and supervise certain firms intending to bid for emission allowances on the UK auction platform to reflect a continuity of approach to the regulation of emission allowances, platforms and trading.

That said, both EU and UK MiFID allows certain persons that trade in emission allowances, commodity or emission derivatives, on a professional basis to make use of an exemption from the requirement to obtain authorisation as an investment firm when their trading activity is ancillary to their main business (the so called “ancillary activity exemption”).<sup>38</sup>



<sup>38</sup> In the recently completed targeted review of certain EU MiFID requirements, including the ancillary activity exemption, the co-legislators acknowledged “the significant role of the ETS in achieving the Union’s sustainability objectives, and the role that a well-functioning secondary market in emission allowances has in supporting the functioning of the ETS”, and mandated the Commission to monitor further developments in emissions trading markets in the EU and in third-countries. The Commission is required to present its report by the end of December 2021, which will include an assessment of the trading in emission allowances and their derivatives on the ancillary activity exemption and whether measures should be adopted in relation to trading that takes place on third country trading venues, and if appropriate, to present a legislative proposal setting out amendments to the current regime.

<sup>36</sup> See Annex I Section C of Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU, OJ L 173, 12 June 2014.

<sup>37</sup> See Article 18 of Commission Regulation (EU) No 1031/2010 of 12 November 2010 on the timing, administration and other aspects of auctioning of greenhouse gas emission allowances pursuant to Directive 2003/87/EC of the European Parliament and of the Council establishing a system for greenhouse gas emission allowances trading within the Union, OJ L 302, 18.11.2010.

## 4.2 Possible implications

The huge opportunity presented by carbon pricing instruments is that they can direct investment into sustainable assets and accelerate the transition to net-zero.

If we look at the EU and UK models discussed earlier, there will increasingly be new markets for energy efficient solutions. We are already seeing more products becoming available due to regulations, and we see increased consumer awareness too.

In 2020, carbon initiatives around the world generated USD 53 billion in revenue, covering 21.7% of global GHG emissions.<sup>39</sup>

Carbon impacts are a long-term durational problem. This underlines the need and benefits of a more long-term investment outlook. As there is currently no universal price of carbon, and that it varies from region to region, this can be problematic for firms who have subsidiaries across the globe. It will also be increasingly difficult for financial market operators to incorporate such planning and forecasting into models if there are no coherent standards to follow.

The projected increase of the emission allowances prices in a short-term scenario is expected to increase the non-financial carbon market participants demand for access to hedging. Very often such non-financial market participants rely on financial institutions to access the secondary emission allowances markets.



Financial institutions have started to become increasingly active in carbon markets, expanding their carbon trading desks and stepping up their involvement in the market.

As demand drives innovation, new approaches to managing carbon prices risk are likely to emerge. For example, earlier this year four banks, announced establishment of a pilot platform for trading voluntary carbon credits.<sup>40</sup>

Another aspect of the foreseen impact of the regulatory efforts towards eliminating carbon emissions is an even more significant shift in the financial institutions' approach to investments. In practice, financial institutions are likely to focus their analysis increasingly on carbon-efficiency parameters of a project.<sup>41</sup>

The financial industry will have a key role in ensuring the right frameworks exist to oversee the implementation, risks and opportunities of carbon pricing mechanisms. Carbon pricing is likely to have both direct and indirect impacts on corporate finance; for example, taxes and emissions permits would result in direct impacts for consumers whilst rising logistics and travel costs could indirectly impact supply chain costs.<sup>42</sup>

# 21.7%

In 2020, carbon initiatives around the world generated **USD 53 billion** in revenue, covering **21.7% of global GHG emissions**.

“

There are other areas that financial markets should be aware of when widening their climate-related activities”

<sup>39</sup> The World Bank. 2021. "State and Trends of Carbon Pricing 2021" (May), World Bank, Washington, DC. Doi: 10.1596/978-1-4648-1728-1. License: Creative Commons Attribution CC BY 3.0 IGO

<sup>40</sup> <https://www.reuters.com/business/sustainable-business/global-banks-launch-voluntary-carbon-offset-market-platform-2021-07-07/>

<sup>41</sup> <https://am.jpmorgan.com/it/en/asset-management/institutional/investment-strategies/sustainable-investing/climate-change/carbon-pricing-implications/>

<sup>42</sup> <https://www.nomuraconnects.com/focused-thinking-posts/carbon-pricing-and-financial-markets-the-cheapest-most-expensive-commodity/>

### 4.3 Widening of existing policy packages

**THERE ARE OTHER AREAS WORTH NOTING IN THE CONTEXT OF FINANCIAL WIDENING RELATED TO CLIMATE ACTIVITIES:**



**The need for guidance:**

carbon pricing is a relatively new phenomenon, implemented by developed nations and there is still limited knowledge regarding the financial risks that come with these initiatives. Regulatory guidance would provide some clarity for current and new market participants. There is a responsibility for the regulators to collaborate to establish a shared approach, particularly nations who have expertise.



**Impacts on reporting:**

there will be a risk for regulators should climate-related risk assumptions and scenarios not align across varied indicators. This will lead to inaccuracies in reporting and poses reputational risks for firms. Additional reporting requirements will increase the administrative burden on firms. The current lack of international standards also means that firms are heavily disclosing more qualitative information as opposed to meaningful data that could provide further insight into the climate impact of a firm's activity.



**Collaboration towards standardisation:**

the ability or inability to compare information of various climate-related activities is an issue for both consumers and firms. Information must be comparable or standardised for it to be useful. A lack of supervisory or regulatory consistency will further complicate this. Regulators across the globe should work together to coordinate standard disclosures that support the ability to compare information, ideally in line with international standards. The Task Force on Climate-related Financial Disclosures (TCFD) framework is a good place to start.



**Scale-up of voluntary carbon markets:**

accelerating decarbonisation of global economies will likely increase demand for voluntary offsetting. Initiatives such as the Taskforce on Scaling Voluntary Carbon Markets (TSVCM), sponsored by the Institute of International Finance, and bringing together over 250 institutions representing buyers and sellers of carbon credits, the financial sector, market infrastructure providers, and other actors, is a good example thereof.<sup>43</sup> Since no centralised voluntary GHG or carbon market has taken clear shape, individuals, companies or governments can use credits to meet compliance obligations across existing regulated carbon market schemes. This would support controlling GHG emissions and enable companies achieve their net-zero targets.



<sup>43</sup> <https://www.iif.com/tsvcm>

**5**

**Standardising instruments for carbon trading:**

as advocated in the Final Report of the TSVCM, the introduction of a “core carbon reference contract” should be one of the areas of focus for a further reform on a way towards establishment of a global VCM. This could include standardising spot and future contracts to allow trading at scale and price formation processes, establishing an active secondary market for carbon credits to help market participants manage their price risks and increasing transparency and standardisation in the ‘over-the-counter’ (OTC) markets with a view of allowing market participants to enter into bespoke carbon contracts.<sup>44</sup>

**6**

**Forward looking benchmark values:**

setting up low-end, mid-range and high carbon price benchmarks can better equip industries in forward planning and implementation of strategies in their transition to net-zero. More efforts in the development of carbon-related benchmarks across countries should help to standardise prices of carbon emissions for the immediate, short and long-terms and subsequently contribute to more even decarbonisation efforts.

**7**

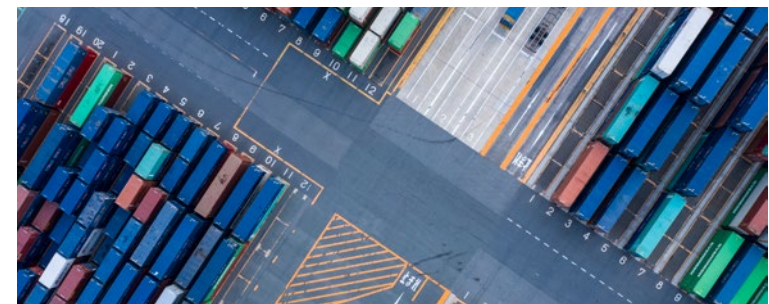
**Integrating financial market infrastructure in carbon-trading scale up efforts:**

as also suggested in the Final Report of the TSVCM, building new or utilising existing market infrastructure, including exchanges, central counterparties (CCPs) and post-trade services, should also be considered in the drive towards establishment of VCMs.

**8**

**New financial instruments:**

developing new financial instruments to accompany carbon pricing are set to have a wide range of direct and indirect impacts on corporate finance. By widening the scope of products that aim to increase investment in sustainable finance, instruments linked to carbon pricing like bonds, stocks, derivatives can respond to tackling climate change and play a key role in the toolbox of policymakers.



<sup>44</sup> Taskforce on Scaling Voluntary Carbon Markets: Final Report (January 2021)

# Conclusion

Carbon pricing is widely considered an effective instrument for reducing carbon emissions and is a necessary tool for combatting climate change. It has the potential to guarantee reduced emissions and should be at the core of efforts to reach net-zero.

As a global problem, international collaboration is essential for implementing a global solution. Whilst climate change requires speedy action, policymakers should be mindful of an overload of new instruments, and jurisdictions creating their own potentially incompatible domestic policies. An increase in siloed regulation could risk the success of market participants, particularly where new policies lack alignment with current and future international regulations and norms. As companies increasingly price carbon internally, global standards are necessary to ensure an equal level-playing field across the globe. Policymakers must ensure cooperation on the international stage; this will enable the establishment of consensus around global principle-based standards and transparent approaches to regulation.

As the EU and UK's almost identical systems run in parallel and remain unlinked, numerous firms and sectors across the economy are exposed to additional compliance costs and potential carbon leakage. This has the potential to hamper innovation and could further strengthen the position of larger companies who can afford the additional administrative burden. Further cooperation on carbon pricing between the two systems would alleviate complexities of the trading arrangements for participants active in their respective carbon markets. This could lead to benefits in international commerce as more compatible systems resemble one another the lower the risk of carbon leakage. Both EU and the UK are well placed to act as leaders in climate-related regulation and policy.

The role of financial markets is significant and goes beyond generating revenue. It also advocates for appropriate frameworks to inspect implementation and coherence of risks and opportunities related to carbon prices. As investors and other global market participants become increasingly demanding of low-carbon investments, creating such trading environments remains at the forefront of a sustainable transition. The financial sector can accelerate the efforts by companies, and incentivise consumers in order to shape new innovations that will pursue long-term solutions to net-zero.

# Acknowledgements

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