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Why Should Turkey Comply With The Global Climate Regime?

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Introduction

Developments in the recent few years mark the birth of a new global regime. By regime, I mean the particular structure consisting of supranational institutions and sets of codes, embodying areas such as global economy, trade and diplomacy. In the history of humanity, such encompassing transformations are only witnessed at significant turning points in history. The last similar turning point and “re-establishment” in history, which we can compare with the current one, took place after the Second World War. It is not to exaggerate to say that the world we were born into is the result of agreements in the Bretton Woods Conference in 1944 and the foundation of United Nations (UN) in 1945. If the ineffective experiment of the 1920 League of Nations is left aside, a structure in which global finance (IMF), economy and development (World Bank), trade (GATT/WTO) and diplomatic relations (UN) were conducted and controlled by supranational institutions for the first time in human history due to these agreements. If adversities such as the Great Depression of 1929, caused by the unregulated financial sector, the trade and currency wars of the 1930s, and the Second World War had

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not been experienced, and the emergent longing for a new world had not been so strong, this very structure might not have been established, or it might have appeared in a completely different shape.

That regime, which led to the foundation of the social welfare state where the middle class was strengthened, mass production and consumption increased, and global inequalities decreased relatively, gave its last breath with the 2008 Global Financial Crisis. In a period of ongoing uncertainty, everything has been going backwards. Determining the patterns of production and consumption, neoliberal globalization has created a world where poverty and inequality is consistently increasing, and the results of the exploitation of nature can clearly be observed especially with the climate change. The economic and social effects of the 2008 Global Financial Crisis, the climate change related disasters and finally the Covid-19 pandemic designate a new turning point in history. The tsunami effects of Covid-19, which broke out in 2020 have clearly shown how fragile the existing economic, commercial, financial, education and health systems are. It is obvious that things cannot go on in the way they have until now. The need for a comprehensive transformation that is in harmony with nature and prioritizes social justice makes itself evident in every field.

The Global Climate Regime and the European Green Deal

In the future, we may begin to refer to the Paris Agreement of 2015, the aim of which was to keep the temperature rise at 1.5 degrees by reducing global greenhouse gas emissions, as the founding agreement of this new regime.

[The European Green Deal](#) (EGD) announced by the European Union (EU) in December 2019 is the first substantial sign of the Global Climate Regime that is in the process of establishment. Although its primary objective is the creation of a climate-neutral continent by 2050, the European Green Deal also addresses a much wider scope including economic and social goals as well as ecological concerns about climate change and environmental degradation. The fact that China and Japan announced carbon-neutral dates in September 2020 right after the EU, and that Joe Biden made the USA a party to the Paris Agreement, again, as the first thing after coming to power—alongside the announcement of an incentive package with a particular content—all point to a certain reality: Economic and social objectives can hardly be achieved with a process of development that is not compatible with the climate and nature. In other words, the EU and three other countries opted for a

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green transformation not because their governments went through an ecological revelation, but because there was no other way out.

It is clear that the entry of EU, USA, China and Japan, which realize 80% of global production, to a path of development in harmony with the climate and nature will change the “rules of the game” in global, economic, commercial, financial and political relations. The Green New Deal emerges as the founding dynamic of this regime. The rules of the game are changing and it will be in their own interests for the remaining countries to adapt to this new regime without any further delay. We should keep in mind that resistance to this transformation, which is compatible with climate and nature, will have a certain cost that will increase day by day.

How will the European Green Deal (EGD) affect Turkish Economy?

EGD will affect all countries that have commercial, financial and political relations with the EU through two channels according to their levels of connection. The first of

these is the Carbon Border Adjustment (CBA) mechanism, and the other is the Circular Economy (CE) regulations. Obviously, the EU is forcing the countries that want to trade with it to green transformation by using its power from the economy with these tools. It is a fact that a transformation as such will have a significant cost for countries like Turkey. At the same time, there is nothing wrong with Turkey’s being forced into green transformation by EGD. Vision 2023 announced by the government in 2012, which included such ambitious goals as transforming Turkey into the 10th largest economy in the world and reaching 25 thousand USD per capita income, has brought the Turkish economy in 2021 to a point even worse than that of 2012. Either by the force of the EGD or not, it is clear that Turkish economy is in need of a new trajectory. Under the current circumstances, it is not possible to offer jobs and hope to young people, and a secure future to the society. Therefore, it is necessary to reverse this vicious circle with a well-designed transformation program in an attempt to establish a durable and promising economic structure.



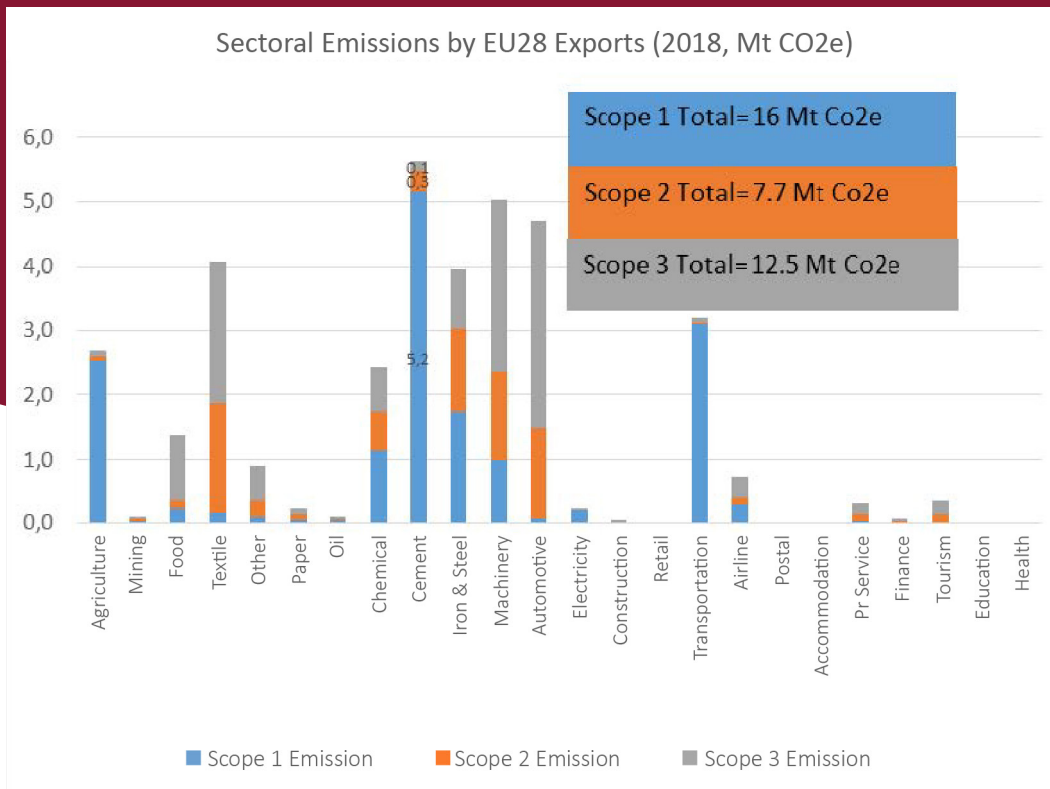
Pricing of carbon within the EU may reduce the competitive capacity of EU manufacturers and tempt them to shift their production sites to countries such as Turkey that lack an emission pricing system.

Carbon Border Adjustment (CBA) Mechanism

It is expected that uncertainties as to which sectors and emissions the CBA will cover, and whether it will be applied as an equal tax on each product, or as the border pricing of the carbon contained in the products in 2023 will be clarified by mid-2023 when it is expected to come into effect. Since it is a cross-border application, it also has an important limitation, that is compliance with the current World Trade Organization (WTO) norms. Different designs, and their potential pros and cons are still [in debate](#). In the pilot implementation period, which is expected to last until 2030, the CBA is anticipated to price the Scope 1 emissions by the exports of 6 sectors to the EU27 market as in the EU ETS. These sectors are expected to include Cement-Glass-Ceramics, Paper, Petroleum Products, Chemicals, Electricity and Iron & Steel.

Although there are different suggestions, the CBA is most likely to be implemented as a non-EU extension of the Emissions Trading System (ETS) as an intra-EU regulation. In order to grasp why the ETS is starting to contradict with the current objectives, it would be convenient to briefly mention

how it functions. Since 2005, the EU has been regulating greenhouse gases in the EU industries through the ETS. Each year a certain quota is determined (the maximum emission level) and while some of these quotas are distributed free of charge, some are set to sale by auction. Pricing of carbon within the EU may reduce the competitive capacity of EU manufacturers and tempt them to shift their production sites to countries such as Turkey that lack an emission pricing system (leading to the carbon-leakage problem). The reason that lies behind the free distribution of some emission rights to some sectors is the concern of eliminating this vulnerability (the carbon-leakage risk). In order to keep the facilities producing the products on the risk list within the EU (thereby avoiding employment/production losses), the ETS will continue to allocate free emission rights to the facilities until 2030 but the rates will be gradually reduced. However, this practice obviously contradicts with the 2050 climate-neutral objective. It is at this point that the CBA should step in and be designed so as to serve the purposes of both protecting employment and production by eliminating the cost disadvantage of EU manufacturers, and reducing global emissions.

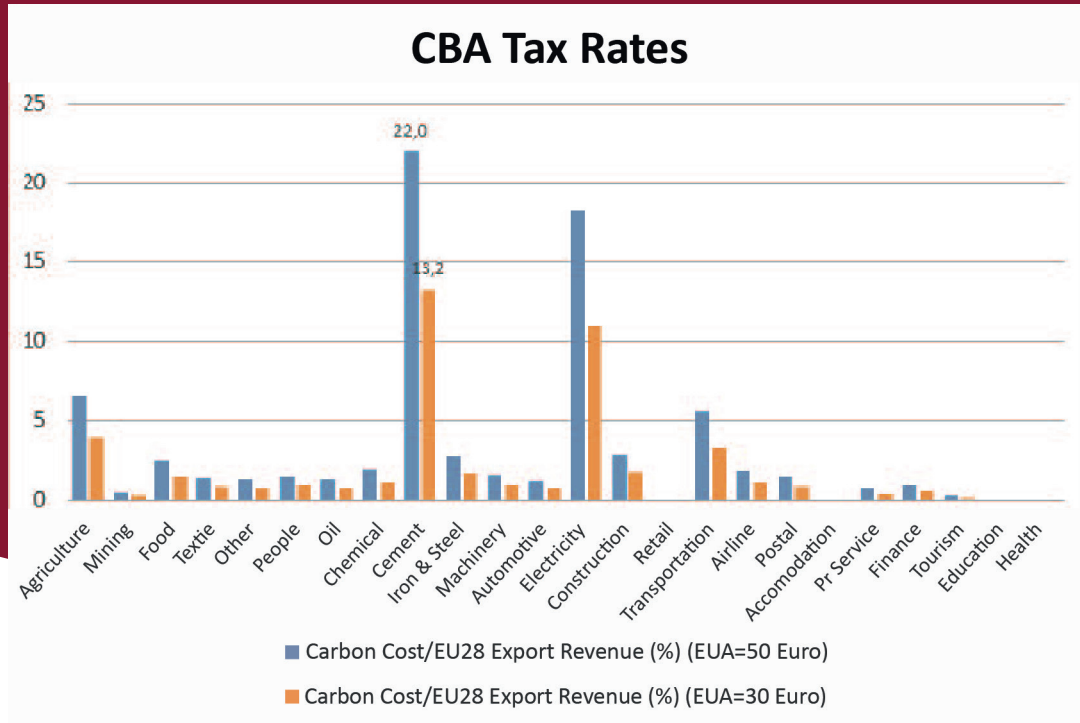
Figure 1. Sectoral Emissions Caused by EU28 Exports (2018, Million tons CO₂e) ton CO₂e)

Source: Acar, Aşıcı, Yeldan (2020). New Climate Regime Report. TÜSİAD.

So what will be the impact of CBA on Turkish economy? In 2018, using the Input-Output method, [Acar, Aşıcı, Yeldan \(2020\)](#) calculated the greenhouse gas levels included in the exports of the 24-sector economic structure to the EU28 market, and estimated the carbon cost and shadow tax burden that the exporters would be exposed to in the event that 30 and 50 Euros were paid per ton. The results are shown in Figures 1 and 2.

As can be seen from Figure 1, the total emissions of Scope 1 (out of the facility chimney), Scope 2 (caused by the electricity used by the facility) and Scope 3 (caused by the other inputs used by the facility) of Turkey's exports to the EU28 market in 2018 are 36 million tons of CO₂e. The high carbon-intensity of sectors such as Cement-Glass-Ceramics, Iron & Steel and Chemistry poses a serious risk for Turkey.

Figure 2. CBA Tax Rates (Carbon Cost/Export Revenue)



Source: Acar, Aşıcı, Yeldan (2020). New Climate Regime Report. TÜSİAD.

Figure 2 shows the proportion of total amounts that the sectors will pay to the ETS at the border to their export revenues. Accordingly, for its carbon emission of 5.6 Mt CO₂e, the Cement sector will be exposed to a carbon cost of 168 million Euros on the basis of 30 Euros per ton. This amount corresponds to 13.2% of the sector's total annual export revenue of 1.28 billion euros from the EU28 market.

In other words, Turkish producers who earned 100 Euros per 100-Euro cement export before European Green Deal (EGD) will be able to earn 86.8 Euros by 2023 and will have to pay the remaining 13.2 Euros to ETS. It can be estimated that such a high tax rate would make export to the EU market virtually impossible. Such a prospect will

not only lead to loss of production and income but will also have serious effects on employment. According to the estimates, in the event that Turkey's Cement-Glass-Ceramic exports to the EU cease due to CBA, 31.4 thousand workers may lose their jobs.

As of 2019, 1 million 125 thousand workers, which constitute 4% of employment, are working in 6 sectors at risk within the scope of CBA. The total employment stimulated by exports to the EU market in these sectors, i.e. the amount of jobs at risk, is 395 thousand. As stated in the introduction, if this implementation is also carried out by such countries as the USA, China and Japan, it can be predicted that the loss of employment will increase even more.



Having an intense relation with the EU, Turkey has already faced a shortage of recycled materials in the textile sector. Access to waste, which used to be easy and cheap, will become more difficult in this process, which may increase costs and reduce the competitiveness of manufacturers.

Circular Economy Regulations and Possible Impacts

The second potential impact of EGD on Turkey and other countries that are trade partners will be through [Circular Economy regulations](#). The fact that lies behind the EU's objective of transforming the linearly organized economic structure into a circular one is that we live in a limited world. In place of Linear Economy's (LE) produce-consume-dispose mentality, the closed circle of Circular Economy's (CE) efficient production-responsible consumption-recycling-effective production mentality is proposed. Although its particulars have not been specified as much as those of CBA, it is expected that Textile and Ready-Made Clothing, Packaging, Automotive, Machinery-White Goods-Electronic Products sectors will be affected by these regulations in the first place.

Upon the enforcement of CE regulations, the products to be exported to the EU will have to meet certain standards. A few of them can be listed as follows:

a. *Obligation to use a certain amount of recycled raw materials:* to increase resource efficiency

b. *Minimum life-cycle and easy repairability of products:* against planned obsolescence and excessive consumption

c. *Maximum resource use limits in machinery and white goods:* e.g. dishwashers that cannot use more than 9.9 liters of water in each wash

d. *Extended manufacturer's responsibility:* The manufacturer's responsibility on the product will extend beyond the service and spare parts supply, including the phases of recycling after the lifetime of the product is over.

These and similar regulations require the redesign of export products (of the entire production indeed) and the reorganization of processes. Having an intense relation with the EU, Turkey has already faced a shortage of recycled materials in the textile sector. Access to waste, which used to be easy and cheap, will become more difficult in this process, which may increase costs and reduce the competitiveness of manufacturers. Iron and steel industry, which makes most of its production by melting imported scrap iron and steel in electric arc furnaces and has a significant share in the EU market, may also face the



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risk of increased scrap prices as a result of CE regulations after CBA.

As of 2019, 2.9 million workers, constituting 10.2% of employment, are working in 3 sectors at risk within the scope of CE regulations. The total employment, i.e. the amount of jobs at risk, stimulated by exports to the EU market in these sectors is 1.3 million.

How can Turkey protect itself against EGD?

EGD forces every country that is in contact with the EU to a transformation compatible with the climate and nature. Adapting to the EGD will certainly be in the interest of those countries in the medium and long term. While the world is changing, it can be expected that these risks may appear in all global markets and not just the EU market.

Turkey should clear its production structure from carbon and pollution, and convert its production processes into a cyclical model. One way to reduce carbon emissions is to build a domestic emissions trading system. Although Turkey has already adopted such [a design](#) in cooperation with the World Bank and included the emissions of designated facilities in the Monitoring-Reporting-Verification (MRV) system, the system has not been implemented yet. It can be understood that the representatives

of the domestic sector, who have not paid a price for their emissions, will not take kindly to this practice. However, it is clear that these concerns cannot be met with understanding, as one country after another announces carbon-neutral dates and emissions reductions have become more than ever a prerequisite in external negotiations. It should be noted that although not priced in Turkey, these emissions will be priced at the EU border (for exported products). With the 2019 EGD, the conditions of export with the EU have changed. Rather than losing these amounts to the EU ETS system, it would be wise to establish a domestic system and return these amounts to the sectors on the condition of green conversion.

Why is Energy Conversion important?

The share of electricity generation in Turkey's total greenhouse gas emissions, which was announced as [506 million tons of CO₂e](#) in 2019, is 140 million tons (28%). Electricity is an important input for most industries. When they are also held responsible for Scope 2 emissions under the CBA, the CBA costs of many industries may increase significantly, even if they emit less from their own chimney (Scope 1). This, specifically, explains why the transformation should start from the energy and electricity sector. Shura (2020)

... sectors that Turkey encouraged in this period were carbon and energy-intensive sectors, and the fossil fuel economy deepened. If the exit process from the economic crisis had been used as an opportunity to exit from fossil fuel in Turkey, the costs faced in 2021 would not have increased so much.

estimates that an annual investment of 13.5 billion US dollars should be made in the next 10 years in order to decarbonize electricity generation. This can be achieved in the medium term with revenues from a domestic Emissions Trading System by setting a date for coal exit. Likewise, China, South Korea and especially the EU extended this transformation to a process and were able to reduce its negative effects. While «green transformation» was an important condition in the [stimulus packages](#) announced by these countries against the 2008 Global Crisis, sectors that Turkey encouraged in this period were carbon and energy-intensive sectors, and the fossil fuel economy deepened. If the exit process from the economic crisis had been used as an opportunity to exit from fossil fuel in Turkey, the costs faced in 2021 would not have increased so much.

It should be reminded that transforming the fossil fuel-based economy will greatly contribute to additional employment generation, the environment and more importantly, public health. [The Cobenefits project](#) which continues within the scope of Istanbul Policy Center (IPC) focuses on the possible effects of a transformation as such in various fields.

Which policies?

a. *Turkey needs to announce the date when it will exit from fossil fuel (coal, natural gas) and reach net-zero emissions.*

As a first step, the Paris Agreement should be ratified in the Turkish parliament and the 2030 emissions commitment submitted to the UN should be revised in a way to reflect Turkey's responsibility and determination. While its emissions was expected to reach 1.2 billion tons of CO₂e by 2030 under the current path, Turkey committed to the UN in 2015 to reduce it to 999 million tons with a 21% reduction. However, the fact that Turkey's emissions remained at 506 million tons that year while the 2030-999-path had corresponded to 614 million tons of emissions in 2019 proves that the commitment made to the UN is far from being realistic. The organization Climateactiontracker [estimates](#) that the maximum quota for Turkey in a world that will limit global warming to 2 degrees is 443 million tons, at most, by 2030. It is clear that if an active climate policy is followed, this level can be easily reached without sacrificing economic growth, and reputation in the international arena can be promoted.

b. A domestic Emissions Trading System in line with the EU ETS should be established.

Having determined a reduction path in line with its responsibilities, the most realistic way for Turkey to whet the appetite in the sectors is to implement a domestic emissions trading system. Returning the money collected from the sectors, as with other environmental taxes, on the condition that they are transformed into sectors without recording income to the Treasury, will also alleviate the aforementioned reservations of the sectors and increase participation.. The revenues (at least 50% of them) collected under the EU ETS are transferred to the countries on the condition of transformation. Considering that countries dedicate an average of [70%](#) to green transformation, the extent to which a well-designed system can accelerate the transformation is obvious. .

c. Turkey Green New Deal program should be established.

It is obvious that the risks posed to Turkey by the Global Climate Regime cannot be overcome by establishing a domestic emissions trading system and decarbonizing the electrical system. New regulations to be made by EGD in areas as zero-pollution, circular economy, transportation, biodiversity and agriculture may adversely affect every sector in Turkey, whether exporting or not, in the medium and long

term. Therefore, it would be a wise choice for Turkey to set up a green transformation program in a similar context to that of the EU as soon as possible.

d. It must be ensured that the transformation is equitable.

Every transformation creates its own winners and losers. When Turkey decides to exit a fossil fuel-based economy, it is clear that both workers employed in coal mines and thermal power plants, and the local economies that rely on them will be adversely affected. For these adverse effects to be kept at a minimum, measures similar to those of the EU Just Transition Mechanism should be taken through a participatory process.

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