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Making CO2 pricing socially just

The EU's planned increase in CO2 prices will have a financial impact on individuals and companies. Who deserves compensation?

The EU is pursuing ambitious climate goals that can only be achieved by a palpable increase in the prices of greenhouse gas emissions. However, this step entails a loss of income and purchasing power for certain groups of people and regions in the EU. To alleviate the resulting social tensions, some form of compensation will be necessary – both within and between the individual EU member states. If this does not happen, political deadlocks will be the inevitable result.

Higher CO2 prices lead to lower greenhouse gas emissions. By pricing greenhouse gases, discharge of the corresponding emissions is reduced through two main courses of action. First, products containing CO2 are to be made more expensive, with 'CO2' being an umbrella term for all climate-damaging greenhouse gases that released into the atmosphere by human activity. When the price is higher, the demand for products that contain emissions falls, their supply then decreases, and CO2 emissions are reduced accordingly.

Secondly, companies adapt their production facilities to take into account the higher CO2 price. Where possible, they use lower-emission machines and production processes. In addition, they accelerate the development of technologies that reduce emissions. Ideally, the companies' adaptation strategies lead to green growth, in which the quantity of products increases and at the same time, the volume of emissions shrinks.

How CO2 pricing in Europe works

For reaching the EU climate targets, higher CO2 prices are inevitable. The EU's goal is to reduce CO2 emissions by at least 55 percent by 2030 compared to 1990 levels. However, this will only succeed if the prices for emissions rise rapidly and drastically. Consequently, in its 'Fit for 55' strategy presented in mid-July 2021, the EU Commission set out

measures that would bring about such higher pricing.

Regarding the future level of the European CO2 price, two measures should be mentioned.

On the one hand, the criteria for activities that will require emission certificates will be expanded. This will affect the emissions generated by road traffic, the heating and cooling of buildings, and shipping. These emissions were previously excluded from the European Emissions Trading System (EU ETS).

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On the other hand, the EU ETS is now reducing the maximum annual emission volume, which means the number of emission certificates, at a faster rate. Between 2013 and 2020, the cap on allowances was reduced by 1.74 per cent per year. For the period from 2021 to 2030, an annual reduction of 2.2 per cent was originally envisaged. Now it has been set at 4.2 per cent, and could be even higher in the coming years. In the event of a shortage of emission allowances, an increase in the prices for these certificates is to be expected – in other words, a rising CO2 price.

Why redistributive policies are needed

Higher CO2 prices affect the distribution of income. A higher emission price makes emission-intensive products, such as energy and numerous consumer goods, more expensive. This can mean a noticeable loss of purchasing power, especially for low-income households, since they spend above-average shares of their disposable income on products with greenhouse gas emissions (especially energy). This increases the risk of poverty.

That will result in sectoral hardships for companies and their employees. Economic sectors with a high capital intensity are particularly at risk. A high use of physical capital (machines, buildings, etc.) is usually accompanied by high energy consumption, which in turn leads to high greenhouse gas emissions. Examples include companies in the energy supply and petroleum refining as well as the production of metals, glass, and paper. In these areas there exists the threat of a loss of competitiveness, which can lead to plant closures and unemployment.

An increase in CO2 prices, which is absolutely imperative for the

purpose of climate protection, thus leads to a change in income distribution. This affects not only individual groups of people, sectors, and regions of a country, but entire national economies as well.

For example, in the event of a higher EU-wide CO2 price, the Eastern European economies would have to accept disproportionately high losses in production and income, as their production facilities work with fossil fuels to a greater extent than those of the western EU member states. This means that political resistance is inevitable – both within the individual EU countries and between them. In order to mitigate these effects as much as possible, redistributive policies are needed.

Compensation for people

Numerous instruments can be used to alleviate domestic political tensions: lump-sum payments to all citizens and companies, needs-based transfer payments, subsidies, tax cuts, and the provision of free public services including the public investments required to achieve this, to name just a few. These measures should be financed from the income from the CO2 price. This serves the goal of reducing emissions and is not levied for the purpose of increasing government revenue. Reimbursing this income to the population is therefore justified – and only logical.

Before choosing the appropriate political instruments, however, one crucial question needs to be addressed: Which income losses are considered by society to be so severe that they require compensation? The answer to this question depends on socio-political value judgments and cannot be answered in purely scientific terms. In a democracy, this decision must therefore be made within the framework of a political discussion involving society as a whole. However, it is also clear that a social consensus that satisfies all population groups will not be possible. Political decision-makers must therefore disclose and justify the criteria behind their distributive policy decisions.

One thing is quite clear: without higher CO2 prices, the EU's emission reduction targets cannot be achieved.

Once the question has been answered as to which groups of people or sectors are to receive compensation, then the appropriate economic policy instruments can be selected. If all citizens are to receive financial compensation, a flat rate per capita is an option – as exists in Switzerland. Differentiated payments to households that are particularly badly affected are also conceivable – for example, a subsidy for commuters who need greater mobility or an increase in housing allowance for low-income households. Social

security contributions could be reduced to ease the financial burden on workers and companies. This would increase the disposable income of private households and at the same time reduce non-wage labour costs for companies.

Compensation for states

Because of the different emission intensity of production in the different countries of the EU, compensation payments between the EU member states, in the sense of burden sharing, are also necessary. They could be financed from the revenues generated in the course of the planned carbon border tax. With a rising CO2 price, emission-intensive EU companies lose their price competitiveness compared to providers from countries that have no or only low CO2 prices. In order to counteract this disadvantage, imports would be charged the emission price applicable in the EU according to their CO2 content.

One thing is quite clear: without higher CO2 prices, the EU's emission reduction targets cannot be achieved. However, to ensure that the mandatory pricing of climate-damaging greenhouse gases is also accepted by society as a whole, social hardship must be cushioned.

However, this does not mean that any loss of purchasing power and income can be compensated. Where the boundary lies between socially acceptable – and therefore not compensable – losses and socially unacceptable costs is a normative question that cannot be answered solely in terms of economic externalities. However, it is beyond dispute that households with low incomes should receive transfer payments in order to prevent serious economic disadvantages in access to energy and mobility.



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