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The Emission Trading Scheme reform: will the Commission's proposal save the system?

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BACKGROUND

The European Union's Emission Trading Scheme (ETS)[1], proposed by the Commission in 2001, entered into force in 2005. From the beginning the ETS had the objective of allowing the EU to meet its climate policy targets, such as the 8% reduction in greenhouse gas emissions during the period 2008-12 and the 20% reduction by 2020. The present trading period (2013-20) is based on a 2009 revision of the original Directive. In addition, the Commission has consistently highlighted the role of the ETS to foster technological innovation and to support the transition to renewable energy through the so-called 'price signal'. The ETS basically covers large combustion installations, primarily power plants and district heating, and a number of energy-intensive industries, such as oil refining, cement and iron and steel production. Since 2012 air transport has also been included in principle, but because of resistance from major non-EU economies, ETS mainly applies to intra-EU flights for the time being.

The ETS is undoubtedly the world's biggest application of an economic instrument to address an environmental problem. This is only the case, however, because a previous proposal for a carbon tax from the European Commission in 1991 failed to be adopted. As a taxation proposal, it required unanimity and the UK blocked it.

When the Commission launched the ETS proposal back in 2001, the authors of the proposal explicitly aimed at making emission allowances a freely tradable 'financial commodity'. This aim has been achieved, and CO_2 prices have been reported in the *Financial Times* for years together with other commodities. However, unlike other commodities, the price of CO_2 allowances is determined solely by demand, the supply being decided politically years in advance. The fact that CO_2 allowances, again unlike other commodities, have no alternative uses or substitutes is partly to be seen as an explanation for the present malaise of the system.

The low prices of emission allowances in recent years – and most likely for at least another five or ten years to come – are mainly due to generous allocations during the 2008-2012 period and a prolonged period of economic recession. This problem would have certainly been avoided in the case of a CO_2 tax – the merits and disadvantages of CO_2 taxation versus ETS are still being widely discussed. As, however, there is no reason to believe that any CO_2 taxation proposal would presently have, politically, a better chance to be adopted than two decades ago, a solution to the problem of low CO_2 prices will have to be found within the existing scheme.

STATE OF PLAY

An assessment of the performance of the ETS ultimately depends on the objectives that it is meant to achieve.

For the present trading period (2013-20), the number of allowances in the system was calculated in 2008, so to ensure that the EU emission reduction target of 20% by 2020 would be achieved. However, the possibility of transferring unused allowances from the previous trading period coupled with the economic recession since 2009 means that the system is now flooded with allowances (equivalent to emissions of around 2,000 million tons CO_2) to the extent that the ETS will be virtually without impact on emission reduction for years to come. Low CO_2 prices have serious long-term impacts on developments in the energy sector. They favour investment in simple coal-fired power plants with insufficient coverage of climate costs, and discourage investment in carbon capture and storage. They discourage CO_2-free energy, whether renewables or nuclear, and where these options are pursued for other reasons low CO_2 prices make those appear more expensive relative to coal-fired power plants.

In short, whereas the ETS in its present form may be sufficient for meeting short-term objectives, it is far from sufficient for meeting the more important longer-term needs for the de-carbonisation of the economy.

Assuming that the present low prices are detrimental to the overall performance of the ETS, the question arises of what to do to improve the situation. The back-loading of 900 million tons of emission allowances to the end of the present trading period has not had any significant impact on CO_2 prices. Whether the 2014 proposal to establish a market stability reserve (MSR) in the trading period after 2020, where unused allowances above a certain level can be temporarily set aside, will lead to significant price increases, remains to be seen. The recent agreement between negotiators from Parliament and Council to move the MSR forward to the 1st January 2019 had virtually no impact on CO_2 prices, which seems to indicate a weak market response to the MSR idea. This is not surprising as long as allowances set aside in the reserve are foreseen to be released as 'liquid' when market liquidity falls below a certain level. It is hard to see why anybody should pay high prices as long as there are still abundant allowances in stock. Unless something is done to 'physically' eliminate a major part of the surplus, the ETS is likely to continue its present life of lack of impact on EU's CO_2 emissions, for most, if not all, of the period until 2030.

What could be done to counteract this?

PROSPECTS

It serves little purpose to try to find an answer to this question outside what could be considered politically realistic. The political realities seem to be that there are two major opponents to the more radical approach of reducing the number of allowances: a number of member states, primarily central and eastern European, and the energy-intensive industries, the latter also having an impact on the position of some 'old' member states (such as Germany).

Differentiate among stakeholders?

In order to overcome this resistance, it would be useful to acknowledge that the two major stakeholders in the ETS, power plants and energy-intensive industries, have diverging interests in CO_2 price. For the power plants, higher CO_2 prices mean higher profits, since there is no global competition in electricity prices and since the actual price levels are decided by the most expensive energy options needed to meet current demand. For the energy intensive industries, generally subject to international competition beyond the EU, higher CO_2 prices mean lower profits, or even losses, in situations where relatively high EU energy prices are already a competitive disadvantage.

This dilemma was not given much attention when the ETS was conceived, nor when the system was revised in 2008-09. Recognition of this aspect now could imply that emitters subject to international competition would be given allowances for free on the basis of benchmarking towards the best available technologies. This should not be seen as a transitional measure, since the competitiveness problem will remain. It is important to be aware that the environmental integrity of the ETS does not depend on whether or how many allowances

will be given for free, but only on the total number of allowances available to the emitters. It will certainly be a challenge to convince politicians, and civil society as a whole, that this is not a measure allowing anybody 'free rights to pollute,' but a necessary measure to maintain the incentive to cut emissions and at the same time reflect the completely different situation of the two categories of emitters. Allocating emission allowances for free to industries subject to competition by non-EU producers would reduce the competitive disadvantage for these industries, thereby also reducing the need to deal with the difficult problem of carbon leakage.

Expanding to non-ETS sectors?

Other measures have been proposed, such as expanding the ETS to cover more sectors, including aviation and road transport. In principle, aviation is already included; however, this came at a high political cost and with no visible impact, either on CO_2 prices or on the behaviour of the aviation industry. As for road transport, the number of additional allowances in connection with an expansion of the system could be kept sufficiently low to reduce the excessive liquidity. However, this would be a most questionable solution. First, the oil industry and truck drivers would argue that transportation fuels are already subject to taxation at levels far above what was ever foreseen for the ETS. Furthermore, it would bring into the system another sector with different problems and objectives. Reconciling the existing sectors is already difficult enough.

A single economic instrument?

Even more problematic would be the idea of simply replacing all of the different climate policy measures with one economic instrument, ensuring a common CO_2 price across all sectors and thus, according to economic theory, guaranteeing the most cost-effective approach to emissions reduction. Apart from the fact that different sectors need very different CO_2 prices in order to encourage energy savings or fuel switch, the idea also ignores the fact that so far virtually all EU emission reductions, apart from what has resulted from economic recession, have come from sector-specific policies (renewable energy, energy efficiency of appliances, CO_2 and cars, etc.). Horizontal measures, be it CO_2 reduction targets or the ETS, have delivered no discernible contribution to emission reductions achieved until now. It would be very difficult to argue that the ETS has impacted on the development of renewable energy or of energy efficiency, but these policies have definitely played a role in generating the surplus of allowances responsible for low CO_2 prices.

Limiting auctioning?

Another possible solution could be a modification of the existing regulation that requires all emission allowances to be auctioned. Holding back allowances by the member states or insisting that allowances be sold only above a minimum price would *de facto* support the price signal and innovation objective of the ETS. However, since this solution is very close to a 'physical' reduction of the number of allowances, and thus hits power plants and energy-intensive industries at the same time, this approach appears less likely to be able to gather the necessary political support.

A global ETS?

The Commission, and others, have from time to time suggested that what is really needed is a global ETS. However it appears unlikely that major global GHGs emitters would be able to agree to such a system, particularly if this would imply a universal CO_2 price. The idea of differentiated responsibilities between more and less developed economies implies that some countries would be expected to adopt more expensive measures than others, and the only 'experiment' in this direction, the Clean Development Mechanism in the Kyoto Protocol, has not delivered a common CO_2 price.

Whatever the solution, it should be noted that most of the attention to problems in the present functioning of the ETS has been given to the question of an overly low CO_2 price. There is, however, another problem that could be equally serious, at least theoretically. The transfer of maybe some two billion unused allowances from the present trading period to the 2020-30 period implies that the enterprises covered by the ETS will be able to emit considerably higher levels of CO_2 than what corresponds to the cap laid down in the Commission proposal for the period. Since any rebalancing of the system will be expected to take place primarily towards the end of the 2020-30 period, one might see emissions from the ETS enterprises in 2030 that are much higher (by, e.g., 3-400 million tons) than stipulated, thus compromising a possible 40% reduction target were it to be finally agreed. This aspect

further supports the need for reducing the number of allowances in the system through permanently removing (part of) the surplus allowances.

The fact that the ETS has been launched as an EU flagship instrument within an EU flagship policy means that it has become very difficult to discuss the shortcomings of the system with the necessary intellectual freedom. The ETS was decided to be a success from the outset. At some point, it will be necessary to pursue a more open discussion of the shortcomings, and future potential, of the system. The earlier this discussion takes place, the better the chances that the ETS will contribute to the achievement of the long-term EU objectives of a largely de-carbonised economy by 2050.

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1 http://ec.europa.eu/clima/policies/ets/documentation_en.htm

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