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German carbon dividend drive will inspire more nations

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Carbon price policies are becoming more widespread; support is rising for dividends that recycle the revenues to all

Glasgow Cop26 summit, November (Xinhua/Shutterstock)

Economists have long advocated carbon pricing as a key tool in efforts to curtail fossil fuel emissions and the idea is now gaining traction among policy makers. With the advent of China's national emissions trading system in the past year, carbon prices now cover more than one-fifth of global greenhouse gas emissions. Yet doubts remain over whether they are high enough to force decarbonisation.

What next

The share of emissions covered by carbon pricing will continue to grow. The biggest stumbling block is fear of public backlash against higher fuel prices. A policy that recycles the money to consumers as equal per-person dividends is being seriously considered in Germany and could allay this fear. If successful, this could be emulated in other states and pave the way for more aggressive carbon pricing.

Subsidiary Impacts

- Higher carbon prices will be more effective in curbing emissions than the relatively low prices that have prevailed in the past.
- Germany's new coalition government will include the Greens and Free Democrats, parties committed to carbon dividends and carbon pricing.
- The successful rollout of this policy in Germany could serve as a model for Europe and beyond.

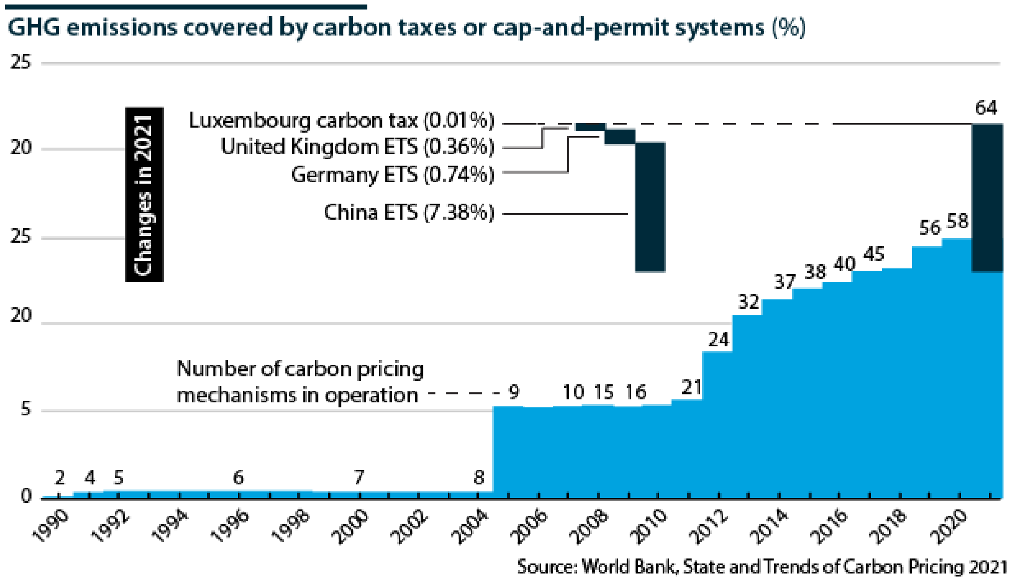
Analysis

Carbon pricing systems cover about 22% of the world's emissions of CO2 and other greenhouse gases, up from 6% in 2010 and 15% only one year ago. The share of emissions covered by carbon pricing could accelerate in coming years (see INTERNATIONAL: Pressure for climate action will build - November 19, 2021).

22%

The share of world carbon emissions covered by carbon pricing systems

There are two kinds of carbon pricing instruments: carbon taxes and cap-and permit systems. The latter are often called 'emissions trading' systems, when the permits can be traded among firms. Permits need not be tradeable, however, if auctioned by the government rather than given to firms free.



Carbon prices building momentum

Many economists favour carbon pricing because it provides a cost-effective way to cut emissions by letting firms and consumers decide where and how best to do it.

For policy makers an additional attraction is that, unlike subsidies and public expenditures, carbon prices come at no cost to the exchequer. The policy is revenue-neutral if the money is recycled to the public (or if permits are given free to firms). It brings in revenue if the money from permit auctions or carbon taxes is retained by the government, in which case it is often earmarked for uses such as investment in transportation and non-fossil energy.

But come with downsides

For politicians, carbon prices have a major downside: the risk of public discontent in reaction to rising fuel prices. This was demonstrated by the Yellow Vest movement that swept France after the Macron government increased taxes on petrol and diesel in 2018.

Fear of political backlash is the main reason that carbon prices have not been implemented more widely, and why when they have been implemented, the price has usually been too low to have a substantial impact on emissions. Research in March 2021 by Green on carbon pricing policies worldwide since 1990 concludes that "carbon pricing has a limited impact on emissions." The fact that low carbon prices have correspondingly low impacts has led critics to claim that carbon prices do not work. However, this is based on prices that have been inadequately low.

> More than 75% of carbon prices are below the advised effective pricing range

More than three-quarters of carbon prices across the world are below the USD40-80 per tonne CO2 range that economists consider enough to make a notable dent in emissions. Only four countries -- Sweden, Finland, Switzerland and Liechtenstein -- have prices above that range.

Carbon dividends

Public support for carbon prices could be enhanced if the revenue is returned to the public. One option is equal lump-sum payments, known as 'carbon dividends' or 'climate dividends'. In every country adopting such a policy, most residents would benefit in net-revenue terms.

The most affluent generally would be net losers. Since the dividends would be paid equally to all, the price incentive to economise on fossil fuels would not be affected.

Research by Horowitz et al in 2017 estimates that 70% of the lowest-income US households would benefit from carbon dividends. Research by Edenhofer et al in 2019 estimates that 67% of German households would benefit.

In 2019, more than 3,000 economists in the United States endorsed a carbon dividend policy in a letter signed by four former chairs of the Federal Reserve Bank, including US Treasury Secretary Janet Yellen, 15 former chairs of the Council of Economic Advisers, and 28 Nobel laureates. However, carbon price-and-dividend bills have since languished in Congress, stymied by partisan infighting and a fear of increasing fuel prices.

Canada introduced the world's first carbon dividend policy two years ago in provinces that did not already have a carbon price, including Ontario. The initial carbon price was low, but the plan is to raise it to USD135 per tonne in 2030. A weakness of the Canadian system is that the public receives the dividends as an income-tax adjustment rather than a more visible and transparent cheque or an electronic bank deposit.

Germany

Germany could be the game changer. This year it extended carbon pricing from the electricity sector and large industries, already covered by the EU's Emissions Trading System, to include transportation fuels and building heating (see EU: ETS reform will support elevated carbon prices - October 20, 2021). The price is set to rise from EUR25 per tonne of CO_2 (USD29) this year to EUR55 per tonne (USD63) in 2025. Social Democratic Party (SPD) leader Olaf Scholz, who is poised to become chancellor, has called for a Europe-wide expansion of Germany's carbon price.

During Germany's national elections, Green Party co-leader Angela Baerbock campaigned on a platform including carbon dividends, calling them 'energiegeld (energy money)'. In the negotiations over forming a coalition government, the three parties -- the SPD, the Greens, and the market-oriented Free Democrats (FDP) -- have all promised action on climate change. Scholz wants to be a 'climate chancellor'. The FDP endorsed carbon dividends in their party platform.

The Greens prefer a carbon tax; the FDP favours a cap-and-permit system. A tax sets the carbon price and lets the quantity of emissions adjust. A cap sets the quantity and lets the price adjust. The FDP argues, correctly, that a cap provides greater certainty than a tax that emissions targets will be achieved.

A compromise could be a hybrid policy in which the carbon tax serves as a floor price in permit auctions, and the cap comes into force whenever demand for permits at that price exceeds the ceiling set by the target. However, that would not resolve differences among the parties over the scale of ambition for reducing emissions.

Outlook

Carbon prices could be one of the most powerful tools for governments to curtail the use of fossil fuels. They will only succeed in limiting global temperature increases to 1.5-2.0 degrees Celsius if they range high enough to incentivise sharp reductions in the consumption of fossil fuels. Achieving this while maintaining public support will be a major challenge. Rebating part of the carbon levy directly to citizens could help in that regard.