

Hans-Werner Sinn, [„Kein Alleingang in der Klimapolitik. Die Corona-Krise als natürliches Experiment zeigt, weshalb es ohne einen Klimaklub mit den größten Ländern nicht geht“](#), *Neue Zürcher Zeitung*, 19 February 2022, No. 42, p. 28. English translation.

## **No Unilateralism in Climate Policy**

### **The Corona crisis is a natural experiment that shows why the world needs a climate club**

Hans-Werner Sinn<sup>1</sup>

With its climate policy, the EU is demanding a lot from its economy. CO2 emissions are to be reduced to zero by 2050. The CO2 prices in the European emissions trading system are to be sharply increased through a shortage of emission rights, and more sectors are to be subjected to such trading. In addition, there will be a large number of technical requirements that will force people to save energy, as well as a drastic restriction on fleet consumption by car manufacturers, which will put an end to the internal combustion engine.

Germany, driven by the Greens, is at the forefront of this development. Its electricity costs are already the highest in the world and are now to be subsidized down with huge annual budget appropriations. German car making has been in free fall since 2018, when regulations on fleet consumption were particularly tightened. Since mid-2018, vehicle production has almost halved. In China, VW is currently experiencing its moment of truth with the flop of its e-models. Because of the drastic environmental regulations, German industry has become heartsick, while the manufacturing industry in Switzerland, for example, is flourishing.

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## **Expensive double structures**

It has often been claimed that the green energy transition kills two birds with one stone, on the one hand by slowing down global warming, and on the other hand by giving the country's own industry a competitive advantage over other countries: since the sun does not send a bill, a country whose energy is green has a competitive advantage on the markets and can raise the standard of living of its population, it was said for years.

This argument is false and audacious. It is false because the technical effort is enormous. Since green electricity still needs the existing power plant park to bridge phases without wind and solar power, expensive double structures are created. At best, storage solutions can be considered for the absorption of excess power peaks. The argument is audacious because it assumes that politicians are better able to recognize market opportunities than the private companies themselves. Recently, even green politicians have admitted that the energy transition will be expensive.

This does not mean that we should accept climate change. Climate change is the result of a worldwide externality of industrialization and population growth. The best way to correct the undesirable developments is through a globally coordinated pricing system for CO<sub>2</sub>.

As a practical way to create such a global system, Nobel laureate William Nordhaus has suggested that the first step would be to establish a climate club. Membership in the club would include binding limits on CO<sub>2</sub> emissions, but also the advantage of free trade, from which non-members would be excluded. For such a club to be attractive enough, however, it would have to include at least the U.S., China and India in addition to the EU.

The world is far from the necessary minimum size of such a club. In the Paris Agreement, only just under a third, specifically 60 of the nearly 200 signatory countries, committed themselves to restrictions. Two thirds have only agreed that this one third will restrict itself.

However, the 60 countries account for only 35 percent of global CO<sub>2</sub> emissions. At subsequent climate summits, China and India have strictly refused to make any concrete commitments. And in the U.S., President Joe Biden, who came into office with great élan, has gone completely silent on the subject of climate change. In August

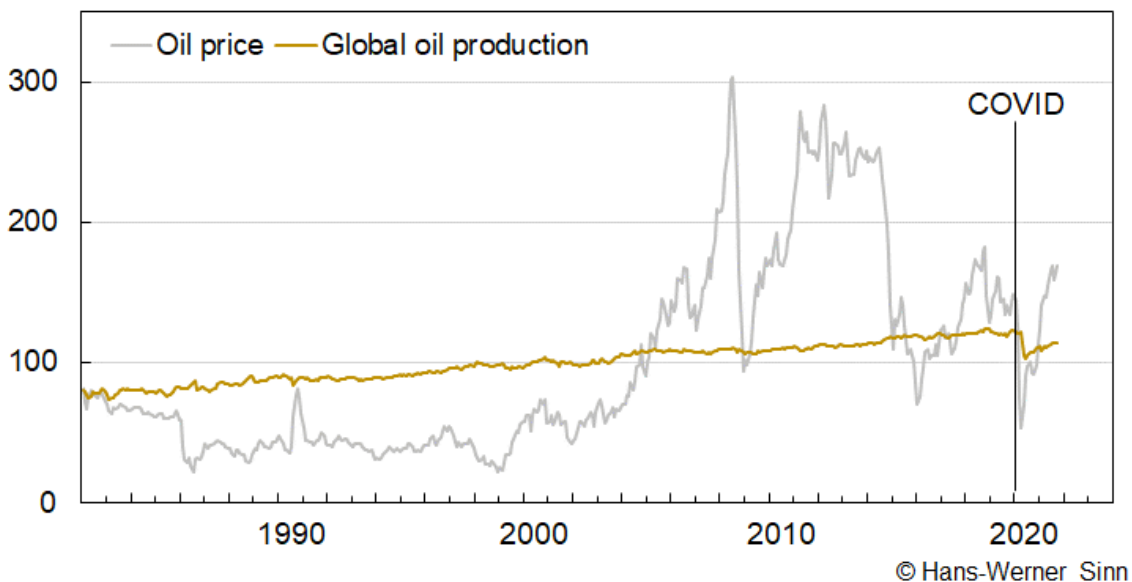
2021, his government asked Saudi Arabia to expand oil production so as not to endanger the global economy.

The major controversy is whether unilateral cuts make sense before global coordination succeeds. Green politicians are of the opinion that a reduction of CO2 emissions by the individual, by the individual state or even by the EU is necessary even if the others do not join in.

As understandable and honorable as this basic moral position is, the premises on which it is based are wrong. Indeed, it is generally not the case that a unilateral European reduction in the use of fossil fuels will translate into a similar reduction in global CO2 emissions. To achieve this, Europe would have to acquire these fuels in huge quantities and seal them on its territory so that climate polluters would no longer be able to get hold of them. But this idea is absurd and expensive.

### **The amount of oil extracted is influenced solely by globally coordinated measures**

*Oil production and oil price in percent of their respective mean values*



Similar illustrations can be found in H.-W. Sinn: *The Green Paradox. A Supply-Side Approach to Global Warming*, MIT Press, Cambridge, Mass., 2012, Figs. 4.2 and 4.13, and, building on this, in S. Steinkamp: “Nachfrageorientierte Klimapolitik – Evidenz aus der Corona-Krise”, *Wirtschaftsdienst* 100, 2020, p. 300-302. However, Steinkamp's data – contrary to what his title says – end in February 2020, i.e. immediately before the pandemic and the collapse in oil production as visible in the above figure.

Sources: World Bank Commodity Price Data, “Pink Sheet” Data, Monthly prices, Crude oil, Brent, October 2021, available at:

<https://www.worldbank.org/en/research/commodity-markets>.

US Energy Information Administration, International data, Petroleum and other liquids, World – Production – Crude oil including lease condensate, October 2021, available at:

<https://www.eia.gov/international/data/world/petroleum-and-other-liquids/annual-petroleum-and-other-liquids-production?pd=5&p=00000000000000000000000000000002&u=0&f=M&v=mapbubble&a=-&i=none&vo=value&t=C&g=none&l=249--249&s=376012800000&e=1633046400000&>.

## **Why it won't work alone**

The consequence is that the released fuels are then delivered elsewhere and burned there. The mechanism by which this happens is the usual price mechanism. The politically imposed reduction in demand in Europe depresses the world market price, thereby subsidizing polluters elsewhere in the world and causing them to buy more fuel than they otherwise would have done. Whether these compensatory responses by other countries exactly offset any original savings is debatable. That depends on how the fossil fuel suppliers respond. If they extract those quantities that they had planned to anyway, the morally acting countries have gained nothing at all.

It is sometimes assumed that the reduction in world market prices caused by unilateral restrictions on demand will cause some suppliers to produce less. However, this is unlikely because, according to economic theory on exhaustible resources, even marginal suppliers still have a lot of room to maneuver in terms of prices.

On the contrary, it is also conceivable that resource suppliers will react to falling prices by producing more. On the one hand, this may happen because it allows them to stabilize revenues in the short term, which are important for public budgets in some countries. On the other hand, they may also be doing so because they see the price cuts as a signal of impending destruction of their sales markets and are therefore rushing to sell their stocks quickly.

With this argument, which is referred to in the literature as the “Green Paradox”, Vickram Bharrat, Minister of Natural Resources of the South American state of Guyana, officially justified last August that his country would now push the exploration and exploitation of its own oil reserves.

Under the condition of the Green Paradox the unilateralism of the Europeans is even counterproductive because it puts a long lead time before the real restrictions, which gives enough time to the resource suppliers to sell their stocks. The non-

participating countries now have the double advantage that, at even lower prices, they can consume not only the quantities released by the green countries, but also the additional stocks extracted for fear of the threat of future market destruction. This accelerates climate change.

A children's seesaw mounted on a large spring, as seen in playgrounds, can serve to illustrate the problem situation in the absence of a response from resource providers. If you press down only one side of the seesaw, the other one goes up. The spring can only be compressed if both sides are loaded at the same time. How resource providers respond to unilateral and joint demand constraints is an empirical question. Interestingly, the Covid pandemic provides the key. The pandemic is what econometricians call a “natural experiment”.

The pandemic caused economic activity worldwide to slow down and demand for fossil fuels to shrink. This produced effects that were fundamentally different from past economic crises, most of which had affected only parts of the world. Whereas previous economic crises had pushed the seesaw down on one side, the pandemic did so on both sides.

The figure shows the development of global crude oil production and the oil price on the world market since 1982, i.e. the end of the second oil crisis. It can be seen that the production volume followed a slightly rising linear trend for a long time, while the price curve has been characterized by wild swings. These swings had to do with fluctuations in demand in different parts of the world caused by local economic events or unilateral measures to reduce oil demand.

As a rule, price fluctuations did not lead to changes in aggregate oil production. The seesaw tilted sometimes to one side, sometimes to the other, but there was no pressure on the large spring in the middle. On the world oil market, there was a mere redirection of tanker fleets without any change in production volumes and thus CO<sub>2</sub> emissions. The pandemic abruptly changed this pattern because it led to an abrupt drop in oil demand in all countries. This caused the price of oil to fall sharply and, for the first time in almost forty years, led to a substantial reduction in oil production and a corresponding reduction in CO<sub>2</sub> emissions.

## **The core of the green misery**

The natural experiment of the pandemic clearly shows that only globally coordinated demand restrictions can achieve anything, while unilateral demand restrictions by a few green-minded countries remain ineffective.

This is the core of the green misery. The EU is accepting enormous economic disadvantages by cutting back on fossil fuels. But it only achieves that the industries of other countries, which are not serious about climate protection, are promoted by falling energy prices. The quasi-prohibition of combustion engines does not succeed in keeping carbon in the ground. It only escapes into the atmosphere elsewhere. Many green politicians hope that the example of the European energy turnaround will set a precedent for other countries, because they are being shown how to do it. However, by paralyzing their own industry, the EU shows how not to do it. It is hard to imagine that other countries and continents will copy the European strategy, which is ruinous for industry.

Thus, there is only one way to slow down climate change: binding global agreements in a climate club that, in addition to the Europeans, includes at least the USA, China and India. The club members would reduce their CO<sub>2</sub> emissions in step with each other. As much as a moralizing view seems to suggest unilateral concessions, this is what Europe's climate policy should focus on.

*This text concentrates on parts of the author's speech at "NZZ Podium" of February 9th, 2022, titled "Die Welt muss grüner werden – doch wie?" (The world needs to become greener – but how?).*