SNS ECONOMIC POLICY COUNCIL REPORT

SUMMARY

Swedish Policy for Global Climate

2020

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Summary

In this report, our aim is to address the question of *how* policy can achieve the desired reductions in carbon dioxide emissions. The report takes for granted that action on the climate issue is necessary, so the focus is not on how much less carbon dioxide we should emit, whether this be globally, nationally, locally, or individually.

The question of *how* cannot be answered by natural science alone, but it does require an understanding of how the global climate system works and how it is affected by the concentration of greenhouse gases in the atmosphere. An understanding of how carbon circulates between different reservoirs, such as the atmosphere, biosphere, and the oceans, is needed. Social science is also required in order to understand how the global economy works and how different types of climate policy impact the use of fossil fuels and other fuels. Finally, it is important to know how international agreements can emerge and be maintained. Part 1 of this report therefore begins with a description of these complicated, interlinked systems.

In Part 2, we describe Swedish climate policy and analyze it using the systems description from Part 1, while also presenting suggestions for changes to Swedish climate policy. Part 3 concludes the report by providing our answers to some salient questions about current climate policy.

We, the authors of this report, have all conducted research on climate issues. Our backgrounds are quite mixed; we represent different disciplines in the social sciences, law, and natural sciences. We agree on the descriptions of the climate system and the global economy, as well as on the description of the mechanisms through which climate policy has an impact and why climate policy is necessary. Conclusions about the most effective policy depend on, among other things, assessments of the relative strength of various mechanisms. In most cases, our assessments are similar and we agree on our recommendations, but occasionally our assessments differ. In those cases, this is clearly stated.

Economists analyze how policy can be used to influence the decisions of individuals and businesses in a market, such as on the use of fossil fuels. This, along with the fact that many—but not all—of us on the Economic Policy Council 2020 are economists, has meant that our answers to *how* generally use economic methods, although we do not reject other approaches. We have tried to consider perspectives from other sciences whenever possible, but the composition of the group has meant that these are largely outside the scope of our analyses in this report.

Part I

What causes climate change?

For the Earth's climate to be in equilibrium, the incoming flow of energy from the sun must be balanced by an equal outward flow from the Earth to space. More greenhouse gases in the atmosphere lead to an imbalance between the inflow and outflow of energy, resulting in an increase in the average temperature of the Earth until balance is regained. How much the temperature needs to rise before this balance is achieved is not known with certainty, because it is very difficult to assess the strength of some feedback mechanisms, particularly cloud formation.

The most commonly used interlinked global climate and carbon system models show that the global average temperature increases by an approximately constant number of degrees for every additional emitted unit of carbon dioxide. However, there is great uncertainty about the quantitative relationship, because different models give different results. The IPCC provides an interval of 0.8–2.5 degrees Celsius per 1 trillion tons of carbon. So far, globally, we have released almost 600 billion tons. If sensitivity is as low as 0.8 degrees, we can release three times as much again, which would take a couple of hundred years at current emission rates, and still not exceed 2 degrees of warming. If the sensitivity is 2.5 degrees, we can only release another 200 billion tons (which would take 20 years at current rates) and emissions must cease immediately and entirely to keep the world below 1.5 degrees of warming.

Using simulation modeling, research has tried to identify the risk of "tipping points." These are self-reinforcing mechanisms that may cause irreversible change in some parts of the climate system once a critical level of climate change has been reached. Assessing the risks

of such mechanisms occurring is genuinely difficult, not least because they typically cannot be calibrated against historical observations.

There is very limited scientific support for the perception that soon it will be "too late" to act, that we are approaching a situation in which climate change will accelerate out of control. Equally, there is very limited scientific support for the idea that the warming now being observed is not linked to manmade emissions. Based on scientific evidence, we cannot rule out climate sensitivity being so small that there is no urgency to reduce emissions, but nor can we rule out climate sensitivity being so great that we have already exceeded the emissions level that would keep us below 1.5 degrees Celsius of warming.

What impact will climate change have?

The extent of the predicted climate change, and its effects, will depend on the scale of future emissions. The commitments now decided under the Paris Agreement are estimated to lead to global warming of around 3 degrees Celsius, with a substantial uncertainty interval. A more pessimistic scenario, with emissions continuing to increase throughout this century, has a predicted warming of 4.3 degrees, with an uncertainty interval of 3.2–5.4 degrees.

There are many aspects to climate change. Sea levels are estimated to rise by half a meter to a meter over this century and, even if the number of tropical storms does not increase, it is likely that the very strongest ones will be more frequent. There is uncertainty about its effects on agriculture, because carbon dioxide in itself boosts plant growth, but climate change could have negative consequences. Densely populated areas, including parts of Asia, may experience heat waves during which it is physiologically impossible to work outdoors.

Depending on the region and the ability to adapt, the impact of climate change on economies and people's well-being will vary greatly. One summary of studies that review the global consequences shows damage at about 5 percent of GDP at 2 degrees Celsius of warming, with 10 percent at 3 degrees, although there is wide variation in the studies' results. Climate change does not threaten the survival of humanity, but it may have catastrophic consequences for some countries.

Our assessment is that the direct effects in Sweden will be small compared to our GDP. Indirect effects caused by the impact of climate change on the world around us, such as trade, migration, international conflicts, and an increased need for international aid could be significant, but are very difficult to assess.

The global energy system

Global energy supply is dominated by fossil fuels, which have stood at around 80 percent for many decades. Fossil-based energy sources also dominate the supply of energy in the EU, but not in Sweden. In 2017, renewable sources of energy represented 39 percent of Sweden's energy supply, with nuclear fuel at 31 percent and fossil fuels at 26 percent.

One important difference between energy sources is whether they are plannable. For example, the supply of energy from wind cannot be planned, it just depends on how much wind there is. A larger share of non-plannable power will increase variation in electricity prices, boosting the profitability of plannable forms of power that have enough flexibility. This includes the combustion of gas or biofuels, as well as storage and measures that increase variations in demand. Differences in plannability mean that forms of power with

different average costs per supplied unit of energy can be profitable at the same time.

Conventional oil is traded on a global market and is cheap to extract and transport in relation to its price. Reduced use in Sweden tends to increase use somewhere else; a drop in domestic oil use leads to *leakage*. The situation is different for coal, where a fall in demand in one part of the world is not likely to lead to substantial increases in use somewhere else. Consequently, Swedish exports of fossil-free electricity to countries with a large share of coal power can have a major effect on overall emissions.

The price of renewable energy has fallen over the last few years and the global use of these energy forms has risen, but without any decline in the use of fossil fuels. Simply lowering the price of green energy is not enough to achieve the necessary reduction in carbon dioxide emissions. Instead, we need global policies that result in a sufficiently high price for carbon emissions. These policies are not yet in place.

Climate policy—theoretical starting points and practical considerations

Successful climate policy requires global coordination. Lower emissions entail costs for the emitter, while the benefits—as reduced climate change—are distributed around the world. This creates what is called a free-rider problem, which means that international agreements on policy are necessary.

Immediately banning all emissions is prohibitively costly, so other political solutions must be used. Centrally deciding plans for individual emitters would, in practice, lead to an extremely expensive transition, one so expensive that it risks being politically impossible. Instead, the most cost-effective climate policy is to set a price

on emissions, via taxes or an emissions trading system. In some situations, control via targets, regulations, and subsidies for technology may be beneficial, but this cannot replace a price on emissions. Even a moderate global price on emissions would have a large effect.

Climate policy affects the distribution of income and wealth. Even though such effects would probably not be large in countries like Sweden, they must be considered to gain broad policy acceptance. A policy that puts a price on emissions generates significant government revenues, thus generating a revenue base from which to compensate people who are particularly affected. However, this compensation should not entail reducing the price of emissions.

As stated above, there is a great deal of uncertainty about the scale of climate change and how much damage it will cause. Calculations show that an intelligent climate policy, based on the global pricing of greenhouse gas emissions, is a cheap form of insurance against the worst-case scenarios. In reality, there seems to be little reason to worry that a global carbon dioxide price will be too high.

Transforming the energy system

One important issue is the speed at which different fossil fuels should be phased out. Research results consistently show that the value of using conventional oil and gas is much greater than using coal. Conventional oil and gas can probably be used until they run out, without this posing a threat to the climate, whereas the opposite is true for coal and non-conventional reserves of gas and oil. Most of these reserves should stay in the ground.

Swedish ambitions for climate policy require the exchange of fuel and technology, as well as the introduction of techniques for capturing and storing carbon dioxide (CCS). Sweden has good natu-

ral conditions for wind power. Solar power currently accounts for only a very modest share of energy supply; even if it is making advances, it will probably be limited to niche production in decentralized systems for the foreseeable future.

Bioenergy is an important element of Sweden's energy supply, accounting for around 25 percent. However, the combustion of biofuel produces carbon dioxide emissions that have the same climate effects as carbon dioxide from fossil sources. The difference between biofuel and fossil fuel is that growing forests to produce biofuel absorbs carbon dioxide from the atmosphere, giving Swedish silviculture the chance to increase the amount of carbon stored in forests and in soil. This also potentially allows increased biomass extraction over time. However, there is substantial uncertainty about the climate benefit of imported biofuel, although work is being conducted on biofuel certification.

In Sweden, nuclear power contributes about 40 percent of the total electric power generation. A decision has been made to decommission the Ringhals 1 and 2 reactors, based on a commercial evaluation by the owners. Whether or not this is compatible with socioeconomic and climate policy considerations is quite unclear.

Capturing and storing carbon dioxide will be a vital part of achieving ambitious global climate targets. The conditions for carbon sequestration in forests and soils are good in Sweden. Sweden also has great potential for the use of CCS technology to capture and store carbon dioxide from major sources of emissions, such as co-generation plants for heat and electricity, cement, and steel manufacturing. The cost per captured ton of carbon dioxide, using current technology, is of the same order as the Swedish carbon dioxide tax. However, the current price of emission allowances is too low to make this technology commercially viable.

International measures to combat climate change

The Kyoto Protocol was negotiated in 1997; the idea was to use a top-down process to make international agreements about the extent to which participating countries would reduce their carbon dioxide emissions. Instead, under the Paris Agreement, each party unilaterally decides and submits its own emission reduction plan. The countries cannot then renege on this and are expected to gradually increase their commitments. Agreement on a global price for emissions has not been an important part of international negotiations.

EU member states have coordinated their commitments under the Paris Agreement; this shared EU commitment entails a 40 percent reduction in emissions by 2030 for the EU as a whole. The EU's reduction in emissions will be achieved partly through its emissions trading system (EU ETS), which covers just over 40 percent of emissions, and partly through the effort sharing regulation (ESR) that covers the remainder. The EU's long-term target is to reduce the emission of greenhouse gases to 80–95 percent of 1990's levels by 2050. In December 2019, the leaders of all EU member states, excluding Poland, agreed on the more ambitious target of making the EU climate-neutral by 2050.

The EU ETS was reformed in 2018, when the decision was made to reduce the number of emission allowances issued every year at a faster rate. A system is also being introduced to automatically cancel emission allowances if too many of them are saved. After these reforms, measures to reduce emissions will lead to more emission allowances being cancelled, but measures that increase demand for emission allowances will reduce cancellations and increase emissions.

As part of the EU's regulations for burden sharing, member states

have agreed on the allocation of responsibility for reducing emissions outside the ETS. Richer countries, such as Sweden, are obligated to do more. To prevent significant differences in marginal abatement costs within the EU, member states can trade emission allocations with each other, allowing reductions in emissions to be distributed across the union in a cost-effective manner.

Climate clubs offer a way to deal with climate policy's free-rider problem. Within a climate club, a common emission price is implemented and imports from countries outside the club are subject to a tariff. This tariff can either be charged in relation to how much carbon dioxide is emitted in the production of an imported good, or as a general tariff. There are legal and practical problems that must be solved before climate clubs can become reality, but solutions to these problems should be sought.

Part II

Sweden's carbon dioxide emissions

Fossil fuel use increased globally, including in Sweden, until the oil crises of the 1970s. This trend broke in Sweden in around 1970, but not in the world as a whole. The use of fossil fuels within Sweden's borders almost halved between 1970 and 1990 due to the rapid expansion of nuclear power and combined power and heating. This decline has continued, but at a considerably slower rate and, if emissions related to Swedish consumption are included, there has actually been no downward trend in emissions. Sweden's territorial contribution to increased levels of atmospheric carbon dioxide, i.e. net total emissions minus the net capture in forests and soils, has fallen significantly between 1990 and 2017.

Sweden's climate policy targets

The Swedish Climate Policy Framework includes a long-term emissions target, two milestone targets, and one target specifically for the transport sector.

The long-term target states that Sweden's net emissions of greenhouse gases will be zero by 2045, then be negative. This should be achieved through Swedish territorial emissions being at least 85 percent lower than in 1990. The remaining emissions should be compensated for by using supplementary measures, including the separation of carbon dioxide from biogenic emissions, paying for reduced emissions in other countries, and increasing carbon sequestration in forests and soils.

Unlike the long-term target, the milestone targets are for emissions in the ESR sector, i.e. the parts of the economy that are not covered by EU emissions trading. These targets state that by 2030 greenhouse gases will be 63 percent lower than they were in 1990, and by 2040 they will be 75 percent lower. In 2030, 8 percent of the reduction may come from supplementary measures, with 2 percent in 2040.

The target for the Swedish transport sector is a 70 percent decrease in emissions by 2030. However, the comparator year is 2010 and no part of this target may be achieved using supplementary measures.

The transport sector target has a much greater stipulated reduction in emissions than the rest of the ESR sector. Compared to 2015, emissions from the transport sector must decrease by 66 percent, while for other parts of the ESR sector this figure is 8 percent.

Swedish targets for reducing emissions are more ambitious and more focused on emissions within Sweden's borders than is necessary under the targets agreed within the EU. These state that in Swe-

den in 2030, emissions must not exceed 26 million tons within the ESR, compared to the Swedish target of 21 million tons. EU regulations place no restrictions on how much of the reduction in emissions may be achieved using supplementary measures.

Swedish climate policy instruments

The most important instruments in Swedish climate policy are of a fiscal nature, but many others are also used, such as product requirements, emission reduction obligations, and infrastructure planning.

The carbon dioxide tax is levied on fossil fuels in relation to their carbon content. It was introduced in 1991 and has been gradually increased to the current level of SEK 1,180 per ton of carbon dioxide. For gasoline, this corresponds to a tax of SEK 2.62 per liter. In 2018, the Swedish government's total income from the carbon dioxide tax was SEK 23 billion; the majority of fossil fuel use in Sweden that is outside the emissions trading system is now subject to the full carbon dioxide tax.

The electricity certificate system provides extra income for some suppliers of renewable energy, particularly wind power. The cost is borne by the electricity user, but there are exceptions for energy-intensive industries. In 2018, electricity certificates were an extra cost to consumers of SEK 0.036 per kWh, resulting in an income of SEK 2.7 billion for the electricity producers in the system.

An emissions reduction obligation was introduced for transport fuel in Sweden in 2018, so a proportion of biofuel must be blended into all gasoline and diesel sold in Sweden. The requirement for 2020 is that 4.2 percent must be blended into gasoline and 21 percent into diesel. The idea is that these proportions will increase over

time, but exactly how fast this should occur has not yet been decided. Biodiesel costs around SEK 8–10 per liter to manufacture, while the price of diesel, excluding taxes, is around SEK 3.

A "bonus-malus system" was also introduced in Sweden in 2018. This stipulates that a buyer of a car that does not emit any carbon dioxide, such as an electric car, receives a bonus of SEK 60,000. This bonus is reduced in relation to the car's stated carbon dioxide emissions per kilometer, and there is no bonus for cars that emit more than 60 grams of carbon dioxide per kilometer. Instead, cars that emit more than 95 grams per kilometer are subject to an extra tax, malus, which increases with the car's carbon dioxide emissions.

The Klimatklivet (climate stride) scheme was established in 2015, and is a funding system for investments to reduce emissions within the ESR sector. Examples of investments supported by Klimatklivet include charging stations for electric vehicles, biogas facilities, biofuel stations, and investments in energy efficiency. Funding was granted to 3,200 projects between 2015 and 2018, at a cost of SEK 4.8 billion. In addition to the abovementioned fiscal instruments, there are smaller funding schemes, such as Industriklivet (industry stride) which provides funding for Swedish industry and financial support for households that install solar panels.

Analysis and discussion

The more ambitious milestone target for 2030 than the one agreed within the EU brings increased costs for Sweden, but may provide benefits—for example, through greater opportunities to influence climate policy in other countries. The assessment of the Economic Policy Council is that costs do not need to be unreasonably high in relation to income if they are based upon the use of carbon dioxide

tax and supplementary measures, such as paying other EU member states to reduce their emissions or supporting CCS technology for biogenic sources of emissions.

Several arguments have been presented for a target specifically for the transport sector. The sector is responsible for around half of Sweden's emissions in the ESR sector. Emissions here have fallen less than in other sectors, despite the existence of technology that can reduce emissions. However, the target for the transport sector has been set so tightly that there is a risk that the transformation pressure is much greater than in other ESR sectors. Given the other targets, emissions in the transport sector must fall considerably faster than in the rest of the economy. Calculations by the National Institute of Economic Research show that if this target is to be achieved, the tax on carbon dioxide may need to be six times higher in the transport sector than in other ESR sectors. Rapid transformation of the transport sector also risks leading to increased emissions in other countries, both through their use of conventional oil and if vehicle electrification leads to reduced electricity exports—and thus more use of coal power in Germany and Poland. The risk of the latter is greater the sooner this transformation takes place in Sweden.

The reasoning behind the long-term emissions target for 2045 is that Sweden has a moral responsibility to lead the way and encourage other countries to be more ambitious. This is a legitimate argument. Another stated reason is that Sweden's long-term competitiveness can benefit from being at the leading edge of this transformation. However, a focus on increasing Sweden's competitiveness may undermine the idea that other countries should be able to copy climate-friendly technologies quickly and easily. Another argument supporting Sweden's climate target is that we can show how this transformation will not result in the huge disadvantages that some

people fear. However, for this argument to be valid, policy must focus on measures that provide significant reductions in emissions in relation to the cost to citizens.

One problem with the long-term target for 2045 is that it includes emissions that occur in Sweden, but which are covered by the EU's emissions trading system. A basic tenet of this system is that it is irrelevant in which EU member state the reduction in emissions occurs. According to current regulations, the allocation of emission allowances will continue until 2057, but unless these regulations change the Swedish targets will conflict with the EU ETS. The risk is that Sweden will need to try to steer emissions within the EU ETS away from Sweden to other parts of the EU, contravening the founding principle of the trading system—this should not happen. However, this conflict disappears if the allocation of emission allowances within the EU ETS is reduced more quickly to correspond to the Swedish targets for reducing emissions.

A general result from economics is that the costs for reducing emissions are minimized if different emitters have to pay the same price for their emissions. The mechanism behind this is that with a common price, different parts of the economy have the same costs for marginal reductions in emissions. Swedish carbon dioxide taxes have become more homogenous, but other instruments have led to large and increasing cost differences between various marginal emissions reductions. The National Institute of Economic Research and the Swedish National Audit Office have shown that some measures that are used have costs as high as SEK 6,000–8,000 per ton of carbon dioxide; this leads to unnecessarily high costs because it would have been possible to achieve the same reduction in emissions at a much lower cost. Alternatively, greater reductions in emissions could have been achieved for the same cost as at present.

Another problem with Swedish climate policy is that the incentives to increase the sequestration of carbon in forests and soils are too weak or entirely absent. Such measures should be subsidized at the same level as the price of carbon dioxide emissions.

The same lack of adequate incentives applies to separating carbon dioxide from flue gases, with around 23 million tons of carbon dioxide being released from 27 of the biggest industrial facilities as emissions from biogenic and fossil sources. The incentive to use existing technology to capture these flue gases is weak (for fossil sources it is the price of emission allowances in the EU ETS) or non-existent (for the biogenic sources). For an estimated cost of around SEK 23 billion per year, i.e. SEK 2,300 per Swede annually, these emissions, equivalent to half of Sweden's emissions of carbon dioxide, could disappear.

Policy proposals

Clarify that the goal of climate policy is to reduce global emissions

The link between Swedish climate policy and global emissions must be clearer. The Swedish climate policy should therefore clarify that the Swedish climate targets are intermediate and aim to contribute to the world becoming climate neutral. Where a conflict between the targets for Swedish emissions and global climate benefit can be identified, the latter must be prioritized. On the council, we are not in complete agreement about how significant these conflicts currently are, but we do agree that they may arise and that the responsible authorities should be given the task of quantifying them.

Only provide funding for technology that contributes to global climate benefit

In some cases, Swedish climate policy risks being disguised as industrial support policy. As part of climate policy, support for climate-friendly technology should only be provided if it is likely to bring global climate benefit through rapid dissemination to other parts of the world.

More homogenous costs for emissions reduction

Calculations show that the multitude of Swedish climate instruments has resulted in major differences in the cost of emissions reduction in different sectors of society. This must be taken seriously. These differences are only motivated to quite a limited extent by arguments based on global climate benefits, leading to unnecessary costs that hamper Sweden's potential to demonstrate that transformation does not need to be insurmountably expensive.

Reformulate the long-term target for Swedish climate neutrality in 2045

The council is in agreement that there should be no delays to Sweden's long-term target of being carbon neutral by 2045. However, with the exception of Åsa Romson, we believe that the target should not include self-imposed restrictions on the number of supplementary measures, which should be able to exceed 15 percent. Measures in other EU member states where it can be guaranteed that emissions reductions are occurring in a safe and credible manner, and the implementation of CCS technologies, are vital elements of an effective global climate policy and should not be restricted. The Swedish

aim of leading the way forward should include such measures. Increasing the level of ambition, so that Sweden becomes carbon neutral considerably earlier than 2045, should be possible if these restrictions are lifted and match the regulations agreed within the EU. However, Åsa Romson's opinion is that the target's current wording should not be changed. One of her main arguments is that countries such as Sweden can be a good example through specific reductions in territorial emissions.

No control of Swedish emissions within the EU ETS

Regarding problems that may arise due to the inclusion of emissions within the EU ETS in the long-term target, the council is in agreement that these should be managed without Sweden introducing new instruments that result in emitting entities moving to other EU member states.

Consider abolishing or reformulating the target for the transport sector

The Swedish target for the transport sector entails both costs and benefits, although it is questionable whether any climate benefit will result from achieving it. On the world oil market, any reduction in oil use in Sweden leads to increased use in other countries. Also, the Swedish market is too small to promote technological development in the transport sector. If the target is achieved through electrification in Sweden before the production of electric power in countries like Germany and Poland has become considerably less fossil-intensive, there is a risk this will lead to increased emissions in these countries through reduced exports of Swedish fossil-free electricity. In

addition, the climate benefit is unclear if it is achieved using biofuel, particularly if Sweden continues to import large amounts of it.

Sweden should contribute to the European transport system becoming fossil-free at the rate permitted by the expansion of fossil-free electric power in the EU. We should actively support this development, but in step with the rest of the EU. It is difficult to see that the Swedish transport sector target is an effective means for this. Therefore, with the exception of Jonas Eliasson and Åsa Romson, the Economic Policy Council is of the view that Sweden should consider abolishing or reformulating the target for the transport sector.

Jonas Eliasson chooses not to express an opinion on whether the transport sector target should be reformulated.

Åsa Romson believes that abolishing the target for the transport sector is undesirable. Her position is that the transport target plays a particularly important role in climate policy, and thus for Sweden's contribution to global climate policy, as it emphasizes a tangible transition in the near future. In addition, lower emissions in the transport sector will probably not only reduce climate gases, but also provide important societal benefits, such as new industrial development, reduced health impacts from poor air and noise pollution, as well as the economic use of land and lower construction costs. Removing or diluting the transport target will obscure the potential for climate benefits or other transport benefits in Sweden. According to Åsa Romson, revising the target may also be interpreted as lowering the level of ambition.

Finance the capture and storage of biogenic carbon dioxide

We all take the position that Sweden should introduce a system for financing the capture and storage of biogenically produced carbon dioxide. There should be legal guarantees that the price for this follows the Swedish carbon dioxide tax. It is likely that this would create enough of an incentive to capture biogenically generated carbon dioxide equivalent to all emissions from Swedish road traffic.

Continued reform of the EU ETS

Sweden should push for continued reforms of the EU ETS. One such reform would be the introduction of a transparent price floor in the system. This price floor does not need to be high for it to be effective, and should be automatically increased at the same rate as the EU's nominal increase in GDP.

Push for an international agreement on a minimum price for emissions

Sweden should work forcefully towards an international agreement on a minimum price on emissions. As yet, there have been no serious global negotiations about emissions prices. Within the EU, Sweden should push for the inclusion of a minimum emissions price in negotiations for free trade agreements, which could clear the way for broad climate clubs with homogenous emissions prices and adequate incentives to remove the free-rider mechanism.

Outside the EU, Sweden should promote adding commitments for minimum emissions prices to the Paris Agreement. We should also try to influence the WTO to permit climate clubs under interna-

tional trade regulations, through clear acceptance of the principle that concern for the world's climate is a good enough reason for tariffs on countries without an acceptable level of emissions pricing.

Part III

In Part 3, we answer seven questions:

1. Can the climate targets of municipalities and businesses contribute to an effective climate policy? If so, how should they be designed?
2. Should climate targets be set separately for different economic sectors, or should all sectors have the same cost pressure on transformation?
3. How effective is climate aid as a climate policy?
4. Is buying emission allowances and not using them good climate policy?
5. Should Sweden strive to create a surplus of fossil-free electricity for export?
6. Should nuclear power be kept for climate reasons?
7. Should Sweden provide funding for investments in carbon dioxide separation and storage?