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Aviation and Ground Transport

Aviation: Emissions Cap

This policy sets an absolute cap on emissions for the aviation sector, and is thus the most direct measure to ensure emissions reduction.

Description

The most direct way to limit aviation emissions, is to set an absolute cap per year and hand out emissions permits. For every flight, the emissions have to be calculated and a corresponding emissions permits obtained. This has to include all types of flights, including

airlines, charter flights and private jets. We envision an emissions path of a 10% reduction by 2025 and stepwise reaching zero by 2030.

There are multiple ways to hand out emissions permits. First, they could simply be proportionally distributed to airports based on current emissions, reducing their capacities. The scarcity drives up the ticket prices and will keep up income for the aviation industry despite lower passenger numbers. This may lessen opposition from the aviation industry. Second, the emissions permits could be auctioned by the states to airlines. This means the additional revenue goes to the state and not the aviation industry. These finances should then be used to further alternative propulsion and alternatives to aviation.

Compatibility with other policies: It is important to measure emissions before compensation. If this policy is taken in conjunction with a Frequent Flyers Levy, demand may already be reduced slightly and reduce the auction price of emissions permits. This may have the benefit of making flying once every 4 years affordable while more heavily pricing frequent flying. Note that the zero-emission cap by 2030 will effectively only allow planes with synthetic fuel.

Financing: This policy has no direct costs, instead it generates revenue.

Impact: Emissions are directly controlled, reductions can be calculated in comparison to the projected emissions without the policy.

Social compatibility: Ticket prices for flying would increase drastically if the limits are set as low as is necessary. Tickets may become unaffordable for many. However, in conjunction with a strong Frequent Flyers Levy, some pressure can be taken away from people flying very rarely and shift it to frequent flyers. To increase the acceptability, accompanying measures such as support for alternatives to aviation should be taken.

Aviation: Ban short-haul flights

Description

In 2018, 77% of air passengers had destinations in Europe, and the most common reasons for flying are time and convenience, but also a lack of alternatives and price play a part (BFS, 2019). Due to low ticket prices, alternatives on the ground such as night trains can hardly compete. While short-flights do save some time, the gains are not justified by the disproportionately high emissions, especially since launches make a significant emission contribution to these flights.

We propose an immediate ban of domestic flights and all flights reachable within 3h with alternatives such as public transport (e.g. Zürich-Geneva). Gradually this ban radius should be increased by half an hour per year. By 2030 no short-haul flights in the radius of 8h by public transport would be permitted (e.g. Zürich-Berlin and Zürich-London).

Many short-haul flights serve as connecting flights to long-haul flights. Going to an airport further away for long-haul flights makes sense economically but also ecologically, fewer

long-haul flights have to be launched. But these connecting trips can also reasonably be taken by ground transport.

Financing: none.

Impact: A significant amount of flights would not take place, some passengers would choose alternative transportation or avoid less important travel. Given that most flights are to destinations in Europe, the emissions reductions can be projected to be significant once the ban radius is high enough.

Social Compatibility: The policy is designed to limit emissions without making travel impossible, in fact it only bans flights that are reachable with reasonable alternatives. The ban radius is increased gradually to allow people to adapt and alternatives to be strengthened.

Note: In some countries it may be more advantageous to use short-haul electric planes. They may be available around 2030 for distances less than 500 km. This is especially useful in less densely populated countries where the cost and emissions of the infrastructure of other modes of transportation could exceed that of electric planes. However flying remains very energy intensive even in the case of electrification. This means that they risk displacing other uses for the limited supply of renewable electricity.

Aviation: Support for alternatives to aviation

Description

The vision is to have drastic reduction of aviation, therefore we need to think about alternatives that could allow people to reach most places in Europe without requiring aviation.

The counterpart should not be that people use their car to drive to destinations they would have fly, for ICE the balance is not much better than for planes. To prevent this issue, convenient public transportation and train system should be put in place to effectively connect major destinations. Travel time is the main reason (67%) BFS 2015 - Mikrokonzensus Mobilität und Verkehr why people choose aviation rather than other means of transport. Therefore, we should tackle this issue by improving efficiency of other means of transport (train, night trains, bus,...)

To achieve such goals, study will be run to determine the major needs to reduce the need of aviation: which cities are not well connected, which destinations are more needed, ...

Based on these studies, investment will be done to support the more impactful measurements.

Some of the of this measurements could be:

- Developing new night train rides
- Developing railways for destination that are not well connected

- Improving booking websites: harmonised european digital platform to allows easy planning and booking of train tickets, international train tickets can be bought 6 months in advance (today max. 3 months which is an additional barrier for booking train ticket rather than plane tickets)
- Improving bus network for destination not reachable by train
- Etc

Once flying will get more expensive (by taxing its environmental impact), everything else will fall in line. Making aviation less attractive might be enough to increase the demand for alternatives such as night trains without necessary need to promote it (we don't want to make it too attractive so people travel more, we want people to change the means of transport).

Financing: The financing of studies and impactful projects will be covered by the tax on aviation.

Impact: This policy will help to develop alternatives to aviation. The impact will be to reduce aviation by offering better alternatives to aviation. The impact will also be to improve accessibility of regions that are currently not well deserved.

Social compatibility: This policy will improve the social compatibility of there other aviation policies and improve transportation systems at an affordable price (cheaper than aviation) and therefore allow people to continue to travel even if the price of the aviation drastically increases.

Aviation: Accompanying measure for aviation policies: Support for people groups affected by the decline in aviation

Description and impact:

The purpose of all policies above is to cut the CO2 emission of aviation. This is not possible without a reduction in aviation until sufficient quantities of synthetic fuels can eventually be produced. If only 10% of today's kerosene quantity is available in synthetic fuel by 2030, this may mean a reduction of 90% of the sector. This will have the consequence that jobs will be lost and aviation employees retrained for other sectors. To make the general strategy and the concrete policies socially compatible, it is crucial to make retraining available and provide financial aid to compensate the lost salaries.

We also expect some effect on the tourism industry, both domestic and globally.

Many companies have their employees travel by plane regularly. Here we expect that most will find alternatives (more teleconference, train ride, ...) over the adjustment period.

Affected groups:

- Aviation industry: airport personal, pilots
- Business travel:

- Company policies
- People living far from their workplace
- Consultants
- Tourism sector

The groups listed above will face higher unemployment rate, therefore accompanying measures must be taken to facilitate professional reintegration.

Financing: see section “public program for green jobs”

Uncertainties/Questions: There is still an open point on the impact of the reduction of aviation on the tourism sector outside of Switzerland.

Mobility: Carfree cities

<https://www.lesechos.fr/idees-debats/sciences-prospective/le-doux-mirage-des-villes-sans-voiture-1145333>

Target Agreement

Industry [Net-zero action plans for all producing entities](#)

Description: It is assumed that the sector policies for the building sector will decarbonize heating in industry and services already. Electricity consumption, district heating and use of transportation (people and goods) are already covered by other sector policies. All companies that produce additional direct emissions that are not already covered by the other sector policies have to develop net-zero action plans to fully decarbonize by 2030.

These remaining producing facilities – probably several thousands only – must submit in 2021 a net-zero emissions plan. The plans will then be third party verified.

The plans must list all measures necessary to transform the company no later than by 2030 into a net-zero-emission company. The needed transformation measures are listed in three categories:

a) measures that are economic viable with an 8 year pay back assuming that no remaining depreciation costs of existing equipment occur [3] and that external GHG costs are fully internalized following measures 2&3. (net-zero ready and viable)

b) measures that are technically feasible but uneconomic under the conditions mentioned in a), e.g., producing biogas from manure to fuel high-temperature processes. (net-zero ready but uneconomic)

c) measures that lack proven technical feasibility at the scale needed, e.g., synthetic kerosene produced from sun converters (unproven technology)

Net-zero company plans need to be updated every three years (2024, 2027) and needs third party verification. Companies without such plans lose their license to operate.

Financing: Already now the agencies EnAW and ACT are supported by the government to help companies to draw emission reduction plans. This mandate would be adapted and the support increased to cover all companies that have to provide a plan.

Impact: Although the plan itself may already have some impact it is the combined impact with measure 6-8 that is relevant. To have such a plan is not only vital for business and investment planning but also mentally. Dividing the decarbonization task in groups of measures and knowing that financial or/and technical support will come may make the challenge more acceptable.

Social compatibility

no concerns so far

Questions and uncertainties

It is not clear whether enough decarbonization experts and tools are available by 2021. It may be necessary to limit the first period from 2021-2023 to companies with emissions above 100t CO₂eq per year or that are already members of EnAW or ACT.

The split of measure into the categories a) to c) is at this time not known, but first guesses are included.

Investments

Regulation regarding solar PV installations

Description

Building owners - whether public or private - are obligated to build solar PV installations on their roofs within 10 years if their roofs offer medium, good or very good suitability according to Sonnendach.ch. The size of the installation needs to be adapted to the size of the roof not to own electricity needs. Installations receive a cost-covering remuneration. Exemptions are made for buildings that serve additional purposes, such as buildings declared historic monuments.

To incentivize compliance with the requirement, building owners are obligated to pay an annual fee per square meter of roof surface with the abovementioned quality that is not used

for solar PV. The fee continuously increases of the first 10 years to incentivize the rapid increase in solar PV capacity additions. The annual fee cannot be shifted to tenants. Periodically, the capacity additions are monitored and, if necessary, the fee is additionally increased.

We propose a linearly increasing fee from 0 CHF/m² in 2020 to 20 CHF/m² in 2030 as one square meter can host an 200W of solar PV with an annual electricity production of approximately 200 kWh. Assuming a remuneration of 10Rp/kWh, this output corresponds to the 20 CHF/m².

Financing

The remuneration of the electricity produced by the rooftop solar PV installations is financed by the existing consumer surcharge on the electricity tariff which needs to be raised accordingly. If we assume that existing suitable rooftops may offer a solar PV potential of 24 TWh and that this production is remunerated at 10 Rp/kWh for 15 years, the total remuneration would amount to:

$$24 \text{ TWh/a} \cdot 10 \text{ Rp/kWh} \cdot 15a = 36 \cdot 10^9 \text{ CHF}$$

(Note that this amount is not additive to today's expenses for electricity. It partially replaces electricity generation cost from other sources, such as nuclear power or imports.)

Assuming that all the installations are built in 2020 and an annual electricity consumption of 50 TWh, the surcharge which would need to be paid until 2035 would amount to:

$$\frac{24 \text{ TWh/a} \cdot 10 \text{ Rp/kWh}}{50 \text{ TWh/a}} = 4.8 \text{ Rp/kWh} .$$

(Note that for simplicity the calculated values are nominal and not discounted.)

As not all building owners may have the capital necessary to invest in a solar PV installation, additional financing options may be provided by the cantons or the federal government or mandated finance institutes, such as cantonal banks, a green investment bank, or a climate fund. One option would be interest-free loans provided by the banks backed by the federal authorities with credit guarantees equivalent to what is being done in the current Corona pandemic. The same could also be done via interest-free increases of mortgages for climate-friendly renovations. Changes in the regulation of mortgages may also help. However, in these cases, the cost-covering remuneration needs to be adjusted.

Impact

The impact of this policy on solar PV deployment is expected to be very high as suitable roofs will be effectively used for solar PV installations. Increasing the non-compliance fee over time ensures rapid increases in solar PV capacity which is necessary to achieve the targets for 2030.

Social compatibility

The policy requires building owners to make investments that they are not necessarily able or willing to do. However, financial support can alleviate some of the constraints imposed on building owners (see above). We also would like to point out that a majority of building owners belong to the financially prosperous sections of the population and the design of the

policy ensures that the building owners do not lose money. Additionally, a solar PV installation constitutes a very small share of the total cost of a building but adds to its overall value.

At this point, we would like to refer to a similar policy in Switzerland adopted in 1963: The regulation regarding air-raid shelters implemented in the Law on Civil Protection (Zivilschutzgesetz). This law required every building in Switzerland to either dispose of an air-raid shelter or to pay for one in a different building. Such requirements are thus not unknown in this country. Interestingly, even the construction costs for air-raid shelters have the same order of magnitude than the ones for a solar PV installation (roughly 20 000 CHF).

Questions and uncertainties

The proposed policy raises many questions and uncertainties some of which are the following:

- Non-compliance fee: Is the fee high enough to incentivize building owners to invest in a solar PV installation? Could the fee be replaced with other incentives for building owners to comply with the requirements?
- Permits: As of now, building owners have to acquire permits to build solar PV installations on their roofs. Should these permits be abolished or can they be simplified?
- Unsited roofs: What about building owners with unsited roofs according to Sonnendach.ch? Should they also be incentivized to build solar PV installations? Should they be required to pay the fee?

Green Investment Facility

Das neue CO2 Gesetz sieht einen Klimafonds vor. Für die notwendigen Gebäudesanierungen, die Verkehrswende und nicht zuletzt die Energiewende sind Investitionen dringend notwendig. Der Klimafonds ist damit ein notwendiger Schritt, allerdings ist er nicht ausreichend. Eine Green Investment Facility könnte komplementär zu den bestehenden Fonds in klimafreundliche Energieprojekte (z.B. Stromerzeugung aus erneuerbaren Energien, Wärmenetze) investieren. Die Green Investment Facility soll Fremdkapital beispielsweise in Form von Green Bonds an Unternehmen und Projekte bereitstellen. Somit soll durch die Investitionen der öffentlichen Hand, der Markt für private Investoren attraktiver werden. Aufgrund der immer noch fehlenden Kostenwahrheit verursacht durch indirekte Subventionen für fossile Energien und weiteren unfairen Hürden für erneuerbare Energiequellen schätzen private Investoren die Risiken als zu unklar oder hoch für entsprechende Projekte ein, die Green Investment Facility kann gezielt Sicherheit für private Investoren schaffen. In der momentanen Rezession kann ein wie oben beschriebener Public-Private Partnership einen Green Stimulus auslösen und somit unserer Wirtschaft wieder auf die Beine helfen.

Der vom UREK-S vorgeschlagene Klimafonds könnte, wie auch von der Kommission vorgeschlagen, bestehende Förderinstrumente wie den Technologiefonds und das Gebäudeprogramm ablösen. Der Vorschlag der UREK-S wäre allerdings erst mittel- bis langfristig wirksam und würde kaum helfen, netto null bis 2030 zu erreichen, schliesslich

existiert der Fonds heute nur im Gesetzesentwurf für das CO2 Gesetz. Wir schlagen daher vor, den Fonds zeitnah zu füllen und dadurch einen Green Stimulus auszulösen der gegen die momentane Rezession wirken soll. Konjunkturelle Massnahmen sind dringend notwendig in der momentan Wirtschaftslage, der Bund kann so gezielt nachhaltige Branchen unterstützen.

Job-Programms

Public Program for Green Jobs

Description

To mitigate the social consequences of the transition to a GHG neutral economy we propose the creation of the Public program for green Jobs (ÖfAGA).

The mandate of the ÖfAGA is to promote social justice by providing a job guarantee.

The ÖfAGA will have a federal structure with different level of implementation (federal, cantonal and local). It will work in coordination with the cantonal offices for economy and labour (RAV) in supporting workers that lost their job to find a new occupation in the sustainable economy. The RAV will inform all job seekers about the ongoing changes in the economy, and provide training targeted toward sectors that will grow in a sustainable economy (repairing, retrofitting, renewable energy, care etc., see section 3). The RAV will help workers in finding a new occupation, and support them economically if they become unemployed. The ÖfAGA will promote the socio-economic transformation by creating new green jobs in sectors that are crucial to kick start the green transition.

We do not elaborate on the precise structure of this public program, as there are many different possibilities. Here we provide some example of its possible activities.

Example 1: The ÖfAGA, will create a program to advise and support all building owners who want to retrofit their house/flat, install solar panels, replace heating systems or implement other renovations that will decrease the energetic demand of their buildings. This program will assist building owners in finding credit with the climate bank (see chapter Buildings), information about the different possible technical solutions, and bureaucratic paperwork. This service will be provided free of charge, or at a low price. This program will create jobs and offer training in an important economic sector that will likely develop in the future, at the same time it will accelerate the improvement in building efficiency, and the deployment of renewable energy sources, thus contributing to achieve carbon neutrality.

Example 2: The ÖfAGA will create repairing centers spread throughout the country. These centers will provide a public repairing service where electrical appliances, furniture, clothes etc. can be repaired at an affordable price. Goods that break within the manufacturer's warranty (which will be raised to 5 years, see XX) can be repaired in these centers free of charge (manufacturers will be charged by the centers for the repair). Additionally these repairing centers could offer free use of tools, training in several activities, and could become community centers where one can get help with various issues. These centers will have multiple functions, they will provide good jobs and professional training, and through their

activity they will increase the lifetime of objects, thus reducing their material footprint. One possible example of how these repair centers could be organized is developed in section 2.2 (Climate workshops).

Example 3: The ÖfAGA will create a fleet of low-emission or electric public taxi that will provide public transport in rural areas where the population density is too low for the conventional public transport system. This will create job opportunities in marginal area, improve the capillarity of public transport, and will decrease the dependency from cars. (ask WG mobility what they think about this)

Example 4: The ÖfAGA, in coordination with the Federal office for the Environment will create a program to improve the biodiversity and the environmental quality in Switzerland (OECD Environmental Performance Reviews: Switzerland 2017 - en). The ÖfAGA on its own will not be able to reverse the trend in biodiversity loss and environmental degradation, additional policies will be necessary. However the ÖfAGA will provide the workforce for the protection, restoration and monitoring of biodiversity and environmental quality. There are countless projects that could be implemented under such a program, and they could include the management of natural areas that are also used for recreation. Especially in the urban context these green areas will also play a role in the adaptation to higher summer temperatures. When extending green areas in urban contexts, such extension should not lead to gentrified environments (see chapter Buildings).

Example 5: The ÖfAGA, in coordination with agencies working in the caring economy (child care, care of elderly, health care) will support an expanding care economy (see section 3.3) by facilitating the training of people who would like to work in the care economy, and help them find a job there. Women and men who chose to take care of their children or parents at home will be able to claim their compensation (see section 3.3) from the ÖfAGA who will be authorised by the state to treat reproductive care as a normal part of the care economy.

Financing

With the implementation of the ÖfAGA the public sector will take a larger role in the overall economy of Switzerland, and it will provide enhanced services to the population. Therefore the ÖfAGA will be financed by the core budget of the state, it is possible that in the first phase the costs of the ÖfAGA will be substantial, resulting in a government deficit. However, currently government spending is regulated by the Debt brake. The debt brake essentially says that over an economic cycle, expenditures cannot exceed revenues, in this way public debt cannot rise (in the long term). Switzerland's public debt brake poses a substantial limitation to achieve full funding of the ÖfAGA, and of the CAP's policy proposals in general. Therefore we propose that public investments in mitigation and adaptation spending for climate change are exempted from the public debt brake's general expenditure rule. Mitigation measures towards carbon neutrality shall not include any climate offsetting or otherwise compensating schemes (e.g. outsourcing as described above).

Impact

The impact of the ÖfAGA on the GHG emissions will be indirect. By creating jobs in economic sectors with low GHG footprint, the ÖfAGA will contribute to achieve a rapid transition to a GHG neutral economy.

Social compatibility

The main goal of the ÖfAGA is to ensure that the socio-economic transition envisioned by the CAP will be just, equitable, and politically legitimate. It is a critical policy for the social compatibility of the CAP.

Questions and uncertainties

There are many possible structures and tasks that could be adopted by the ÖfAGA. One important aspect will be to achieve a good coordination between the federal, cantonal and local activities of the ÖfAGA. It will also be important to monitor the activities and impact of the ÖfAGA to adapt its interventions quickly to the changes in the economy.

Support programme to train RE (renewable energy) personnel

Description

The rapid scale-up of renewable energy capacity will require additional personnel for the planning and mounting of these installations. More specifically, for the peak year 2031, the Climate Action Plan expects an additional need for 2,500 planners and 17,000 installers. In order to meet this demand, the federal and cantonal governments will institute and support programmes at Universities of Applied Sciences and professional schools (höhere Fachschulen) to train the necessary number of RE personnel, specifically the planners. For the lower skilled job of mounting the installations, the federal and cantonal authorities provide the necessary boundary conditions to deploy military personnel, refugees and asylum seekers and/or people out-of-work at the necessary speed to support the scale-up of renewable energy deployment and the achievement of the targets.

Financing

The amount of financing necessary to implement this policy is unclear.

Impact

The impact of this policy on solar PV deployment is considered very high as the rapid scale-up of renewable energy capacity is largely dependent on the domestic renewable energy sector and its capacity to handle the demand. This policy would support the sector in increasing the availability of educated personnel.

Social compatibility

Social compatibility of this policy is considered high.

Questions and uncertainties

Questions and uncertainties remain regarding how timely high-quality education programmes for renewable energy planners can be ramped up and suitable candidates found.

Education and training for building services engineering specialists

To ensure that there are enough specialists, training and further education must be provided. This applies in particular to installers and operators of technical systems.

However, further training for architects and other specialist planners should also ensure that existing knowledge is put into practice.

Working Time Reduction

Description

We aim for WTR in a postgrowth economy, which allows us to reduce working hours while redistributing the work more evenly on the workforce, thus giving people jobs who may have lost a job during the transition to a decarbonized economy.

The number of full-time weekly working hours is gradually reduced from 42.5 (2018) to e.g. 30 hours per week in the next 2 years, and to 24 hours per week in the 2 following years. The working week is reduced to four working days (the standard week starts from Monday to Thursday) immediately.

Concrete first steps in this direction could be additional five weeks of climate holidays for all, which can also be taken in the form of a half-day off per week, with full compensation for “normal” salaries (e.g. for the 80% of wage-earners), and a sabbatical of totally three years for everybody paid by means of an existing or new social insurance.

Working time reduction is a crucial measure to redistribute the productivity gains of the economy to the workers by compensating (fully or partially) less working time with higher wages, and to ensure that all workers have a secure working place in a postgrowth economy (Kallis 2017). Historically working time reduction has been a central demand of the labor movement and poses several impactful positive effects on the ecological, care-economical and the social realm.

An important policy goal of the WTR should be to set free time to enable people, households and communities to pursue non-paid (not commodified and potentially low-carbon) activities and to regain autonomy over their immediate environment and community life. Hence WTR must actively ensure that the increasing leisure time is not used for more (and potentially high-carbon) consumption (see Kallis 2017, Gorz 2012 [1991]). This will be achieved through the carbon levy (with border adjustment, see CAP chapter X), and by regulating consumption beyond taxation (section 4).

Financing

Shorter working hours do not require direct funding. Compensation of less working hours with higher wages requires financing, either through higher wages (thus productivity gains are distributed more equally and given back to the workers; profit margins fall), or through a wage subsidy by the state (thus the companies are not affected directly). If a state subsidy is chosen to compensate reduced incomes from less working hours, this subsidy will be generated through revenues from direct taxation of consumer goods (e.g. taxes on fuels, VAT), not through higher income taxes (Gorz 2012 [1991]). Thus, state subsidies will affect companies indirectly by reducing demand for their products.

The need for healthcare could be substantially reduced due to less occurrences of work- or stress-related health problems. This will have positive financial effects. Sabbatical payments will be financed by an existing or new social insurance.

Impact

The positive impact of shorter working hours are the use of less energy and therefore carbon emissions. When workers do work for a shorter time period the output of the whole economic system can be substantially reduced. According to Nässen et al. a reduction of working hours to 21 hours would reduce carbon emissions by 41%. However, Nässen et al. do assume a parallel reduction of income which shall not be assumed since this goes contrary to the principle of climate justice. Its social compatibility will be further discussed in the respective section. On the other hand, more working hours translates into more consumption and studies report on a direct link between (very) long working hours and carbon-intensive consumption (Dengler and Strunk 2017). The reversed is not necessarily true but depends on what happens with the freed leisure time (Dengler and Strunk 2017).

Working time reduction can have other smaller positive effects. Continuing productivity gains will allow to reduce wages to a lesser extent than working hours. Hence, people will work less with a partial compensation of wages. In other words, people will have more time for leisure and all the things they normally don't have time to do, while their purchasing power will also decrease, although to a less extent. Since the goal is not to spend more free time to consume more, a small reduction in purchasing power can be justified (with exception in low paid jobs where workers cannot afford any wage cut).

Some parts of the additional leisure time may be used for less carbon-intensive ways of commuting (car to public transport or public transport to bike). Furthermore, carbon emissions of commuting will be reduced by 20% since workers only have to commute on four days per week.

Social compatibility

WTR should avoid creating a "dual society" (Gorz 2012 [1991]) of highly productive professional workers (whose high productivity can be translated into reduced working time with equal pay, e.g. people working in the banking and finance sector) and low-skilled low-pay jobs in the service (or "servant") industry (e.g. the care or gastronomy sectors). Rather, WTR should be designed to reduce the proliferation of low pay precarious service

jobs by decreasing a demand for such jobs. WTR will set free time that people should have to do what they normally do not have time to do and pay someone to do it for them (hence the proliferation of the service industry and the servant class). A WTR policy will increase the effective wages in the care and service jobs sector (since less working hours will be at least partly compensated with higher wages). Moreover, the market for some service jobs will increase (care jobs) while for others it will decrease (most of those that exist because working people do not have time to organize their lives in their free time) (Gorz 2012 [1991]).

Questions and uncertainties

The choice of the right amount of WTR in hours per week cannot be calculated with technical precision. We cannot know how productivity will develop in a WTR world. Any decision about the right amount of WTR is at least initially a political decision, not a technical one (Gorz 2012 [1991]).

Also see example New Zealand:

<https://www.theguardian.com/world/2020/may/20/jacinda-ardern-flags-four-day-working-week-as-way-to-rebuild-new-zealand-after-covid-19>

Agriculture

Reduction of GHG emissions from livestock husbandry

Policy 1: No subsidies for feed production on arable land

No subsidies or any other support for feed production on arable land with the exception of leys in arable crop rotations. Arable lands could be defined as the “Fruchtfolgeflächen” as designated in ARE (2006). Alternatively, the elaboration of a respective policy system could consider the area- and food-competition as proposed by Zumwald et al. (2019).

Policy 2: No imports of animal feedstuff

Increasing tax on imported feedstuff until 2030 and then ban it from 2030 onwards. Incomes generated by the taxes should be used for creating other income possibilities for farmers (Policy 12).

Policy 3: Limit stocking densities for ruminants

Limit stocking densities for ruminants on permanent grassland to one livestock unit per hectare on average (the maximum stocking density may be adjusted regionally to take account of differences in local production potentials).

Policy 4: Limit populations of non-ruminant animals

Limit populations of non-ruminant animals to numbers that can be supported with feedstuff from by-products of the regional food industry [not edible by humans].

Policy 5: No subsidies or any other support that “cement” livestock production above the maximum populations

This includes “hidden” subsidies that are planned to promote sustainable and/or animal friendly livestock husbandry but ultimately direct significant financial resources to livestock production.

Policy 6: Consider maximum stocking densities for new infrastructure and renovations

Consider maximum stocking densities when approving the construction of new or renovation of old infrastructure (e.g. stables), when awarding credits or supporting any other long-term investments.

Policy 7: Promote research and development

Promote research and development in order to optimize grassland based animal production and convert by products from the food industry to animal feed. Promote precision feeding e.g. as proposed by Andeweg and Reisinger (2014).

Policy 8: importation of animal products

Only allow importation of animal products when produced under the same framework conditions as in Switzerland (feed no food, observance of maximum local stocking densities). Promote the concepts of “Feed no Food” and maximum stocking densities on an international level. Support the development of respective international trade regulations.

Policy 9: Promote alternatives to animal proteins

Promote alternatives to animal proteins i.e. plant-based protein sources (e.g. promotion of leguminous crops, support respective research and developments in the food industry).

Policy 10: Promoting alternative income possibilities

Farmers depending on livestock production today should be supported by promoting alternative income possibilities (e.g. support for transition to crop productions, energy production).

Promotion of an agro-ecological food system

IPES: COVID-19 and the crisis in food systems: Symptoms, causes, and potential solutions
http://www.ipes-food.org/_img/upload/files/COVID-19_CommuniqueEN%282%29.pdf

Biovision: Nachhaltige Ernährungssysteme sind resistenter gegen Krisen
<https://www.biovision.ch/aktuelles/landwirtschaftspolitik-muss-oekologischer-werden/>

Supplementary

Stop fossil fuel subsidies

<https://www.theguardian.com/environment/2019/aug/01/fossil-fuel-subsidy-cash-pay-green-energy-transition>

Gesetzliche Reduktionsziele

Der Klimastreik hat am vierten nationalen Treffen unter anderem folgende Forderungen im Konsens angenommen:

“Wir fordern eine Reduktion der direkten und indirekten Treibhausgasemissionen des Schweizer Finanzplatzes auf Netto 0 bis 2030 [**] insbesondere der Stopp von Finanzierungen, Investitionen und Versicherungsdienstleistungen fossiler Energien.

1. Ab sofort keine neuen Investitionen, Kredite und Versicherungsdienstleistungen von Projekten und Unternehmen, die in fossilen Energien aktiv sind! Das betrifft unter anderem Kohleunternehmen, die Teersandbranche, Erdgas und Öl.
2. Die Finanzinstitute sollen bis Ende 2020 klare Pläne mit konkreten Zielen und Massnahmen vorlegen, wie sie ihre Finanzflüsse (Kredite, Investitionen und Versicherungsdienstleistungen) bis 2030 auf Netto 0 bringen.

Diese Punkte könnten sowohl im CO2 Gesetz, als auch in den Finanzgesetzen verankert werden. Das noch nicht in Kraft getretene neue CO2 Gesetz sieht heute (Stand UVEK-S, Wintersession 2019) keine Eingriffe in den Finanzsektor vor. Das scheint unverhältnismässig.

Description

Konkrete Umsetzungen dieser Forderungen seitens der Gesetzesgeber und Regulatoren könnten so aussehen:

- Das CO2 Gesetz setzt bereits für andere Sektoren Reduktionsziele. Die Emissionen durch direkte und indirekte Finanzierungen des Finanzplatzes fallen zu einem grossen Teil im Ausland an, aber auch hier sollte die Schweiz Reduktionsziele für Finanzinstitute für ihre Scope 1-3 Emissionen im CO2 Gesetz verankern. Konkreter müsste dort eine komplette Reduktion aller direkten und indirekten Treibhausgasemissionen durch Finanzierungen, Investitionen und Versicherungsdienstleistungen insbesondere in fossile Energien bis zum Jahr 2030, so dass der Finanzplatz bis 2030 auf netto null kommt, gesetzlich verankert werden.
- Alle neuen Investitionen, direkt oder indirekt, in fossile Energien sind zu verbieten. Es liegt an den regulatorischen Instanzen zu entscheiden, wie ein solches Verbot umgesetzt und durchgesetzt wird, und wie viel Zeit man für diese Umsetzung erlaubt.
- Zielvereinbarungen mit einzelnen Finanzinstituten, die für besonders viele Emissionen verantwortlich sind, wären auch wünschenswert. Diese Finanzinstitute müssten dann regelmässige Reports erstellen.
- Diese Ziele sollen auch in den Schweizer NDCs aufgenommen werden und der UNO kommuniziert werden.

- Alle Finanzinstitutionen sind dazu zu verpflichten, netto-null Pläne zu entwickeln: Alle Finanzinstitutionen sollen dazu verpflichtet werden, eine firmenweite Klimastrategie zu entwickeln, welche eine vollständige Dekarbonisierung bis 2030 herbeiführt.
- Einführung einer Lenkungsabgabe: Um den Anreiz für die Dekarbonisierung zu verstärken, soll zudem eine Klima-Lenkungsabgabe auf Finanzprodukte eingeführt werden.

Financing

Es müssen keine öffentliche Gelder verwendet werden, um solche Regulierungen umzusetzen, beziehungsweise die Löhne und das Instandhalten der Räumlichkeiten der Regulatoren müssten finanziert werden.

Impact

Eine solche Gesetzgebung ist ein klares und deutliches Zeichen an die Finanzwelt. Der Impact dieser Massnahme ist vor allem das klare Commitment zu den Dekarbonisierungszielen und das Einleiten der notwendigen Schritte. Notwendige Schritte sind in diesem Fall Klimaverträglichkeitstests, Klimarisiko Stresstests und das Erarbeiten von Umsetzungsplänen, welche für einzelne Finanzinstitute natürlich jeweils anders aussehen. Für ein jedes Finanzinstitut ist diese Transition ein so grosses Umfangen, welches mit vielen Unsicherheiten verbunden ist, so dass sie gar nicht erst beginnen. Der Impact dieser Policy wäre, dass man sie dazu zwingt.

Der Bund steht bereits heute Finanzinstituten mit Fachwissen und Expertise zur Beihilfe. Zum Beispiel hat das BAFU einen Klimaverträglichkeitstest, PACTA, entwickelt. Diese Angebote des Tests sind heute offen, aber nicht verpflichtend für Finanzinstitute, eine solche Gesetzgebung würde dazu führe, dass die Expertise des Bundes hier genutzt wird

Social Compatibility

Diese Gesetze hätten vor allem auf der Makroebene Auswirkungen. Fraglich könnte etwa sein, was ein plötzlicher Stopp neuer Investitionen in fossile Energien auf Arbeitnehmende in Förderländern bedeuten könnte.

Questions and Uncertainties

In der Realpolitik geht es lange, bis solche Gesetze zustande kommen und/oder umgesetzt werden. Es ist weitaus wünschenswerter, wenn Finanzinstitute von sich aus sich zu diesen Zielen jetzt committen und diese Massnahmenpläne ausarbeiten. Der Bund und die Regulatoren haben ihnen dabei zu helfen, beispielsweise in Form von Klimaverträglichkeitstests (siehe Policy 2) oder durch Fachwissen.

Ein sofortiges Verbot von neuen Investitionen in fossile Energien, wie der Klimastreik das explizit fordert, könnte zu plötzlich kommen und an der Börse Panik auslösen oder für besonders grosse Finanzinstitute nicht möglich sein. Mit Einbezug der Literatur über die Carbon Bubble, könnte man zum Schluss kommen, dass man so Panik an der Börse auslöst. "Sofort" soll man also vernünftigerweise und konsequenterweise als "so schnell wie möglich" verstehen, es ist unklar ob ein gesetzliches Verbot besser zum erwünschten Ziel

führt als Selbstregulierung des Finanzmarktes. Es ist wünschenswerter, wenn die Regulatoren mit dem Finanzplatz eine für die Börse und Wirtschaft verträgliche Transition ausarbeiten, als dass Regulatoren einen unvorbereiteten Finanzplatz massiv beeinträchtigen und potenziell eine Blase zum Platzen bringen.

The GDP will be replaced by a new prosperity indicator based on the Sustainable Development Index (SDI)

Description

Switzerland is playing a major role in the development and establishment of the Sustainable Development Index (SDI), as proposed by Jason Hickel (2020). The SDI is based on five indicators (education, life expectancy, income, CO2 emissions, material footprint) to combine the strength of the Human Development Index with a focus on ecological sustainability, yielding an indicator of strong socio-ecological sustainability that measures nations' ecological efficiency in delivering human development.

To this end, Switzerland is setting up an internationally oriented foundation and financing it with CHF 5 million annually. It invites all those institutions, organisations and public bodies to join in these efforts, provided that they are committed to the priority of the SDI over purely economic goals and measurement methods. The aim is to establish the new indicator as an internationally authoritative measure of quality of life and prosperity.

Impact

The gross domestic product (GDP) is a purely monetary quantity that is completely blind to ecological and social conditions. It encourages a dogmatic fixation on monetary economic growth. In addition, GDP ignores inactivity and its conditions as well as voluntary work, thus promoting the marginalisation of the care economy. GDP also has a considerable tax impact. By definition, a recession occurs when GDP falls in two subsequent quarters. It is taken for granted that this is bad and should be prevented by all means.

By replacing GDP with an SDI-based indicator, we can finally start assessing the state of the economy in a more appropriate way, which should give tailwind to everyone interested in positive environmental change in the realisation of the SDI-compatible economy.

The very fact that Switzerland is committed to the development of such a standard encourages debate and creates a global reference point for movements, NGOs and progressive politics.

Financing

Five million francs per year from the Confederation's general financial resources.

Social Compatibility

Since the SDI also includes many social objectives, a social orientation of politics and economy is promoted.

Also see example: Amsterdam Post-Corona Donut Economy

<https://www.theguardian.com/world/2020/apr/08/amsterdam-doughnut-model-mend-post-coronavirus-economy>

