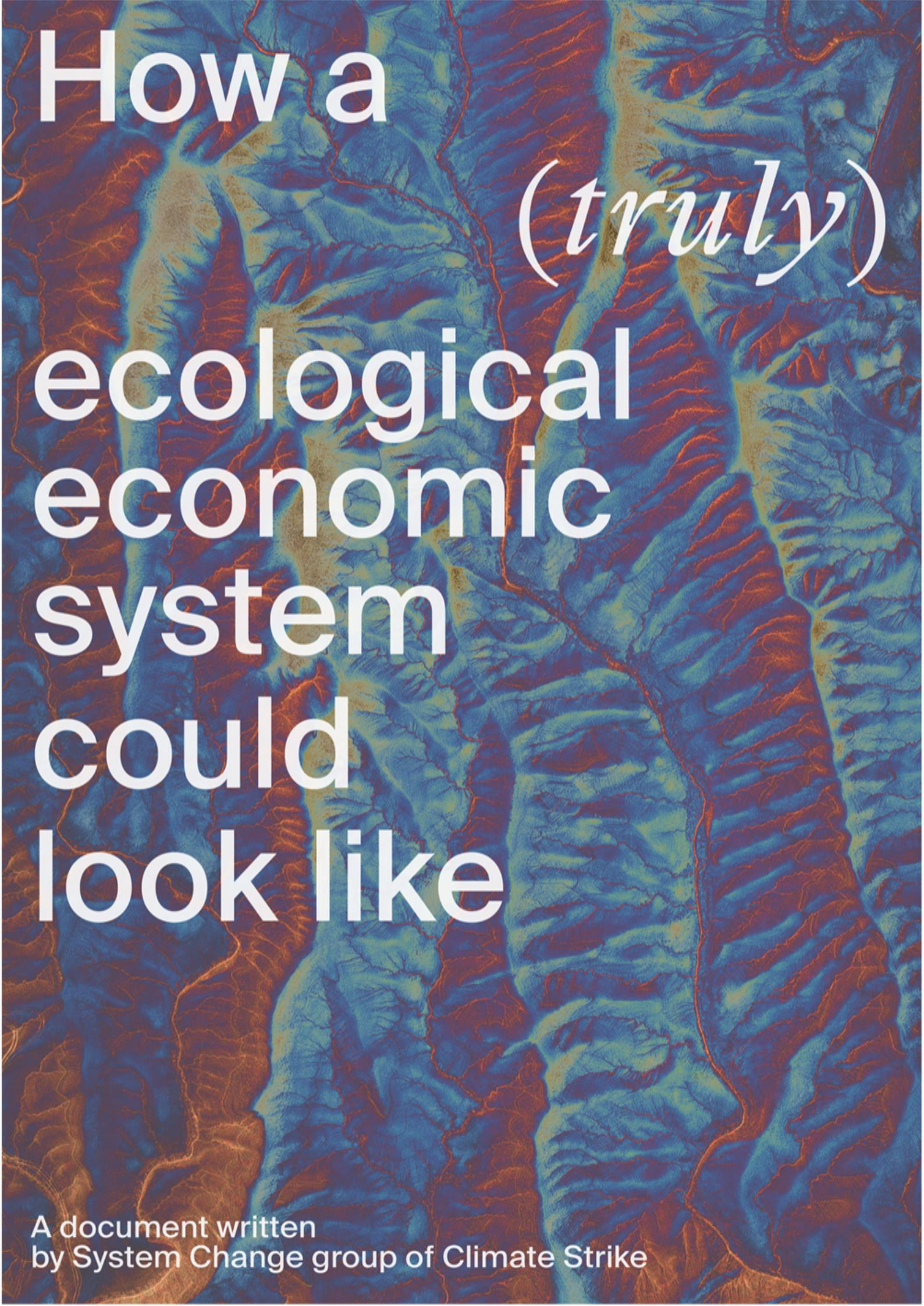
How a
(truly)
ecological
economic
system
could
look like
A document written
by System Change group of Climate Strike

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Introduction

«System change not climate change»: a cry for a radical transformation of the society that put us in this mess. This document is not trying to convince anyone of the urgency of climate change. Climatestrike and many other groups have done this work for some time now. However, even though the 1.5-degree limit will be breached already around 2028[1] if no radical change occurs, very little is proposed by Switzerland's main institutions that is worthy of this urgency.

Following this observation, the group « system change » was formed inside of Climatestrike in September 2020. The goal was to find answers to the following question: do we really need a system change and what could it look like? Through research and regular meetings we tried to gather as much information as possible to discover the common features between authors, economists, researchers that talked about this issue.

This document is therefore an attempt to share the results of this research and to provide what, in our opinion, is a missing piece in the current discussion about climate change: an **alternative economic system**. In the document we will explain in detail why we think a system change is necessary and why «regulating» the current one isn't going to solve the climate crisis (meaning it won't be able to reduce emissions and other environmental pressures in order to avoid breaching the 1.5 degrees goal set by the Paris Agreement).

However, we will not get any closer to radically transforming the economic system we currently live in if we are not able to imagine an alternative one. So this work should be understood not only as a critique of the current system which led us to the crisis we currently face, but a contribution to the discussion about solutions on how we could overcome it. This document should serve as an inspiration for a realistic, ecological and desirable future.

The document is structured in the following way: **Chapter 1** is dedicated to **understanding why the current economic system creates continuous economic growth** and **why this is environmentally unsustainable**. For that we will explain one of the core mechanisms driving this economic growth, namely the pressure exerted by shareholders and banks on businesses to create more revenue, which causes the whole system to grow each year and use more and more resources and/or energy. Then we will have a look at the question of whether we are able to continue with this mechanism while also reducing our emissions. Lastly, we will touch upon some current ideas on how to solve this problem by regulating the market or relying on shareholders to be environmentally conscious and we will explain why these solutions don't seem reliable. (Anyone who is already familiar with the above mentioned critique of green growth can of course skip this part and go directly to the proposed alternatives in chapter 2 and 3.)

Chapter 2 is dedicated to explaining different solutions that would allow us to replace private capital as the basis for investment. These solutions range from creating an economy based solely on "cooperatives" to implementing something more like a "centralised/decentralised plan" to decide on capital allocation. We will mention some disadvantages of these alternatives

[1] https://www.climateforesight.eu/global-policy/carbon-budget/

and discuss another solution that we call "**democratic orientation of investment**". The types of models in this section allow us to guide investment through democratic mechanisms, control growth, whilst leaving enough space for individual initiatives.

Chapter 3 then addresses the other important point that we need to consider if we want to even think of a transition. Indeed, if one of the models in chapter 2 were to be implemented we would see a drastic reallocation of our economy's resources and labour power. To be able to ensure that this transition happens in a financially secure way, most of the authors complete their alternative models with an **"economic guarantee"** that ensures people their livelihood. We will describe several options that could be implemented in Switzerland for that purpose: a **guaranteed employment**, a **guaranteed income** and a **guaranteed fulfilment of basic needs and rights**.

We conclude by stating that the two main solutions in this document (a democratic orientation of investment and an economic guarantee) can only work together if we want to be able to transform our economy into an environmentally friendly one.

We should note that, obviously, there are many other good proposals of how society, politics or the economy should be radically transformed, and we do not want to place ourselves in opposition to them. Nevertheless, in our opinion, the economic models described in this document seemed to be the most realistic, democratic and environmentally-friendly so far. These criteria seemed important to us.

In addition, we want to mention that this work is not complete. We only talk about two changes (democratic economy and economic guarantee) that need to happen if we want to avoid the worst consequences of climate change. However, there are many other changes and public policies that also have to be either continued or implemented in a range of different sectors. We don't address these topics here at all since we concentrate exclusively on the private investment decisions because these would hinder other environmental efforts, if not taken care of. However there are still many important things, relating directly to the alternative we propose (like the international effects of such a system change, how to rectify Switzerland's role from a "North-South" relation point of view, the role of the state concerning growth, etc.), that we don't tackle here.

Additionally, we also would like to mention that we are mostly white, french-speaking university students which surely reflects in the biases that frame the work we did and the authors we cite (though we made an effort, we found it sadly quite hard to find a lot of economists, thinking about how to democratise a post-growth economy, that were not white men). We hope to be able not only to grow and diversify our group but also our approach and the subjects we tackle in the future.

Chapter 1: How the economy is (not) working

What economic system are we living in?

First of all, to propose an alternative to our current economic system, we need to understand what the **inherent mechanisms that cause the overuse and the destruction of our planet are**. In a nutshell, we can say that the main problem is the current economic system that pushes for more and more profit and growth. We will develop this in this chapter.

We will start by dividing our market economy into the three different markets where three types of “goods” are sold and purchased: the market of goods and services, the labour market and the capital market. In this section, dedicated to understanding the growth imperative in our economy, we will concentrate only on the capital market, its function and how it causes us to be dependent on growth. The three cited markets are of course all connected to each other. We separated them here to better show where we will put our focus.

The current economic system is based on the **private ownership of firms and enterprises**. Even though private enterprises and investment do not represent the entire economy, they have a major influence on it because they provide a large portion of the investment sums (but there is obviously also state investment for research, infrastructure, etc.). For an economy to work well enough investment is necessary in order to avoid shortages of production, unemployment or worse. So if we put aside the public sectors, our economy is mostly organised around private capital, which means that it is mostly private actors (not public or elected people) who decide where the capital they possess should be allocated. For this reason we can refer to our economic system as “capitalism”. Capital is essentially money (or equipment), which is used for the purpose of accumulating more money. When capital is allocated, an investment is made, driving economic activity.

In our economy, enterprises are owned either, in the case of small enterprises, by the person that brought the initial capital (the equity), or, in the case of bigger enterprises, by shareholders that decided to invest in this company. If businesses need capital, they can get this on the capital market. There, capital is exchanged for owner rights.

The aim of this section is to show that there is a necessity for the economy to constantly grow and that one of the core reasons for this lies in the private ownership of businesses. The fact that private actors, with a lucrative goal, finance companies and have a say in their decision making becomes the key issue driving every business, and as a consequence the whole economy, towards more production, more profit and more growth.

To explain this in more detail, in the next section, we will talk about the two main ways for companies to finance themselves in capitalism: by selling shares and by taking loans. We will also explain how both ways push for more growth.

Why does it need to grow?

The reasons for growth are multiple. In this section, we will elaborate on the private investment mechanism as a core driver of growth. However, we are also aware that the private sector is not fully responsible for our dependence on growth. States also have a major role to play in pushing for economic growth (Richters and Siemoneit, 2019).

However, we will here focus on explaining how private investment leads to growth pressure. So, how does that work?
In our current system, there are two main ways for companies to finance themselves:

- by selling shares (or owning rights) of their company for money. This is the money invested by shareholders to whom companies must pay dividends. Dividends are shares of the profits the business makes that are distributed to investors on a regular basis.

- by taking medium or long-term loans from banks, for which companies have to pay interest over the return period. The interest is a set sum of money the debtor has to pay to the bank, the creditor, on top of the sum they have borrowed.

In the first case, the investor becomes an owner of the enterprise with decision right. This means that, depending on their share in the company, they have voting rights and elect the management team of the company. The profits are owned by the shareholders and a part of these profits is directly paid to them as dividends. As an investor the goal is to make more money with the money invested. It means that shareholders invest in the enterprise that brings them the most return in the short term. At the moment, many profitable activities are often directly or indirectly linked to fossil fuels. On top of that, most investors will want to continue the race for growth because growth means revenues and this means that they get more dividends. They will use their decision right to push for that, and will otherwise sell their shares again if they are not satisfied with the future dividends. Often this process is very anonymous, and mostly done through institutions (wealth managers, private investment funds, etc). Dividends are generally justified by the argument that investors take a risk when investing in a business that could fail anytime. Contrary to banks, investors don't have insurance in case of bankruptcy, which explains why they get a dividend, when the business is doing well.

In the second case, the banks that give a loan are not allowed to take decisions within the enterprise. Generally, they only demand to have the money and some additional interest back. But to pay back the loan plus the interest, the company would have to grow its revenue to have more money than before getting the loan. So, in the present-day system, a loan of 100 euro always needs to generate more value - for example 105 euro, so that 5 euro can be paid as positive interest. Banks only give credits if a person or a business is thought of being able to pay them back more than they received. We will see later that we can use this interest-mechanism to favour some types of companies over others by giving them n loans with

negative interest rates for example. (To understand how monetary creation works and might be linked to the economic growth imperative, read footnote[2])

In addition to the pressure from shareholders/owners who want a return for their money, another crucial aspect that pushes businesses to grow is competition**.** The competition between countries or economic zones is an additional pressure for businesses to grow. With the international capitalism we are living in, businesses face a tremendous amount of competition and are always in danger of being bought by an international monopolistic enterprise.

These variables together generally push companies to expand themselves, consume more energy and resources and generate externalities. Externalities are consequences or effects of a commercial activity that is not accounted for in the price. Pollution is a prime example since companies usually try to not pay to compensate for it, because it's cheaper. The pressure that companies face pushes them to produce goods using non-durable materials, sustaining waste-culture, fast trends, and programmed obsolescence.

To resume our argument, the current financial structure leads to a very profit oriented money allocation because, as we just said, investment in the companies is mostly done in order to gain more money than the money that was invested at the beginning. There are some other criteria of investments, but they will always come after the one of profitability because it is the very essence of private investment.

We therefore must realise that the management of companies and the way we invest in enterprises are key issues for the preservation of our planet.

The next section will now try to resume the link between growth and environmental destruction.

[2] To understand the role of loans regarding economic growth, we have to come back to some "monetary basics" : Giving out a loan, as a private bank is indeed making new money out of nothing (Losmann, 2020 ; Les économistes atterrés, 2018). This money did not exist in any form before. Every additional money that is created is a debt of someone to the bank which lent the money. When the debt is repaid to the bank, the money is "destroyed" (Here we are talking about electronic money not paper money which only represents about 10% of all the money in our economy). So knowing this, we can affirm that economic growth is only made possible through businesses, people or the state taking on more debts (because more debts means more money in the economy). It is nevertheless important to note that, even if loans must continuously be given out, for economic growth to be possible, the opposite is not necessarily true ; several models have shown that we can have a steady-state (no-growth) economy where loans with positive interests are made. (Jackson, Victor, 2012; Richters, Siemoneit, 2016 ; Schrunz, Bratkrowski, Schindler, 2015) Current research about the growth imperative paints a much more complex picture of how different factors pushing for growth play together. (Richters, Siemoneit, 2019). Shareholders' major contribution to growth is however still unquestioned.
Another possible consequence of the increase of money in the economy, other than economic growth is inflation (the general increase in prices). Loans, which increase the amount of money in the economy, thus also contribute to this phenomenon. Through inflation, the amount of money people currently possess is devalued, which means that they lose purchasing power because of higher prices. This motivates especially rich people with big fortunes to invest their savings instead of leaving them untouched on an account where the money loses in real value with time. This is why the central bank tries to aim for around 2% inflation every year to stimulate investment.

Why can't growth be sustainable?

In recent years we've seen a certain discourse becoming more and more dominant; a pledge for a *green* capitalism. In the previous section we have tried to show how growth is necessary for our current economic system, so naturally the solution to the climate crisis, applying the capitalist logic, would be *green* growth.

Green growth is the idea that we can have a growing GDP (a growing economy) that is decoupled from environmental impact (less and less CO2 emissions and other environmental pressures) to a sufficient degree to achieve important ecological goals such as the 1.5°C target. This would mainly be possible thanks to technological innovation and substitution (replacing the purchase of one product with a less polluting one), which can be accelerated by government mechanisms such as taxes, subsidies and regulations.

But is such a decoupling really possible?

Some argue that with growing wealth, GDP can be decoupled from environmental impacts. We have in fact data (European environment agency, 2009) showing cases of reduced emissions despite growing GDP in some places. However this is contested by many authors, supporters of the post-growth movement, and especially also by the European Environmental Bureau (2019). Here, we will explain seven factors that make decoupling very unlikely (Parrique, 2019 ; William F. Lamb et al., 2022):

- *Relocations:* Some reductions in ecological impact, reflected in the data that are often cited to prove decoupling, are achieved through the relocation of a polluting industry. One location (Switzerland) can reduce their impact on paper, while this comes with a higher impact in another location (China). On a global level, emissions have not diminished but have only been translated from one place to another, whereas the consumption of the polluting items continues to take place in the same country as before the relocation, but now happens through the importation and no longer the production of the environmentally harming goods.

- *Recycling does not have unlimited potential:* Recycling, and with it a circular economy, is often cited as the grand solution. Nevertheless, recycling actually needs significant energy input. Additionally, all materials degrade in the recycling process, which means that they are not eternally recyclable. Lastly, we can also note that some materials have a dispersive use and cannot be recycled by essence.

- *The problem with technology:* The idea of technological change solving all of our problems is very prominent. Sometimes explicitly but often also implicitly. However, technological change in products and the means of production is focused on (short term) profits. Big efforts go into new markets, new products and new features or into

labour or capital saving innovations with little change to resource and energy usage. Only little focus is put on minimising the impact of existing products. Mostly “greener” products are not replacing other products but are rather just added to the pile of existing products. Same goes for green energy. Having more renewable energy currently does not mean reducing fossil energy. Therefore the environmental impact still rises with those “greener” products and “green” energy.

- *The illusion that the service economy could replace the resource and energy based economy:* A common thought is also that we could keep on growing our economy, but only in the service sector, so that growth is possible without an increase in material input. However, first of all, not everything material will and can be replaced (food, shelter, furniture, mobility etc.). Plus, even if we do replace a lot of material things with services, these still have an impact that is not negligible (needed infrastructure, travelling/tourism, education etc.) and are always built on top and intertwined with the material economy (Jancovici, 2014).

- *Problem shifting:* We face many different environmental problems (planetary boundaries, air pollution, plastic pollution, etc.). Improvements in one area often have negative impacts in other areas. For example, renewable energies reduce the CO2-emissions but they need a lot of space and rare metals. Green alternatives have externalities and perverse effects (i.e. bio-fuel reinforces the shortage of food, other materials used for wind turbines are more energy efficient but less recyclable). The problem of rare and thus finite resources (raw materials like silicium, indium, selenium) being necessary for the construction of “renewable” energies is in itself an argument to not rely too much on this hard to recycle materials if we don’t want to run out of them some day if the economy keeps on using more and more “green” energy (Pitron, 2018).

- *Political and personal rebound effects of “green” technology:* Rebound effects happen when there is an unwanted consequence that comes along with the “energy efficient” innovation. The use of electric cars for example, reinforces car-based geographical systems (road-infrastructure, city-planning etc.), instead of strengthening public transport. Likewise, a more efficient car reduces the moral boundary of using it, resulting in driving more, and as a consequence, no energy or resources are saved due to the higher usage of the “ecological” item.

- *Diminishing returns of energy:* The more of a resource we extract, the more energy we need to use to extract one more unit of that resource. Since the best accessible resources are taken out first, energy usage is alway growing with time, if we keep on extracting. Fracking is a good example of this phenomenon: it takes more and more oil to extract one more litre of new petroleum, but because prices have gone up it is still economically viable (Bourg and Salerno, 2015) .

- *Energy Transition*: is important to realise that the energy transition itself needs a lot of energy. To build all the renewable alternatives like solar panels, we use the present energy mix that still depends on about 84% fossil fuels (BP, 2019). By having to produce all of the new “renewable” energy infrastructure to cover our current energy consumption, which is constantly growing, this energy transition by itself would already

use up a lot of the global CO2-Budget we have left to not surpass the 1,5 degrees Celsius (Tanuro, 2020).

These reasons make it highly unlikely that green growth is possible, and it is thus very irresponsible to rely on it for every decision about public policies. Nonetheless, states currently still pretend these obstacles don't exist and still rely on a growing economy. The main solutions considered by politics are technical innovation and small governmental market regulations.

In summary, considering the core problems with green growth, we have no other option than to think about reducing output generated in the economy.

Why the market won't regulate itself

If we take seriously the above explained necessity to stop economic growth and to move towards an ecological and socially just society, we need to check if our current economy is able to solve this problem. Here, we show a few arguments often made in favour of the market's ability to self-regulate and to "automatically" change in the direction of what people want.

Often **it is argued that the shareholder could/will be benevolent** and should/will account for more ecological and ethical criteria when choosing an investment plan, and therefore also accept lower or no dividends/growth. However, this seems very unlikely considering the fact that **accepting no dividends means partly abolishing the main criteria of today's investment - profits**. As the core goal of private investing is actually to make profits, it seems unlikely that a lot of investors would actually do this. Furthermore, even if a significant amount of investors would change their investments in that way, the ones that don't, so the ones that still only look for the biggest profits, will gain **more relative money and market power**. This will peter out the effect of the "sustainable" investors, whose companies would have to compete with unsustainable ones and would thus probably face higher costs and be less competitive.

So if shareholders cannot really make a fundamental change in the economy, can we as **consumers?** Here the key problem is that we are living in a very **unequal economy.** Indeed, due to the large amounts of money some people or institutions have, they gain an unproportionally big power to decide about important things in the economy, while most of us cannot do anything against that. (For example, some of the billionaires think that the race to Mars is a priority and therefore loads of investment is flowing into that sector.). Most people find themselves in a situation where they can only "hope" that wealthy financial institutions and people will decide to invest in ecological projects. As these are mostly driven by profitability, this is not sure to happen.

Why “regulating the market” is not enough

Solutions for the environmental crisis involving state intervention are mainly based on either pushing for technical innovations or “adjusting” the market to incentivise “sustainable” decisions or to internalise environmental costs. So let's pretend that a party proposes a bold green new deal, with high taxes on emissions, subsidies for environmentally-friendly businesses and a program to slow down growth. Why would such a proposal be incoherent? For a number of reasons we will briefly talk about, we think that such policies are contradictory, and would, if implemented, not have the desired effect.

- *Negative externalities :* Negative externalities are consequences of the economic process of a company that are paid by someone else than the business itself, aka ; the public. The obvious example is pollution. Without special political measures the pollution caused during the production process is never paid by the responsible company. Since shareholders are mostly concerned about their profits, they tend to take decisions to externalise as many costs as possible. They would not reduce any pollution as long as it is cheaper to pollute than not to. State interventions can set a price for pollution or make other regulations, but companies will try to look for loopholes, or alternatives to externalise their costs, since these regulations reduce competitiveness if not implemented and controlled globally. Until loopholes are detected and the businesses are being penalised, it takes a lot of work, controls and time thereby creating a lot of environmental damage in the meantime (Oström, 2010 ; Locher 2018). Additionally, many kinds of pollution are very hard to measure and express in a financial term.

- *Power dynamics and capital flight :* Big companies and private investors have a **big influence** on politics at every level. Economic interests are for that reason always weighed very heavily in political decisions. But investors have in very few cases an interest in ecological measures, since these often mean less short-term profits. The consequence is that environmental laws get watered down and are made (rather) ineffective, thanks to the great lobbies, most and foremost the fossil fuel industry. The story of climate (in)action is a story of sabotage by the fossil fuel industry. This dynamic will probably continue to hold ecological reforms back in the future as well, due to the fact that quite a few investors (like most of our Swiss banks) have **stocks in the fossil industry**. Some of these investments represent quite a lot of money and it takes some time for some of these projects to be profitable. So the investors expect to have a return on investment in some years. Deciding to stop projects in this sector means big losses for them. They will therefore fight for these projects to keep going (Malm, 2016 ; Tanuro 2020).

  Furthermore, if we were to enforce environmental regulations, **investors can threaten to leave the country** and settle somewhere where legislation pleases them better. Indeed, every social reform has to deal with this phenomenon called capital flight (which has been made possible from the 1980, before this there were heavy

restrictions on international capital movements.) As an example, we can cite the carbon tax law : if implemented, investors and enterprises with high emissions will threaten to leave the country with carbon taxes and will just settle in a country without carbon taxes.

Additionally, investors could also simply go on "**investment strike"** (Young, Schwartz, Banerjee, 2017). As stated before, not all enterprises and the economic activity are organised through private ownership but it nevertheless plays a major role. So if new laws would impide shareholders' power, or make them worry, they would probably reduce their investment which could have terrible consequences for production, employment, wages and even cause a recession.[3] This is why states and public entities are constantly trying to attract investors; to keep their economies alive. But with **investment depending on "shareholder's moods"**, it becomes very hard to implement environmentally friendly policies, if they imply state intervention and taxing otherwise profitable portions of the economy.

To conclude, we tried in this chapter to explain the reasons why the current economic system needs to grow: we talked more in detail about the pressure of the shareholders that ask for dividends and the competition between businesses to not get bought up. Although we didn't discuss it, the governments also play a role in pushing for economic growth. We also tackled why this growth imperative is unsustainable and why we face several problems and obstacles when trying to keep the current capital market but simply regulating its effects on the environment.[4]

Chapters 2 and 3 are therefore attempts to modify the following two markets. Firstly, replacing the current capital market by a more democratic mechanism that should allow for more environmentally- friendly decision making. Secondly, changing the current labour market by proposing some necessary changes to ensure that an environmental transition would not have negative social consequences. Modifying these two markets allows us to keep the one for goods and services, and still have the system change that we need.

[3] This is basically the argument put forward against practically every social reform, trying to distribute wealth or take a bigger share from stakeholders (to be able to raise salaries for example). Nevertheless it is an open debate if shareholders would actually reduce their investment or not, if these social reforms were accepted. The point we are trying to make is that if private investment as a whole in the economy is lowered without compensating in any way for it, this would probably have negative consequences.

[4] For this document, we focused mostly on the growth imperative inherent to capitalism. But there is a broad literature that discusses many other important ecological critics of capitalism. See for example : Jason Hickel, Less is more ; Naomi Klein, This changes everything : Capitalism Vs. the climate ; James O'Connor, The second contradiction of capitalism ; Andreas Malm, Fossil capital,The Rise of Steam Power and the Roots of Global Warming ; Daniel Tanuro, Trop tard pour être pessimiste, Ecosocialisme ou effondrement ; Jean-Marie Harribey, Le trou noir du capitalisme.

Chapter 2: Investment and economic democracy

In the last section we have seen an overview of the most important reasons why our economy needs to stop growing if we want to avoid an ecological collapse. We have tried to illustrate the fact that private investment is guided essentially by profitability and leads to a growth imperative. This next chapter will thus try to tackle the question of replacing this «private investment» mechanism. Many alternative solutions of handling investment exist and we will here present some authors advocating for a **social control of investment decisions**.

We evaluate the models according to aspects we think must be taken into account by the propositions: the alternative should obviously be environmentally-friendly, guarantee freedom (in the sense of individual life and consumption choices as well as in the sense of the possibility to initiate a project) and democracy (meaning an equal power for everyone to participate in the choices the society makes).

Two sets of questions will guide us through the analysis and comparison of these different models. Firstly, if there would be an abolishment of shareholders, **who would instead have the power to make decisions about production in a given firm?** Should these decisions be in the hands of workers, the state, or the society as a whole? Then, as we have explained before, an alternative model has to be capable of replacing the essential process of funding entrepreneurship and allowing enterprises to find money to launch their projects. Since private investment seems to fail us in ecological terms, we should secondly ask ourselves: **who should instead decide how the de-privatized capital is allocated in the economy**? Should workers get to decide on how to use the fruits of their labour or should the profits be distributed more broadly? What mechanism takes over private investment? What would a «common property» look like?

First, we will have a look at the « autogestion /cooperative » model which offers some important but not sufficient solutions. Then we will touch upon the advantages of a « state-economy » model, where investment is coordinated by a central power, but we will also mention the important critics of it. Finally, we will explain why several authors combine the positive aspects of these different models to construct an economy based on common ownership and democratic investment that we think is, at the end, a very interesting and realistic alternative.

Cooperatives as a solution?

Starting from the need to put an end to private ownership of enterprises, several alternatives are emerging. One of the most well known is the cooperative model, which is a form of self-managed enterprise. Self-management is the idea that only the workers decide on all matters concerning the enterprise in which they work. It is thus not investors or shareholders from outside the company who control the production, the output or the internal management of the company, but these decisions are instead taken by the people working within the company. Self-management therefore allows workers to regain their sovereignty and political weight in the company (through voting rights, for example). It is up to them to decide on the organisational structure their company takes. Thus, they could decide to have a horizontal organisation chart or to elect a committee or a manager.

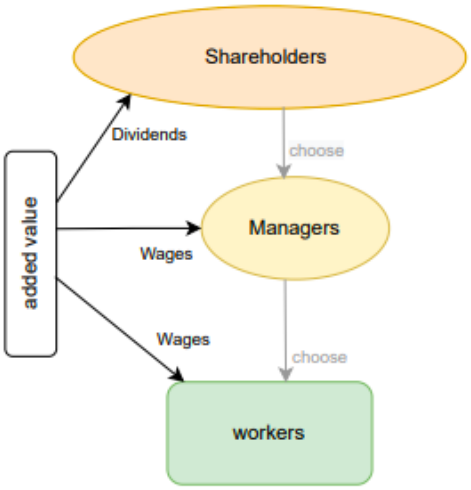

Figure 1: Structure of a typical big business in the present-day economy

In a system based on co-operatives or self-managed enterprises, the status of owners is thus transferred from the shareholders to the workers[5], because
they bring the capital themselves into the enterprise. This means that they alone have the power of decision and therefore necessarily exclude the rest of society from sharing the profits on the one hand and from the possibility of intervening in production decisions on the other. The financing of the enterprises is again dependent on individual workers who bring the capital and buy themselves a "property right" by joining a cooperative. In a system of competitive cooperatives, it is impossible to steer an ecological transition and to make some very important sectors grow and harmful activities decline at the same time.

Let's imagine, for example, that Holcim (an enterprise producing concrete) would no longer have shareholders who direct its choices, but instead a structure where Holcim workers can democratically think about how to organise concrete production and how to distribute profits. There is nothing to prevent them from deciding to continue with concrete production on the same scale as today, or even to increase the company's activity in order to pay themselves higher wages. The adoption of such a self-management model does not allow the rest of the population to influence and force the workers in the concrete

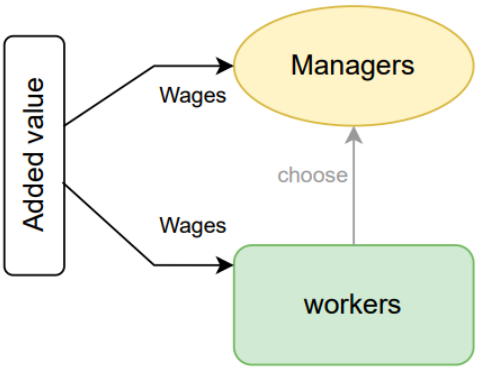

Figure 2 : Structure of a cooperative, where workers elect the subordinates and all the revenues generated by the business are distributed to the people working inside the business

[5] Or to consumers in the case of consumer cooperatives.

sector to stop the production of concrete, whose ecological consequences affect us all. The "cooperationist" model thus shows us **the need for coordination on a scale larger than the company, so that more than just the workers who profit from it can have a say in the sometimes harmful activities of companies.** Thus, even if all enterprises in Switzerland were to become cooperatives, this wouldn't make possible a broader deliberation on the major economic choices within a society, in which all citizens should be able to participate. With every cooperative being completely independent, it would not be possible to regulate the amount of production and consumption generally, either, which is a must for an environmentally friendly economic model.

Another issue with cooperatives is the difficulty of raising sufficient funds (Andréani, 2001; Borrits, 2018). Indeed, they are limited to the capital contribution of workers or consumers.

Nationalisation and planning as a solution?

One solution to the problem of the lack of coordination on major economic choices could be to nationalise companies. This means that the democratic state would be the provider of capital and the decision-maker in the production units. This would allow for real coherence in the general choices of investment and orientation of the economy, as the state would in any case own the relatively large companies that have a major impact on the economy. There are many different forms of how a planned economy could be structured.

The most prominent example is probably the hierarchic central planning of the USSR (Seurot, 1989). In a fully nationalised economy like that one, the risk of concentration of power in the hands of a few people is high. At this point, it is necessary to distinguish between two possible models and the place they give to the market. Some models keep markets to help with allocating resources (especially for goods and services, and partially for labour). We will develop this model later in the section “Investment orientation as a solution”. Others prefer to abolish all markets completely and move towards a fully planned economy, like it was the case of the URSS.

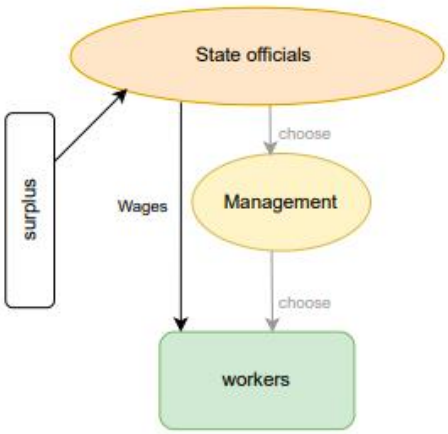

Figure 3 : Very simplified macro-economic model of a planned economy

In the Soviet economy, all decisions concerning the allocation of resources were taken by a very small elite (Andréani, 2001). They decided what would be produced, at what price, etc. In addition to being authoritarian, this mode of operation was highly inefficient. If investment does not depend at all on economic performance, how can we make sure people are still motivated to give their best to produce qualitatively and get investments? In an environment where everything happening in a business is decided in advance by politicians, the system

has to rely on workers mostly being motivated either by ideological conviction, or by the fear of social-economic consequences if they don't work hard enough.

Moreover, it was almost impossible to make decisions that could take into account all the information, much of it tacit, that was needed to know the needs and consumption desires of citizens. In the end, citizens had little choice over their individual consumption. It was also impossible for anyone to launch their own initiative. Today's economy is so complex that it is very difficult to plan for all needs of materials, goods and services in the way it was done in the USSR. Moreover, a planned economy has difficulty in continuously adapting to social, environmental and other developments.

Nevertheless, with the technological advances we have made, we have a totally different starting point for talking about planning for the needs of people. Gathering and processing information is done at a speed and scale that was unimaginable 50 years ago. This undermines some of the arguments previously made against the feasibility of a planned economy. Several authors have already developed different models of how a planned economy could work on the basis of computer-technology (i.e. Paul Cockshot, Allin Cottrell, Jan Philipp Dapprich, Cédric Durand, etc.). The authors Phillips and Rozworski (2019) point out that companies like Walmart are already working like planned economies on a scale larger than many countries.

Even if this type of proposition could seem convincing with regard to effectiveness or feasibility, there are still a few points that are worth thinking about, when talking about cybernetic alternatives. We have mentioned before that technology has a high cost for our planet, so if the whole cooperation of our economic system would depend on algorithms that need a lot of energy, it may not be an ecological solution. On top of that, one might doubt the actual desirability of gathering such a colossal amount of information in what could become a very technocratic system (Khalfa, 2020).

Besides the mentioned concerns that centre around the use of technology as a tool for planification, some of the discussed critiques of the soviet economy, concerning the risk of concentration of power or the lack of motivation, are still valid.

Let us therefore now analyse the possibility of a de-centrally planned economy.

Decentralised nationalisation as a solution?

To avoid the capture of all economic decisions by a minority - whether elected or not - some have proposed a decentralised management of the state economy without market (Albert and Hahnel, 2006 ; Mandel, 1986l). **In these models, decentralised committees of both workers and consumers replace the centralised decision-making that most planned economies have known.** Thus, while capital is still provided by the state, investment, production and distribution choices are made after collective deliberation. It is clear that this institutional arrangement would greatly limit power relations and the possibility of minority takeovers. However, it would involve a very heavy process of debate for each production. The

burden is even disproportionate, as it would be impossible to have a decision for every object produced or service provided. Some economists point out that we would fall into an "economy of repetition" because it seems illusory to hold a "referendum on the colour of shoes" (Samary, 1999). Citizens and producers would quickly become demotivated by having to participate in countless meetings and decisions. Other economists however argue that an efficient delegation system could help the different decision processes.

To sum up, an economy based on cooperatives or self-managed enterprises has the disadvantage that it does not make coordination of the economy possible, as the market is still the dominant mode of allocation. Such coordination is, however, necessary for an ecological transition. The state could take up this role and organise the planning of the economy but we saw the informational difficulties and the risk of undemocratic decisions. A decentralisation of the deliberations and decision processes could rapidly mean a loss of meaning of overloaded institutions, although some authors show the innovation of numeric technologies that could respond to this problem. For many economists it is still necessary to formulate an economic project that can at the same time **leave room for some guidance of the economy but also room for manoeuvre for individuals and companies.**

Investment orientation as a solution

The proposals presented in this section have the similarity of seeking to **abolish private ownership of enterprises, while maintaining a part of the market that is 'socialised', or 'domesticated'** (Elson, 1988). In other words, they abolish shareholders pushing for bigger returns. So in a sense, these models try to give people as much freedom as possible, but for that to be possible they restrict one particular type of freedom: the personal choice of shareholders concerning their capital. This individual choice is replaced by a citizen vote, giving people more freedom and choice then they would ever have in the current system. While a market for goods and services continues to exist, the labour market is reduced (see the next chapter on economic security). The capital market, on the other hand, is largely limited by citizens' choices : one can therefore speak of a system of "economic democracy" (Schweickhart, 2002). Others prefer to speak of "negotiated planning" (Devine, 1988, 2002). Finally, some use the terms "market socialism", "self-managing socialism" (Andréani, 2001) or "economy of the commons" (Borrits, 2018 ; Federici, 2019). The work of all these economists and researchers tries to demonstrate that there are indeed other ways of organising investment, without relying on everyone's pursuit of personal enrichment, or state planning. We return again to our two key questions for understanding how their models work : **who would have the power to make decisions about production in a given firm** and **who should decide how capital is allocated in the economy**?

Common points

We will start by showing the two common features the models of the above-mentioned authors have in common: **democratising the enterprises** as well as **involving citizens in the choices concerning investment**. Then we will discuss the most important differences between the models and authors.

Starting with the first question about decisions inside a given firm, we can acknowledge a first common point between the models: **choices related to each firm are made by the people that are affected in some way by the firm's activities**. There are several variants for setting up such a system of common, social, or non-ownership, which we will detail below.

Concerning our second question about capital, a second common point between the models is that the major **investment choices will be determined democratically in broad terms by popular votes and then decentrally applied by autonomous financial institutions**. In most proposals, the money used for investments is drawn from businesses revenues

The investments go through two decision-making levels : first, a popular vote is held to define the sectors to be favoured and those to be reduced or even abolished according to the citizens. Second, these collective decisions are passed on to the local institutions, that decide which projects they wish to support in practice, while respecting the results of the federal vote.

These points provide a common framework for these proposals.

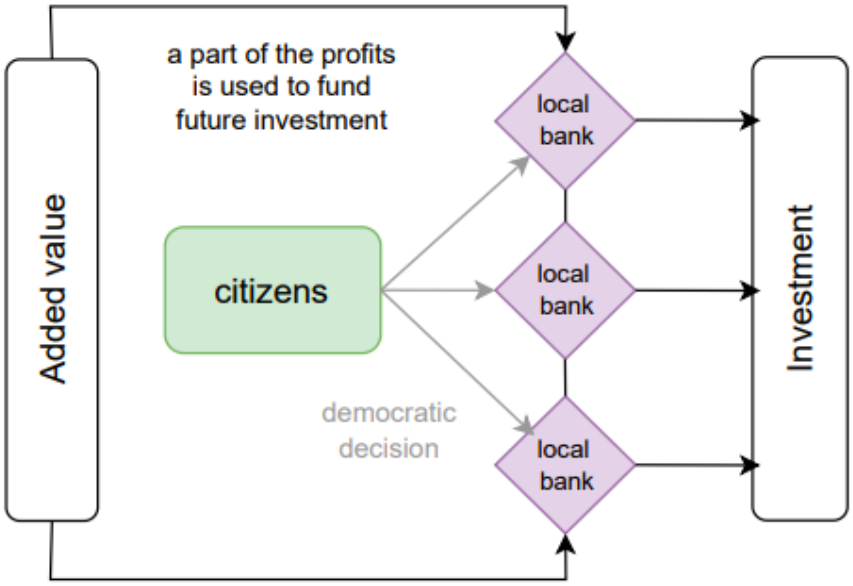

Figure 4 : Simplified macro-economic model of a democratic economy where investment is oriented with the help of a popular vote, that lets citizens set the guidelines for what type of businesses decentralised banks or funds should invest into.

Differences (democracy inside and outside the enterprise)

However, the models differ in several aspects, depending on the author. A first debate centres around the question of **who would have a right to decide inside the enterprise.** As we have stated above, economists agree that people affected by the choices of the enterprise should

have a say in what the enterprise does. But who counts as affected and how do these people intervene is subject to debate.

A first proposition stipulates that there should be decision-making colleges in each company, representing workers, consumers, local communities that might be affected by production (Coutrot, 2010), and even suppliers in some cases (Devine, 2002). In a second proposition, only the workers should be able to decide within their company, the other people affected by the company's activity having already had their say in the higher instance, namely the democratic decision ranking the priority of different sectors (Schweickart, 1992 ; Borrits, 2020 ; Andréani, 2001 ; Friot, 2012, 2021). A third proposition argues that workers should decide, but add that consumer information committees should be set up (Elson, 1988). These would collect and share information about companies that could be useful for other consumers to make informed purchasing decisions. This is in contrast with the current system characterised by information asymmetry and opacity of information about the real costs and conditions of production.[6]

A second point where the authors' opinions differ concerns the question of how to exactly **replace shareholders** and **make sure that capital is allocated to the businesses providing valuable and environmentally friendly goods or services for our society.** We will now go through the different proposals of the authors to solve this second question.

As we have already mentioned, these proposals all have a certain democratic management of investment in common, but differ in the tools they use to realise "the peoples" verdict. The first model we will look at mostly relies on loans and varying interest rates to favour exactly the businesses we need, while decreasing harmful sectors at the same time. (Borrits, 2018 ; Andréani, 2001 ; Devine, 2002). Next, we will compare this method with the idea of subsidising businesses instead (Lordon, 2021 ; Friot, 2012, Schweickart, 1992). Both of these options allow control of economic growth, with their respective tools ; loans and subsidies.[7] We will end with two resting debates between authors concerning other methods for providing enough investment for the economy : the ability to self-finance as a business, as well as the use of personal savings, that can be, according to certain economists, important options to consider.

- *Using one democratic vote to guide investment :* Some authors opt either for a peoples (Borrits, 2018) or parliamentary vote (Andréani, 2001) as a tool to set guidelines for the economy (also Schweickart, 1992). This means that people (citizens, or politicians) could have a say in what sectors should get more and which should get less investment. For example, citizens could decide that private transportation is less important than public transportation and that we should invest less in transportation in general than in local agriculture. These decisions would then be transposed by the respective institution, that would in consequence, stimulate local agriculture and public transportation and penalise private transportation.

[6] Meaning that businesses' production process, working conditions etc. are fairly intransparent, and consumers are deliberately deceived with advertising making it often hard to distinguish between "greenwashing" and real environmentally-friendly businesses for example.

[7] Subsidies are basically a donation. They differ from loans in the sense that they don't have to be paid back to the donator.

The authors don't talk about how these "categories" that would be compared and ranked by voters, can be defined in an "objective" manner, but there are several participatory budget experiences that can provide answers to this question. (Inter-American Development Bank, 2005). In the case of Porto Alegre for example, citizen assemblies played a major role, together with local NGOs and public officials to determine thematic categories for which people choose to allocate a part of the region's government budget. Even though there were several challenges for this model to be able to run long term, the studies conducted on this experience can still be helpful. (Abers, 2018)

- *Loans as a tool to implement the vote*: According to these authors, the above described "orienting vote" should be respected and applied by local banks. They are the institution replacing shareholders and deciding where capital should be invested. Obviously these banks differ in some very important and specific points from nowadays Crédit Suisse, UBS etc : they should not have any shareholders anymore (so they would be some sort of cooperatives), they would not own the businesses in any way, and they would have to respect the guidelines set by the citizens vote concerning the priority of sectors to invest in.
  This vote would be translated by these local banks into **more or less attractive interest rates** applying to different sectors (Borrits, 2018). Businesses belong necessarily to one of these sectors and are thus either penalised or favoured when asking for a loan. For example, it could be very easy to get a bank loan for an ecological project of low-tech solar panel production in a cooperative, and on the contrary, it would be very expensive to get a loan to start a production of luxury cars. Depending on the choices made democratically, one can imagine interest rates so high that they become prohibitive, while negative interest for other sectors would really encourage them.[8]

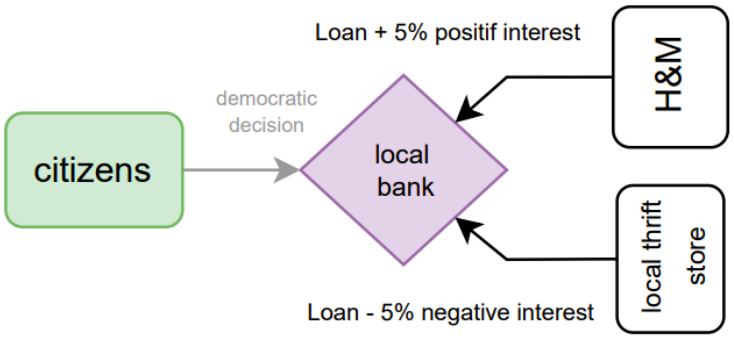

Figure 5 : Model of a local bank or fund giving out a credit with different interest rates to favour one business over the other

Since every investment will have to pass though this loan mechanism, this model allows to shape the economy democratically whilst leaving enough place for personal initiatives: banks can only encourage or dampen economic activity with this method, but it is still up to everyone's own willingness to go to a bank and ask them to fund their new business idea. And as long as it is in the frame of what citizens have decided

[8] Negative interest means that the debtor has to pay back less than the loan she got from the creditor. For example if the loan is 100.- and the negative interest is 10% then the debtor has to pay back 90.-. This works like a subsides at the end. If the interest was positive, the debtor would have to pay back 110.- .

democratically to support, this kind of initiative will easily find a bank granting them a loan, maybe even with negative interest rates. [9]

- *Subsidies as a tool to implement the vote :* Other authors (Lordon, 2021 ; Friot, 2021 ; Schweickart, 2002) prefer a system with **subsidies instead of loans**. For this proposition, authors generally prefer to think about "funds" instead of banks as the institutions where investment is distributed (in accordance with the priorities set by the democratic citizen vote). Public banks or economic funds would allocate money in the form of grants to each sector, according to previously determined budgets. The money would then be recovered by the bank or fund system through a tax or levy on the added value of companies.This model is very similar to the one using loans, but with the difference that the money circulation passes from the "fund" to the business, from there to the national fund who then again moves the money back to the fund (as depicted in schema).

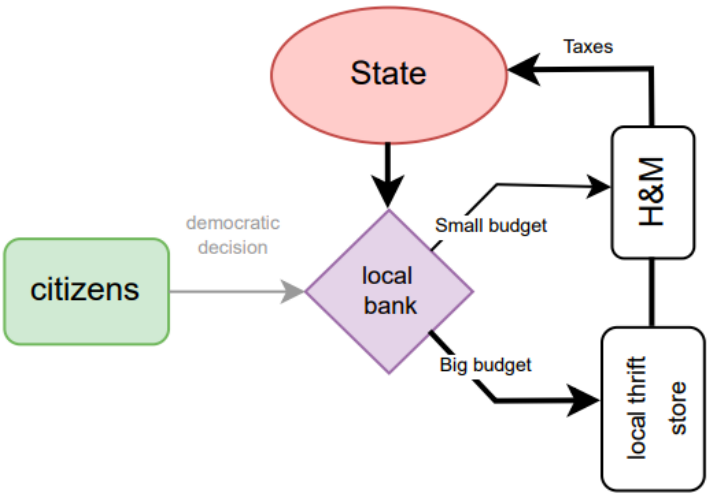

Figure 6 : Model of a local bank or fund giving out a bigger or smaller subvention depending on the business. The money is afterwards collected by the taxing system and comes back to the bank/fund.

- *Using multiple votes* : Some authors (Elson, 1988 ; Andréani, 2001 ; Varoufakis, 2021) expand even on their use of democracy and deliberation to determine the allocation of capital. There for example the idea that we could use more precise discussions on each major investment, complementary to the general citizen vote described above. Some (Pat Devine, 2002) think, for example, that it would be necessary to set up **negotiated coordination bodies** that represent all those affected by a new investment and decide how to distribute the new credits or funds. This concept sounds interesting but could be complicated to implement given the number of investments that need to be made in a modern economy. It might be possible to set up such a system for major investments that impact a whole sector.

We have also already seen the proposition to establish **information commissions** to ensure that companies become more transparent and customers, politicians and citizens (who would have a say about investment through the democratic vote) can make better choices when it comes to spending or allocating money. These information commissions would provide

[9] In order to start off this system we would have to impose a singular tax on businesses revenues for example, that provides the money needed for the banks to make loans. Since banks get their money back when businesses pay back their loans, the credit system is self-sustaining from this point on.

information about every company, ranging from the costs and wages involved in production, to the conditions of employment and ecological impact. Commissions would be funded by the state to be independent and could carry out ad hoc checks to verify companies' information. Based on these data, it would be possible to create a "rating" of businesses which would help to decide on specific investments or taxes.

Guiding the investment in order to go out of the growth imperative

The reason why an economic model, incorporating at least one democratic vote to guide investment, is such a "game changer", is that it **offers the tools to collectively decide to stop economic growth and decide collectively what to produce**. As a matter of fact, citizens could not only decide on where to invest but also on how much to invest. In this way they could set the rate of degrowth/growth that banks or funds should target. Concretely this means that we could for example choose to aim for a 3% decrease in Switzerland's GDP every year. This GDP goal would then be broken down into sums of investment per thematic sector, to which banks give loans or subventions.

From a macro-economic point of view, this system would therefore allow us to detach the economy from one of its major growth drivers: private investment. First of all, there would no longer be shareholders who pursue the primary goal of obtaining positive returns in investment. Secondly, in the scenario where autonomous banks give out loans, it would make it possible to grow only certain sectors of the economy while degrowing others. Let's take again the example of one bank with 200.- that gives loans of 100.- to two enterprises; one we want to favour, the other one we want to degrow. The bank could give a loan with an interest rate of -5% to the first enterprise and a loan with an interest rate of +5% to the second one. This means that the first one needs to give back 95.- while the other needs to give back 105. We see that negative interest rates change a lot of the loan dynamics of the current system and enable growth/degrowth of GDP to be better controlled. By sanctioning and reducing, in a selective way, the sectors that are considered harmful, while others sectors can grow and flourish and create the goods, services and jobs needed. **As long as our national economy consumes, produces and uses less and less goods and (foremost fossil) energy we can still have (and we need) certain sectors that grow, innovate and provide everything necessary.**
In the case of an alternative finance system working with subsidies, the growth imperative also disappears. The funds could control the growth/degrowth by giving out bigger or smaller subsidies to enterprises. Taxes on businesses could also be adapted to penalise some businesses more than others. In this way, it would also be possible to foster sustainable projects in sectors that still need to grow.

The system based on financing businesses through loans that have to be returned by the enterprises may seem to put on quite a lot of pressure on businesses to be economically viable and make enough of a revenu to pay back the bank. However, we believe that it is important to ensure that the money lent (which is a collective resource) is not wasted, so a reasonable amount of pressure seems rather logical.

The "subsidise scenario" (and therefore also the negative interest loans) on the other hand, represents a different kind of challenge. In order to ensure that businesses actually produce,

sell and employ with the money they get from the local bank or from the " investment fund", these institutions would probably have to do checks on business activities, after they granted them the loan. Otherwise we run the risk that investment flows into the pockets of people claiming for example that they want to start a business, but in reality never do.

Another aspect to keep in mind is that some sectors that need to degrow are still very essential for now (gas, oil, some types of food) and sell goods that are quite inelastic. It will be therefore important to pay special attention to them so that every person can still have access to his/her basic needs. Some companies in a sector that have to shrink, might use aggressive strategies to keep their business going (trying to push down salaries, etc). It will be important to have a strict control of the actions of such companies.

Other differences (self-financing and savings)

After having described the broad lines of our main alternative model, there are still some subjects of divergence between the authors concerning some other more concrete points related to investment in a post-capitalist system. The first question is centred around the problem of whether businesses **should be able to self-finance** or not. In some proposals, companies are not allowed to use their surplus to reinvest in the company (Borrits, 2018). They are financed only by money from outside institutions which have no say in the company and that are themselves self-managed. Only these banks can decide, according to the choices made collectively, to whom they want to lend money. The surplus of the enterprise (meaning the money still available after all the necessary payments) can be used by the workers to increase their salaries.

Other proposals permit companies to partly reinvest it in their own structures (Friot, 2021). However, this would also imply that large, powerful and currently polluting companies (GAFAM & co), that generate a lot of revenue, would be likely to remain in business much longer. In contrast, if they were not allowed to use their profits to expand, they would be more closely dependent on democratic institutions. Since businesses would in this case also be evaluated according to their ecological impact, and the guarantee of human rights for example, it would be more complicated for these companies to continue with their destructive activities for long. On the other hand, this gives companies more room for manoeuvre to be more autonomous than in a system without self-financing. A system that would be able to differentiate between large, harmful corporations and small local businesses is maybe, concerning this question the best fit, making it impossible for companies having a big environmental and social impact to use their revenus to invest in themselves whereas smaller and less problematic businesses would not be so constrained.

Another point of difference is the question of mobilising **savings** as a source of financing for the economy. Most of the authors imagine financing the economy through systems that do not rely on household savings (this is the money that people are not using and that is usually put on an account in a bank). This is a great change compared to now, where the savings of people are used either by the account-owners themselves or by their bank to invest. In contrast, in the alternative model, the money of the households that is not used would thus just be stored and not gain or lose value. This means that it is not possible to accumulate more

money with the savings you have. This removes a main inequality factor, since many people nowadays earn money through the return of their savings investment.
We are aware that a transition to such a system is not simple. Notably, owners of capital can threaten to remove their capital from the country if they feel the situation is unsafe for them, which can destabilise the economy. This raises the question of how to transition to a system without private investment. However, once such a system is in place, the problem of attracting private capital and the issue of capital flight would be removed since investment is no longer dependent on shareholders.

Concrete example

To summarise and to put this in a Swiss context, let us take a look at what the implementation of a system without private capital and based on the collective orientation of the major economic choices could look like.

In a national vote held on a regular basis, for example once a year, citizens would decide on the allocation of the financial resources in the economy: should more money be allocated to the health sector than the industry sector? Should the fossil fuel sector be more or less irrigated than the renewable energy sector? Based on Benoît Borrits' proposal, for example, this result should then be converted by the Swiss National Bank (SNB) into differential interest rates (according to each sector and mainly for long-term credits). These differential rates would be a form of policy rate[10]. The SNB would not have exactly the same tasks as today: She would essentially have to make sure that commercial banks respect the result of the vote. In Addition to that, she would also act as a fund that lends money to commercial banks. These commercial banks then again lend to customers and businesses the sums given to them by the National Bank.

For businesses (that would be self-managed by the workers), this means that they would have to approach a commercial bank (which itself would have no shareholders) for the financing of their activities, since they could no longer use their own funds, nor accept private capital. These banks could, for example, be the current Swiss banks but without shareholders, and they would have to follow the differential interest rates (themselves resulting from popular votes) when making loans. We can think of every bank that is currently operating (UBS, Raiffeisen, etc) to take this role, but in a transitional phase, it might be simpler to start with banks like La Poste/Die Post or the cantonal banks, which are not completely private at the moment.
Companies would have to negotiate a loan with a more or less favourable interest rate depending on the sector in which they are active, or the type of activity they carry out. This means that if Switzerland decides by vote to favour for example the sector of "small and medium-sized local merchants" over that of "industrial food production", a company like Nestlé would get away with a much higher interest rate than a local grocery store that would

[10] The policy rate is the interest rate that banks have to respect when they finance themselves from the national bank. It exists already in the current system.

even be partially subsidised by negative interest loans. In practice, this would greatly reduce the price of products and services that are considered important and ecological, such as bicycles or local and organic food. This mechanism would allow the creation of new opportunities, innovations and jobs, only in ecological sectors, while polluting activities would become less profitable and would be forced to decrease or even disappear if they don't radically transform themselves.
The adjustment of interest rates would obviously have to be calculated by the bankers of the SNB to aim for a stop in growth, or even a controlled and stable degrowth (of a few percent per year).

Moreover, a transition will also not happen in practice without the closure of large companies and the displacement of workers from one sector to another, which can be quite abrupt. The fear of unemployment and economic precariousness would also influence the opinion of all the workers currently employed in a non-ecological sector, which logically prevents their adhesion to a program like the one we propose in this work. For this reason, it is not enough to stop at rebuilding the investment system. As most of the authors we have quoted have done, we must think about the construction of a "guarantee of economic security" for all citizens that would complement the changes in property relations discussed above. The questions around the form that this guarantee could take, as well as the advantages and disadvantages of each proposal, will be the subject of the following chapter.

Chapter 3: Jobs and economic guarantee

What is an economic guarantee?

We define an economic guarantee as a set of measures that allows everyone to have their basic needs covered, as well as giving everyone the capacity to live a good and decent life.

Why we absolutely need an economic guarantee

Firstly, we need it to **secure everyone's well being through the necessary radical economic changes** that we have explained in the previous chapters. As we have seen, rethinking property rights and major economic choices is a necessity to make an ecological economy possible. It is also clear that a system change as disruptive as the abolishment of the growth paradigm will cause major turbulences in the transition phase. A redirection of the economy implies that many jobs must be eliminated or redefined, that sectors of our economy will be shut down while some might need more hands. However, for the transition to be successful and for people to support it, we need to find a way to secure the wellbeing of the population. As long as everyone is still completely dependent on the labour market for their income and social inclusion, they will not be able to support any fundamental system change.

Secondly, we need an economic guarantee to **get out of the growth paradigm**. Currently, unemployment is (officially) the main reason why politicians push for economic growth. Neoclassical economic theory states that the economy needs to grow in order to keep unemployment low (Okun's Law). So in order to degrow we need to somehow decouple this relationship between growth and employment. Obvious solutions are some form of job guarantee, worktime reduction or basic income. Some of them will be explained below.

Thirdly, we need an economic guarantee to **give a possibility to a real democracy**. A decision in the interest of everyone can only happen if the individual does not have to fear for their subsistence[11] and that of their family. This is especially crucial considering the argument of chapter 2 that the economy should be directed by democratic decisions. The success of such a proposition to lead our society to a just and ecological society will depend on how much people are willing to make ecological choices, which they will not be able to do if their life depends on the unecological job they are performing. An economic guarantee would therefore allow everyone to make their democratic decision in a way that is independent from "survival" pressure, because the decency of their life would always be guaranteed.

Lastly, we need an economic guarantee **to decrease inequalities**. The rise of capitalism came hand in hand with dramatic rises in inequalities in the world. Fighting against them means fighting for a just society where everyone should have a right to live decently. Providing a guaranteed economic security to everyone ensures a first step into building a solid base for keeping people out of poverty, and reducing inequalities.

Several proposals seek to respond to this need to ensure a decent life for all. All of them put forward institutions and mechanisms to make people less dependent on the current labour market. The first set of measures aim to provide economic guarantee through **securing employment for everyone**. The second set of measures want to achieve it through **securing everyone a monthly allowance of money**. The third and last set of measures aims to provide economic guarantee through **ensuring everyone's basic needs and rights are covered.**

Providing Economic Guarantee…

…Through Guaranteed Employment

A proposal defended by several authors is the introduction of a **"**right to employment for all".

Tcherneva's model

For some (Tcherneva, 2020), this proposition implies that the **state becomes a "last instance employer"**. It would create jobs in social and ecological sectors where people, who had to stop working in ecologically harmful enterprises, have the opportunity to find a new job. It is very likely that many people will have to gain new competences that are

[11] Subsistence levels differ because they depend on a specific social context.

required for their new job. The job guarantee would therefore also include a right to training and retraining. In most propositions, the implementation should be locally organised.

ATTAC, Fondation Copernic, Economistes atterrés' model

For others, this right should take the form of a free and guaranteed training. During this training time and until they found a new job, workers should receive an income as high as when they were employed (Les économistes atterrés, 2017 ; Collective, 2011). This money would come from a **contribution of all enterprises**. This should be coupled with a possible reduction of working hours with the same salary. Indeed, the best way to ensure that everyone can find a job is to better share the total workload of the society. It is nonsense that some people are pushed into unemployment while others overwork.

Swaton's model

Some economists underline the importance of effective support, for example in the form of transition cooperatives (Swaton, 2018). Swaton proposes an **ecological transition income** (RTE in French). This would take the form of an income given to everyone who decides to work for a job that has been listed as ecologically or socially important. These jobs would be provided so that there are always enough jobs. A second condition to receive this income would be to be a member of a "democratic structure" such as a cooperative. She criticises the projects that aim at simply giving an income to everyone without reflection on the ecological impact of such a policy. She therefore emphasises the importance of support and training about ecological issues and challenges.

Borrits' Economic Guarantee model

Another variant of a job guarantee is the "minimum socialised salary" (Borrits, 2018). In this proposal, the income an employed person would receive is made of a fixed assured part (the minimum socialised salary) and a variable part depending on the economic performance, in other words, the job of the person. This minimum income would be financed through a contribution of all the enterprises in the economy, that would redirect a share of their revenue into a common pot. From there this money would then flow to each active worker in the economy. So it would not be a big cost for the businesses, as they would benefit themselves from the minimum income to pay a part of the salary of their employees. Businesses which employ mainly people (instead of machines) would be especially relieved by this proposal, whereas firms that generate a lot of revenue but have relatively few employees would proportionally receive less money (mostly firms based on technology like Apple, Airbnb, Spotify, etc.). This would hopefully **dissuade businesses to fire workers and replace them with machines** and could even encourage the creation of new enterprises because they could from the beginning on pay a minimum salary to every employee. Unemployment would go down and could also be coupled with a diminution of working hours. With this we could achieve something close to full employment.

Borrits' proposition also states that unemployed people should continue to receive social benefits. In general, many proposals of job guarantee are in favour of facilitating the access to social benefits for example through an automatic payment to unemployed people so they don't have to face the many hurdles of a complex administration. Currently, people who need and deserve benefits have to fight through forms, applications, checkups and many other

hurdles which leads to the fact that people who deserve benefits don't get them because they either don't understand the process or are tired of it.

Finally, the proposal simultaneously seeks to **free workers from the need to maximise the intensity of their work, while maintaining some monetary incentive to work**. The proposal deliberately leaves room for a democratic decision about the ratio of the socialised income to the standard wage. Of course, the minimum salary should be high enough so that it ensures a decent life for every worker. Benoit Borrits argues that this would, in the context of an economy without private investment, buffer the risk and the uncertainty of the economy. Nowadays, the owners of an enterprise have a revenu that completely varies on the performance of the enterprise. They first need to pay back the loans, pay the salaries, etc. before being able to touch the profit that will be their remuneration. If the shareholders are removed, then the workers have to support the consequences of the economic fluctuation on their own. The SMS makes sure every worker has a fixed part of their income provided by the revenues coming from *all* the businesses in the whole economy. This guarantees a great income stability for workers and is therefore a good solution to this issue.

…Through a Guaranteed Income

Universal Basic Income

Another famous proposal is the universal basic income. A Universal Basic Income (UBI) is a **fixed income paid to everybody on a regular basis with no conditions attached**. According to its proponents, the implementation of such an income would have many positive effects on society. UBI does not just ensure subsistence for everyone, but it provides people the freedom to look for a meaningful job where they find accomplishment and recognition (van Parijs, 2000). Giving people the power to refuse jobs they do not want will also have a restructuring effect on the economy. Unpleasant jobs are likely to face worker-shortages which will result in two possible outcomes: either the job is important enough that there will be a sufficient pay raise or the job is not important enough and it will disappear (Mylondo, 2018 ; Schachtschneider, 2014). Some add that a mandatory civil service (that could last a few years) could be implemented to make sure every important task in society that no one wants to do voluntarily is being taken care of by everyone equally (Gorz, 1997 ; Lordon, 2021). Also the UBI makes the welfare state less bureaucratic (Friedman, 1964) which means that less money flows into the state apparatus and goes directly to people in need of benefits. The many difficulties people have to face to get benefits were already mentioned above.

Concerning the **financing** of the UBI, different propositions exist, for example a carbon tax, a tax on financial transactions, or a tax on higher incomes. All these proposals have the same problem : they only work in a system where too much carbon is emitted, where private capital still exists, where inequalities remain. They only make sense in the short-term, in the present system. So alternatively, the UBI could be financed through a general contribution from every enterprise, taking the form of a progressive tax on their revenues (Friot, 2012 ; Borrits, 2018, 2020). It is worth mentioning that some authors tackle the problem of income inequalities, by

simply implementing an upper limit for incomes so that no one earns more than four times the salary of other people[12](Liegey, Madeleine, Ondet and Vieillot, 2013 ; Mylondo).

There are a number of **debates between advocates of UBI and job guarantee**. Proponents of the job guarantee underline the **importance of work** for social insertion and life quality. For them it is therefore crucial to guarantee an access to a job to everyone and reach a full employment economy. Proponents of the UBI argue that many activities that are not paid are also important, e.g. taking care of children, helping neighbours, etc, but are unremunerated. A UBI would allow people to invest much more time in such autonomous and cooperative activities. However, critics argue that a UBI represents a form of "**cold solidarity**" where people without jobs or social belonging are only given an income but no real possibility to integrate in the society (Swaton, 2018).

Some critics of the UBI warn that such a policy would simply allow employers to **increase workloads and reduce wages**, but this criticism isn't valid in a society where workers have a right of decision in their enterprises, which we proposed in chapter 2.

On the **financeability** issue, some economists criticise the very possibility of ensuring an income to everyone independently of their activity : in order to be able to share products of the economy, also in the form of money, we need to make sure that they were actually produced (Les économistes atterrés). Enough surplus value has to be created in order to distribute it monetarily. However, thinking in real terms, the assumption behind this is that not enough goods and services would be produced anymore to ensure a decent life.

We should note here that UBI and job guarantees are not mutually exclusive. It is thinkable to implement both.

…Through a Guaranteed Fulfilment of Basic Needs and Rights

Universal Basic Services

The idea of Universal Basic Services (UBS) (Coote and Percy, 2020) was put forward as a counterproposal to the idea of a Universal Basic Income that we discussed above. UBS supporters argue that, to ensure a good life for everyone, we need to move away from putting a price tag on everything and dealing with all possible problems (including social and environmental ones) with money. Therefore, instead of giving everyone a stable monthly income, **they want to provide economic security through a reinforcement and large extension of public services**. Typically, UBS proposals englobe services such as Health Care, Education, Access to Law and Legal Services, Democracy, Shelter, Food, Transport and Information.

[12] Writers have shown that rich people have a much bigger impact on the environment (Kempf Hervé, Comment les riches détruisent la planète, et autre). Inequalities also reinforce environmentally harmful lifestyles and create wishes that are not generalisable.

However, these services would not be pre-decided and implemented in the same way in every country/region. A key aspect in this concept is the **democratic deliberation of what these needs and rights should be**, and how they should be provided. There could for example be a national or regional vote on what services/needs we want to provide freely to everyone. Then, these needs would be taken up at the local level and organised with existing cooperatives or social enterprises. The role of the state would remain to provide the necessary funds to each local context in order for these needs to be covered, without the state being the actual concrete provisioner of these services. For example, a country could vote on Shelter and Legal Services to be of free access. At a communal level, a decision would be made on how these services should be organised. That could be for example through the support and creation of more local housing cooperatives, that would ensure everyone in need of a shelter can receive one. Regarding Legal Services, a decision at the communal level could be made that lawyers in the commune receive direct funds from the UBS budget, when they provide legal services that fit within the “free UBS legal services” criterias (established through the national decision).

The idea of Universal Basic Services is simply an extension of the existing concept of public services that have been fought for by workers unions and other citizen groups for a very long time. The core difference lies in the democratic decisions of these needs and rights, and the scope they aim to cover.

…Through a Combination

The ideas presented above don’t all exclude each other. One could imagine providing economic guarantee to everyone through a combination of these propositions. For example, proponents of UBS are clear about the fact that their proposition is there to create a strong and stable safety net. However, if we want to keep more individual freedom in further life choices, this net could be combined with a Job Guarantee for example, where people are free to spend their income on what they value more.

Another proposal, the **autonomy allowance** (Liegey and al., 2013), also imagines how a combination of these various propositions could look like. In a similar way to UBS, they first define a list of rights that everyone should be ensured to live decently (list that could be decided through a national vote). Then, right by right, they consider which measure is most appropriate. For example, housing might be best secured through Public Services, while guaranteed access to food could be better guaranteed through a monthly allowance of local currencies so that people can make individual choices of food consumption.

To sum up this chapter, there are three types of propositions for an economic guarantee : a job guarantee, an income guarantee and a rights and needs guarantee. All these three propositions have variants that have the same goal but different focuses. The essential feature of these propositions is basically that they allow people to have a decent life. This allows people to no **longer be so dependent on their current jobs**, because if they were fired they would no longer need to fear being socially ostracised or having to rely on unemployment insurance to get by.

Concrete example

Let's imagine that Switzerland has voted on establishing an economic guarantee through a combination of Universal Basic Services and a Job Guarantee.

First of all, to define the UBS more specifically, a national vote would be organised to decide as a country which basic needs we would like to be covered publicly. Let's imagine that people have decided, within others, that UBS should entail housing and transportation. At the city/region level, democratic deliberations are then organised to decide how these services will be coordinated. For example, regarding housing, the deliberation could decide to support the development of more housing cooperatives in the town/region, and that any person in need of an apartment could get a share in these cooperatives. The decision could also entail a transformation of all unused buildings into these housing cooperatives. Regarding transportation, the national vote would directly mean that public transportation is free for everyone in the entirety of Switzerland, but local deliberations could still decide which local public transport they want to invest in.

Second of all, the job guarantee means that everyone in the country is able to get a job if they want to. Let's imagine a citizen of Bern, who just lost her previous job as a technician for Holcim, the cement company, because the enterprise shut down. Although her basic needs are still covered through the UBS (free transportation, healthcare, housing etc.), she still wants to be able to buy specific food items she prefers, or to go on leisure or sport activities, and she therefore wants to keep having a job and thereby a salary. She spent quite some time looking for a job in the private sector, but was rejected from most offers that fit her skills and proposed a decent salary. She then decides to go to the local Job Guarantee organisation (implemented through the Tcherneva's model described above), where she and the Job Guarantee Program employees decide together on a useful job to society that is adapted to her skills and capabilities. Considering her previous work at Holcim as a technician she gets employed by the local public enterprise as a bus maintainer, where she is employed half-time, and paid directly by the Swiss Government as part of the Job Guarantee program.

Conclusion

In this paper we have tried to show why, from an ecological point of view we need a system change and how this could look like. Since unlimited economic growth is very destructive to our environment, and green growth is highly unlikely, we need to transition to an economy capable of breaking with this logic. In the current economic system this is not possible. We have explained in chapter one which mechanisms continuously push the economy towards growth and environmental destruction. Many of those mechanisms are generated in the financial sector and are linked to the power relations in political and economic spheres. We think that it is irresponsible to continue to let some rich people[13] and enterprises mostly driven by profits decide alone for the future of humanity.

To solve these problems, we focused on the one hand on the **democratisation of the economy and particularly on the investment decisions**. **To make sure the democratic**

[13] Actually, most of them are men.

process is not dominated by the struggle for individual survival we have also introduced different forms of economic guarantee. These two pillars together allow for the democratic decisions orienting the economy to include factors like ecology, immaterial wellbeing and solidarity.

However, we have only scratched the surface. To actually degrow our current economy and create an ecological society, the models we have presented are not enough. Our society is penetrated by values and norms connected to material wellbeing, status symbols and “hustle culture”. Education is often oriented towards economic productivity and a high division of labour. Several of our institutions are directly dependent on growth (i.e. pension system).

There are many other necessities and possibilities to work towards an ecological economy, besides decoupling our institutions from growth. We need to have a change of mindsets, valuing non-material things like free time, community, nature and happiness. Build parallel structures that satisfy needs independent of growth and unecological structures. This can be community farms/gardens, food-cooperatives, social housing cooperatives, local care-networks, sharing-initiatives, repair-cafés and many more. The achievement of a truly ecological society is a much broader struggle than solely an economic one. It also requires political, cultural and societal change. Only this way can we have a shift towards a more environmentally friendly, more social, healthier and happier society.

This summary document shows a glimpse of possible futures and their basic economic mechanisms. It argues that we need to fight for measures that are actually solving the core problems we have described. It is a pledge to not be satisfied with the neoliberal solutions that are offered to us currently but demand true alternatives.

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