

Germany on the slippery slope of the research tax credit

by [Evens Salies](#) and [Sarah Guillou](#)

After years of hesitation, the German parliament has just introduced a tax scheme to promote investment in R&D. The decision precedes the Covid-19 crisis, but it may well be heaven-sent for German business.

What factors motivated Germany to take such a decision, four decades after the United States and France, when it is among the world's leading investors, in terms of both R&D and innovation? Is this yet another instrument to boost its competitiveness? And what will be the repercussions on R&D spending in France?

The German tax incentive, which came into force in January 2020, offers companies a tax credit equal to 25% of the declared R&D expenditure. The base is narrower than for France's research tax credit (CIR), since in Germany only wages are taken into account (including employer social security contributions).^[1] The 25% rate is, however, close to the French rate (30%). A company's eligible expenses are capped at two million euros; and the tax credit for each firm will be limited to 500,000 euros

(subcontracting is subject to slightly different treatment). When a group has several subsidiaries benefiting from the system, as part of a joint research programme, the total eligible expenses are capped at 15 million euros (for a tax credit of 3.75 million).

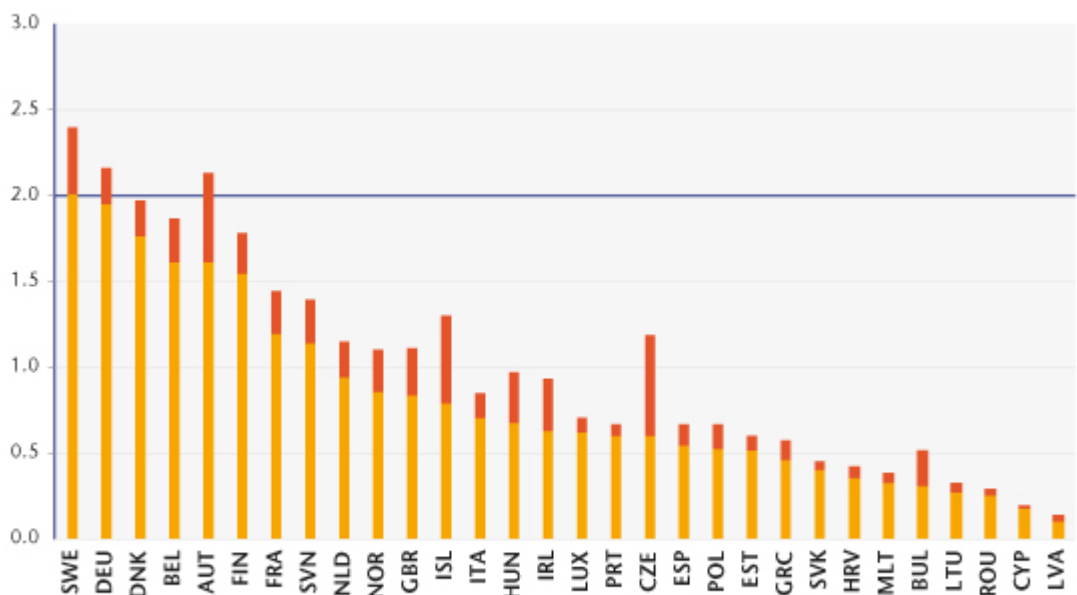
By way of comparison, among French companies who carry out R&D, SMEs receive an average of 131,000 euros for the CIR credit, mid-caps [fewer than 5,000 employees] 742,000 euros, and large corporations 5.6 million, according to the [MESRI's](#) figures. The highest amounts exceed 30 million euros (with few companies in this category), but do not go much higher, because the CIR rate falls from 30% to 5% of eligible R&D expenditure beyond the base threshold of 100 million euros. Estimates of the annual loss in taxation for Germany (before taking into account the macroeconomic effects) could amount to as much as five billion euros. This is 80% of the French CIR credit, and on the same level as the R&D tax incentives in the United Kingdom. Without the cap, the scheme would cost the German federal government around 9 billion euros. [\[2\]](#)

The characteristics of the scheme and the high level of German private R&D raise questions about the Parliament's real motivations. Indeed, one could wonder why it did

not opt for an “incremental” system, that is, base itself on the increase in eligible R&D expenditure, as in the United States, or in France until 2003.

Admittedly, an incremental system would not support firms whose R&D is stagnating or falling (in which case direct aid is more effective), but it avoids the windfall effects of France’s CIR credit ([Salies, 2017](#)). The cap limits, but does not eliminate, these effects.

Figure 1. R&D effort (% of GDP), EU-28 and Iceland, Norway, 2018



Note : The lower rectangle is the R&D effort, after having excluded direct aid. The upper rectangle only includes direct aid. The values are for 2018 or the nearest year.
Sources : EU open data portal.

The level of private R&D spending is significantly higher in Germany than in any other EU Member State (62.2 billion euros, excluding direct grants). France is far behind (27.5 billion euros), followed by Italy and Sweden (respectively 12.8 and 9.6 billion). A comparable ranking is obtained, for Germany, France and Italy, if we measure the R&D effort (expenditure relative to GDP; Figure 1).

Germany is at almost the same level as Sweden (resp. 1.92 and 2.01 points).

Next come Denmark, Belgium, Austria and Finland. France is in 7th position with

1.44 points and Italy 13th with 0.71 point. Private research in Germany (excluding subsidies) is only 0.08 GDP points below the 2% threshold set at the Barcelona

European Council in 2002 (the "Lisbon strategy"), which Sweden alone has

achieved. If subsidies are included, the private sector exceeds this threshold.

Since 2017, Germany's domestic expenditure on R&D (private and public) has

also exceeded the 3% threshold. The argument advanced in 2009 by [Spengel and Grittmann from ZEW](#) that a tax incentive would allow German companies

to overcome private underinvestment in R&D is therefore not convincing, at

least from a European perspective.

At the global level,

three countries are of course doing better than Germany: the United States,

China and Japan, where the private sector spends 1.6 euros for every euro spent

by Germany. However, if the motivation of Germany's Parliament for introducing

a tax incentive was to catch up with these countries, it would not have done so

only 40 years after the United States!

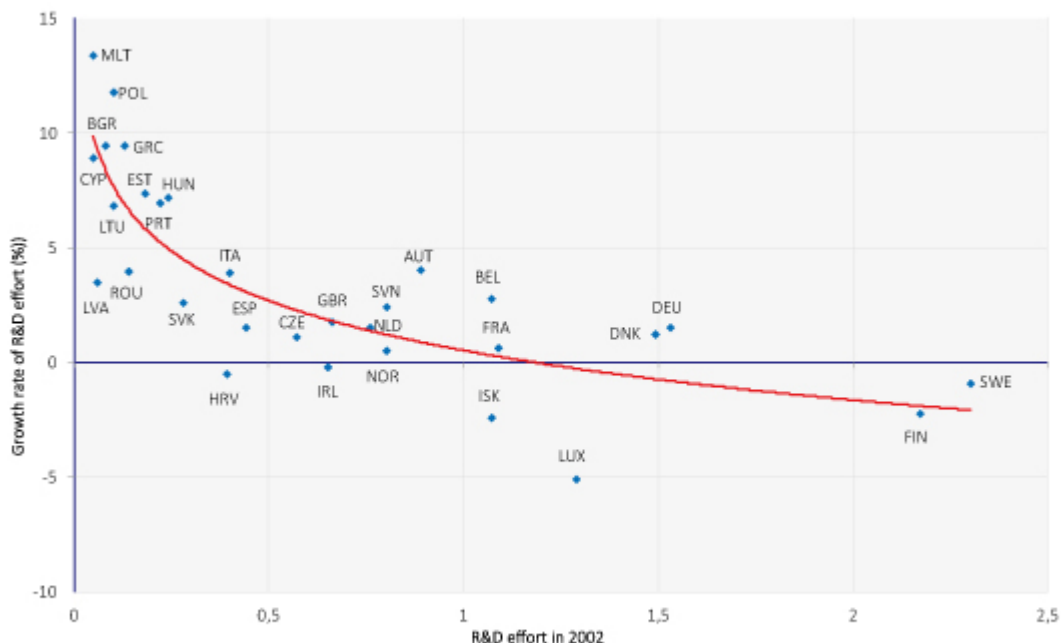
The introduction of a

tax incentive for R&D is less surprising if we consider changes in the

R&D effort. We have calculated the average growth rate of the R&D

effort for the 27 current Member States plus the United Kingdom, Norway and Iceland over the period 2002-2017 (Figure 2).

Figure 2. Rate of change in the R&D effort (%) versus effort, in 2002, EU-28 and Iceland, Norway, 2002-2017



Note : The R&D activities are net of direct aid. For certain countries, the starting year is 2003, due to the availability of data. The concluding year is 2017, except for the UK (2016). Sources : EU open data portal.

The curve through the cloud (logarithmic adjustment) reveals an almost inverse relationship between the rate and the effort in 2002, suggesting a convergence of R&D efforts.

Obviously, many countries are in a period of catch-up with respect to investing in research. Most of them are small, but the whole is significant. For example, in 2017 countries where the R&D effort grew at a rate at least equal to Germany's (1.52%) spent 82.8 billion euros (subsidies included), or 1.2 times Germany's expenditure (68.7 billion).[\[3\]](#) The R&D effort of these countries amounted to 0.8 point of GDP in 2017.[\[4\]](#)

Could the German CIR credit

thus be a response to the slowdown in the country's spending on R&D?

R&D expenditure behaves like other capital expenditure, i.e. it slows as the level rises. Furthermore, the more countries have a high level of domestic spending on R&D, the more they invest in R&D abroad. This results from the fact that R&D expenditure is mainly by large corporations and multinationals; we could cite, for example, Alphabet, Volkswagen and Sanofi, which in 2019 spent, respectively, 18.3 billion, 13.6 billion and 5.9 billion euros on R&D according to figures from the [EU Industrial R&D Scoreboard](#). It is notable that the big multinationals open R&D centres abroad to get closer to their export markets, as well as for the bargaining power that these investments provide vis-à-vis local governments (see the report by UNCTAD [WIR, 2005](#)). All the major pharmaceutical firms (Pfizer, GlaxoSmithKline, AstraZeneca, Sanofi-Aventis, Novartis, Eli Lilly) have established clinical research laboratories in India. Even France's power supply firm EDF has an R&D centre in Beijing, dedicated to networks, renewable energies and the sustainable city. While this does not necessarily amount to substitution with domestic R&D, it does indicate that there is a kind of plateau in a given country for a company's R&D expenditure. The German measure is probably motivated by global competition to attract new R&D centres. This

is also the stated objective of France's CIR credit.

Does the enactment of a "German CIR" credit in favour of R&D bode well for France's competitiveness? Germany has a comparative advantage in the manufacturing sector, which invests heavily in R&D. The new German tax scheme will reinforce this advantage, without any risk of European litigation, since R&D support falls under the exemptions to the European Commission's control system on state aid. France's comparative advantage tends to be situated in services. France's R&D effort in services is more intense than in Germany: 0.28% of GDP in Germany and 0.67% in France. However, France stands out for providing less public support for R&D investment by service companies. In 2015, public funding's share of private research in services was 4% in France, compared to 11% in Germany, according to an [INSEE study](#). The "German CIR" will only increase the relative price of French private research in services in comparison with German research. However, the R&D content of services determines the price, since it determines their technological content. The German tax advantage will therefore accentuate the cost advantage of the technological services which are themselves incorporated into manufacturing value added. So this will in turn increase the cost advantage of German manufacturers.

In addition, the price of R&D is increasingly determined by personnel costs, whose share in R&D has tended to rise in Italy and France and slightly too in Germany.

This share was roughly equal in the latter two countries in 2017: 61.8% in Germany, and 59.7% in France.[\[5\]](#) Relative changes in researchers' salaries will have an impact on the difference in the amount of the tax credit between France and Germany. As noted, the new scheme introduced across the Rhine is based only on the costs of personnel. It could thus be conceptualized as a credit like France's Competitiveness and Employment Tax Credit (CICE) targeted at high-skilled workers in the research sector (referring to the CICE credit before it transforms into a reduction in employer social security contributions).

This is the reason why we think that Germany has rather wanted to pursue its policy of lowering corporate taxes. This was one of the motivations for France's CIR reform in 2008, which "[can] be viewed as [fiscal] compensation for lower corporate tax rates in other countries" ([Lentile and Mairesse, 2009](#)). The median tax rate in the OECD applied to large corporations has fallen continuously since 1995 (13 points over the period 1995-2018), from 35% to 22%. However, the German rate, which has fluctuated between 29 and 30% since 2008, is close to the French rate (around 32% in 2020; [EC, 2020](#)). The opposition that could exist in the realm of "tax

philosophy”,
between a French system based on a high rate and numerous provisions for exemptions, and a German system based on a broad base and low rates, is not as strong now that Germany has set up its own “CIR” credit.

This new incentive is expected to enhance Germany’s attractiveness for R&D activities, which has deteriorated somewhat ([EY, 2020](#); see also [CNEPI, 2019](#)).

Since 2011, the top three countries welcoming the most R&D centre projects were the United Kingdom, followed by Germany and France. Since 2018, France has hosted more projects than Germany (1197 against 971 in 2019), relegating Germany to third place (this had already transpired in 2009, during the financial crisis). The new tax credit should influence the trade-off of foreign companies that are hesitating between France and Germany about where to set up.

It should also attract French companies to Germany, in the same way that a significant share of private R&D activities carried out in France come from foreign companies: 21% in 2015, for the percentage of expenditure as well as the percentage of employed researchers (see [Salies, 2020](#)).

In accordance with European law, French companies established across the Rhine, and liable for the “Körperschaftsteuer” (German corporate tax), should be able to benefit from this niche.

Finally, private and public R&D entities located in France should be able to benefit from the tax incentive introduced in Germany, via subcontracting. But this will be only of marginal benefit, for two reasons: the tradition of the German "Mittelstand" has a culture favouring local networks, and the base for outsourced activities is capped (as with France's CIR credit). French subcontractors will probably be able to benefit from authorizations, in the same way as France's research ministry, the [MESRI, issues authorizations](#) in Germany. Since 2009, Germany has recovered 6% of the subcontracting approvals granted by the MESRI, the United Kingdom 4%, etc. The majority of authorizations are granted to companies located in France (75%).

Whatever the reasons that motivated the German Parliament to introduce a tax incentive in favour of R&D expenditure, it is certain that France has no interest in retiring its own scheme. This does not mean France shouldn't reform the CIR credit, as the leverage effects are not as strong as expected; aid (direct and indirect), in GDP points, has increased on average by 5.7% per year since 2000, whereas R&D, also in GDP points, has increased only by 0.73% per year. The weak leverage effect may have been *the* factor that for a long time discouraged Germany from introducing a tax break to boost R&D.

In this period of searching for ways to support business, it goes without saying that the research tax credit will remain unchanged in France and could see the base for the scheme expanded in Germany (in particular to help car manufacturers who have been refused a plan for direct support).

It is nonetheless regrettable that one of the reasons for Germany's new scheme is probably to be found in the inability of the Member States to advance the European Common Corporate Consolidated Tax Base (CCCTB) directive, which provides for harmonized R&D taxation for large firms by deducting R&D expenditure from the tax base on corporate profits. The German CIR may well be in competition with the French CIR, leading to transfers of R&D (by multinationals) from one State to another. The net increase in R&D spending by European companies remains to be estimated. Unless this spending increases, German policy could be viewed as yet one more uncooperative tax policy coming at a time when Europe is looking for common tax revenue.

[1]. The [French CIR credit](#) includes, in addition to personnel costs, costs for the acquisition of patents, standardization, allocations relating to the depreciation of buildings used for research, etc.

[2]. Based on a private R&D expenditure of 62 billion euros in 2017 (direct aid excluded), we find 0.25 (the rate of the tax credit), 0.6 (the share of salaries in R&D), yielding a credit of 9.3 billion euros.

[3]. The Netherlands, the United Kingdom, Slovenia, Slovakia, Belgium, Latvia, Italy, Romania, Austria, Lithuania, Portugal, Hungary, Estonia, Cyprus, Greece, Bulgaria, Poland and Malta.

[4]. The GDP of these countries (at market prices in 2017) is 2.5 times that of Germany.

[5] The increase in France and in Italy was +7 and +20 points respectively over the period 2000-2017.

How to spend it: A proposal for a European Covid-19 recovery programme

[Jérôme Creel](#), [Mario Holzner](#), [Francesco Saraceno](#), [Andrew Watt](#) and [Jérôme Wittwer^{\[1\]}](#)

The Recovery Fund recently proposed by the EU Commission marks a sea-change in European integration. Yet it will not be enough to meet the challenges Europe faces. There has been much public debate about financing, but little about the sort of concrete projects

that the EU should be putting public money into. We propose in [Policy Brief n°72](#) a 10-year, €2tn investment programme focusing on public health, transport infrastructure and energy/decarbonisation.

The investment programme consists of two pillars. In a national pillar Member States – broadly as in the Commission proposal – would be allocated €500bn. Resources should be focused on the hardest-hit countries and front-loaded: we suggest over a three-year horizon.

The bulk of the money – €1.5tn – would be devoted to finance genuinely European projects, where there is an EU value added. We describe a series of flagship initiatives that the EU could launch in the fields of public health, transport infrastructure and energy/decarbonisation.

We call for a strengthened EU public health agency that invests in health-staff skills and then facilitates their flexible deployment in emergencies, and is tasked with ensuring supplies of vital medicines (Health4EU).

We present costed proposals for two ambitious transport initiatives: a dedicated European high-speed rail network, the Ultra-Rapid-Train, with four-routes cutting travel times between EU capitals and

regions, and, alternatively, an integrated European Silk Road initiative that combines transport modes on the Chinese model.

In the area of energy/decarbonisation we seek to “electrify” the Green Deal. We call for funding to accelerate the realisation of a smart and integrated electricity grid for 100%-renewable energy transmission (e-highway), support for complementary battery and green-hydrogen projects, and a programme, modelled on the SURE initiative, to co-finance member-state decarbonisation and Just Transition policies.

The crisis induced by the pandemic, coming as it does on top of the financial and euro crises, poses a huge challenge. The response needs to take account of the longer-run structural challenges, and above all that of climate change. The European Union should rise to these challenges in the reform of an ambitious medium-run recovery programme, appropriately financed. An outline of such a programme is set out here by way of illustration, but many permutations and options are available to policymakers.

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The COVID-19 crisis and the US labour market: Rising inequality and precariousness in perspective

By [Christophe Blot](#)

In the United States as in France, the COVID-19 crisis has led to numerous measures restricting economic activities intended to limit the spread of the virus. The result will be a fall in GDP, which is already showing up in figures for the first quarter of 2020, and which will be much steeper in the second quarter. In a country noted for its weak employment protection, this unprecedented recession is quickly having repercussions on the labour market, as reflected in the rise in the unemployment rate from a low point of 3.5% in February to 14.7% in April, a level not seen since 1948. As [Bruno Ducoudré and Pierre Madec](#) have recently demonstrated in the case of France, the current crisis in the United States should also result in heightened inequalities

and insecurity. And the shock will be all the greater in the US since the social safety net is less extensive there.

In the United States, the Covid-19 restrictions were set not at the Federal level but by the various States at differing times.

The vast majority of States did decide however to close schools and

non-essential businesses and to encourage people to stay home.

The lockdown was

thus imposed by California on March 19, followed by Illinois on March 21 and

New York State on March 22, but South Carolina didn't follow until April 6.

North Dakota, South Dakota, Arkansas, Iowa and Nebraska have taken no action,

and three other States – Oklahoma, Utah and Wyoming – applied measures only in certain

counties, and not State-wide. However, by early April a large part of the

country had been locked down, with a varying degree of strictness, affecting between

92% and 97% of the population^[1].

Which employees have been hit hardest by the crisis?

According to a [survey](#) by the US Bureau of Labor Statistics, almost 25%

of employees worked from home in 2017-2018. However, some employees said they

could have stayed at home to work but did not necessarily do so during the

reporting period. With the COVID-19 crisis and the incentives to modify the

organization of work, we can therefore consider that almost 29% of employees could stay at home during the lockdown [\[2\]](#). Furthermore, as the survey carried out for France highlights, the implementation of teleworking is more widespread among employees in management jobs and commercial or financial activities. In 2017-2018, 60% of these people could have managed to work from home. In contrast, fewer than 10% of workers in agriculture, construction, manufacturing or transport services would have been able to telework during the crisis. Not surprisingly, the survey also shows that the employees able to telework are also those at the top of the wage distribution. For the top quartile, 61.5% of employees could work at home compared with fewer than 10% for employees in the bottom quartile.

Mirroring these elements, a more recent [study](#) analyzed which jobs would be most affected by the lockdowns and in particular by the closure of non-essential businesses [\[3\]](#). Six sectors are particularly exposed. Logically enough, these include bars and restaurants, transport and travel, entertainment, personal services, the retail trade and some manufacturing industries. Based on employment data for the year 2019, these sectors represent 20.4% of total employment. With more than 12 million jobs, the bar and restaurant sector is being hit hardest. This survey also shows that the most exposed employees generally receive below-average pay. They

are particularly concentrated in the two lowest wage deciles. For example, the wage bill for bar and restaurant workers represents barely 3% of the total wage bill but more than 8% of employment. These people usually work in companies with fewer than 10 employees. This dimension is all the greater in the United States since access to health insurance is often linked to the employer, whose obligations for insurance provision depend on how many employees they have. Finally, by crossing the distribution by sector and geography, it appears that Nevada, Hawaii and to a lesser extent Florida (23.7%) concentrate a larger share of these sectors, and therefore of the exposed jobs [\[4\]](#). Conversely, Nebraska, Iowa and Arkansas are among the States where these sectors account for a smaller share of employment [\[5\]](#). These three States have also not adopted lockdown measures and should therefore be relatively spared from the rise in unemployment.

Unemployment statistics for the months of March and [April](#) confirm this outlook. In one year, the unemployment rate increased by 4.8 points for those in management jobs or commercial or financial activities, while, over the same period, the rate rose by 23 points for service jobs and almost 15 points for employees in production. The geographic disparities are also significant. In California and Illinois, the first States

to implement a lockdown, the unemployment rate rose 11.3 and 12.2 points, respectively, in one year. Conversely, the States that have not enacted lockdown measures are among those where the unemployment rate has risen the least over the year. The increase reached 5.2 points for Nebraska, 6.7 points for Arkansas and 7.5 points for Iowa, for example.

The structure of employment is, however, a key factor determining the variation in unemployment. Despite fairly close starting dates for the lockdowns in Connecticut and Michigan, the unemployment rate rose only 4.2 points in the former versus over 18 points in industrial Michigan. The statistics also confirm the exposure to the shock of Nevada and Hawaii, which recorded the two largest increases: 24.2 and 19.6 points respectively, while Minnesota, with a very low exposure, saw its unemployment rate rise by only 4.9 points, one of the smallest variations since April 2019. Likewise, the impact has been relatively softer in the District of Columbia, where the unemployment rate rose by 5.5 points.

Health under threat?

The deteriorating state of the labour market will be accompanied by a deterioration in living conditions for millions of Americans, especially if the end of the lockdowns is not synonymous with a rapid rebound in activity, as Jerome Powell, Chairman of the

Federal Reserve, now fears. This would result in increased poverty for households that have lost their jobs. Previous analyses indicate that workers at the bottom of the distribution will be the most exposed, especially since, despite the [measures taken to extend unemployment insurance](#), the duration of benefits remains overall shorter in the United States. To deal with the crisis, the Federal government has spent USD 268 billion (or 1.3 percentage points of GDP) on unemployment insurance to extend the duration and amount of compensation. This is in addition to the tax credit of up to USD 1,200 for households without children [\[6\]](#).

The government has thus chosen to support incomes temporarily, but unlike the partial unemployment schemes in force in France and in many other European countries, it has not protected jobs [\[7\]](#).

The flexibility of the US labour market could, however, prove more advantageous in so far as the recovery is rapid and differs depending on the sector.

Employees actually do not lose much of their skills and can more easily find a job in another business sector. But a protracted crisis associated with persistently higher unemployment would greatly increase poverty.

In addition, access to health insurance is also often linked to employment. Indeed, 66% of insured Americans are covered by their employer, who is obliged to offer health insurance in companies with

more than 50 employees. The corollary is that many workers risk losing their health coverage at the same time as their jobs if they cannot pay the portion of the insurance costs previously borne by their employer. As for employees of small businesses exposed to the risk of closure and unemployment, it is very likely that they will no longer have the means to take out a private insurance policy on their own. Already, in early 2019, just over 9% of the population had no health coverage. While this rate had dropped sharply since 2010 and the “Obamacare” reform, the annual [report](#) of the US Census Bureau published in November 2019 estimated that more than 29 million people had no coverage in 2019, a figure that has risen somewhat since 2017. The coverage rates also show strong regional disparities, which is due to the demographic structure of the States.

Although part of the economic support plan is devoted to food aid [\[8\]](#) and some health expenses, the COVID-19 crisis will once again hit the most vulnerable populations and widen inequalities that are already significant and being deepened by the recent tax reforms of the Trump administration.

[\[1\]](#)

In terms of GDP, the share of States that have imposed lockdowns is in much the same proportions.

[\[2\]](#)

Note that this survey does not show a significant difference between men and women, even if women have a slightly fewer opportunities for teleworking: 28.4% against 29.2% for men.

[\[3\]](#)

See Matthew Dey and Mark A. Loewenstein, "[How many workers are employed in sectors directly affected by COVID-19 shutdowns, where do they work, and how much do they earn?](#)", *Monthly Labor Review*, U.S. Bureau of Labor Statistics, April 2020.

[\[4\]](#)

In Nevada, the exposed sectors represent 34.3% of jobs. This figure also exceeds 30% in Hawaii and is 23.7 % in Florida.

[\[5\]](#)

This is also the case of the District of Columbia due to the large presence of Federal employees.

[\[6\]](#)

This amount is granted to households receiving less than USD 75,000 (150,000 for a couple) per year. USD 500 is awarded per child. The amount of the tax credit is regressive and falls to zero for households with an income above USD 99,000.

[\[7\]](#)

See [here](#) for our analysis of European and American strategies to deal with the crisis.

[\[8\]](#)

The plan approved on 18 March ([Families First Coronavirus Response Act](#)) actually provides for over 20 billion dollars in assistance for poor people.

What can we learn from the Finnish experiment with a universal income?

By [Guillaume Allègre](#)

Between 2017 and 2018, Finland conducted an experiment with universal income that gave rise to significant media coverage. 2,000 unemployed people receiving the basic unemployment benefit (560 euros per month) received the same amount in the form of unconditional income, which could be combined with income from work for the duration of the experiment (2 years, not renewable). On 6 May 2020, the final report evaluating the experiment was published (here is a [summary of the results](#)). The evaluators concluded that the experimental universal income had moderate positive effects on employment and positive effects on economic security and mental health. According to the final report, on average individuals in the treatment group worked approximately 6 additional working days (they worked 78 days). They experienced significantly less mental stress, depression and loneliness, and their cognitive functioning was perceived as better. Life satisfaction was also significantly higher. The results of the experiment therefore seem to argue in favour of a universal income. But is it really possible to draw lessons from the experiment with

a view to generalizing the system? In 2018, I wrote that experimenting with universal income was "[impossible](#)". Does the Finnish experience contradict this claim? It turns out that it is indeed difficult to draw lessons.

The principle of a universal income, as it is commonly defined, is to pay a sum of money to all members of a political community, on an individual basis, without means-testing or any obligation to work or take a job.

Such experiments generally concern a small number of people (in Finland, 2,000 individuals): the universal aspect of the measure is therefore lost, but a measure's impact can differ depending on whether it affects everyone or only some of the population. How are the individuals chosen? Two options are favoured by practitioners: a totally random draw, which favours the representativeness of the experimental sample, or a saturation site, which consists of including in the experimental sample an entire community (for example a single labour market area), which helps to capture externalities and interactions ("do I stop working more easily when my neighbour stops or when my spouse receives assistance?"). In Kenya, [villages are used as saturation sites](#). In the Finnish experiment, 2,000 long-term unemployed people receiving end-of-entitlement benefits (equivalent in France to ASS assistance) constituted the experimental group, with

the control group being made up of recipients of end-of-entitlement benefits who had not been randomly selected. This poses two problems. First, the experimental group is not representative of the Finnish population. The long-term unemployed make up only a small part of the population. So we cannot really say how people with jobs would have reacted (would they have reduced their working hours?). Second, interaction effects are not taken into account: for example, consider a job taken up by an unemployed person in the experimental group, who thus increases his or her labour supply in the context of the experiment – might this job have been taken up by a member of the control group?

The definition of universal income tells us nothing about its level or what benefits it replaces. All options are on the table. Programmes with a more liberal, free-market orientation offer a relatively low universal income and replace most social benefits and sectoral subsidies (notably in agriculture) or can even substitute for regulations on the labour market (the abolition of the minimum wage is envisaged). In a more social-democratic logic, universal income would replace only the social minimum (France's RSA income support benefit) and income support for the in-work poor (in France, the *Prime d'activité*). The amount envisaged is often equal to or slightly higher than the social minimum. Finally, in a

degrowth logic, the universal income could be lifted to at least the poverty line in order to eradicate statistical poverty. The effects expected from the reform depend greatly on the amount envisaged and the benefits it replaces. In the framework of the Finnish experiment, the universal income was 560 euros, the amount of the basic unemployment benefit received by the members of the experimental group. Simply replacing this basic allowance meant that at first the income of the unemployed in the experimental group remained unchanged. But the universal income could at the same time be cumulated with job income. This means that returning to work could lead to an additional financial gain of as much as 560 euros.

The experimentation thus increased the financial gains from a return to work. This is not a result that one usually thinks of in relation to establishing a universal income. One question often asked is,

[“What happens when you get 1,000 euros a month without working?”](#) It turns

out that, for those on low incomes, the generalized roll-out of a universal income could have ambiguous effects on the incentive to work: it increases income without work but it also provides additional income for the working poor.

On the other hand, for those earning the highest incomes, the monetary gain from increasing their income would be reduced.

The evaluation was complicated by the introduction of activation measures during the second year of the experiment (2018). Based on the “activation model” put in place, people on unemployment benefits had to work a certain number of hours or undergo training, otherwise their benefit was reduced by 5%. These measures affected the experimental groups asymmetrically: two-thirds of the control group were affected, compared with only half of the experimental group ([Van Parijs, 2020](#)). Theoretically, the incentive to return to work was therefore greater for the control group. Note that activation goes against the principles of the universality and unconditionality of universal income.

Notwithstanding the activation measure, the results of the Finnish experiment tell us that the hours worked are higher for the experimental group than for the control group. The financial incentives to work would therefore have worked! In fact, the evaluators stress the moderate degree of the impact on employment. In the interim report, which covered the first year (2017), the impact was not significant. In 2018, the impact was significant, since the people in the experimental group worked an average of 78 days, or 6 days (8.3%) more than the control group. The impact is, however, not very significant: with a 95% confidence interval, it is between 1.09 and 10.96 days (i.e. between 1.5% and 15%). Kari Hämäläinen [concludes](#): “All in all, the employment effects were small. This indicates

that for some persons who receive unemployment benefits from Kela [Finland's agency handling benefits for those at end of entitlement] the problems related to finding employment are not related to bureaucracy or to financial incentives".

On the other hand, the experiment tells us nothing about the effects of

possible disincentives for higher earners due to the financing of the measure:

by construction, an experimental universal income is not financed. More

seriously, gender analysis is virtually absent from the final report. All we know

is, from reading a table, that women in the experimental group worked 5.85

additional days compared to 6.19 for men, but there is no discussion of the

issue of gender equality. The issue of how choices are negotiated within a household

is also not posed. The impact on the lone parent group is not significant

"due to its small size". In an [Op-Ed published by the New York Times](#), Antti Jauhiainen and Joonas Hermanni

Mäkinen criticize the sample size, which is five times smaller than initially

planned: the small size makes it difficult to draw any conclusions about subgroups.

The final report highlights the beneficial effects on mental health and economic well-being. The impacts on people's life satisfaction

and on stress and depression are very significant. However, two comments can be

made. First, we do not know what comes from the higher living

standards of the individuals in the treatment group and what comes from the mechanism of a universal income (the certainty that people will have an income whatever happens). Given the way the experimental income was actually designed (it functions like an employment bonus), one can easily assume that it is the income effect that takes precedence. Likewise, since the individuals in the experimental group are in all cases better off financially, it is not surprising that their economic well-being increases. Second, there may also be a reporting bias due to a [Hawthorne Effect](#): individuals in the experimental group know that they are part of an experiment and that they were chosen so that they have an advantage over the control group. This can lead them to be more optimistic in their statements.

In the end, the Finnish experiment offers few lessons about the effects of the establishment of a global universal income, i.e. one for all citizens. Only a small category of the population was involved, and funding was not tested. Yet funding is half the mechanism; Finnish trade unions are also opposed to a universal income because they fear that the necessary tax increases will reduce earnings from working. In addition, a family and gender approach has been completely ignored, whereas a universal income has been denounced by feminists as being liable to discourage women from taking up jobs (likening it to a mother's wage). As with the

[RSA income supplement experiment](#)

[in France](#) [article in French], the failure of the Finnish experiment is

explained in part by the contradictory objectives of the various scientific and

political actors. The evaluators hoped for a sample of 10,000 people including individuals

with different employment statuses. They were constrained by a combination of time,

money and a ruling political coalition that was no longer enthusiastic about

the idea of testing a universal income ([“Why Basic Income Failed in Finland”](#)). The Prime Minister’s Centre

Party

was in fact interested in the question of financial incentives for the

long-term unemployed, which is a long way from the idea of reconsidering the

central role of market labour or being able to say no to low-quality jobs, which

is often associated with universal income. This was certainly a limitation of

these costly experiments: subject to the inevitable supervision of politics,

they risk becoming showcases promoting the agenda of the government in power.

It seems like it’s raining billions

[Jérôme Creel](#), [Xavier Ragot](#), and [Francesco Saraceno](#)

The second meeting of the Eurogroup did the trick. The Ministers of Finance, after having once again laid out their divisions on the issue of solidarity between euro area Member States on Tuesday 7 April 2020, reached an agreement two days later on a [fiscal support plan](#) that can be put in place fairly quickly. The health measures taken by the Member States to limit the spread of the Covid-19 pandemic will enjoy better short-term financing, which is good news. The additions to Europe's tools for dealing with the crisis will be on the order of 500 billion euros – this is certainly not negligible, and note that this comes on top of the efforts already put in place by governments – but this corresponds mainly to a new accumulation of debt by the Member States. The net gain for each of them, as we shall see, is actually quite marginal.

The Eurogroup will propose the creation of a credit line (Pandemic Crisis Support) specifically dedicated to the management of the Covid-19 crisis within the framework of the European Stability Mechanism (ESM), without strict conditionality (meaning that recourse to the credit line will not imply any control on the part of the EMS over the future management of the Member State's public finances). The creation

of the credit line was inspired by the proposal by [Bénassy-Quéré et al. \(2020\)](#), the [advantages and disadvantages](#) of which we presented to the Eurogroup meeting on 9 April 2020. The amount allocated to this credit line represents around 2% of the GDP of each euro area Member State, or nearly 240 billion euros (in 2019 GDP).

The lending mechanism proposed by the European Commission to supplement the partial unemployment programmes of the Member States – [it goes under the name of SURE](#) – will clearly see the light of day and will be endowed with 100 billion euros. For the record, the three main beneficiaries of SURE cannot receive a combined total of more than 60 billion euros in loans.

Finally, the European Investment Bank (EIB) will grant an additional 200 billion euros, mainly to small and medium-sized enterprises in the EU Member States. In total, the euro area countries will have 480 billion euros in additional financing capacity.

Table 1 below presents a breakdown by country of the amounts in play. As part of the 240 billion euros of Pandemic Crisis Support, Germany will be able to benefit from a borrowing capacity of nearly 70 billion euros, France nearly 50 billion euros, and Italy and Spain 35 and 25 billion euros respectively. These amounts correspond to 2% of the 2019 GDP of each country. At this point, there is no

indication of whether the Member States will draw on this capacity. The advantage in doing so depends crucially on the difference between the interest rate at which they can finance their health and economic expenses without using the EMS and the interest rate on loans made by the EMS. The financing cost without going through the EMS is the interest rate on the country's public debt. The cost of financing through Pandemic Crisis Support is the interest rate at which this credit line is itself financed, that is to say, at the lowest rate on the market, i.e. the German rate. So it is obvious that Germany has no interest in using this credit line. Of the 240 billion euros allocated to Pandemic Crisis Support, the 70 billion euros for Germany is thus useless. For countries other than Germany, the use of Pandemic Crisis Support depends on the difference between their interest rate and Germany's rate, the infamous spread. If the spread is positive, using the EMS effectively reduces the cost of borrowing. But as shown in Table 1, the gain enabled by Pandemic Crisis Support is rather low. For Greece, whose spread vis-à-vis Germany is the highest in the euro zone, the gain would come to around 0.04% of GDP in 2019, i.e. a 215 basis point spread multiplied by the amount allocated to Greece for Pandemic Crisis Support (3.8 billion euros, which corresponds to 2% of its GDP of 2019), all relative to its 2019 GDP. For Italy, the gain is on the same order: 0.04% of

its GDP. Expressed in euros, Italy stands to gain 700 million euros. For France, whose spread vis-à-vis Germany is much lower than that of Italy, the gain could be 200 million euros, or 0.01% of its GDP in 2019.

Assuming that the amounts allocated by the EIB are prorated to the country's size (measured by its GDP in 2019), and that Spain, Italy and France benefit from 20 billion euros each under SURE, the total interest rate savings would reach, respectively, 680 million, 1.5 billion and 430 million euros (0.05%, 0.08% and 0.02% of GDP). At a time when it seems to be raining billions, these are not big savings. Unless you think of it as a metaphor. Like rain before it falls, the billions of euros are not really euros before they fall.

Table 1. Distribution of amounts allocated as part of Pandemic Crisis Support (PCS), and each country's potential gains, including from the use of additional EIB and SURE financing

	Max amount of PCS	10-year spreads	Max. gain from use of PCS and other additional financing				
	Billion euros	Base points	PCS	EIB*	SURE**	Total	Total
			Million euros				% of GDP
Germany	68,5	0	0	0	0	0	0
Austria	8	43	34,3	20,9	5,8	61,0	0,02
Belgium	9,4	52	49,1	30,0	8,3	8,8	0,02
Cyprus	0,4	204	9,0	5,5	1,5	16,0	0,07
Spain	24,8	113	280,7	171,3	226,0	678,0	0,05
Estonia	0,6	nd	nd	nd	nd	nd	nd
Finland	4,8	40	19,3	11,8	3,2	34,3	0,01
France	48,3	44	212,6	129,8	88,0	430,4	0,02
Greece	3,8	215	81,5	49,7	13,7	145,0	0,08
Ireland	6,9	55	38,0	23,2	6,4	67,5	0,02
Italy	35,5	195	693,1	423,1	390,0	1506,2	0,08
Latvia	0,6	nd	nd	nd	nd	nd	nd
Lithuania	1,0	nd	nd	nd	nd	nd	nd
Luxembourg	1,3	nd	nd	nd	nd	nd	nd
Malta	0,3	90	2,4	1,5	0,4	4,2	0,03
Netherlands	16,1	26	41,9	25,6	7,1	74,6	0,01
Portugal	4,2	124	52,3	31,9	8,8	93,0	0,04
Slovakia	1,9	77	14,5	8,9	2,4	25,9	0,03
Slovenia	1,0	107	10,3	6,3	1,7	18,3	0,04

* Assuming that the use of additional EIB financing is fully distributed in proportion to the country's relative GDP compared to that of the EU (in 2019).

** Assuming that Italy, Spain and France obtain 20 billion euros each and that the remaining 40 billion euros are distributed in proportion to the relative GDP of the countries compared to that of the euro zone (in 2019).

Sources: Ameco (PIB 2019), Financial Times (Spreads, 10 April 2020).

Does the fall in the stock market risk amplifying the

crisis?

By [Christophe Blot](#) and [Paul Hubert](#)

The Covid-19 crisis will inevitably plunge the global economy into recession in 2020. The first available indicators – an increase in the unemployment rolls and in partial unemployment – already reveal an unprecedented [collapse](#) in activity. In France, the OFCE's [assessment](#) suggests a 32% cut in GDP during the lockdown. This fall is due mainly to stopping non-essential activities and to lower consumption. The shock could, however, be amplified by other factors (including rises in some sovereign rates, falling oil prices, and capital and foreign exchange movements) and in particular by the financial panic that has spread to the world's stock exchanges since the end of February.

Since 24 February 2020, the first precipitous one-day fall, the main stock indexes have begun a decline that accentuated markedly in the weeks of March 9 and 16, despite announcements from the [Federal Reserve](#) and then the [European Central Bank](#) (Figure 1). As of 25 April, France's CAC-40 index had fallen by 28% (with a low of -38% in mid-March), -25% for the German index and nearly -27% for the European Eurostoxx index. This stock market crash

could revive fears of a new financial crisis, only a few years after the subprime crisis. The fall in the CAC-40 in the first few weeks was in fact steeper than that observed in the months following the collapse of Lehman Brothers in September 2008 (Figure 2).

Figure 1. Changes in the main stock market indexes

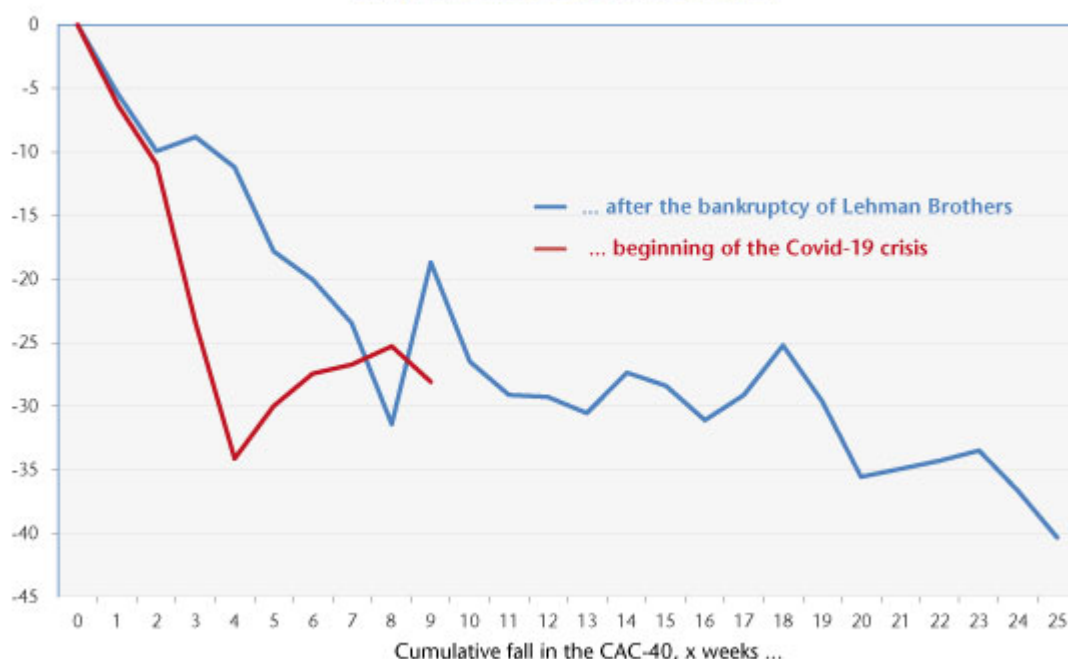


Source: Eikon Datastream. Base 100: average for the year 2019.

While the short-term impact of the Covid-19 crisis could prove to be more severe than that of the 2008 financial crisis, the origin of the crisis is very different – hence the need to reconsider the impact of the stock market panic. In the financial crisis, the origin was in fact a banking crisis, fuelled by a specific segment of the US real estate market, the subprime market. This financial crisis then caused a drop-off in demand and a recession through a variety of channels: higher risk

premiums, credit rationing, financial and real estate wealth effects, uncertainty, and so on. While some of these elements can be found today, they are now being interpreted as the consequence of a health crisis. But if there is no doubt that this is at the outset a health and economic crisis, can it trigger a stock market crash?

Figure 2. Fall in France's CAC-40 index in the Covid-19 crisis compared with the post-Lehman Brothers collapse



Source: Eikon Datastream.

Another way of posing the question is to ask ourselves whether the current stock market fall is due entirely to the economic crisis. Share prices are in fact supposed to reflect future changes in a company's profits. Therefore, expectations of a recession, as demand – consumption and investment – and supply are constrained, must result in a reduction in turnover and future profits, and therefore a fall in share prices.

However, the financial

shock could be magnified if the fall in stock prices is greater than that caused by the decline in corporate profits. This is a thorny issue, but it is possible to make an assessment of a possible over-adjustment of the stock market, and thus of a possible financial amplification of the crisis. The method we have used is to compare changes in profit expectations (by financial analysts) since the beginning of the Covid-19 crisis with the fall in equities. Focusing on CAC-40 companies, profit expectations for next year have been cut in the last three months by 13.4% [\[1\]](#). This reduction should therefore be fully reflected in the change in the index. In fact, the fall there was much larger: -28%. This would result in an amplification of the financial shock by just under 15 percentage points.

This over-adjustment by the stock market can be explained by, among other things, the current prevailing uncertainty about the way lockdowns around the world will be eased, and thus about an economic recovery, as well as uncertainty about the oil shock that is unfolding concomitantly, with determinants that are both economic and geopolitical. This over-adjustment may therefore not be wholly irrational (with regard to the supposed efficiency of financial markets), but the fact remains that it has led to major variations in the financial assets of consumers and

business.

Variations like these are not neutral for economic growth. On the consumer side, they contribute to what are called the wealth effects on consumption: additions to a household's assets give it a sense of wealth that drives it to increase its consumption [2]. This effect is all the greater in countries where household assets are in the main financialized. If a large portion of household wealth is made up of equities, then changes in share prices strongly influence this wealth effect. The portion of shares (or of investment funds) in financial assets is quite similar in France and the United States, respectively 27% and 29%. However, these assets account for a much larger share of the disposable income of American households: 156%, compared to 99.5% in France. As a result, French households are less exposed to changes in share prices. Empirical studies generally suggest a greater wealth effect in the United States than in France [3].

As for business, these changes in stock market valuations have an effect on investment decisions through collateral constraints. When a company takes on debt to finance an investment project, the bank demands assets as collateral. These assets can be either physical or financial. In the event of an increase in equity markets, a company's financial assets increase in value and allow it

greater access to credit

[4]. This mechanism is potentially important today. At a time when companies have very large cash requirements to cope with the brutal shutdown of the economy, the sharp decline in their financial assets is restricting their access to lines of credit. While the financial amplification factors are not reducible to the financial shock, the recent changes in the prices of these assets are nevertheless giving an initial indication of how the financial system is responding to the ongoing health and economic crises.

[1] The data comes from Eikon Datastream, which for each company provides analysts' consensus on the earnings per share (EPS) for the coming year and the following year. We then calculated the weighted average using the weight of each CAC-40 company in the index of the change in these expectations over the past three months. The fact that a 13.4% decline in profit expectations for the next year will give rise to a 13.4% decline in the stock price is made on the assumption that profits beyond the next year are not taken into account, or, in other words, that their current net value is zero, which is to say that investors' preference for the present is very strong today.

[2] More formally, we can speak of a propensity to consume that increases as wealth increases. Wealth effects can

be distinguishable according to whether they are purely financial assets or also include property assets.

[3] See [Antonin, Plane and Sampognaro \(2017\)](#) for a summary of these estimates.

[4] See [Ehrmann and Fratzscher \(2004\)](#) and [Chaney, Sraer and Thesmar \(2012\)](#) for empirical assessments of this transmission channel via share prices or property prices, respectively.

The Covid-19 passport and the risk of voluntary infection

By [Gregory Verdugo](#)

Covid-19 has made it risky to have a job that cannot be done remotely and requires contact with the public. Given the danger of infection facing frontline workers, employers confront the risk of legal consequences in the event of insufficient protection. This new risk could lead to changes in the characteristics of the workers being hired, as the threat of lawsuits creates an incentive to discriminate by choosing workers who are least at risk for these positions. As long as the Covid-19 virus is in circulation, we could therefore witness the rise of a powerful new

source of discrimination in the labour market based on the risk of serious infection. But according to some epidemiologists, the virus could be circulating and creating episodic outbreaks for 18 to 24 months [\[1\]](#), with the result that Covid-19 could leave a lasting imprint on the job market.

Which workers are least at risk? First, there are those with no apparent co-morbidities, which means that individuals who are obese may face even more pronounced discrimination on the labour market [\[2\]](#). However, the main easily identifiable group at lower risk are the young, since the under-30s face a very low risk of developing a serious form of Covid-19 [\[3\]](#). This situation is unprecedented – for the first time, we’re experiencing a recession where young people are less affected than more senior employees!

But while the young are less at risk, there is one group of individuals for whom the risk could be even lower. Experience with other viruses suggests that individuals who have previously contracted Covid-19 gain at least temporary immunity from future infection [\[4\]](#). Although such immunity remains uncertain and controversial [\[5\]](#), some employers may want to test their employees, especially those in at-risk positions, to rule out the danger of infection

attributable to their professional activity.

Information on the state of an employee's immunity could therefore be very valuable for an employer – so much so, in fact, that it could lead to the development of low-quality private tests and a risk that false immunity certificates could proliferate. To avoid these risks, many countries are considering creating immunity passports certifying that a worker has already contracted Covid-19 and is, at least in the short term, safe from the risk of infection [\[6\]](#). Chile has announced that it is implementing such a policy, and it is under discussion in various European countries.

An immunity passport is expected to provide high wages in labour markets wracked by Covid-19, particularly in high-risk jobs, including those requiring close contact with infected people, such as in hospitals. In turn, in an economy in crisis, an immunity passport guaranteeing well-paid employment could generate high demand for voluntary infection among those in direst need.

This possibility of self-infection when immunity is socially valued or economically profitable is not merely a theoretical question. In an article published in 2019, historian Kathryn Olivarius of Stanford University showed that there are numerous historical precedents [\[7\]](#). Being recognized as having

immunity was in particular an essential condition for economic integration during the colonization of tropical zones, where infectious diseases were decimating the colonists. In the early 19th century, immigrants recently arriving in New Orleans were said to be “non-acclimated”, and sought to quickly suffer and survive yellow fever, which at that time had an estimated mortality rate of about 50%, which is well above that of Covid-19, currently estimated at between 0.3% and 1%. To integrate, you had to prove that you survived the infection and thus became “acclimated”. Only after becoming “acclimated”, with the risk of early death being ruled out, did it become possible to have access to the best jobs in the local labor market, to get married and to access credit from local banks.

If a Covid-19 immunity passport is developed, it will in a similar manner foster a dangerous temptation to become infected in order to gain access to jobs where the risk of infection is high but wages are also high. The temptation to self-infect would be even stronger in the case of Covid-19, the consequences of infection are usually benign. But voluntary infection could lead to risky behaviour: one can imagine individuals trying to get infected, and in doing so spreading the disease around them, especially if they remain asymptomatic.

Alex Tabarok, a professor

of economics at George Mason University, argues that the issue of immunity passports by the public authorities would also imply the need to regulate the demand for voluntary infection that this would give rise to. So the public authorities should offer the possibility of infection in moderate doses, in a medical setting and by ensuring medical follow-up during a period of quarantine following voluntary infection.[\[8\]](#)

The supervision of a voluntary infection motivated by the desire to obtain an immunity passport clearly poses ethical problems. First, it would be individuals in the most precarious situations, especially those most affected by the recession, who would volunteer. Furthermore, it is not certain that medical supervision reduces the risk of death or serious sequelae. Above all, voluntary infection contradicts the apparent policy goal today, which is to curb the epidemic as much as possible, as the possibility of achieving collective immunity seems distant. So such an approach is for the moment dangerous.

To be consistent with the goal of suppressing the epidemic, it therefore appears necessary to discard the policy of immunity passports, which give value to having been infected. As is set out in the French protocol for lifting the lockdown [\[9\]](#), it is also necessary to ensure that the private market does not fuel this demand and that companies don't

create their own immunity passports or try to acquire information about immunity through other means. While a rule like this might seem paradoxical, the risk of self-infection can be eliminated only if a non-discrimination rule is imposed that prohibits employers from using or requesting the results of serological tests to employ workers in high-risk positions and that also bars employees from revealing their immunity status.

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[5] See the opinion of 24 April 2020 by the World

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[9] <https://travail-emploi.gouv.fr/IMG/pdf/protocole-national-d-e-deconfinement.pdf>

The essential, the useless and the harmful (part 3)

By [Éloi Laurent](#)

Is humanity a pest?

For the other beings of Nature who find it increasingly difficult to coexist

with humans on the planet, the answer is unambiguous: without a doubt.

Life on earth, 3.5

billion years old, can be estimated in different ways. One way is to [assess the respective biomass of its components](#). It can then be seen that the total biomass on Earth weighs around 550 Gt C (giga tonnes of carbon), of which 450 Gt C (or 80%) are plants, 70 Gt C (or 15%) are bacteria and only 0.3% are animals.

Within this last category, humans represent only 0.06 Gt C. And yet, the 7.6 billion people accounting for only 0.01% of life on the globe are on their own responsible for the disappearance of more than 80% of all wild mammals and half of all plants.

This colossal crisis in biodiversity caused by humanity, with [premises dating back to the extermination of megafauna in the prehistoric age](#) (Pleistocene), started with the entry into the regime of industrial growth in the 1950s, with the onset of the "[great acceleration](#)".

This is now well documented: while nearly 2.5 million species (1.9 million animals and 400,000 plants) have been identified and named, convergent studies suggest that their rate of extinction is currently 100 to 1000 times faster than the rhythms known on Earth during the last 500 million years. This could mean that, due to human expansion, biodiversity is on the brink of a sixth mass extinction. Whether we observe these dynamics [in section](#) or [longitudinally](#), at the level of [certain key species in certain regions](#) or by turning to more or less convincing

hypotheses on the [total potential biodiversity sheltered by the Biosphere](#) (which could amount to 8 million species), the conclusion is obvious: while humans are thriving, the other species are withering away, with the exception of those that are directly useful to people.

But this destruction of biodiversity is of course also an existential problem for humans themselves.

According to a causal chain formalized two decades ago during an [evaluation of ecosystems for the millennium](#), biodiversity underpins the proper functioning of ecosystems, which provide humans with “ecosystem services” that support their well-being (recent literature evokes in a broader and less instrumental way

“the [contributions of Nature](#)”). This logic naturally also holds in

reverse: when humans destroy biodiversity, as they are massively doing today

through their [agricultural systems](#),

they degrade ecosystem services and, at the end of the chain, undermine their own

living conditions. The case of mangroves is one of the most telling: these

maritime ecosystems promote animal reproduction, store carbon and constitute

powerful natural barriers against tidal waves. By destroying them, human

communities are becoming poorer and weaker.

The start of the 2020

decade, the first three months of which were marked by huge fires in Australia

and the Covid-19 pandemic, is clearly showing that destroying

Nature is beyond our means. The most intuitive definition of the unsustainability of current economic systems can therefore be summed up in just a few words: human well-being destroys human well-being.

How do we get out of this vicious spiral as quickly as possible? One common sense solution, known since Malthus and constantly updated since then, is to suppress humanity, in whole or in part. Some commentators are taking note of how much the Biosphere, freed from the burden of humans, is doing better since they have been mostly confined. If we turn off the source of human greenhouse gas emissions, it is of course likely that they will fall sharply. Likewise, if the sources of local pollution in urban spaces, for example in Paris, are turned off, [the air there will be restored to a remarkable quality](#). It is also likely that we will see an improvement in the lot of animal and plant species during this period, much as in areas like [the Chernobyl region that humans were forced to abandon](#). But what good is clean air when we are deprived of the right to breathe it for more than a few moments a day?

In reality, even if confinement has led to a constrained and temporary sobriety, its long-term impact is working fully against the ecological transition. All the mechanisms of social cooperation that are essential to transition policies are now at a standstill, except for market transactions. To take simply the

example of climate policy, the very strategic COP 26 gathering has already been postponed to 2021, the [next IPCC Assessment Report has been slowed down](#), the full, comprehensive outcome of the efforts of the Citizen climate convention has been compromised, and so on. And a [heat wave under lockdown](#) cannot be excluded!

The point is that it is not a matter of neutralizing or even freezing social systems to “save” natural systems, but of working over the long-term on their [social-ecological articulation](#), which is still a blind spot in contemporary economic analysis.

The fact remains that the current social emergency is forcing governments around the world to work here and now to protect their populations, particularly the most vulnerable, from the colossal shock that is simultaneously hitting economic systems around the world. The notion of essential well-being can rightly serve as a compass guiding these efforts, which could focus on sectors vital to the whole population in the months and years to come, subject to the imperative of not further accelerating the ecological crisis. Essential well-being and non-harmful well-being could converge to meet the present urgency and the needs of the future. How, precisely?

Let us briefly return to the different dimensions of essential well-being outlined in the first post

in this series. Public health and the care sector are clearly at the centre of essential well-being, understood as human well-being which works for its perpetuation rather than for its loss. The medical journal *The Lancet* has [highlighted in recent years](#) the increasingly tangible links between health and climate, health and various pollutants, health and biodiversity, and health and ecosystems. Care for ecosystems and care for humanity are two sides of the same coin. But the issue of environmental health must be fully integrated, including here in France, with the new priority on health. Investing in public services beyond the health system is also a guarantee that essential well-being is shared most equitably.

This temporal coherence is complicated by the necessary reinvestment in essential infrastructure. Food supply systems in France and beyond, from agricultural production to retail distribution, are today far too polluting and destructive to both human health and ecosystems. Food systems already engaged in the ecological transition should be given priority in order to promote their generalization. Likewise, the energy required for infrastructure, particularly urban infrastructure (water, electricity, waste, mobility, etc.) is still largely fossil-fuelled, even though in just five years a global metropolis like Copenhagen has given

itself the means to obtain supplies from 100% renewable energy. We must therefore accelerate the move for energy and carbon sobriety – we have [all the means needed](#).

Finally, the issue of the growing ecological footprint of digital networks can no longer be avoided, when essential infrastructures, such as heating networks and waste collection, work very well in a “low-tech” mode.

The notion of essential well-being can therefore be useful for the “end of the crisis”, provided that we remain faithful to the motto of those to whom we owe so much: first, do no harm.

The essential, the useless and the harmful (part 2)

By [Eloi Laurent](#)

How do we know what we can do without while continuing to live well? To clarify this sensitive issue, economic analysis offers a central criterion, that of the useful, which itself refers to two related notions: use and utility.

First of all, and

faithfully to the etymology, what is useful is what actually serves people to meet their needs. From the human point of view, then, something is useless that doesn't serve to meet people's needs. Amazon [announced on March 17](#) that its warehouses would now store only "essential goods" until April 5, and defined these as follows in the context of the Covid-19 crisis: "household staples, medical supplies and other high-demand products". The ambiguity of the criterion for the useful is tangible in this definition, which conflates something of primary necessity and something that emerges from the interplay of supply and demand. While giving the appearance of civic behaviour, Amazon is also resolutely in line with a commercial perspective.

Furthermore, this first criterion of the useful leads into the oceanic variety of human preferences that punctuate market movements. As Aristotle recalls in the first chapter of the [Nicomachean ethics](#), the founding text of the economics of happiness written almost two and a half millennia ago, we find among individuals and groups a multiplicity of conceptions of what constitutes a good life. But contrary to the thoughts of Aristotle, who erected his own concept of happiness as well-being that is superior to others, it is not legitimate to prioritize the different conceptions of a happy life. Rather, a political regime based on liberty is about

ensuring the possibility that the greatest number of “pursuits of happiness” are conceivable and attainable so long as none of them harms others.

But the Aristotelian conception of happiness, which emphasizes study and the culture of books, is no less worthy than any other. Are bookstores, as professionals in the sector argued at the start of the lockdown in France, essential businesses just like earthly food businesses? For some, yes. Can they be considered useless at a time when human existence is forced to retreat to its vital functions? Obviously not.

Hence the importance of the second criterion, that of utility, which not only measures the use of different goods and services but the satisfaction that individuals derive from them. But this criterion turns out to be even more problematic than that of use from the point of view of public policy.

Classical analysis, as founded for example by John Stuart Mill following on from Jeremy Bentham, supposes a social welfare function, aggregating all individual utilities, which it is up to the public authorities to maximize in the name of collective efficiency, understood here as the optimization of the sum of all utilities. Being socially useful means maximizing the common well-being thus defined. But, as we know, from the beginning of the 20th century, neoclassical

analysis called into question the validity of comparisons of interpersonal utility, favouring the ordinal over the cardinal and rendering the measure of collective utility largely ineffective, since, in the words of Lionel Robbins (1938), “every spirit is impenetrable for every other, and no common denominator of feelings is possible”.

This difficulty with comparison, which necessitates the recourse to ethical judgment criteria to aggregate preferences, in particular greatly weakens the use of the statistical value of a human life (“value of statistical life”, or VSL) in efforts to base collective choices on a cost-benefit monetary analysis, for example in the area of environmental policy. Do we imagine that we could decently assess the “human cost” of the Covid-19 crisis for the different countries affected by crossing [the VSL values calculated, for example by the OECD,](#) with [the mortality data compiled by John Hopkins University?](#) The economic analysis of environmental issues cannot in reality be limited to the criterion of efficiency, which is itself based on that of utility, and [must be able to be informed by considerations of justice.](#)

Another substantial problem with the utilitarian approach is its treatment of natural resources, resources that have [never been as greatly consumed by economic systems](#) as they are today – far from the promise of the

dematerialization of the digital transition underway for at least the last three decades.

The economic analysis of natural resources provides of course various criteria that allow us to understand [the plurality of values](#) of natural resources. But when it comes to decision-making, it is the instrumental value of these resources that prevails, because these are both more immediate in terms of human satisfaction and easier to calculate.

This myopia leads to monumental errors in economic choices.

This is particularly the case for the trade in live animals in China, which was at the root of the Covid-19 health crisis. The economic utility of the bat or the pangolin can certainly be assessed through the prism of food consumption alone. But it turns out both that bats serve as storehouses of coronavirus and that pangolins can act as intermediary hosts between bats and humans. So the disutility of the consumption of these animals (measured by the economic consequences of global or regional pandemics caused by coronaviruses) is infinitely greater than the utility provided by their ingestion. It is ironic that the bat is precisely the animal chosen by Thomas Nagel in a [classic article from 1974](#) aimed at tracing the human-animal border, which wondered what the effect was, from the point of view of the bat, of being a bat.

Finally, there appears, halfway between the useless and the harmful, a criterion other than the useful: that of “artificial” human needs, recently highlighted by the sociologist [Razmig Keucheyan](#). Artificial is understood here in the dual sense that these needs are created from scratch (especially by the digital industry) rather than spontaneously, and that they lead to the destruction of the natural world. They contrast with collectively defined “authentic” needs, with a concern for preserving the human habitat.

At the end of this brief exploration, while it may seem rather difficult to determine the question of useful (and useless) well-being, it nevertheless seems... essential to better understand the issue of harmful well-being. This will be the subject of the last post in this series.

The essential, the useless and the harmful (part 1)

[Éloi Laurent](#)

The Covid-19 crisis is still in its infancy, but it seems difficult to imagine

that it will lead to a “return to normal” economically. In fact, confinement-fuelled reflections are already multiplying about the new world that could emerge from the unprecedented conjunction of a global pandemic, the freezing of half of humanity, and the brutal drying up of global flows and the economic activity. Among these reflections, many of which were initiated well before this crisis, the need to define what is really essential to human well-being stands out: what do we really need? What can we actually do without?

Let us first reason by the absurd, as Saint-Simon invited us to do back in 1819. “Suppose that France suddenly loses ... the essential French producers, those who are responsible for the most important products, those who direct the works most useful to the nation and who render the sciences, the fine arts and the crafts fruitful, they are really the flower of French society, they are of all the French the most useful to their country, those who procure the most glory, who add most to its civilization and its prosperity: the nation would become a lifeless corpse as it lost them... It would require at least a generation for France to repair this misfortune...”. It is in the mode of the parable that Saint-Simon

thus tried to explain the hierarchical reversal that the new world of the industrial revolution implied for the country's prosperity, which could henceforth do without the monarchical classes, in his view, whereas "Science and the arts and crafts" had become essential.

Adapting Saint-Simon's parable to the current situation amounts to recognizing that we cannot do without those who provide the care, guarantee the food supply, maintain the rule of law and the supply of public services in times of crisis, and operate the infrastructure (water, electricity, digital networks). This implies that in normal times all these professions must be valued in line with their vital importance. The resulting definition of human well-being resembles the dashboard formed by putting together the different boxes in the [pandemic travel certificates](#) that every French person must fill out in order to be able to move out of their confinement.

But it is possible to flesh out this basic reflection by using the numerous studies carried out over the decades on the [measurement of human well-being](#), work which has greatly accelerated in the last ten years in the wake of the "great recession". We can start by considering what is essential in the eyes of those questioned about the sources of their well-being. Two priorities have emerged: [health](#) and [social connections](#). In this respect, the current situation

offers a striking “well-being paradox”: drastic measures of confinement are sometimes being taken to preserve health, but they in turn lead to the deterioration of social connections due to the imposed isolation.

But how better to begin to positively identify the different factors in “essential well-being” that should now be the focus of public policy? Measuring poverty can help here in measuring wealth. The pioneering empirical work of Amartya Sen and Mahbub ul Haq in the late 1980s resulted in a definition of human development that the Human Development Indicator, [first published by the United Nations in 1990](#), reflects only in part: “Human development is a process of enlarging people’s choices. The most critical of these wide-ranging choices are to live a long and healthy life, to be educated and to have access to resources needed for a decent standard of living. Additional choices include political freedom, guaranteed human rights and personal self-respect.” More specifically, in the French case, the work undertaken in 2015 by the National Observatory of Poverty and Social Exclusion (Onpes) on [reference budgets](#), and extended in particular by INSEE with its “[indicator of poverty in living conditions](#)”, has led to defining the essential components of an “acceptable” life (we could also speak of “decency”).

But let's suppose
that these measurement instruments contribute, upon recovery
from the crisis,
to defining an essential well-being (which key workers would
maintain in the crisis
situations that are sure to be repeated under the impact of
ecological shocks);
expertise alone would not be enough to trace its contours. A
citizens'
convention needs to take up the matter.

This is all the more
so as the definition of essential well-being naturally evokes
two other
categories that are even more difficult to define, to which
this blog will
return in the coming days: useless (or artificial) well-being,
that which can
be dispensed with harmlessly; and harmful well-being, which we
must do without
in the future because in addition to being ancillary it harms
essential well-being,
in particular because it undermines the foundations for well-
being by leading
to the worsening of ecosystems (this is the debate taking
place in Europe on whether
it is necessary to save the airlines). The debate over
essential well-being has
just begun...