

## **UNDERSTANDING COVID-19**

Science in policymaking, the political economy of Covid, and its long-term effects

#### Abstract

More than one year after the first confirmed Covid-19 case, our world is still different to what it was in pre-Corona times. Judging by the complicated and slow mass-rollout of the much-needed vaccinations, the virus will accompany us well into 2021, and its consequences will be felt even longer. The motivation for this dossier is hence to take stock of what we've learnt over the past 12 months and indicate where governments need to improve their performance in the future. This collation of blog posts thus assesses risks and benefits of science's new role in policymaking; the often-competing nature of health and economic objectives in the political economy of Covid; and long-term effects, including the need for an economy-wide restructuring in the near future.

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## 1. Understanding Covid-19: At a glance

More than one year has passed since the emergence of the first confirmed Covid-19 case in Wuhan, China, in December 2020 and the <u>World Health Organisation's (WHO)</u> <u>warning</u> of a "Public Health Emergency of International Concern" in January 2020. As we are all painfully aware, the virus spread quickly across the globe – so rapidly, in fact, that the WHO declared Covid-19 a pandemic already in March 2020.

One year in, most countries in the world have witnessed at least two large waves of rising infections, which have led to numerous lockdowns and/or social distancing measures. Many people were and still are required to work from home, accept cuts in income, or have lost their jobs altogether. The severe <u>labour market consequences</u> made job support schemes or other government support for workers and firms indispensable.

The development and approval of multiple vaccines against the virus presented a glimmer of hope in late-2020. However, as we are currently learning, the mass roll-out of the vaccines is a complicated and highly politicised affair which renders a return to normality a still relatively far-away prospect. At the time of writing, <u>worldwide</u> only 247.8 million vaccinations (or 1.1 doses per 100 people) have been administered. While vaccination champions are making steady progress (e.g. in Israel 92.4% of the population have received at least one jab, 62.6% in the UAE, and 31.7% in the UK), many European countries are lagging behind (e.g. only 7.7% of Germany's population has received at least 1 shot), and most developing countries don't even have access to the vaccines yet. These statistics stand in stark contrast to more than <u>115 million confirmed Covid cases and 2.56 million deaths</u> directly related to the virus – the number of non-Covid excess deaths due to the virus' consequences on health care systems comes on top of this.

The severe lack of understanding of the virus and its properties has often driven policymakers to the brink. It has, however, also put epidemiologists and other medical professions in the spotlight and brought back natural sciences to the forefront of policymaking. Comprehending this scientific advice is crucial for designing and implementing effective policies, especially when conceptual errors can cost lives. <u>Section 2</u> of this dossier, hence, explores science's role in Covid policymaking. It explains and criticises the herd-immunity strategy – most notably applied in the UK and Sweden in earlier stages of the pandemic – from a technical and epistemological perspective and pleads for (simple) models to be used, not abused. Science can neither substitute for political choices between competing goals nor replace the need for nuanced judgment of the multifaceted nature of specific problems.



Due to the logical consequences of Covid-related social distancing measures or lockdowns, maintaining good public health and stabilising the economy have become competing goals in recent months. Health should, of course, always come first and any government policy that puts the economy before the physical and mental wellbeing of its citizens should be condemned. However, the state of the economy also affects real people's lives – a lower household income, for example, is connected with a shortened life expectancy. Any serious assessment of a government's corona performance hence must consider both domains. <u>Section 3</u> explores this political economy of Covid-19, including a 'pandemic misery index', featuring both health and economic indicators, and an extended discussion of (in)effective wage subsidy schemes and other government support across Europe.

Governments have significantly increased support for their citizens and domestic companies, but, in the name of public health, they have also sometimes drastically restricted individual rights (from distance rules and travel bans to curfews and total national lockdowns). Covid-19 has certainly changed the world as we know it. But will it stay this way forever? Without trying to predict the end of the pandemic, <u>Section 4</u> concludes this dossier by assessing some systemic long-term corona effects. Concerns about a sustained period of inflation, on the one hand, are overrated, as Covid-induced price hikes are likely a one-off phenomenon, and even if they were a continuous trend, inflation is unlikely to rise to unsustainable levels. On the other hand, structural transformations in the world of work, including working from home (WFH) arrangements, are likely to be permanent and thus require a reorganisation of work and tasks that allows increased team autonomy. Looking at past episodes of economy-wide restructuring is helpful in this regard, as they exemplify the importance of understanding the origins and consequences of different adjustment paths.

## 2. Science in policymaking

#### 2.1. The art of following science

In recent years, western democracies have experienced a damaging erosion of faith in scientific expertise. While online conspiracy theories and the alternative facts promoted by charismatic demagogues are partly responsible, some blame attaches to the naïve way in which governments apply scientific data to policy questions, writes **Richard Bronk.** Science can neither substitute for political choices between competing goals nor replace the need for nuanced judgment of the multifaceted nature of specific problems.

The daily press conferences from Downing Street since March 2020 underline the prominence given to epidemiologists, behavioural scientists and the medical profession in driving policy reaction to the Covid-19 crisis. This may be evidence of a welcome return of scientific expertise to the heart of government after a period when much of the population and elements of the government had, in the words of <u>Michael Gove</u>, 'had enough of experts.' But, despite the obvious glories of vaccine research, there is a danger that continual reference by elected governments to scientific modelling to justify contentious policy choices may further undermine scientific expertise and evidence-based policy in the eyes of the electorate.

Popular distrust of social-science expertise has been growing for some time. Economics, in particular, suffered a near-fatal blow to its credibility in the court of public opinion after the 2008 financial crisis, thanks in part to the widespread misuse of economic models to make predictions of unwarranted precision as a result of a basic confusion between calculable risks and radical uncertainty. Distrust was intensified by the tendency for policymakers to justify controversial decisions by delegating them to the outputs of 'black box' (cost-benefit, risk-measurement or macroeconomic) models promising to solve the equations of life.

Faith in the medical and natural sciences has generally remained stronger. But the persistence of climate-change denial and large pockets of Covid-19 scepticism suggest that, if natural scientists get blamed for government policies that are unpopular with sections of the electorate, their findings are also likely to become increasingly politicised. This is particularly true if governments hide key value choices and distributional decisions behind the need to react to scientific findings, or if scientists allow themselves to become proselytisers for particular political values or goals. Much damage is done to the independent and non-partisan status of science by illegitimately conflating value choices with empirical analysis.

One unhelpful myth promoted by many economists and other social scientists under the philosophical influence of utilitarianism is that all values can be rendered <u>commen-</u> <u>surable</u> in a single unit of account, so that there is always one right answer as to the most rational trade-off between them. This feeds into a technocratic view that analysis and data (such as 'willingness to pay' for non-market goods) can on their own provide the correct solution to policy questions – often with the help of state-of-the-art algorithms.

By contrast, voters intuitively understand that the trade-offs between different values or goals – such as medical health and economic growth, economic efficiency and equality, or freedom and security – are highly contested. They want to see the different possible

value weightings for each goal relative to others articulated by their politicians and debated since there is no one rational answer. Indeed, the choice of trade-offs made will define the very identity of the body politic. This makes it dangerous for governments to claim that any particular decision, such as closing schools or parts of the economy to reduce Covid-19 transmission, is driven purely by the science rather than by a political choice – in this case to privilege the health service over economic growth and the lives of highly at-risk (mostly elderly) groups over the life-chances of younger generations.

Science has an important role in informing voters and politicians about the practical implications of choosing any particular trade-offs between conflicting goals, and it may at times show analytically that some apparent trade-offs between goals are illusory. But ultimately science cannot determine what is the right value choice to make. Such choices are the stuff of politics and the responsibility of political leaders accountable to the electorate. They should never simply be buried in the assumptions of technocratic models and algorithms.

Confusion between value choices and analytical findings is one threat to the legitimacy of science as a key support for policy. Another is the naïve empiricism of many policy-makers when they talk of 'data-driven policies' and promote 'big data' as the solution to our dilemmas, as if data are some entirely objective touchstone. In practice, scient-ists never have direct access to underlying reality. Rather, their way of seeing the world is mediated by the particular languages, conceptual grids and scientific instruments they use. The data they analyse – and the facts upon which governments base their assumptions – are partly constructed by the theories and concepts scientists internalise and by the data collection methods used. In this sense, while data can help stress-test policy ideas, they are never entirely neutral or incontrovertible readings of reality. Data need to be evaluated in the light of alternative scientific frames and their pertinence carefully judged.

All scientific theories (and related data collection methods) are selective and focus only on certain aspects of multi-faceted reality. Indeed, the main value of most scientific methods is to abstract from complexity and contingent complications and isolate certain systematic tendencies in the natural or social world: conclusions are presented with the caveat that 'other aspects' or factors are assumed to 'remain equal' (*ceteris paribus*) and can therefore be safely ignored. This means that whenever scientific findings are applied to particular policy problems, the first challenge is to assess whether the *ceteris paribus* clause in the relevant model remains a safe assumption. And for this the policymaker needs to assess the potential relevance of a range of scientific per-



spectives that may illuminate other – often incommensurable – aspects of the problem at hand.

The challenges with data-driven policy are greater still when dealing with the data needed to model social behaviour. For a start, social scientists are seeking to explain a pre-interpreted world – that is, they have to take account of the context-specific interpretations or constructions of reality that are actually motivating people's decisions. This was one of the reasons that <u>Friedrich Hayek</u> criticised the use of aggregate statistics by economists and socialist planners: as he put it, the data that matter for explaining economic behaviour are the hard-to-collate subjective assessments, opinions and tacit knowledge of local actors – 'the things known to the persons whose behaviour we try to explain.' Similar reasoning accounts for some of the Bank of England's increasing use (noted by <u>David Tuckett *et al*</u>) of regional agencies and citizen reference panels to glean the narratives and stories shaping different actors' interpretations of current events and prospects. Such qualitative data can help the Bank decipher new trends in economic behaviour.

In policy and business, much of the faith in 'big data' is predicated on the assumption that patterns in past data are a good predictor of the future behaviour of economic actors and the socio-economic system as a whole. But, as <u>Jens Beckert and I argue</u>, this assumption ignores the extent to which the innovation and constant novelty endemic in late capitalist systems introduces a basic indeterminacy that ensures that the future is rarely a statistical shadow of the past. It follows that the focus of economics should be on providing models that can act as diagnostic tools for spotting new patterns in realtime data rather than on trawling huge existing data sets in the hope of being able to extrapolate the future from patterns in the past.

More broadly, all scientific results are provisional – and should be open to audit by other scientists – and none capture more than a subset of reality. When dealing with real-world problems, this means that following the science must involve treating its findings as provisional and partial guideposts, while making careful judgments about the relevance of specialist models in elucidating any particular problem. Furthermore, when coping with multi-faceted issues – involving, for example, economic, social, psychological and physiological factors – the policymaker must work out the feasibility of synthesising the findings of the different relevant scientific disciplines to form a rounded picture of the contingent particular.



Such a '<u>holistic' assessment</u> may be loosely based on science but involves consideration of a range of factors beyond the scope of any individual science. In other words, the art of integrating science into governmental decision-making involves reversing the abstraction from the complex interaction of different factors that any science must engage in and using the findings of heterogeneous scientific methods to illuminate the messy particular.

<u>John Neville Keynes</u> made a similar point more than a century ago, when he argued that the findings of abstract economics are 'conditional' and must only be applied to make practical recommendations after careful consideration of the particularities of real-world problems and relevant non-economic factors and ethical questions. Such applied economics was, he stressed, an 'art' not a science – a view recently revived by <u>David</u> <u>Colander</u>.

In the opening chapters of <u>The Sense of Reality</u>, Isaiah Berlin also concluded that the 'art of governing' is something quite different from scientific knowledge. It involves the insight and judgment required to understand the interplay between the different relevant aspects and levels of reality captured by different sciences. Like science, governing requires epistemological humility, constant improvisation and trial and error. But unlike science, it can never afford to abstract from the contingent particularity of life. As <u>Berlin</u> put it, good government involves a special sensitivity to the small changes that may in fact be critical to outcomes and an appreciation of the 'dark mass of factors whose general drift we perceive but whose precise interrelations we cannot formulate.' The art of good governance is to avoid taking scientific illumination of a single aspect of reality as the whole truth. It involves combining the generalisable and testable findings of science with an understanding of 'a particular situation in its full <u>uniqueness</u>'.

This is not to underestimate the political challenge of such a nuanced use of science. Voters may respond better initially to politicians using simple messages to express unwarranted certainty than to those who acknowledge that the science on which their decisions are based is partial and provisional. As Berlin noted laconically in a letter to Kay Graham quoted by <u>Aurelian Craiutu</u>, 'nuances are merely a nuisance'; they are difficult to articulate, and they are 'treated as confusion or evasion'.

Here central bankers can perhaps show politicians the way. In recent years, they have developed the art of fashioning nuanced narratives based on the output of scientific models supplemented with qualitative assessment of broader factors. Crucially, these narratives guide our expectations while being couched in provisional terms that ensure their credibility is not shredded when reality springs a surprise.

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## 2.2. The herd immunity 'solution' is pub economics – a simple model that won't work

**Nicholas Barr** (*LSE*) argues that the pursuit of herd immunity as a response to COVID-19 is profoundly mistaken. The error is no accident, but an example of a much wider class of error – mistaking a simple model (which can be useful to clarify thinking) for a good enough description of reality to be used as the basis for policy.

The inappropriate use of models is widespread, and leads to bad policy. The models implicated in the financial crisis are a graphic example. A more recent one is consideration of herd immunity as a way of tackling COVID-19.

#### A simple model of herd immunity

The idea, as <u>explained more fully</u> by my colleague Bob Hancké, is that once enough people have been exposed to the virus and have recovered (the example later in this article uses a figure of 75%), there are not enough non-immune people to allow the virus to spread.

The simple model of herd immunity works if:

- a) Infection has a low mortality rate across all age groups (so that large-scale exposure causes few deaths);
- b) Infection causes few or no long-term health problems;
- c) A person who recovers has long-term immunity; and
- d) The healthcare system has adequate capacity to address the full range of medical conditions.

In principle, this outcome can be achieved by speedy universal rollout of a vaccine that is highly effective across all age groups.



A slightly more advanced model relaxes assumption (a), so that there is an age gradient in mortality. In that case, the simple theory holds so long as:

e) The at-risk group can be isolated in a way that is (i) effective and (ii) compatible with maintaining mental health.

#### Testing the assumptions

One has only to articulate these assumptions to see how far they deviate from reality.

- a) There is overwhelming evidence of a steep <u>age-gradient</u> in mortality rates.
- b) There is growing evidence that people in all age groups, and whether or not they have a pre-existing condition, suffer continuing health problems – so-called 'long <u>COVID</u>'. Women in their 50s are thought to be at greatest risk.
- c) The immune status of people who have been infected and recovered remains the subject of intense research.
- d) In the UK last spring, the hospital system was severely stretched, and avoided being overwhelmed only by <u>pausing large numbers</u> of non-COVID-related investigations and procedures. The scale of the problem is illustrated by what are known as <u>excess deaths</u>, i.e. any excess in the number of deaths in a month relative to the long-run average in that month – widely regarded as the best single measure. Further evidence of extra non-COVID deaths is the recent evidence of a sharp increase in the <u>numbers of people dying at home</u>.
- e) Shielding a large at-risk group faces multiple problems. First, protection is difficult even in a formal setting, shown by the large number of <u>excess deaths in care homes</u> earlier in the year, a problem that <u>has not gone away</u>. Second, many at-risk people live in multi-generation families one has only to think of grandma in a family with a frontline worker who mixes with the public, and/or teenage grandchildren, who mix with their fellow students. Third, even where it is possible to isolate a vulnerable person effectively, the <u>cost in terms of mental health</u> is considerable for many people that something is hard to quantify does not mean that it is not real and important. The problem of <u>keeping in touch with relatives in care homes</u> is well documented, exemplified by poignant pictures of people trying to talk through closed windows to elderly relatives, often suffering from dementia.

Finally, a vaccine that is highly effective, gives immunity for a significant time, and is available on a scale and at a price such that it can be rolled out rapidly universally at this stage remains a beguiling vision in many countries.

#### The moving parts: a numerical example

The table (spreadsheet available <u>on request</u>) illustrates a population of 1 million, a death rate of 1% and a target that 75% of the population should be survivors of infection. It shows that in a simple setting with a 1% death rate, a policy of herd immunity leads to approaching half a million deaths (in the table, the number (highlighted in D10) is 488,722).

|    | Α   | В       | С       | D       | E         |
|----|---|---------|---------|---------|-----------|
| 1  | Number infected %                           | 50%     | 75%     | 75.188% | 100%      |
| 2  | Absolute number infected                    | 500,000 | 750,000 | 751,880 | 1,000,000 |
| 3  | Number of deaths                            | 5,000   | 7,500   | 7,519   | 10,000    |
| 4  | Survivors of infection                      | 495,000 | 742,500 | 744,361 | 990,000   |
| 5  | Total surviving population                  | 995,000 | 992,500 | 992,481 | 990,000   |
| 6  | % immune survivors, living population       | 49.75%  | 74.8%   | 75%     | 100%      |
| 7  | Immune, % of original population            | 49.5%   | 74.25%  | 74.44%  | 99%       |
| 8  | Total deaths                                |         |         |         |           |
| 9  | Deaths per million population               |         | 7,500   | 7,519   |           |
| 10 | Deaths for UK population (65m)              |         | 487,500 | 488,722 |           |
| 11 | Extra deaths (Goodhart effect)              |         |         |         |           |
| 12 | Extra deaths per million population (E3-D3) |         |         | 19      |           |
| 13 | Extra deaths for UK population              |         |         | 1,222   |           |

Column C, 75% of the initial population (row 1), are infected, causing 750,000 infections and 7,500 deaths (rows 2 and 3). Because of those deaths, survivors (row 4) are only 74.81% of the total surviving population (row 6), so that more people need to be infected to achieve the 75% target. Two effects are occurring, going in opposite directions:

- i. A death means that an infection does not result in an immune person, requiring an extra infected-and-then-immune person to fill the gap;
- ii. But, with a smaller population, fewer people in absolute terms need to be infected to reach the 75% ratio.

The effect of (i) is larger than (ii) because the target for herd immunity is not an extra immune person but 0.75 of an immune person, thus complete replacement for a death is not necessary.

The target of 75% infected-and-survived is achieved when 751,880 people have been infected (D2), with a total of 7518.8 deaths (D3), i.e. 18.8 people more than in the first pass in column C. Scaling to the UK population (assumed to be 65 million), the pursuit of herd immunity leads to 487,500 deaths in the first pass (C10) and a final total of 488,722 (D10), i.e. an additional 1,222 extra deaths (D13) because of the need to compensate for the deaths in the first pass. Those extra deaths are an example of <u>Goodhart's Law, explained by Bob Hancké</u>.

#### What does this tell us?

The direct conclusion is that, even if the assumptions in the table hold, a 1% death rate leads to nearly half a million deaths. If 1% is on over-estimate, a death rate of half of that leads to nearly a quarter of a million deaths. However, the failure of the assumptions means that a death rate of 1% is sadly realistic; and even if the 75% target is achieved in the short run, without extended immunity, either natural or through a vaccine, any gains will be short-lived. Many people (definitely including Bob Hancké and me) regard the resulting deaths on anything like that scale as immoral.

The wider point is that it is a fundamental error to use a simple model in a complex setting. The simple herd immunity model is an epidemiological analogue of the simple model of a market economy (what economists refer to as a 'first-best' model), which assumes, for example, that all consumers are well-informed and have a long-run view, and that all firms and industries are perfectly competitive (the formal assumptions are set out in the <u>Arrow-Debreu model</u>).

The simple market model argues for consumer choice. But consumers of complex products are not well-informed, and mistaken choices may be deeply harmful. For precisely that reason the production and sale of pharmaceutical drugs are heavily regulated. The drive for that regulation was the string of deaths from patent medicines in the 18th and 19th centuries. We do not need to learn that lesson again. As <u>my book on the welfare state</u> explains, a central reason for substantial state involvement in cash benefits, health care and education in all developed and middle-income countries is as a response to market failure.

The simple herd immunity model, like the simple market model, is useful to assist clear thinking, but to use either as a basis for policy is an example of what I have called 'pub

economics' – something that is obviously right, and everyone knows it's right – but it's wrong. In both cases, proponents make the mistake of believing that the simple model is the whole truth rather than – at best – an insight into part of the truth.

The fundamental error, in short, is believing that the model is a good-enough description of reality to work well in a policy setting. The error has two possible roots: either people genuinely believe that the model is an adequate description of reality, or their technical judgement is clouded by ideology.

Models should be used, not abused. As the economist and Nobel prize winner Peter Diamond puts it:

'The complexity of the economy calls for the use of multiple models that address different aspects. ... I am concerned that ... too many economists take the findings of individual studies literally as a basis for policy thinking, rather than drawing inferences from an individual study, and combining them with inferences from other studies that consider other aspects of a policy question, as well as with intuitions about aspects of policy that have not been formally modelled. Assumptions that are satisfactory for basic research, for clarifying an issue by isolating it from other effects, should not play a central role in policy recommendations if those assumptions do not apply to the world. To me, taking a model literally is not taking a model seriously. **It is worth remembering that models are incomplete—indeed, that is what it means to be a model**' (emphasis added).

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#### 2.3. Goodhart's law and the dark side of herd immunity

For much of 2020, herd immunity has been held up as a solution to the Covid-19 crisis – initially even in the UK and Sweden but later abandoned, while 'lockdown sceptics' in much of the advanced capitalist democracies revived the idea in some, often milder,

form afterwards. In this article, **Bob Hancké** argues that it is a dangerous solution, and morally rejectable, in large part because it is a special instance of Goodhart's law, undermining the very goal it purports to achieve. Herd immunity is not only technically flawed, as many medical experts argue, but also epistemologically wrong in the case of Covid-19.

In mid-October 2020 a group of respected medical scientists issued a (somewhat pompously called) <u>Great Barrington Declaration</u> (GBD), which urged, among other things, the adoption of a 'herd immunity' strategy to cope with Covid-19. The economic, social and physical and mental health costs of severe constraints on normal activity are now larger than they would be in a situation where the pandemic could just run its course, a sizeable share of the population builds up immunity while protecting the most vulnerable, thus stopping the growth of the viral infection.

As the debate about herd immunity, especially after the GBD, gathered steam, a problem that has haunted many well-meant policies suddenly seemed to make a guest appearance. Made famous by LSE professor Charles Goodhart, the law with his name goes roughly like this: If an observed (statistical) regularity becomes the target of an intentional policy, it ceases to be a meaningful measure for policy making.

In what follows, I start by unpacking the concept of herd immunity in light of the (sad) ironies associated with Goodhart's law and then develop a very simple model to assess it as a strategy for coping with Covid-19. The upshot: the law is alive and well in this area; if adopted, herd immunity would not only undermine its own targets, its extra death toll as a result of Goodhart's law-like dynamics is significantly higher than what modern societies should or could countenance.

#### The immunity of the herd

The basics first: Herd immunity is, for those very, very few among us lucky enough not to have been bombarded with it since early spring 2020, an epidemiological term referring to the level of aggregate immunity in a population that is necessary to stop a virus or bacteria from infecting all members of that population. The basic idea is that if a certain share of the population, often held to be around 75%, is immune to the infectious disease, its chances of spreading in the population fall dramatically. It tries to go from patient A to B, but B has a 75% chance of being immune, so the chances of virus, in this case, of making it past B are only one in four – very small indeed. Aggregate this over the entire population and the net effect is that almost all contagious jumps from A to anyone else will fail and, deprived of new bodies to infect, the virus will die out. While there are loads of possible qualifications (for example the speed of transmission, a fluctuating immunity rate between high and low intensity periods, different infection rates in



different parts of the population and the impact of super spreader events, to name just a few important ones), none of these change the fundamental logic. Importantly, you do not need 100% coverage for herd immunity to kick in. While many initially thought that anything above 60% is a good start (in 3 cases out of 5 the disease will not be transmitted), and that 75% (3 out of 4) is almost certain to do the trick entirely, the US's Dr Fauci has recently suggested that for this particular virus it may be as high as 90%. The numbers are not crucial, but the jump from three quarters to nine out of ten is an important consideration.

Like all good models, the notion of herd immunity is based on a few assumptions; Most of these are related to the concept's origin in veterinary medicine, where it is a technique to counter a contagious infectious disease making its way through the relatively small local bovine population. Vaccinating a minimum threshold number will create the positive externality explained earlier, in which even non-vaccinated cows run a very low risk of infection. It is also used in mass vaccination programmes for humans, but usually in a quite tightly controlled environment where the same basic ideas have to hold: you need to know everything relevant on the evolution of the contagious disease, be certain that immunity will result from the treatment, and be able to measure the number of vaccinations, the degree of immunity and the size of the risk population accurately. Sadly, thus far Covid-19 has escaped much of our understanding in all or most of these areas. In early 2021, when vaccinations started, we were not even sure if the vaccine confers long-term immunity or if it could handle all mutations that will inevitably occur in such a widespread infection.

#### 'We know nothing'

Not only do we know relatively little about the evolution of the disease, as <u>an excellent</u> <u>article</u> in *The Atlantic* emphasises, we have no idea, really, what exactly drives the spread of the coronavirus and what the best mitigation strategies are. For example, why did a few small towns in northern Italy record more deaths than the rest of the country combined? Or why did South Korea manage to control the spread of coronavirus, with only a few hundred excess deaths after a very inauspicious start? Apparently, the R number that everybody has focused on to understand the coronavirus's road through the population is an important but probably not the most important measure. Dispersion rates – and <u>overdispersion</u> as a super spreader handmaiden – is at least as important, but little is known about how to handle let alone prevent that. In short, we do not understand Covid-19 all that well. Effective vaccines that can be manufactured at scale, on the other hand, remain, if Ebola, HIV and a few other viruses are anything to go by, still a relatively distant prospect. While three vaccines are currently administered, there is no prospect of reaching vaccine-induced herd immunity in the

OECD before the summer – and that assumes that the current more aggressive strains are as susceptible to vaccines as the original strains were. In short, most of the conditions for a successful herd immunity strategy, and especially the basic knowledge, are simply absent, as an <u>open letter in The Lancet</u> argued in response to the GBD.

#### The dark side of herd immunity

But there is more. The notion of herd immunity produces a series of paradoxes that actually undermines the very idea itself. As a strategy it lacks precision; as a technique it is brutal; and dynamically it is self-defeating. Let's take each one of these points at a time.

A few building blocks need to be clarified first. Assume, generously, that once recovered a person is fully immune. It is not certain if this is the case with Covid-19 there are reported cases of reinfection within one cycle - but assuming immunity after surviving the infection simply stacks the cards *against* my argument (in fact, if individual immunity did not occur after infection, the very idea of herd immunity would make little sense), so no harm done from a methodological point of view. Now define herd immunity (H) as the ratio of living immune (R for recovered) to P (for population), the total living population: H=R/P. For the sake of the argument, let us assume that the target value for H is 75%, i.e. three people out of four need to have been infected and then become immune (or were, for a variety of unknown other reasons, naturally immune). Again, given what we know about Covid-19 in particular and highly contagious viral diseases in general, this may not be a high enough value for H; yet the H=0.75 assumption simply means that we stack the cards *against* our argument a second time, without producing a logical problem for the underlying model. Methodologically these two assumptions are akin to what is known as a critical or limiting case strategy: If the argument holds under these adverse conditions for it to work, the point I make will certainly be true under more favourable circumstances.

#### An outcome, not a strategy

Back to the H value, now: The interesting thing about this ratio (and all others) is that it is a *compound variable*, with two *direct variables* of interest at its roots – in this case R and P – but with an indeterminate relationship. To reach the target H value, R can increase while P remains stable; P can decrease with R stable; both can move simultaneously in opposite directions, R up and P down; both can increase but R increases more than P; or both can decrease but P decreases faster than R. All these combinations will lead to a rise in H. Nothing about H tells us *a priori* what needs to happen. Herd immunity, in other words, is an outcome of two analytically and practically separate processes, both of which can, at best, only be imperfectly controlled and monitored. This raises the first problem with the concept of herd immunity: being a com-

pound variable, the outcome of two complex and only partially understood processes, it is not obvious how it can conceptually be a clear, deliberate strategy. What exactly does it entail in policy terms?

Secondly, the idea has some perverse consequences as a result of this lack of conceptual clarity, as the simple model below illustrates. If A infects B and B dies, the absolute number in R remains constant, while the absolute number for P goes down by 1. That has two very different effects for the ratio R/P. The first is that as a result of B's death, one infection did not result in a person who is immune, a gap that can only be filled by another infected-and-then-immune person (call this *substitution*). The second effect, however, pulls in the opposite direction: with a smaller population (Pto - 1 death), we need, in absolute terms, fewer people to be infected to get to the 75% target value for H (call this *subtraction*).

#### More, not fewer, infections

This is where a subtle version of Goodhart's law comes into play. Because the effect of the target associated with substitution (0.75) is smaller than the target associated with subtraction (1), deaths as a result of infections *increase* the number of people who need to be infected to get to 75% of the population. In plain English: trying to bring the infection under control means that more people have to be infected.

As if that was not enough, there's a morbid twist to this dynamic: because infections carry with them the risk of death, herd immunity leads to a non-trivial increase in the number of additional deaths above those to be expected. To illustrate this, let us use some actual numbers (I borrowed these from the sister article by Nick Barr in this PEACS Dossier): assume H to be 75% and the death rate for the infection to be 1%. In a country like the UK, population c. 65 million, reaching an H value of 75%, requires that a whopping 48.75m need to be infected [BH: at the time of writing, in October 2020, the UK was estimated to have roughly a 6% immunity rate, and even if it were double that because we cannot measure the infection rate very well, reaching a H value of 75% would remain a steep hill to climb. In late winter 2021, the immunity rate, including vaccine-induced immunity, has risen to an estimated 15%, which implies that herd immunity remains 6-10 months away under the most optimistic scenarios]. Of those 48.75m, 1% or 487,500 will die. Interestingly, this is almost exactly the estimated number of deaths predicted by the Imperial College model at the basis of the UK's Spring 2020 lockdown, the number of estimated deaths if the virus had not been countered with stringent containment measures. Note that if we got the death rate slightly wrong and it is closer to 2%, 975,000 people have to die to reach a H value of 75%.

#### The grim reaper's a second bite of the cherry

The story gets better (or, actually, worse). To achieve an overall infection survival rate of 75%, it is necessary to replace some of the initially infected who died, i.e. to expose more people to infection, as we said earlier. But that is not without costs. With a 1% death rate, a target H value of 75% requires an additional 0.18% exposure, in fact. Assuming a 1% death rate, the number of deaths rises to 488,722 (and over 977,000 in the case of a 2% death rate), i.e. an additional 1,222 (or 2,444) deaths over and above the already staggering baseline numbers.

#### Herd immunity, schmerd immunity

In sum, there are many very serious problems with the concept of herd immunity. First, conceptually it is hard to think of herd immunity as a clear strategy, given that it consists of two imperfectly understood variables that are only partially under our control. Secondly, a sustained herd immunity strategy kills, *prima facie*, at least 487,000 people (I abstract here from improvements in health care, which might flatten the curve somewhat but won't fundamentally change the dynamic unless there is widespread access to an effective vaccine). Finally, the perverse effect associated with this application of Goodhart's law adds an additional 1,200 (or up to 2,500 if the death rate is above 1%). Such numbers are the stuff of mid-twentieth century political horrors, dystopian movies and end-of-time sci-fi novels, not of sensible policy making.

#### 'Protecting' the vulnerable

There is only one logical counterargument: protect, i.e. isolate, the vulnerable part of the population with known co-morbidities. That makes some logical sense, in the same way that you could theoretically imagine a swimming pool with a single wee-free lane. The problem with the idea is that it stumbles at the first practical hurdle: even assuming the vulnerable population is correctly identified (a big if considering how little we know about the virus), how do you stop them from starving, shopping, talking to neighbours, family, etc. for the possibly very long time it takes to get to a 75% H value? At a rate of increase of 7% per annum, roughly the figure for 2020, we are, even with an effective vaccine, talking of several years of such 'protection'. The <u>New York Times ran an eyebrow-raising article</u> on that particular problem with 'mass murder' in the title.

#### Bull immunity and his excrement

Carl Bergstrom and Jevin West, the authors of the highly insightful and entertaining <u>Calling Bullshit: The Art of Skepticism in a Data-driven World</u> (BS is the technical term for known but unacknowledged nonsense) refer to Goodhart's law as a heuristic to spot BS – not unlike what I have done here. Their last chapter, 'Refuting Bullshit', in-

vites all of us to point the finger at BS when we spot it. In that spirit, I hereby declare herd immunity in today's situation a dangerous technocratic fool's errand, without any basis in fact or science. Bullshit, in other words.

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## 3. The political economy of Covid-19

3.1. A pandemic 'misery index': Ranking countries economic and health performance during Covid-19

How can we compare the impact of Covid-19 on different countries across the world? <u>Tim Vlandas</u> proposes a pandemic 'misery index' that incorporates data covering both the health and economic dimensions.

What has been the economic and health performance of different countries since the Covid-19 crisis began? I propose to rank countries on the basis of how they have fared since the ongoing pandemic began by combining data on two dimensions: a health dimension capturing mortality data; and an economic dimension capturing increases in unemployment.

While the two indicators I select cannot provide an exhaustive picture, they are nevertheless useful in giving us some sense of how countries have fared across two of the dimensions that the Covid-19 crisis has affected most.

#### A measure of health costs

The health dimension is based on the so-called <u>p-score</u>. This data is available from the <u>ourworldindata website</u> (data extracted on 14 November 2020) and captures the weekly deviation of current mortality to 5 years average for that week.

Excess mortality figures have three advantages over more direct measures of Covid-19 deaths. First, they are not influenced by differences in definitions of what it means to have died from Covid-19. Second, they do not depend on the testing capacity of the country under consideration. Third, they include the total 'health cost' of the pandemic in terms of mortality, i.e. the excess deaths that are the product of both the pandemic and the policy responses to the pandemic.

#### A measure of economic costs

However, as is well recognised and widely discussed, the pandemic and our policy responses entail significant economic costs. Many economic indicators could be relevant for capturing the economic costs. For my purpose, I focus on monthly unemployment rate data, which is extracted from the <u>OECD website</u>.

Partly, this choice is based on data availability constraints, since the alternative of using GDP growth data would be hindered by more limited, less recent and less frequent data at the time of writing. But partly this choice finds inspiration in the so-called 'misery index' which was created following the stagflation of the 1970s. At the time, governments were facing – and attempting to address more or less successfully – both high inflation and high unemployment.

Adverse unemployment performance can be captured in two distinct ways. The first is simply to look at the average monthly unemployment rate. However, this does not account for the fact that when the pandemic hit, countries started from different relative positions. Since the p-score is calculated as a percentage increase from a previous average, I calculate an 'unemployment score' as the percentage increase in unemployment from one month to the next.

#### Country coverage

The following countries are included in my analysis: Austria, Belgium, Canada, Chile, Czech Republic, Denmark, England and Wales, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Israel, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, and the United States. Because <u>ourworldindata</u> does not report excess deaths by age groups for the UK as a whole but instead for England and Wales, this is the data I use through-out. For most countries. I have data from January to September 2020 (inclusive).





Figure 1: Weekly excess mortality by age group

P-score = excess mortality by age groups as % difference between number of weekly deaths in 2020 and average number of deaths in same week over previous five years (source: ourworldindata.org)

#### Excess mortality by age group

I first plot the weekly evolution of excess mortality for four distinct age groups (figure 1): 15-64; 65-74; 75-84 and 85+. The figure reveals the (by now) familiar worse performers, most notably Belgium and England. It is worth noting that the English experience is not atypical in the UK given the similar picture for Scotland and to a lesser extent Northern Ireland.

Other countries that did not fare well include Chile, Spain, Netherlands, and Italy; although we can observe differences in the timing of the peak. In all cases, excess mortality is a strong function of age, as has been well documented elsewhere.

#### Economic and health costs over time

If we abstract from the cross-national variation, we can see February was actually below the excess mortality average of the last five years for that time of the year and in March the average for our countries only experienced a mild increase. By contrast, in April countries experienced very significant rises in their excess mortality (Figure 2).



Figure 2: Monthly excess mortality and unemployment score

Bringing in the labour market deterioration into the picture, the increase in unemployment associated with the lockdown measures many countries introduced is also apparent. From May onwards and well into September, both unemployment and mortality stopped increasing in any substantial way across this sample of countries.

The correlation between the unemployment score and measures of excess mortality for

different age groups is statistically significant and positive but modest (between 0.13 and 0.15), which suggests that countries' performance in one dimension does not relate strongly for its performance on the other dimension. This contrasts with claims about the automatic and inevitable adverse effects of addressing the pandemic for the economy, but also contradicts claims about the presumed positive effects of addressing the pandemic for the economy (at least in the short term).



Figure 3: Excess mortality by country and age group over whole period (from February 2020 onwards)

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Finally, the heterogeneity is apparent when it comes to excess mortality by age group (figure 3): while some countries experienced the highest increases in mortality for the very old (85+), in others the figures were worst for the 65 to 84 age group, and we can observe both below and above average excess mortality rates for the 15-64 age group.

#### A pandemic 'misery index'

Policy makers are therefore faced with a joint minimisation problem whereby they are trying to minimise both health and economic costs. It is in this respect worth keeping in mind that both are – at least in the medium to long term – intrinsically linked to one another. On the one hand, mass health issues end up undermining economic productivity and growth. On the other hand, economic decline, insecurity and deprivation generate health problems while also limiting our ability to fund health interventions.

If we combine our economic and health performance indicators into a single pandemic misery index (PMI), we can see that the peak in April hides significant cross-national variation as captured by the standard deviation, and that as the mean of the PMI falls, so does its standard deviation (Figure 4).



Figure 4: Pandemic misery index over time

Note: The standard deviation statistic with weights returns the bias-corrected standard deviation, which is based on the factor  $sqrt(N_i - N_{i-1})$ , where  $N_i$  is the number of observations.

In Figure 5, I plot cross-national variation in the PMI. In the top worst performers, we find three liberal market economies (Canada, the UK and the US) and three southern European countries (Spain, Italy and Portugal). Although not in the top five worst performers, two small open economies in continental Europe – Belgium and Netherlands – also fared poorly.





Note: The pandemic misery index combines excess mortality with an increase in unemployment.

To assess what's driving poor performance we can disaggregate the PMI along its two dimensions (figure 6): the PMI in Spain, Italy and the UK is driven by mortality rates with relatively mild increases in unemployment, compared to the US and to Canada, where the increases in unemployment were much more acute. Among the good performers, we find several central and eastern European countries, including Latvia, Hungary, and Slovakia; and also Nordic countries such as Norway, Denmark and Iceland. Sweden which followed a different approach than its northern counterparts did not contain unemployment better than Denmark nor Finland.



Figure 6: Disaggregating the pandemic misery index across countries

Figure 7: Disaggregated PMI using levels in average monthly unemployment



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Of course, different countries started with different labour market positions, so plotting average levels (instead of changes) in unemployment rates, reveals a slightly different picture (Figure 7). Greece and Spain now look worst in terms of unemployment rate over the period, followed by Chile, Canada, the US and Italy. The Czech Republic, Poland, Netherlands, England and Wales, among others, kept a low unemployment rate.

Finally, excess mortality among the very old (85+) reveals especially dire numbers for parts of southern Europe (figure 8), where there are more inter-generational interactions. However, we can contrast the experiences of Spain and Italy, and to a lesser extent Portugal on the one hand, with Greece on the other hand, which performed very well in the first wave of the pandemic. The US, England and Wales, and Canada score high but are not in the top 6 worst performers, while Iceland, Norway, Hungary, Denmark and Slovakia do especially well.



Figure 8: Disaggregated PMI using mortality rates for over 85 rather than all ages

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#### 3.2. Anatomy of a wage subsidy

At the end of September, and again in early 2021, the UK re-introduced a wage subsidy scheme that has strong similarities with the German Kurzarbeit ('short work') programme. **Bob Hancké, Toon Van Overbeke** and **Dustin Voss** argue that much in the UK's approach is misguided. The German scheme works, they write, because it has three critical elements that are wholly or mostly absent in the UK. It would be a surprise, therefore, if it worked as intended – even leaving aside the potentially prohibitive shift in costs from government to employers.

The new UK wage subsidy scheme (the Job Support Scheme or JSS), introduced by Chancellor Rishi Sunak on 24 September, tries to balance the cyclical short-term problems of an economic downturn with the longer-term structural problems of adjusting to the emerging new economy. As our colleague <u>Nick Barr points out</u> (also featured in our <u>November Dossier</u>), there are many problems with that balance. But leaving that aside, the policies are likely to be problematic for a set of deeper-rooted, institutional reasons.

The new scheme is copied almost verbatim from the existing German Kurzarbeit programme that has become something like the gold standard in this area. But crucially the performance of such schemes does not just hinge on how sensible the policies themselves are; they are also a result of the wider institutional context in which they are introduced. Three elements in particular seem vital for the success of this type of wage subsidy scheme.

#### Carrots and sticks aka incentives

Start with the carrot. German employers want to safeguard their large investments in sophisticated workforce skills, while employers in the UK have little investment to protect: Most education and training is paid for by government and the individual worker (in only a few sectors do companies invest heavily in skills, and these are usually sub-



ject to competition clauses, prohibiting the employee from moving to another employer for a while after training). Then, the stick: German employers are forced to negotiate large and expensive social plans with trade unions, while British employers can more or less unilaterally fire and pay out a ludicrous notice period (one week per year worked above two years, else zilch).

German employers thus face very strong incentives to adopt Kurzarbeit, almost regardless of the cost, while British employers face the opposite incentives. That helps understand why, as <u>the Resolution Foundation has calculated</u>, the scheme is simply too expensive for most employers in the UK. Those in the real world outside No 11 think it is a poor scheme because it is too expensive and contains very few incentives for employers to pick it up. In light of the carrot point above: the policy makes little sense for employers, unless they were going to do something similar on their own account anyway to preserve skills and can now have the government pay part of that.

#### German company governance

In the company, where it is implemented, the German scheme is governed by employer and works council or trade union (or other workforce) representatives, who police the fairness, correctness and fraud in its implementation. That works because this form of 'micro-corporatism' is deeply embedded in a thick web of long-established mutual agreements, expectations and trust (supported and shaped by vetoes that the workforce can exercise in particular areas of company organisation). Calling this a bit weaker in the UK might qualify as a euphemism.

#### Macro-corporatism

At a political level, the Kurzarbeit scheme is in many ways an outcome of deeply embedded tripartite arrangements – a form of political exchange – that assign rights and responsibilities to business/employers and labour, and are often financially and institutionally supported, instigated or steered by government. Participating in Kurzarbeit is therefore almost a moral obligation for employers – not because German employers are fundamentally nice people but because they understand the strategic long-term benefits of having a stable, functioning macro-level governance arrangement beyond the market. Such a settlement, if it ever existed, disappeared in the Thatcherite hurricane of the 1980s.

#### Blind institutional transfer doesn't work

Combined, these three points show why importing such a policy and expecting the same outcome as elsewhere is questionable at best. That might help explain why few observers have actually seen much good in it. As the days go on, we expect an ava-

lanche of criticism of precisely those details that make the whole JSS a big mess. The opening shots were fired in the <u>FT</u> and the <u>Guardian</u> immediately after its announcement. Added to the more fundamental critiques here, it would be a surprise if the scheme survived one review.

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### 3.3. The Covid horror picture show: Why We Have Little to Fear from 'zombie firms'

Recently, economists have voiced fears that the costly Covid-19 business support programmes rolled out by European governments could create 'zombie firms' – failing companies kept artificially alive by the continued extension of credit. Examining emergency credit provision in Germany, **Dustin Voss, Toon Van Overbeke** and **Bob Hancké** argue that such concerns are largely unwarranted. Financial scrutiny is provided through deeply institutionalised relationships between banks and firms in the Mittelstand that help overcome information asymmetries regarding solvency. To protect political and social peace in the midst of a pandemic, the zombification of some firms is thus a risk well worth taking.

A spectre is haunting Europe – the spectre of zombie firms. What sounds like a weird scene from an overly motivated pulp fiction horror movie is actually the headline of a recent article in the <u>Financial Times</u>: 'Research claims a fifth of Europe's corporate landscape may now be zombified'. Zombie firms are failing companies kept artificially alive by the extension of credit — as has happened abundantly during the Covid-19 crisis.

What might be the nightmare for fans of Schumpeterian creative destruction threatens to become reality today. The longer emergency loan programmes are extended, the more zombified Europe's corporate landscape will be. Eventually, this distorts markets because firms that would otherwise go bankrupt continue to receive loans and enter into new contracts at the expense of competitors with higher chances of survival. No wonder that this scenario leads many a neoliberal economist to hyperventilate.

#### The German problem

The problem seems to be <u>particularly acute in Germany</u>. As part of its emergency relief programme, the government suspended the obligation to file for bankruptcy if a company's financial woes were a direct consequence of the pandemic-induced crisis. On 1 January 2021, this requirement was reinstated. The German Economic Institute in Cologne (IWK) estimates that this would produce <u>4,300 additional zombie firms</u> and concludes: 'What was sensible in spring could now become a problem'.

But what exactly has changed between then and now? What suddenly justified ending a support scheme that keeps businesses affected by the pandemic afloat? And, more importantly, what exactly are zombie firms really — any firm that would go bankrupt due to Covid-19 without government support; or firms that will inevitably go bankrupt despite financial aid? Recent reports seem to refer to the first option although they remain eerily unspecific about this detail.

We will probably have to wait a little bit longer to be able to gauge the actual scale of the problem. Until government support schemes effectively expire, estimates about the number of European zombie firms are, as the Financial Times points out, 'anyone's guess'. And, more dramatically, the future is radically unknown, and estimates today may have a self-fulfilling quality. Many firms could face liquidity problems today because of the forced reduction in demand and supply but are not necessarily insolvent – yet they could easily become insolvent if funding dries up. Were these, then, zombies to start with or did they become zombified because of poor policy? Anyone's guess...

#### The German solution

So, in the meantime, let's turn to things we actually do know. For instance, how have business support programmes in Germany been organised, what are the political economic institutions that underpin them, and how do they work? We draw here on a <u>paper</u> on economic policy responses to Covid-19, in which we compared business support schemes (and furlough schemes, as <u>we reported</u> in the accompanying piece in this Dossier) in the UK and Germany.

In Germany, the publicly-guaranteed Kreditanstalt für Wiederaufbau (KfW – literally 'Credit Agency for Reconstruction') rolled out two types of business support schemes (Unternehmerkredit and Schnellkredit). These were processed by 'house banks' that have long institutionalised relations with firms of all sizes, but especially with small and medium-sized enterprises of Germany's famed Mittelstand (SMEs). In contrast to many of the very large German companies, SMEs in particular continue to maintain close personal relationships with their house banks, and their lenders therefore not only hold significant knowledge about their clients' credit history, but also about their business models, market position, and long-term strategies.

#### The bank-industry-state nexus

When the pandemic struck, this arrangement allowed the German government to fall back on a deeply institutionalised system of bank-to-business and bank-to-bank links that could easily be deployed as a public utility. Data on the share of Unternehmerkredit and Schnellkredit by bank type illustrate this point. For both types of emergency loan programmes issued by KfW, public savings banks and cooperatives shouldered over two-thirds of the volume of loans while holding a total market share of only around 30 percent. Hence, in Germany, the crisis programmes at the root of 'zombification' are an extension of these stable long-term relations between firms, banks and the state, which allowed German banks and the KfW to overcome information asymmetries regarding the solvency of firms, which in turn allowed the banking sector to do what it has done quite well for decades: act as the key cog in business-state relations to facilitate industrial development.

#### No zombies here

Against this background, it is hard to imagine a wide-spread zombification of the German corporate landscape. To start with, only those firms that were in good financial health at the start of the pandemic were allowed access to emergency loans. This provides us with relative confidence that firms would have done quite well if it weren't for the pandemic. Careful optimism is further supported by the fact that savings banks are partly liable for the support schemes. Why would they suddenly exploit their knowledge and long-existing relations in support of now struggling SME partners? It is hard to imagine a more firmly instituted system of financial scrutiny.

Now, German SMEs are facing a complicated future, and many may encounter significant problems soon. Structural shifts such as the combination of new products, processes and automation — Industrie 4.0 — will shake up the country's industrial tissue. The shift to electric cars will upset the car firms and their suppliers, combined good for about 7% of employment and more than 10% of GDP. And more generally, the decarbonisation of the economy, which has a disproportionate impact on manufacturing sectors, is a major shift for which many smaller companies may not be well-prepared (and the pandemic hasn't helped). But it is hard to link these adjustments, or lack thereof, to the credit lines opened since the spring of 2020.

#### Zombies for social peace

Yet the weakest element of the zombie firm argument may well reside elsewhere. Its proponents do not seem to take the logical next step and propose to simply end emergency business support during a pandemic altogether. Imagine for a moment that the government could feasibly distinguish between zombies and healthy firms and cut funding accordingly. The political and social harm this would cause in the midst of a recession would be intolerable. Culling the 'sickest' animals from the business herd would, at present, simply mean the tipping point for countless families struggling to get by, not to mention the long-term scarring and collateral damage to other businesses.

While the world looks bad through neo-classical lenses, it looks considerably better through institutional ones. To preserve social peace during an unprecedented pandemic, we probably should learn to live with a bit of zombification and clean up afterwards, when the economy is working again.

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## 4. Long-term effects of Covid-19

### 4.1. Why inflation is not lurking in the shadows

Recently, concerns about inflation have raised their head again in the public debate – much like during the financial crisis, when the central bank monetary easing policies also were certain to herald inflation. But, like then, these arguments are wrong, **Bob Hancké** suggests. The real world is not only considerably more complicated, political economy looks for power and distributive conflict as sources of inflation.

Over the last year, since the start of the Covid-19 epidemic, many orthodox observers and commentators have warned about the dangers of monetary over-supply and inflation (see, for example, this remarkable op-ed by Stephen Roach in the FT in May 2020 as an early example). Roach, is not alone in sketching a future of stagflation as a result of the increasing brittleness of supply chains that we discovered during and after the Covid-19 crisis, and the pent-up consumer demand that the lockdown imposed. The moment, he suggested, that citizens are allowed to go shopping again as they did a few months ago, even a single bottleneck in supply chains might have dramatic effects on prices. Too much money and pent-up demand, a result of monetary and fiscal easing, will chase too few goods, a result of broken supply chains, and inflation is born.

He has certainly come up with an interesting take on an old argument. But this type of argument is fundamentally wrong. In essence, it reiterates a fear of many new classical economists who take their cues from Milton Friedman's assertion that inflation is always a monetary phenomenon. If that is the mantra you follow, you don't need a good explanation, just an 'over-supply' of money for inflation to follow as day follows night. That's why the fiscal response to the financial crisis ten years ago was supposed to herald accelerating inflation (it never happened) and that's why the current fiscal response again has inflation lurking in the shadows. But the real world is slightly more complicated than these simple, almost tautological, views suggest.

#### What supply chains are and are not

First of all, the key feature of the brittle just-in-time (JIT) supply systems that do so much of the work in this argument is not that suppliers are located thousands of miles away in Asia, but in the close vicinity of the place where parts are used. Most car plants with tight JIT arrangements, for example, have their main systems suppliers a few minutes or maximum a few hours away. Cost obviously matters in such a production link, but punctuality, quality, competencies and flexibility matter much, much more for interior and seating systems, heating and cooling systems, brake and drive train sys-



tems etc. Input prices have fallen for the standard parts that can be produced far away, but considerably less so for the sophisticated systems that key suppliers produce.

Many small cheap parts do, of course, make cheap big inputs. Since nuts and bolts made in Vietnam are an order of magnitude cheaper than those made in Germany or France, the thousands of nuts and bolts in a car thus quickly add up. Re-shoring is, in that scenario, a recipe for inflation: the basic good remains the same but the input prices go through the roof.

#### Industry 4.0

Perhaps: the caveat is that while companies are considering re-shoring, they have also thought about alternatives to conventional manufacturing. The ability to combine automated production, additive manufacturing (aka 3-D printing), and sophisticated skills certainly will allow European companies very soon to produce much more sophisticated parts competitively. The first two bring prices of small series down, while the skills assure quality and flexibility. So, we would pay relatively less for a more customised, better product. Technically speaking that is the opposite of inflation.

#### Where are the bottlenecks?

Stagflation is a combination of low growth and high inflation. But the pent-up demand can probably be easily accommodated: supply chains are now running at less than 50% capacity. That's why it is so important to have furlough schemes for workers: not only does it stop people from starving or becoming homeless, it also assures companies of a skilled workforce when the economy picks up again. I fail to see perennial, structural supply bottlenecks in manufacturing.

Things might be slightly different in the service sectors, but I wonder exactly how. If you didn't have a monthly hair cut for three months, you need one now, not three: once it's cut, it's cut. Even if you went to the restaurant seven times a week over the next few months, your demand is maxed out: there is no eighth or ninth day in the week. And there is no pent-up demand for many clerical-type services (insurance, banks, ...). Even the so-called 'stimulus' fiscal measures hardly warrant the term. They remind me more of a patient in a steel lung that 'stimulates' her to breathe, not an injection of performance-enhancing drugs. And if we were to go back to normal, that's where we are then: back to normal.

#### The economic effects of deep uncertainty

In addition, the future is going to be very uncertain for many households for a very long time: virus, robots, debt, weaker trade unions, and a host of other crisis factors. We

know the micro-economic effect of uncertainty: all other things equal, it increases savings. But if saving rates go up, consumption levels fall; if public debt is already high, there will be very little countercyclical fiscal push in the system. The likely outcome is deflation, not inflation.

#### How high is bad inflation?

Finally, it is not a bad idea to keep some perspective: even if prices were to rise, a 4% inflation rate is hardly a catastrophe. The current consensus of about 2% is almost certainly too low in a volatile world in which technology moves quickly and trade unions are weak. Even the hawkish German Finance minister Wolfgang Schäuble thought wage inflation was too low a few years ago.

In any case, a higher inflation rate for a few years would simply mean that we balance out the deflation of the past 10-15 years and essentially a return to normal. And it would indeed have the advantage that debt is silently eroded: we would simply use inflation to clean up the financial crisis and the COVID-19 crisis.

#### One price hike does not count as inflation

There also seems to be some conceptual confusion in this debate. Inflation refers to a sustained rise in prices over time, usually because yesterday's inflation rate pushes up tomorrow's prices, for example through cost-of-living adjustments in wages. A one-off price hike is not inflation. Worse comes to worse, we might see a price rise in the second half of 2021, say, because everyone goes out and spends to celebrate the end of the pandemic. Unless trade unions can impose systematic wage hikes in response to those higher prices, inflation won't climb and stay up. Yes, you need an increase in the money supply. The increase in money is a necessary but not a sufficient condition. Elementary, Watson.

No one knows the future. That's why we develop different scenarios, based on theoretical workhorses, and of how they may play out. Concentrating on one small link in a logical chain, ignoring any of the many counterarguments, and blowing that one link out of proportion produces a doomsday scenario. Marxists had a copyright on such analyses. They predicted 20 out of the last seven recessions...

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## 4.2. WFH requires a paradigm shift in how we think of work, job autonomy and cooperation

The dramatic and massive shift toward work-from-home arrangements in the spring of 2020 has the potential to upset long-held ideas of how work should be organised. But too often it has led to more intrusive surveillance in the virtual workplace. **Bob Hancké** reflects on this tension between monitoring and productivity. Unless we rethink work from the bottom up and redesign tasks into projects with increased team autonomy, organisations are unlikely to reap the benefits of remote working.

A chilling <u>article</u> in the Guardian on 27 September 2020 (with the cynical but admittedly amusing title 'Shirking from home') reported a significant increase in surveillance software by employers to monitor work from home (WFH). The usual argument for enhanced surveillance is akin to other prejudices, such as the immigrant crime networks (more autochthonous are in jail), welfare tourism (fewer immigrants draw welfare benefits and they actually are net contributors to every economy where they work), or the doctor's wife who has a nice little side income in unemployment benefits: while such cases may well exist, they distract from the fact that unemployment benefits are crucial lifelines for almost all unemployed. So: perhaps some of us shirk when WFH; but most of us simply don't shave or put on casual clothing and get on with the job, very often using the hours saved in not commuting to work a bit longer – but in their own time (kids are NIS – Not in School – and need attention and food).

Leaving aside the non-trivial privacy and human rights implications of enhanced surveillance, it shows that many employers approach the problem the wrong way around. WFH should not be WIO (work in office) but from home. Instead of keeping tabs on hours worked, employers should think about reconfiguring tasks and work so that employees have a clearer sense of what needs to be done, by when and with whom. Instead of monitoring the hours that employees put in, bosses should think more deeply about how to redesign work into projects, ie bundles of meaningful tasks, for individual employees and teams. Redesigning organisations to transfer responsibility and



autonomy to their workforce should be their main job. Teaching workers to organise a division of labour in their teams should be one of their main training goals. In short, bosses should strive to make employees project managers instead of checking how hard they WFH.

But that all would require a very different conception of education and training, hierarchy and collaboration, and it is far from clear if employers are able to release themselves from the quasi-feudal remnants of work that have crept into the capitalist division of labour. Ultimately, you would think, the most profitable (because most productive) company will win out; if WFH in redesigned virtual workplaces is more productive, then these will win. But that counterargument misses the point that a cartel of reactionary bosses might stop precisely that. And shallow, chopped-up tasks beget more surveillance – not because it is intrinsically necessary but because the causality runs the other way around. Detailed monitoring requires work to be shallow and fragmented – so that it can be monitored.

Almost fifty years ago, the great Harvard economist Steve Marglin spent over 70 pages analysing what bosses do. His answer: remarkably little that employees could not do by themselves. And the trailblazing British sociologists Robin Blackburn and Michael Mann demonstrated, statistical analysis in hand, that workers used more sophisticated skills driving to their workplace than they would ever use once they arrived there. Things have undoubtedly improved (I hope), but as the newspaper article suggests, not nearly as much as we would like to think. Let's use the next WFH wave (coming soon to a house near you [this article was originally written in September 2020, not long after the first Covid-19 wave but with the second wave building] to redesign work so employees work better, smarter and with a larger and deeper sense of purpose.

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### 4.3. Big shifts: Lessons from the 1980s for the post-Covid world

The economy-wide restructuring that set in after the crisis of the 1970s harbours some important lessons for the imminent post-Covid world, **Bob Hancké** argues. Many industrial sectors that provided working class families with stable incomes disappeared, taking the life chances of those left behind with them. But that did not happen everywhere and understanding the origins and consequences of the different adjustment paths can help avoid a second generation of 'left behind' after economic restructuring.

The post-Covid world is a place that has only little in common with the economy at the end of 2019. In many countries, large parts of the often not very productive small-company service sectors are kept alive solely through subsidies, cheap loans and grants that are almost certain to disappear when the market takes over again. Employees and managers in the service sector have discovered the virtues of telecommuting (although some managers see only vices and a lot can and should be done to adapt workplaces to these new forms of self-management, as I have argued <u>elsewhere</u>). And even sophisticated manufacturing operations such as the engine producer <u>Rolls-Royce</u> in the UK and <u>MAN trucks</u> in Germany have announced massive redundancies as a result of the projected drop in demand. Allowing adjustment to the post-Covid world to run its 'natural' course, risks producing a second generation with lower life chances than their parents, a dramatic deterioration of economic opportunities (with all the social <u>despair</u> that this entails), a collapse of citizenship as a result, and a further erosion of the political systems of the advanced capitalist democracies.

#### The social cost of restructuring

My colleague Nick Barr has offered some <u>useful thoughts</u> on how a successful furlough scheme could be the basis for a more sustained labour market adjustment strategy that equips the workforce with skills for the future. Yet because history is not written in abstract textbook language but in concrete situations, adapting broad labour market policies to the world in which we live may face significant obstacles. Without solid <u>institutional underpinnings</u> that incentivise employers to (re-)train instead of fire employees with old skills and hire workers with new ones, chances of a social bloodbath are high. And, often ignored, constructing such institutions <u>does not come without costs</u>: some countries start from a better place than others in their ability to resolve the collective action problems associated with these <u>second-order</u> institutions that govern the external-ities associated with training.

#### The crisis of the 1970s

We have been here before. The first post-war deregulation and globalisation wave following the turbulent 1970s also produced the first lost generation, working class com-



munities that collapsed, young people without the prospect of a stable job for several years and with a lifetime unemployment scar as a result, and generally a dramatic worsening of stable labour markets with a significant fall in current and lifetime income as a result. When steel plants and coal mines all over Europe closed, and car factories restructured, often by closing their gates or reducing their workforces by half or more, the local economies disintegrated. The people from somewhere, in <u>David Goodhart's words</u>, suddenly had nowhere to go, and thus turned inward. Neglected for decades, pushed to the brink by a dearth of new chances and exposed to austerity policies after the financial crisis that hollowed out the little social resilience left, they turned to Brexit in the UK, and Trump and opioid addictions in the US.

#### The not so 'left behind'

But not everywhere went nowhere. In Germany, Belgium and The Netherlands, restructuring in the steel and coal industries, though painful as well, always included a large package of 'reconversion' measures: regional development, social plans including early retirement, future-oriented training programmes, meaningful jobs for older workers (turning mines into recreation areas, for example, staffed by former miners), and a shift in the local economic infrastructure from old basic manufacturing to knowledge-based service industries. A stroll through Düsseldorf (DE), Maastricht (NL) or Hasselt (BE) leaves little doubt that industrial restructuring can be accompanied by social revival: you will find vibrant, clean inner cities, booming universities and colleges, R&D centres and conference venues. Even northern France, possibly the least successful case of adjustment on the continent, did a lot better than large patches of Yorkshire in the UK and West Virginia or Detroit in the US. Whilst industrial readjustment is always painful, it does not always have to lead to mass unemployment, opioid overdoses or political Brexit illusions.

History never truly repeats itself, and the Covid response will take a different shape, no doubt, than the 1980s wave of restructuring. But if there is one thing to be learned from that decade, out of which Germany and its economic satellites emerged in pretty good shape and the UK with an ever-increasing trade deficit, a parasitic financial sector and a politically alienated, disenfranchised working class, it is that such large waves of restructuring are best not left to the market. It offers short-term solutions when you need long-term thinking and destroys viable livelihoods without alternatives as a result. Without supporting institutions in place, the market is simply too thin a framework for coordinating economic action.



#### The role of government

The furlough schemes that many governments in Europe and beyond introduced at the start of the pandemic were therefore a step in the right direction. In countries where companies and social partners have dense arrangements for labour market governance, the private sector can be left more or less on its own to think about the labour markets of the future, perhaps helped by a little nudge from governments. When these underlying conditions are absent, however, government's role becomes all the more important, financially as well as organisationally. The UK government got the first act right; but sadly, in contrast to other countries, where governments are keeping the tap open until the worst of the crisis is behind us, it is on track to repeat the mistakes of the 1980s. Covid has already hit the left behind communities hard; it would be folly to kick them economically now that they are down. We know now where that can lead.

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# 5. Coda: The Covid vaccine – There's more than one way to be wrong

Divergence in the fate of the UK and the EU on Covid vaccines has raised a series of thorny questions for the EU Commission, which took the centralised initiative to procure the inoculations.

The details are reasonably well known: the wrong people (EU lawyers without much experience in these types of contract negotiations) asking for the wrong things (vaccines as if they were hard deliverables), at, as it turns out, the wrong time. 'Europe's moment', in the words of Commission President von der Leyen, meant that three months after the announcement of the vaccine by BioNTech and Pfizer, inoculation rates in the EU are still in the single digits.

The Johnson government in the UK did better in all three areas – the right kind of lawyers, steered by early bets on the right vaccines. The vaccine roll-out has gone so well that almost one in four Brits has had their jab by early March 2021. Let the British National Health Service (NHS) do what it does best – a centralised, standardised operation without political interference – and the results are there for all to see. Never mind the predicted 150,000 Covid-related deaths in the UK, the circular ineptitude since Spring 2020, and the mixed and simply poor messaging; all is forgotten now.

While most EU countries developed more convincing and clearly communicated (national) lockdown strategies than the UK, it is hard to defend the European institutions in the vaccination context. For good measure, add the European Medicines Agency (EMA) to the mess that the Commission made: the vaccine-approving administrators took the weekend off at critical moments instead of being on permanent standby to evaluate all relevant information in the public domain and without its 'we know better' pedestal. By early March, member states' trust in the Commission's ability to obtain a sufficient number of lifesaving injections for their citizens was so low that several of them were looking at Russia and China for the vaccine. The so-called Visegrad 4 (Poland, Czech Republic, Slovakia and Hungary) were first in line. But more recently also Austrian Chancellor Kurz announced his <u>plan to procure and produce</u> (potentially in cooperation with Israel and/or Denmark) vaccines independently from the Commission. Europe's moment should be more than just a little tinged with quiet modesty.

But the euphoria in the UK hides a deeply problematic approach to the pandemic as a whole, which (hopefully) will be the subject of a Parliamentary inquiry in due course. Effectively, the UK put all its money on the vaccine card. Remarkable, since vaccines usually take several years and not ten months to be developed, tested and become available. Putting a <u>venture capitalist in charge of vaccine acquisition</u> may look and sound like a good idea – but that is with hindsight; imagine the furore if this had gone terribly wrong, we'd still be waiting for a viable vaccine, and Covid-deaths in the UK would hit the 200,000 or even 300,000 mark. Gambling always looks like a wise strategy if it goes right; with something like this, however, banking on one very intelligent woman to steer the UK out of the health mess that the government put it in is risky at best – and purely reckless if things go south.

In sum, there are no easy ways to address a big and existential unknown like Covid and acting as if there was a single best way to do so is misleading. What was done could have been done better, but *ex ante* none of the two made more sense than the other. That modesty should guide everyone: 'there', as the saying goes, 'but for the grace of God go I'.