

WELLBY Cost-benefits of lockdowns, and citizen juries

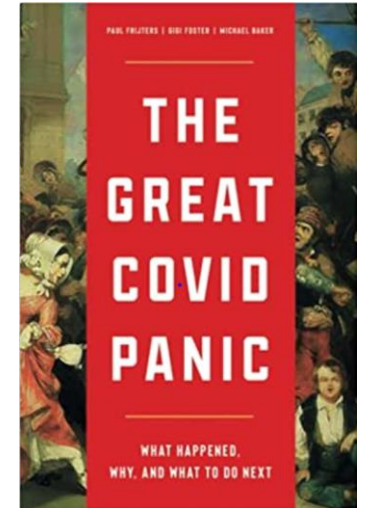
Paul Frijters LSE- Social Policy

Quick self-intro

- Gymnasium Utrecht, econometrics Groningen, PhD econ UvA/Tinbergen.
- Lived in the Netherlands, South Africa, Australia, London, and Saudi Arabia.
- Best known for my work on wellbeing economics, but also active in behaviour, health, labour, China, Russia, statistics, etc.
- Current position: Prof Econ in Saudi Arabia and emeritus visiting prof at the London School of Economics.
- Before 2021: Prof Econ at the LSE for 5 years, head of Wellbeing programs.

My resistance activities?

- I immediately became active in March 2020: <https://clubtropo.com.au/2020/03/18/has-the-coronavirus-panic-cost-us-at-least-10-million-lives-already/>
- September 2021: the Great Covid Panic, first book published by Brownstone, US.
- >30 Brownstone Articles.
- >40 Viruswaarheid articles.
- Co-founder 'Australians for Science and Freedom'.
Scienceandfreedom.org .
- Occasional activity in the UK (ie involvement in Parliamentary submissions or articles/presentations).
- 2023: a blueprint for new universities:
<https://www.scienceandfreedom.org/articles/an-enlightenment-model-of-a-modern-university/>



The purpose of Wellbeing Economics?

- To help individuals, communities, and governments set priorities.
- We help people answer the question ‘what matters a lot and what matters only a little?’.
- My role is to devise methodologies and new institutions to set priorities.

Lockdown policies involved perceived emotive tradeoffs....

To supposedly prevent more of these



Government created many more of these



And these



And these



And these



Uneducated fearful
dysfunctional children



The old dying alone.

And these



Last IVF chance cancelled.



Malaria, Cancer, childhood
innoculations: less attention, delayed
treatments, millions of postponed
operations in the UK and elsewhere

These diverse outcomes ...

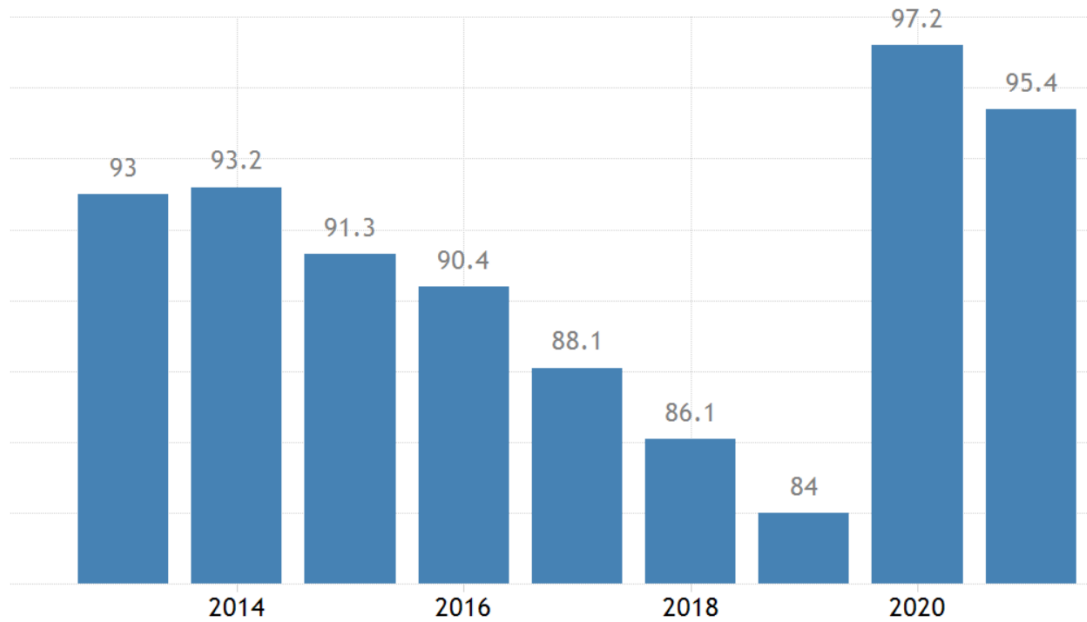
- Are impossible to capture with classic Cost Benefit Analysis (CBA).
- To say what is important you need a criterion in which you can count each of them.
- QALYs fail to capture all the elements of joy and meaning.

Concretely, which of three below is worse?

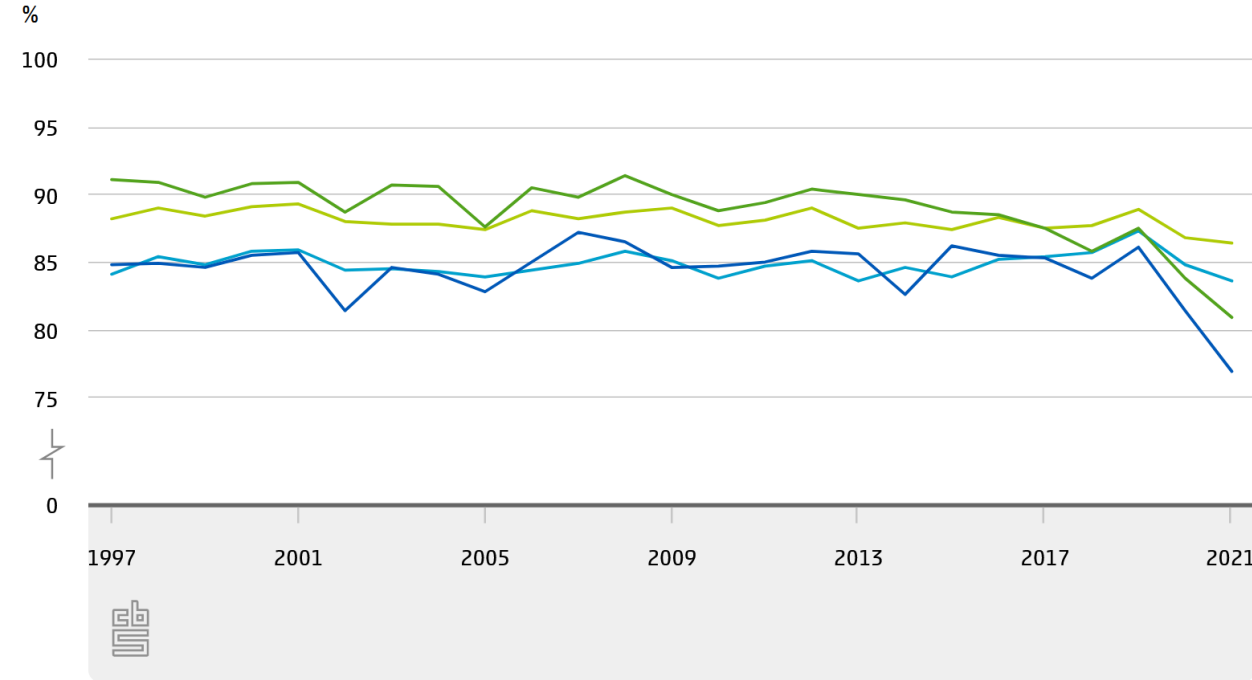
Euro Area Government Debt to GDP

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Geluk en tevredenheid



— Tevredenheid, 18 jaar of ouder — Tevredenheid, 18 tot 25 jaar
— Geluk, 18 jaar of ouder — Geluk, 18 tot 25 jaar

1000 Covid deaths per million in 2020/2021?

The idea of the WELLBY

- One explicitly wants to maximise “happy years lived”. You can then value anything that makes life enjoyable.
- It hence about length of life and quality of life. The quality ‘weight’ is how satisfied people themselves say they are with their life. Like a vote on what they have experienced.

The UK life-satisfaction question (“ONS4”)

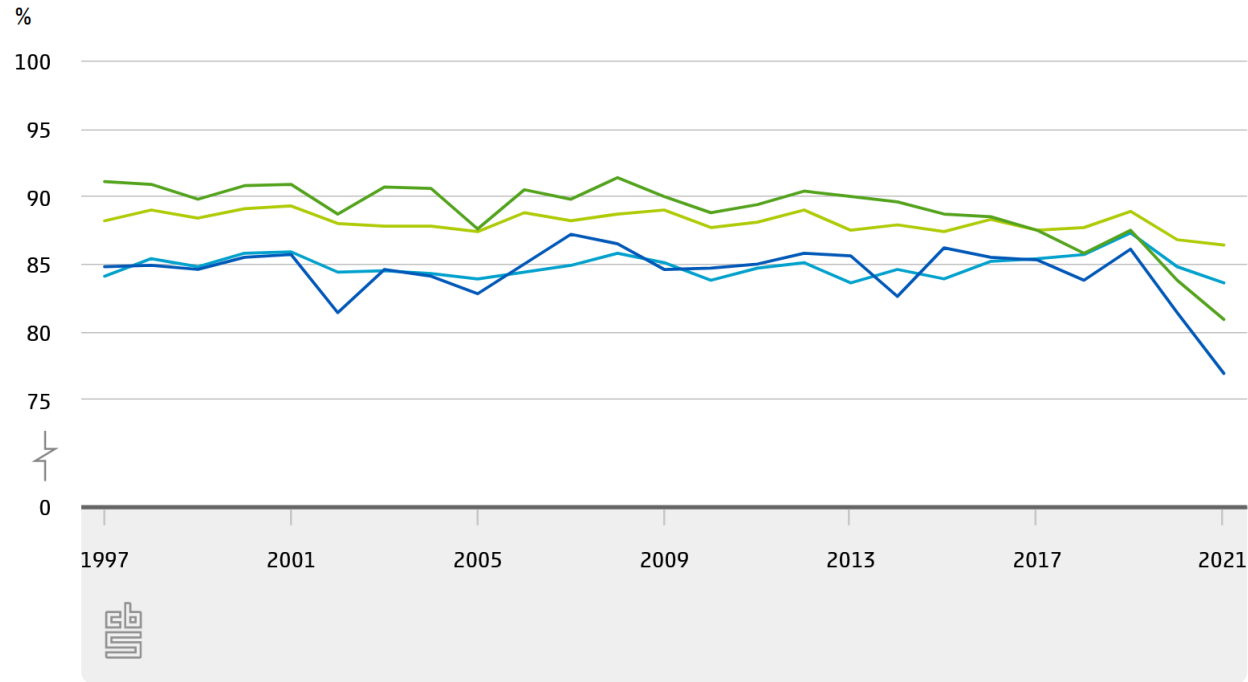
- ***Overall, how satisfied are you with your life nowadays?*** 0 is “not at all” and 10 is “completely”
- 1 WELLBY is one unit of life-satisfaction on a 0-10 scale for one person for one year.
- A normal level for someone who is very healthy is roughly an 8.
- The level at which people are indifferent between living on or not at all is around 2 (Peasgood et al. 2020). The UK Treasury uses 1 as the threshold.
- So 1 year of good health is worth 6 to 7 WELLBY is 1 regular year of happy life.
- The WELLBY captures (almost) everything that is important to people. Health measures miss joy, status, and things that give fulfilment.

We now have a metric!

- 1000 covid deaths per million is around 3000 lost years of healthy life, which is 18,000 lost WELLBYs
- 0.2 lower Life Satisfaction on average for 2 years, is 400,000 lost WELLBYs per million
- 12% higher debt to GDP means around 1800 Euro less government expenditure per person, which is around 0.30 WELLBY, so 300,000 lost WELLBYs per million

So.....

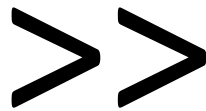
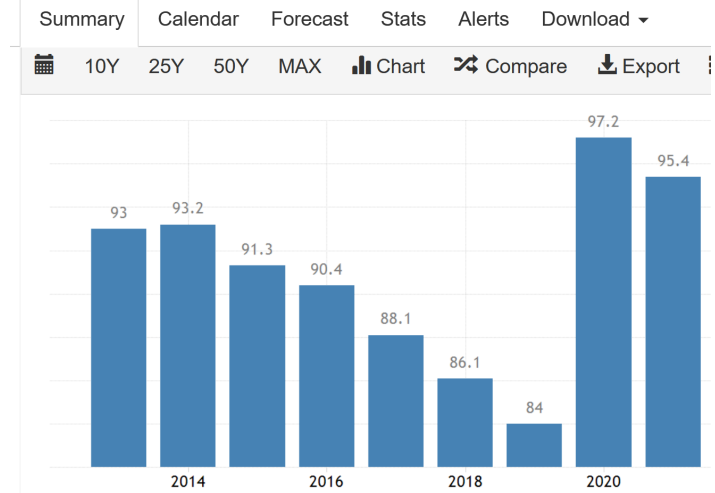
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- Geluk, 18 tot 25 jaar



Euro Area Government Debt to GDP



1000 Covid deaths per million in 2020/2021?

Has this truly been used?

- Yes! Six different teams have used this in over a dozen publications.

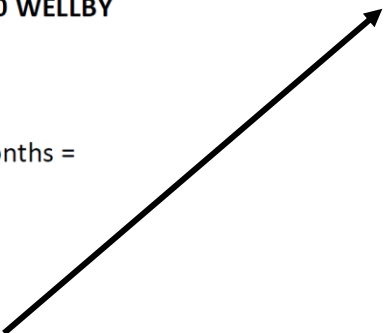
Example: Canada WELLBY calculation by Ari Joffe

- Though mainly looking at health. <http://orcid.org/0000-0002-4583-707X>

ETable 4. Cost-benefit analysis in WELLBYs for Canada’s response to COVID-19

Factor in Canada	Benefit per month	Cost per month
COVID-19 deaths	37.59M X 0.5 for herd X 0.003 IFR X 5 QALY/ 12 months = 23,494 QALY = 140,963 WELLBY	-
Recession	-	(1.713T GDP/12 months X 0.15 GDP loss X 0.4 government spending)/100K = 85,650 QALY = 513,900 WELLBY
Unemployment	-	2M X 0.7/12 months = 116,667 WELLBY
Loneliness (if we end half of lockdown)	-	37.59M/2 X 0.5/12 months = 783,125 WELLBY
Disrupted health services, disrupted education	-	Not counted
TOTAL	0.141M WELLBY	1.41M WELLBY
BALANCE		10X [minimum]

Costs more than 10 times the benefits....



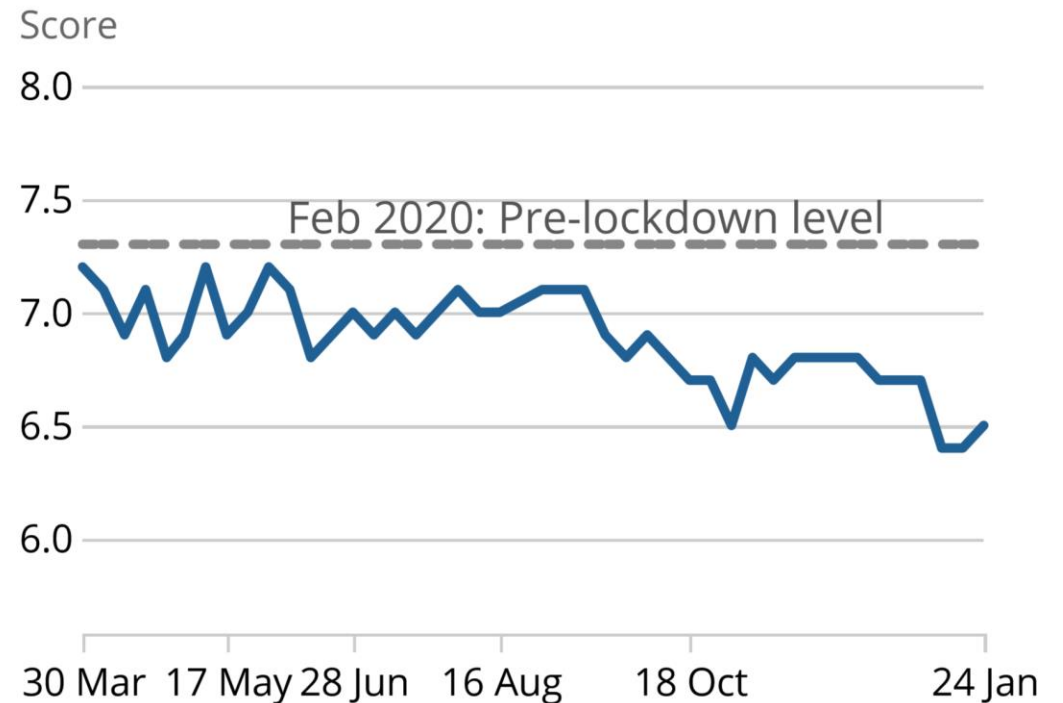
IFR: infection fatality rate; K: thousands; M: Million; QALY: quality adjusted life years; WELLBY: wellbeing years

Some examples of how to value things

Lockdown effect on Life Satisfaction? UK Opinions and Lifestyle Survey

- A 0.8 decrease in the 2nd lockdowns was the sternest decrease we have ever seen.
- Work by Dolan and Fujiwara makes it likely this was causal: the regions locking down quicker suffered quicker, the people losing were forced out of their business, or forced loneliness.

Overall, how **satisfied** are you with your life nowadays?



So...in the UK

- About a 0.4 WELLBY drop per year of lockdowns per person.
- For 1 million people that is 400,000 lost WELLBY.
- That is the same as 66,666 lost years of life in good health.
- That is the same as about 22,222 deaths of 'covid' which affected mainly the institutionalised >75 who had less than 3 years left on average.
- That is a fatality rate of 2.222%
- So a year of lockdown directly causes the same misery as 2% of the (elderly unhealthy) population dying.

Disruption costs to births?

- Think of IVF disruptions. Nearly everywhere, they were suspended during lockdowns, as ‘nonessential’.
- Normally about 3% of all births are IVF. That is 60 babies per million per year.
- An IVF person lives a normal life, which is 480 WELLBY. So about 28,800 lost WELLBY per million per year of IVF disruption.
- Equal to a disease costing 2% of the population (frail elderly).
- Think then of the 10% birth drop following vaccinations

Perioden	Bevolking aan het begin van de periode (aantal)	Levend geboren kinderen (aantal)	Overledenen (aantal)
2022 mei*	17.674.465	13.968	13.472
2022 juni*	17.696.218	14.067	13.025
2022 juli*	17.710.526	14.838	13.598
2022 augustus*	17.720.275	15.203	13.353
2022 september*	17.749.262	15.169	12.758
2022 oktober*	17.781.667	14.439	14.670
2022 november*	17.798.615	13.180	14.045
2022 december*	17.813.121	12.937	17.357
2022*	17.590.672	166.891	169.937
2023 januari*	17.815.508	13.176	16.564
2023 februari*	17.821.419	12.158	13.997
2023 maart*	17.834.013	13.669	16.083
2023 april*	17.842.933	12.813	13.327

Bron: CBS.

Note: 179.441 births in 2021, 14.953 per month

A WELLBY CBA for a whole country?

Take the one in
Australia by Prof
Gigi Foster and Dr
Sanjeev Sabhlok,
published 2023.

<https://www.cis.org.au/publication/covid-cohort-of-losers-the-intergenerational-burden-of-the-governments-coronavirus-response/>

TABLE 1. ESTIMATED COSTS TO AUSTRALIAN POPULATION OF 2020-21 LOCKDOWNS

Category	Disrupted area	Cost in original units on average per month for 2020, 2021	Cost in WELLBYs per month for 2020, 2021	Cost beyond 2021	2023 dollar equivalent
Lost GDP and increased expenditure	Economic loss	\$8.045 billion per month	482,700 WELLBYs per month		\$193.080 billion
Lost Wellbeing	Lost wellbeing (life satisfaction)	Drop in life satisfaction of 0.2 on a 0-10 scale on average per year of stop-start lockdowns	428,334 WELLBYs per month		\$171.333 billion
	Non-COVID excess deaths in 2020 and 2021	7,940 additional non-COVID deaths from lockdowns in the first two years of the pandemic	9,937 WELLBYs per month		\$3.975 billion
Future costs	Reduction in the general lifespan of all Australians	Loss of one week of life for the average Australian		59,304 WELLBYs per year for the next 50 years	\$16.366 billion
	Lost future productivity of children born during lockdowns	Lifetime earnings of 600,000 children born during 2020 and 2021 drops by \$18 billion (or \$30,000		12,342 WELLBYs per year starting in 20 years and continuing for the ensuing 25 years	\$1.469 billion

Future costs	Reduction in the general lifespan of all Australians	Loss of one week of life for the average Australian		59,304 WELLBYs per year for the next 50 years	\$16.366 billion
	Lost future productivity of children born during lockdowns	Lifetime earnings of 600,000 children born during 2020 and 2021 drops by \$18 billion (or \$30,000 per child) over a 35-year working life due to reduced IQ		12,342 WELLBYs per year starting in 20 years and continuing for the ensuing 25 years	\$1.469 billion
	Lost future productivity of children of school age during lockdowns	\$465 million in lost lifetime earnings of schoolchildren		318 WELLBYs per year starting in 10 years and continuing for the ensuing 35 years	\$53.411 million

Note 1: one can use these figure to scale up. For instance, if you think life expectancy will not drop 1 week but 1 year due to disruptions, that would entail a loss of over 3 million WELLBY per year the next 50 years.

Note 2: Foster and Sabkhlok conclude the costs of lockdowns were **at least 32 times the benefits**. That is when making the outrageous assumption lockdowns prevented 0.1% of the population dying.

My personal guesstimate of the covid policy damage world wide?

- Via reduced future government services and direct effects, lockdowns cost about 20% of the time they are imposed. On average, the world has been in lockdowns about 12 months, so about 1.6 billion years of lost life, equivalent to 40 million regular age deaths (people aged 40 losing 40 residual years).
- The loss of fertility due to vaccines now looks like being 10% for at least 1 year. Scaled up to the world level, that is at least 15 million lost babies. The direct number less babies during lockdowns in China alone was over 10 million due to disrupted social interaction. So at least 25 million less babies due to policies, or another 40 million regular age deaths.
- Disrupted health services and vaccines have lead to 1-2 years reduction in life expectancy (compare US/EU to Sweden). At the world level that is 200 million years of lost life per year, or another 5 million regular aged deaths per year, and counting.
- So at the moment, with continuing booster programs, Global South economic disruption, and health disruption, the world is experiencing a policy-driven loss of life roughly equivalent to WWII. No end in sight.

Optimal wellbeing policies?

- WELLBY CBA should be institutionalised at the top of the policy tree (finance, cabinet) for broad policy priority setting.
- Note that the top wellbeing economists in the UK opposed the lockdowns (Layard, O' Donnell, Dolan, Fujiwara, DeNeve, Hey, etc.). We were the only professional group I know doing so.
- Wellbeing knowledge and methodology can be used as a bottom-up tool for most service providers (schools, nursing homes, charities). No top-down wellbeing policy needed.

Other reforms to improve priority settings?

- Suppose there is a peaceful transition to sensible politics.
- How will we avoid re-capture by big money and the security services of the public sector to pervert priority setting?
 - How can the population retain priority-setting control of the public sector when the political system is under corrupting pressures?
 - Essentially: how can the cord between money and the public sector, which goes via elected politicians, be cut in a way that is somewhat reliable and permanent?
 - Equivalent question: how can the state be reclaimed?

Reform idea 1.

- Citizen-Jury-system appointments for the upper layer of the public sector.
- This would apply to all large entities receiving significant state funding:
 - Universities
 - large hospitals
 - heads of Government Departments
 - State Media
 - Arts Councils
 - Statistical Agencies
 - Planbureaus
 - Judges
 - etc.
- Politicians would still be in charge of policy and budgets, but they would not be able to sack those working directly under them (like Tom Scholar).

How would this go? A hypothetical.

- 20 random adult citizens are selected from the population register.
- They are given a budget and a time-frame to appoint a new director of a State television broadcaster, who would be appointed for 5 years.
- This is a civic duty for which they are compensated and get time off work. They get together physically.
- There are no 'minders' to tell the jury how to do their job. The jury composition is kept secret till the decision.
- The job was already advertised beforehand, with a list of responsibilities.
- The jury makes their own procedures, finds their own outside advice, and decides itself what matters.
- The jury deliberates: what do we expect from a State broadcaster? What kind of person could do this? Where should we look for suitable candidates? How are we going to decide?

Have such systems been used in the past?

- For many centuries, this was somewhat how leaders were selected in Venice and Florence.
- It is similar to some of the systems in Athens and Rome.
- In a sense, this embodies an old idea of democracy.
- It has advantages over elections:
 - In a jury, people deliberate and cooperate. It brings out the best in them. Isegoria. Juries are like government cabinets, production teams, and commissions.
 - In an election, there are sound-bites, framing, disinformation, and little incentive for voters to pay real attention. It is corruptible by money and media.

What could we gain?

- The objective of citizen-jury appointments:
 - To build in diversity of thought, independence of politics, some randomness, and a habit of true involvement of the population in the running of the country.
- Principle pros:
 - Many eyes see more than one.
 - With independence comes the ability to say what one sees.
 - With civic spirit comes the ability to agree with what someone else has spotted.
 - So the national system as a whole then learns quicker from its mistakes.
 - Reducing the power of big corporations, thus benefiting the return of small/medium businesses and actual market forces.
 - It is basically an extension of the separation of power, akin to free markets (which also has to appeal directly to the public), and decentralised science (bottom up).

Major pitfalls?

- Juries are easy to mislead if ‘overseen’ by others.
 - The grand jury system in New York was said to be so easy to mislead that a skilled prosecutors could get a jury to ‘indict a ham sandwich’.
 - A jury will be highly affected by public opinion and thus media.
 - All kinds of biases operate within juries.
- Counters / design elements to address pitfalls
 - Because they are easy to mislead, there should be minimal administrative support. No guidelines, etc. If advice on procedure is sought, preferably from within the jury system, ie by jury alumni.
 - A manipulator would have to flood the entire population with disinformation for each small appointment. So each jury and jury member is a small temporary target: difficult to get at. Individually, each job allocated is not a huge deal. Cost-effectiveness of bribes and media targeting is thus low with multiple jury members and short operation periods.

What are the 'convenient' objections?

- One objection will be that citizen juries ignore the cliques and their wider networks that now run these institutions: they disempower the 'Managerial Class' who will complain. That is a feature, not a bug.
- A complaint will be that this system will not always appoint the 'best' person or necessarily lead to someone with the 'right' expertise, but might appoint someone a bit 'random'. That is true, but also a feature, not a bug: the system as a whole benefits from diverse perspectives and backgrounds.
- Another complaint will be that you can't trust the population because they lack intelligence or the ability to judge who would do a job well that jury members themselves do not do. The same argument would apply to elections.

My own worries/dangers?

- Of course this system will be gamed if it is up and running.
- Note how hard it is to game this system though:
 - To bribe/threaten the jury itself one would need to know who is on it and one runs a high risk of exposure. It is also difficult if the jury is in one place for the duration of its task.
 - To reach a jury with propaganda one would need to bombard the whole population with that propaganda. That is rather a lot of effort for what are individually 'small' appointments.
 - To capture a jury via offering 'the right expert' who then misleads that jury, one would have to get a jury to themselves find that captured expert. That too then requires capture of most of the experts in a whole field.
- So yes, money and influence will try to game such a system, but that will be harder than with the current system and will still produce more randomness, cause loss of power for insider cliques, create more independence.
- Many of the details (who organises them, eligibility, etc.) will matter. One should preferably experiment and adjust the details over time. So one needs a 'sortation arm' to our democracy that decides on adjustment.

How would this fit in more widely?

- I see this as a fourth pillar of democracy: from trias politica to quadra politica.
 - The 'sortation arm' of democracy would be responsible for filling the top jobs, including people who can step in if a leader is sick or arrested.
 - That arm would need a small executive to optimise the system, look after the data needed (the registry of population), the administrative part looking after emails and websites and expenses, reacts to threats, does media, etc.
 - The sortation arm delivers the actual 'implementers' of policy. Budgets and priorities would still be set by elected politicians as now.
 - It is self-appointing: the sortation-system leaders would also be selected by citizen jury. Open ballot is a possibility to ensure credibility.
 - In several countries, the existing electoral commission is the logical institution to task with this because they already look after a population data base and are used to dealing with volunteers and administration of jury-like tasks (such as the manning of electoral booths).
 - A sortation arm could be given more responsibilities. See next reform.

More details \ more reforms?

- A new citizens media? <https://brownstone.org/articles/media-by-the-people/>
- New Enlightenment Universities? Blueprints and a call to action
<https://www.scienceandfreedom.org/articles/an-enlightenment-model-of-a-modern-university/>
- Nederlandse versies: op viruswaarheid.nl/artikelen
- Of hoofdstuk 10 van 2023 boekje van Ministerie van BZK:
<https://www.managementboek.nl/e-book/9789400112308/reflecteren-op-rechtvaardigheid-arda-an-van-ravenzwaaij>

Additional slides

- WELLBY Methodology explainer + refs.

How does this work in CBAs?

- The government then maximises the expectation of

- $$\sum_t (1 - \rho^W)^t \sum_i S W_i * (LS_{it} - LS_0)$$

- In calculations you use *predicted* changes in life satisfaction from a policy compared to a status quo, using the best causal estimates you can find.
- There are over 200,000 studies since 1930s on the determinants of life-satisfaction including many (quasi-)experimental designs. We thus have a huge 'price-list' for things in terms of wellbeing, though analysis is very tricky.
- We know far more about the WELLBY than we knew about the QALY or GDP when those measures became widely used by government.

Wellbeing Cost-Effectiveness is then

$$\frac{\text{Net benefit}}{\text{Public cost}} > \lambda$$

- **Public cost** – the whole of government net costs
- **Net Benefit** – benefit in terms of a WELLBY: an additional unit of Life Satisfaction for one person for one year

Cost-effectiveness of some low-hanging fruit...

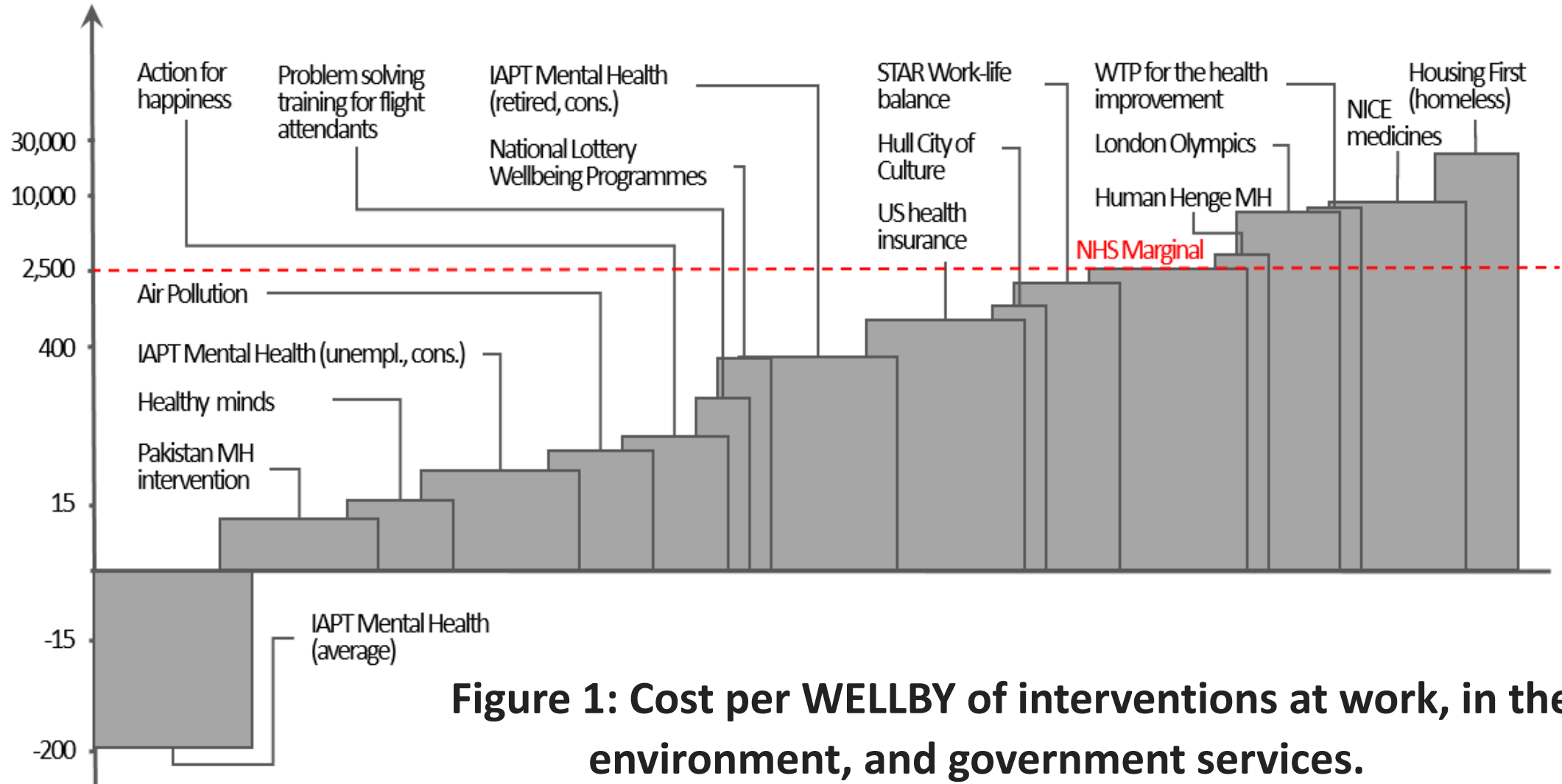
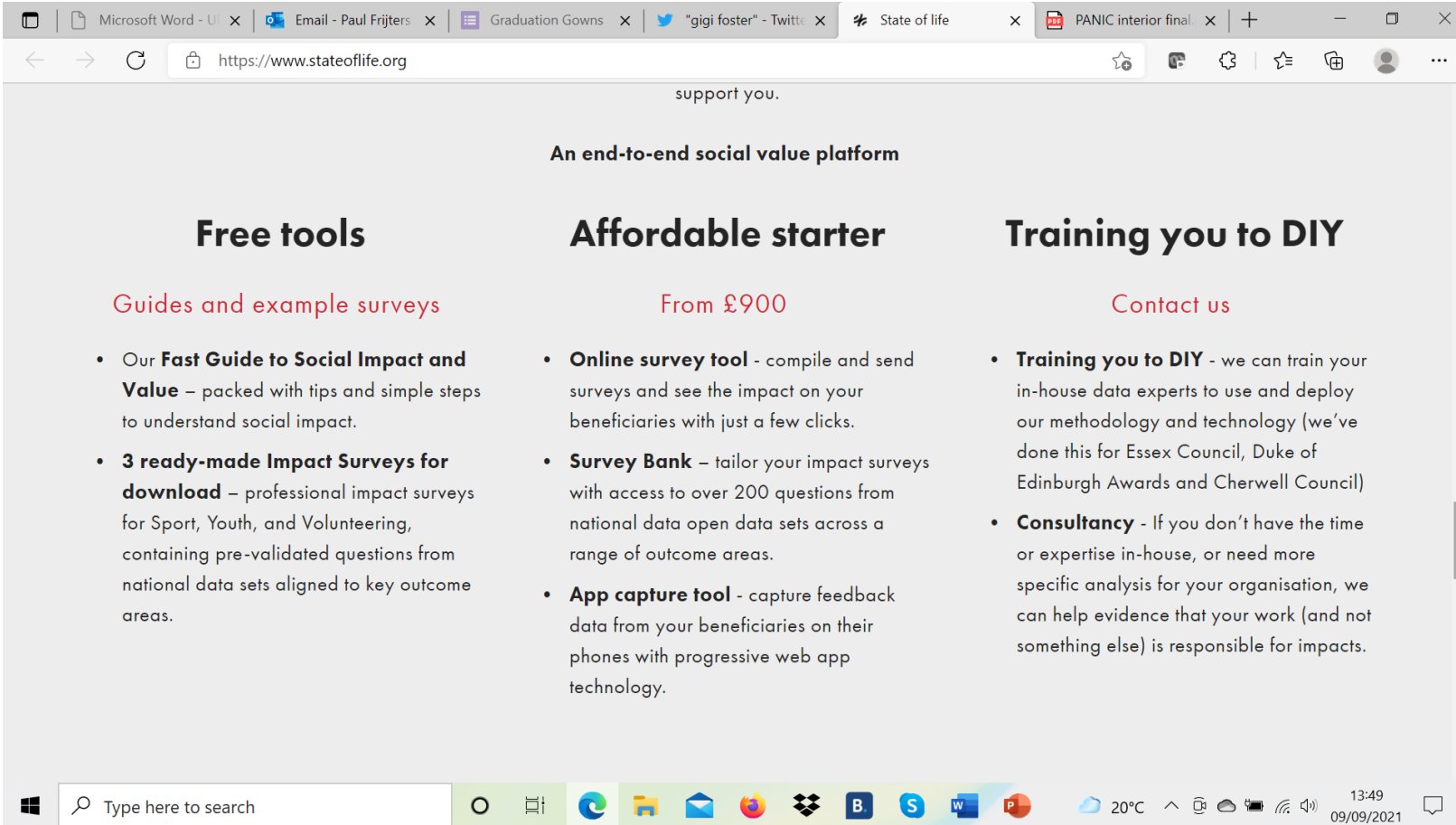


Figure 1: Cost per WELLBY of interventions at work, in the environment, and government services.

This method is usable for charities/business



support you.

An end-to-end social value platform

Free tools	Affordable starter	Training you to DIY
<p>Guides and example surveys</p> <ul style="list-style-type: none">• Our Fast Guide to Social Impact and Value – packed with tips and simple steps to understand social impact.• 3 ready-made Impact Surveys for download – professional impact surveys for Sport, Youth, and Volunteering, containing pre-validated questions from national data sets aligned to key outcome areas.	<p>From £900</p> <ul style="list-style-type: none">• Online survey tool - compile and send surveys and see the impact on your beneficiaries with just a few clicks.• Survey Bank – tailor your impact surveys with access to over 200 questions from national data open data sets across a range of outcome areas.• App capture tool - capture feedback data from your beneficiaries on their phones with progressive web app technology.	<p>Contact us</p> <ul style="list-style-type: none">• Training you to DIY - we can train your in-house data experts to use and deploy our methodology and technology (we've done this for Essex Council, Duke of Edinburgh Awards and Cherwell Council)• Consultancy - If you don't have the time or expertise in-house, or need more specific analysis for your organisation, we can help evidence that your work (and not something else) is responsible for impacts.

Type here to search

20°C 13:49 09/09/2021

Stateoflife is non-profit and easily 10 times cheaper than most commercial providers.

Shameless advertising of (free) 2021 book:

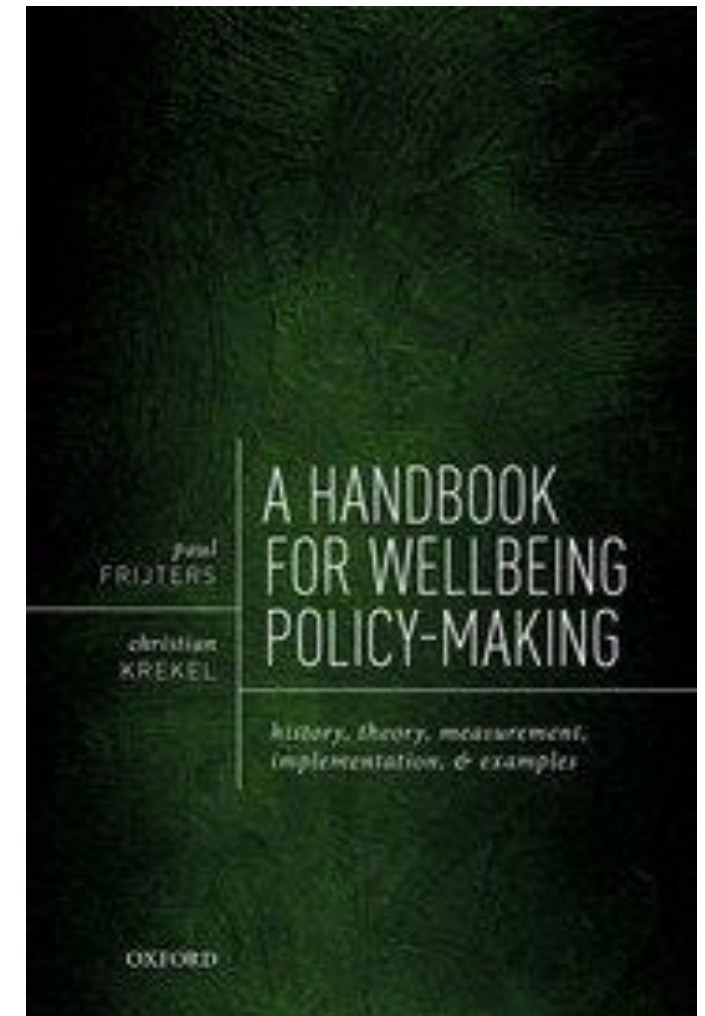
History, Theory, Measurement, Implementation, and Examples

Paul Frijters and Christian Krekel

- Introduces the concept of subjective wellbeing, direct measurement
- Discusses how wellbeing fits into today's political economy and how it can complement or replace current practices
- Derives technical standards for cost-effectiveness analysis based on wellbeing
- Compares existing practices for resource allocation (mostly cost-benefit analysis) with wellbeing cost-effectiveness analysis
- Provides a holistic thinking about wellbeing in government, from a whole-government perspective
- Gives roadmaps and practical examples

<https://global.oup.com/academic/product/a-handbook-for-wellbeing-policy-making-9780192896803>

In August 2021 the UK bureaucracy adopted the WELLBY. Now also NZ and Scandinavia. It has been applied to lockdowns in all Anglo-Saxon countries, the Netherlands, and Sweden, by 6 different research groups.



- Six different people/groups have already done WELLBY CBA calculations for lockdowns in the UK, Australia, New Zealand, Belgium, the Netherlands, the world, and Canada.
- Note that there is a LOT of snake oil also called wellbeing. Essentially, any dashboard-based priority setting methodology (like DEI, ESG, Agenda2030) is snake oil.

More on WELLBY applied to lockdowns....

Part 2: Application to covid-policies

- The emotive tradeoffs.
- The main outcomes important in WELLBY calculations of this period.
- What do we know about changes in these outcomes (UK/Belgium/Canada/Sweden) and how much WELLBY are they worth?
- What does this say about optimal policy **in the future**?

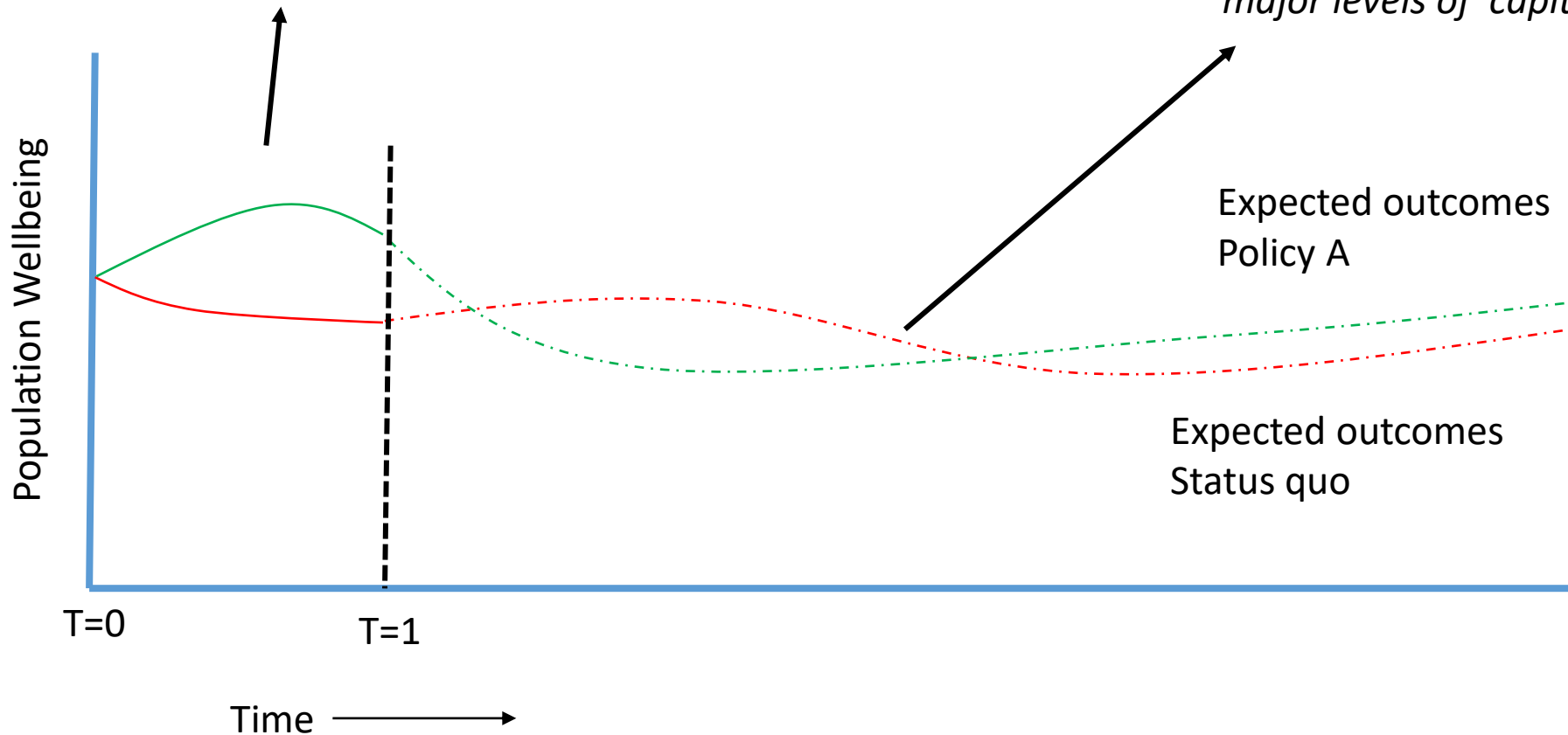
I want to give you three key things:

- An easy way to make the effects of corona-policies 'countable', ie the 'strategy' of a corona-related CBA.
- A sense of the relative magnitude of various effects that are often directly policy-related and not yet in the public consciousness.
- A stylised cost-benefit analysis of a hypothetical hard lockdown policy in 2020 for Sweden.

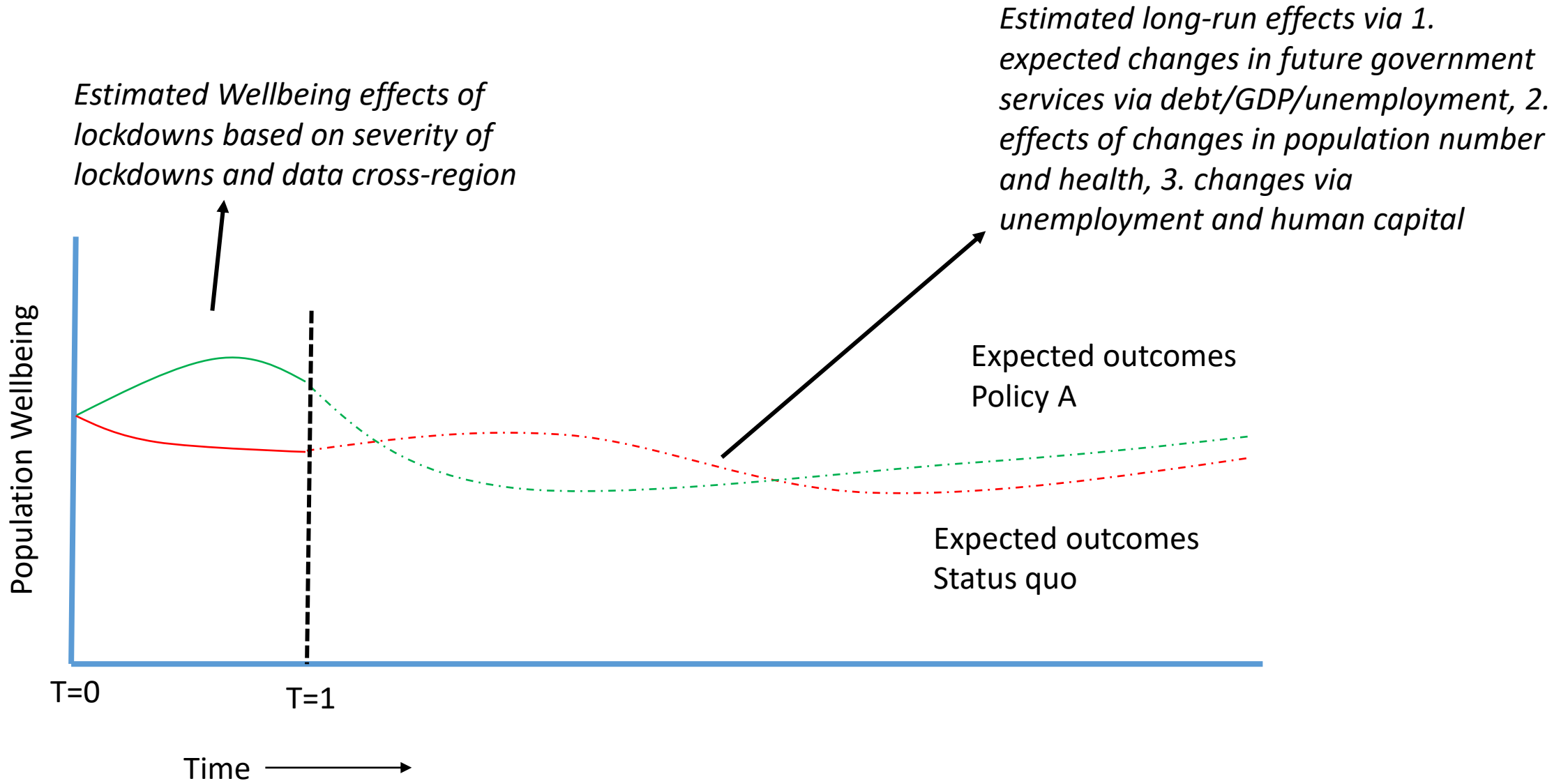
The basic strategy of a Wellby CBA?

The Period one can say something reasonably definite about the actual wellbeing levels of the population (often duration of a policy)

The Period one needs to approximate overall future effect via changes in major levels of 'capital'



The basic strategy of lockdown CBAs?



That stylised cost-benefit for Sweden?

- Q: relative to almost no restrictions (roughly the actual policy), what would the costs and benefits have been of a UK/Belgium style hard lockdown in Sweden during 2020 (April 1 2020 to January 1 2021)?
- To be extremely generous to the ‘benefits’ of this hypothetical policy, I am going to presume initially that this would have prevented 0.1% mortality, ie 10,400 Swedish covid-deaths.

The numbers you need for a WELLBY calculation

- The WELLBY loss of covid-deaths (part of $\Delta Y_k * P_k$)
- Direct WELLBY changes from lockdowns: the loss of mental health, the increase in loneliness and the loss of social life due to lockdowns versus the most reasonable alternative scenario.
- Future changes via some main items relevant to national wellbeing (ΔY_k):
 - Changes in the population
 - Changes in government expenditure
 - Years of unemployment
 - Lost future QALYs due to collateral health damage (ie postponed cancer)
- Conversion numbers from various outcomes to wellbeing (P_k).

Some key numbers in the case of lockdowns
(past and future)

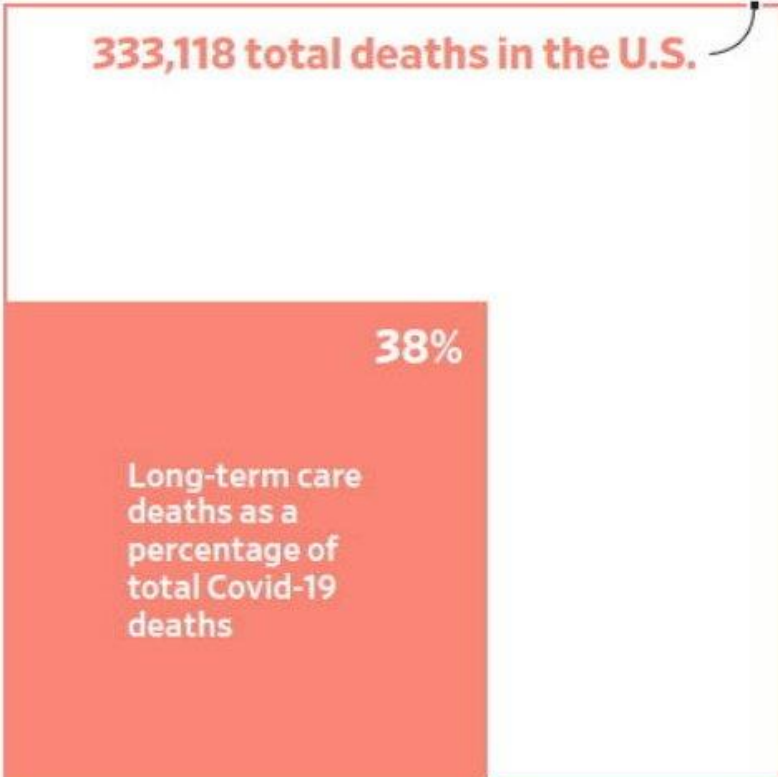
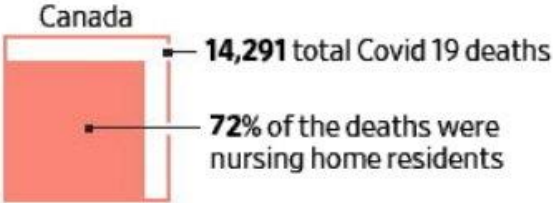
WELLBY loss of covid deaths (in Sweden)?

- Remember, 1 year of good health (QALY=1) is worth 6 WELLBY.
- Estimated loss of QALY per covid death:
 - About 47% of Swedish covid deaths are from institutionalised elderly with health problems. They have about 1 residual QALY expected when entering those institutions.
 - The other 53% are around 80 with high co-morbidities. They have around 5 years on average residual life-expectancy (UK or Netherlands data), around 0.7 QALY per year.
 - So 3 QALY loss per covid death in Sweden is a high estimate.
- The key covid-death P_k number is thus that a covid-death is 3 QALY (via LY) is 18 WELLBY loss.
- It's the same number in the Netherlands, the UK, Belgium, and Australia because the victim group is the same: largely institutionalised unhealthy elderly, or other elderly with serious health problems.

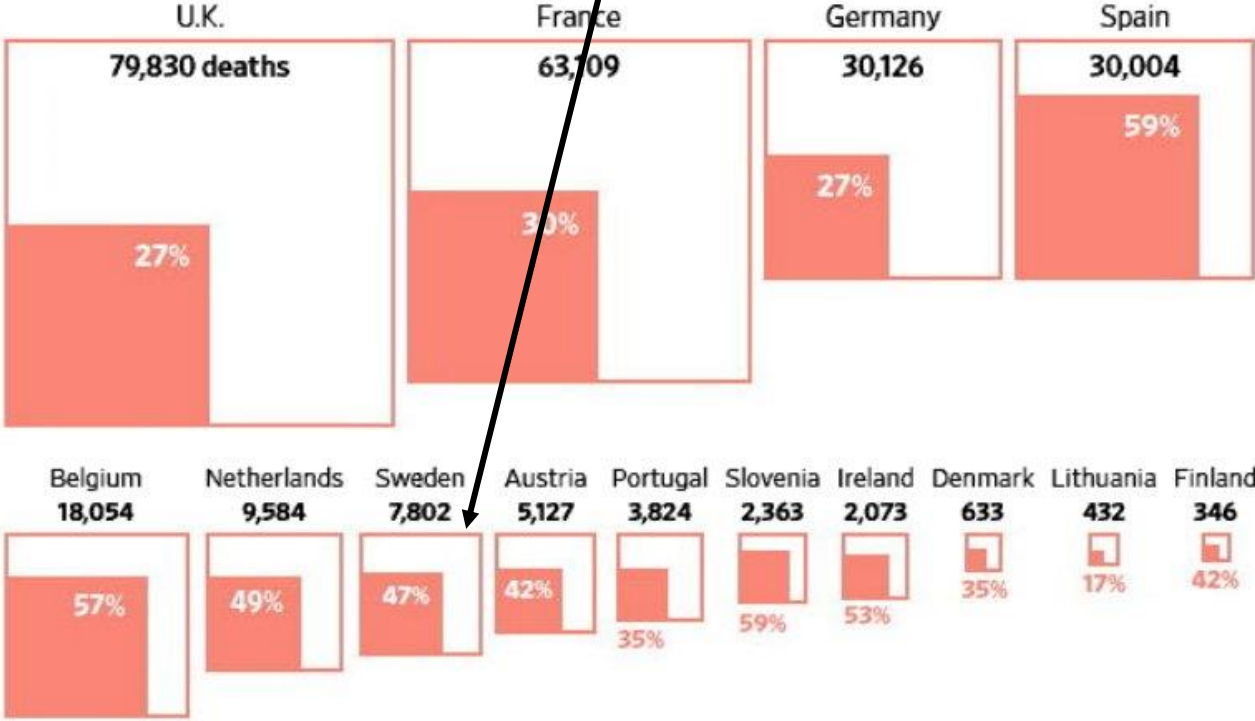
Nursing home deaths as proportion of covid-deaths

Covid-19 has been particularly devastating for residents of long-term care facilities, who represent small fractions of overall populations but huge shares of coronavirus deaths.

NORTH AMERICA



EUROPE



ASIA and OCEANIA



Note: Select countries. National definitions of long-term care and standards for counting the deaths of residents from these facilities often differ. Data from most countries is from late November or more recently; exceptions include Spain, Denmark and Finland, where as-of dates are Sept. 15, Sept. 21 and Oct. 8, respectively. Reporting on U.S. long-term care numbers lag overall Covid-19 death reporting.

Sources: WSJ analysis of data from national and local health and infectious disease authorities; National Institute on Aging in Canada; Johns Hopkins University

What would then be the benefit of preventing a 0.1% mortality?

- 10,400 Swedish covid-deaths (=0.1%) would be $10,400 * 3 * 6 = 187,200$ WELLBY
- That would thus be the 'budget' for a policy supposedly preventing a 0.1% covid death rate from occurring at all.

Direct WELLBY changes during the pandemic?

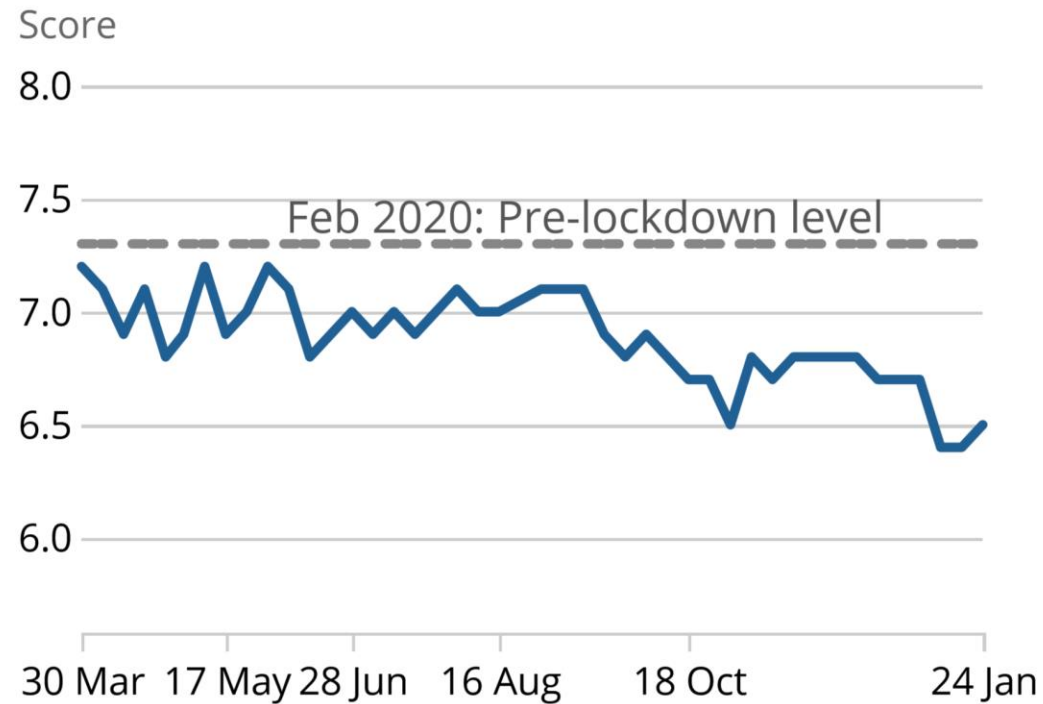
- How much more unsatisfied is the population on average during lockdowns versus no lockdowns? Does the severity and type matter?
- Was it predictable and hence possible to inform policy makers soon about the effects?

Example: the UK. And was it predictable?

- What was the life-sat effect of the hard UK lockdowns and was it predictability?
- In April 2020, I predicted that the UK lockdowns would cost 0.5 WELLBY per person based on the literature on loneliness and the early reports among children prevented from schooling (<https://clubtroppo.com.au/2020/04/08/how-many-wellbys-is-the-corona-panic-costing/>).

UK Opinions and Lifestyle Survey

Overall, how **satisfied** are you with your life nowadays?

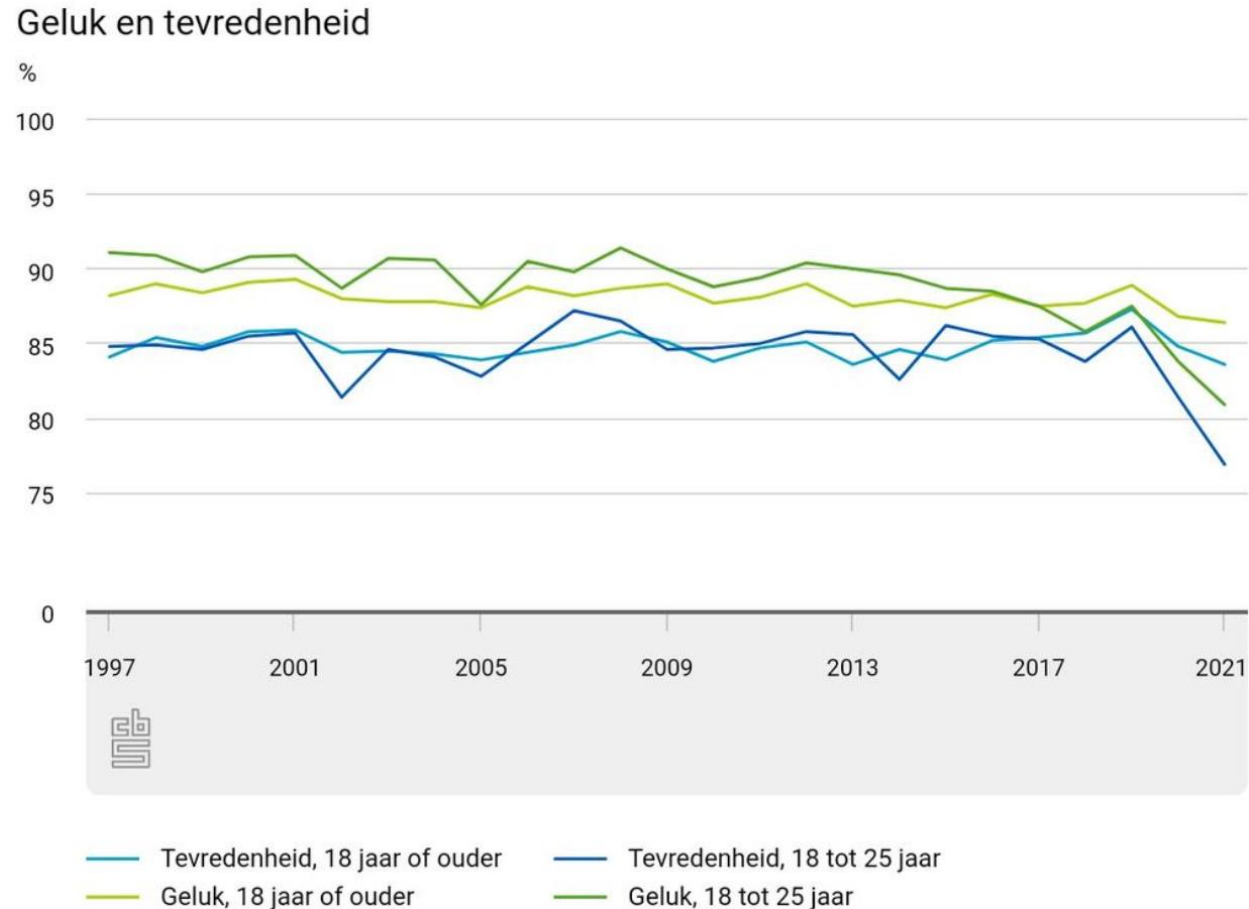


The drop in Life Sat in the second lockdown was 0.8. This is the biggest drop ever seen in the UK.

The point?

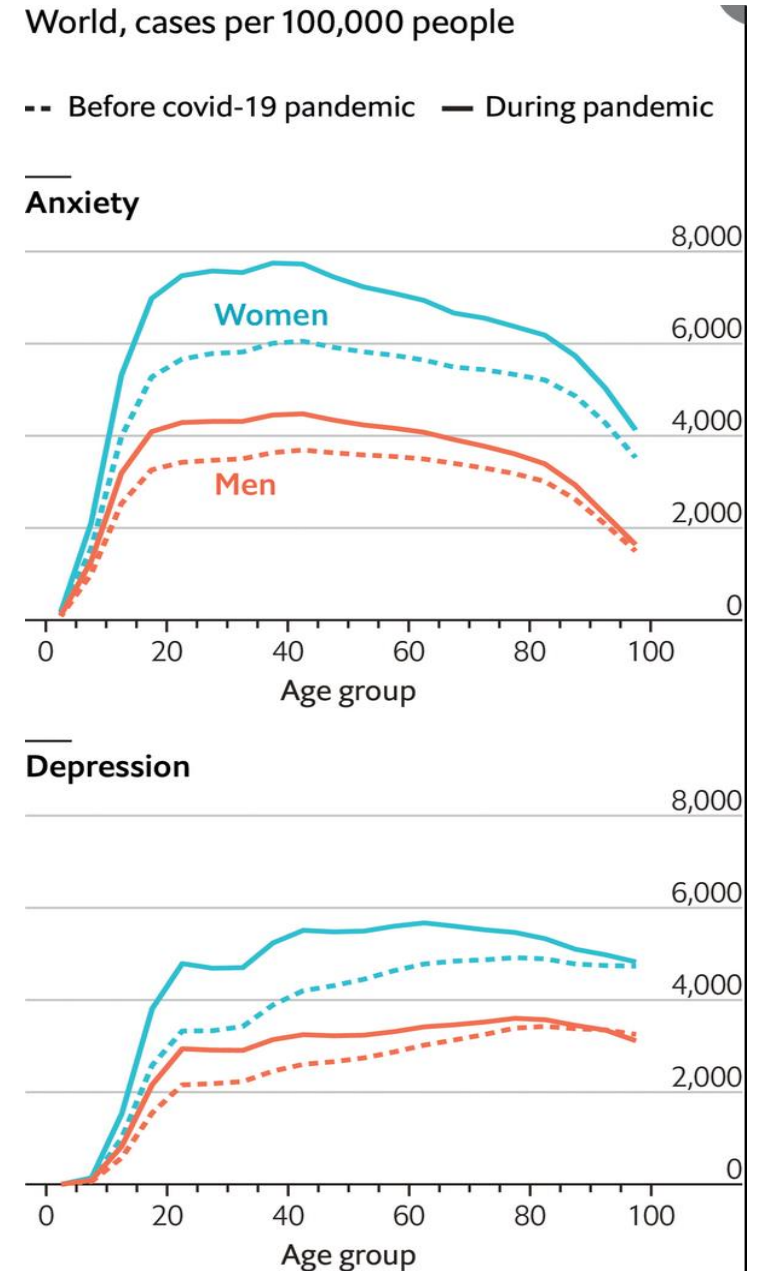
- The hard UK lockdown cost 0.5-0.7 in Life-satisfaction.
- This matches the found increase in depression or anxiety rates (25-30%, up from 16% before 2020).
- It matches the supreme importance of direct warm social relations for wellbeing in the literature.
- Particularly the young (16-39) are miserable to an unprecedented degree.
- Other causal evidence on this magnitude:
 - The “State of life” data in the UK that found that individuals who kept on working had no wellbeing loss, but the rest lost so much that the average loss was over 0.4.
 - Symetrica studies looking at regional variation in policy found an effect of 0.8.
- So it really is 0.5 to 0.7 for the UK variety of lockdowns.

Netherlands? Long 2021 lockdown...



Mental health in the World? Lancet 2021 paper.

Note, we know a 10% increase in depression rates indicates about a 10% decrease in average wellbeing (which is about 5.5 for the world), so 0.3. For 8 billion humans...



Light-lockdown countries?

-
- In Belgium, Annemans en VandePitte estimated (via surveys they started in February 2020) that the life satisfaction drop was 0.2 in the first lockdown but 0.5 in the second lockdown (from October).
- The life-sat data matches data for increases in depression. In Belgium for instance, severe anxiety/depression increased from 6.2% to 11.7%, particularly among the young (survey data by Feys et al. 2020).

Swedish data on wellbeing in 2020?

- Kivi et al. (2020) using a large panel of elderly Swedes (65-75) found no decrease at the start of the pandemic (end of March, start of April), exactly the period life-satisfaction plummeted in the UK.
 - No school closures, which have been found to particularly badly affect teenagers' wellbeing (IFS 2020).
 - No forced loneliness in the general population.
 - (we know wellbeing is about close social contacts: Diener 2020 (WHR 2020). Things like masks or limited seating in restaurants are not so relevant).
 - Kim and Jung (2021) also looked at the March 20-April 5 period with Swedish data, using a cross-national study, finding that 'distress' was much lower with less stringent policies.
 - So it seems the life-sat drop in Sweden has been negligible in 2020. For 2021, ichpanalytics.imperialcollegehealthpartners.com suggests Sweden's Cantril life-sat measure dropped 0.3 the last 3 months with stronger restrictions.

So...

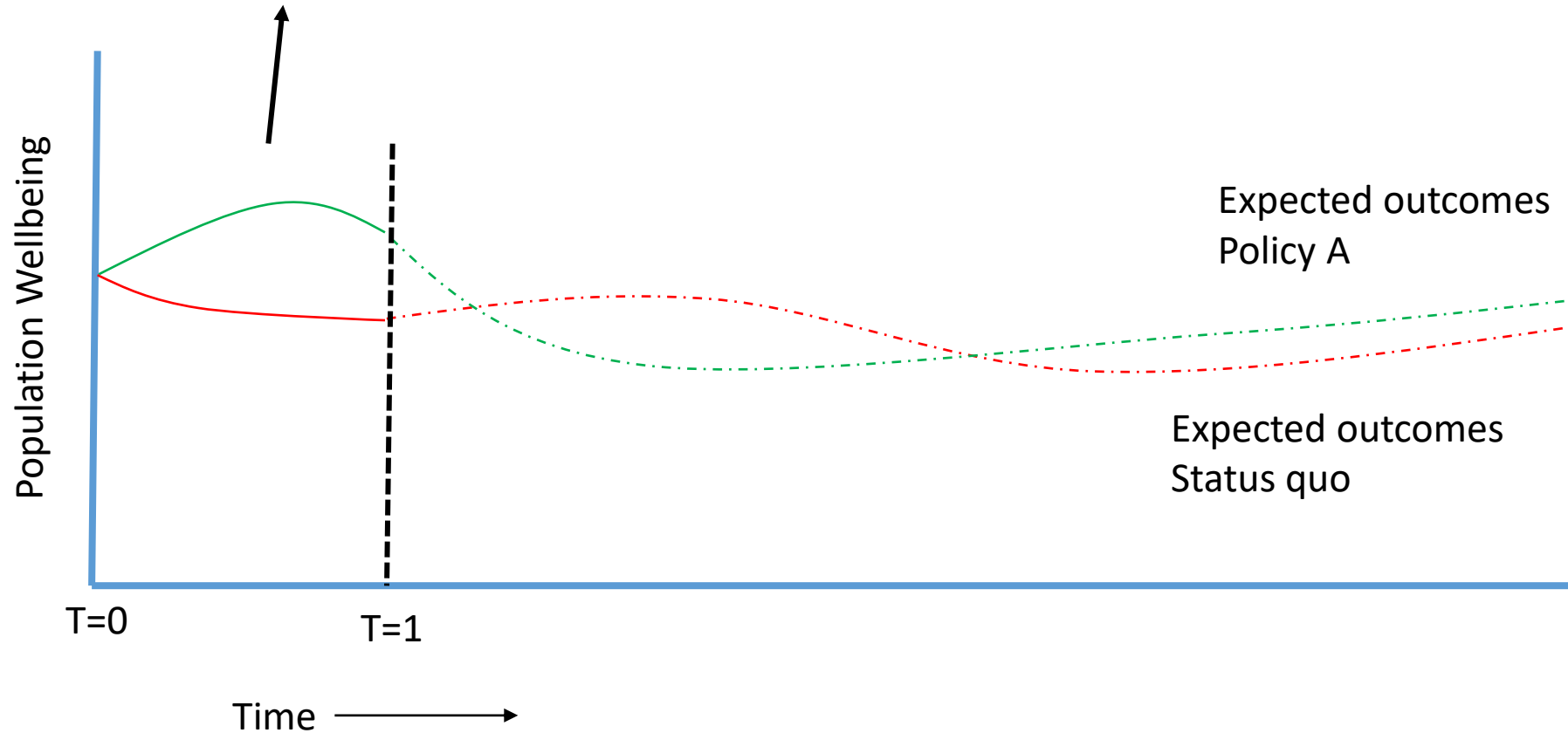
- Hard lockdowns were associated with an unprecedented big drop in life-satisfaction. Light lockdowns had lower levels of life-satisfaction drops, even in places with high covid deaths (like Belgium).
- If you look at the groups suffering most, it is the usual suspects: those without direct social groups. So the single elderly, the unemployed, the young forced to stay at home without friends, etc.
- In 2020 the light-restrictions in Sweden probably meant almost no drop. In recent months this has changed.

What does that mean in WELLBY terms?

- In the UK with a population of 70 million, a 0.5 drop in life satisfaction levels means a loss per month of lockdowns of $0.5 * 70,000,000 / 12 = 2.92$ million WELLBY lost.
- In Sweden, an equivalent wellbeing loss of hard lockdowns would mean 418,333 WELLBY loss per month.
- So you essentially would lose the equivalent wellbeing loss of 23,240 covid-deaths in Sweden per month of UK-style lockdown, just from the direct loss of wellbeing in a hard lockdown.
- What is included in that loss? Anything that changes wellbeing: physical health, loneliness, unemployment, changes in government spending in that period, mental distress, cancelled weddings, etc.

So....

This bit of the calculation is relatively easy for current and future lockdowns as it consists of comparing differences in expected covid-deaths with direct wellbeing effects of lockdowns on the general population.



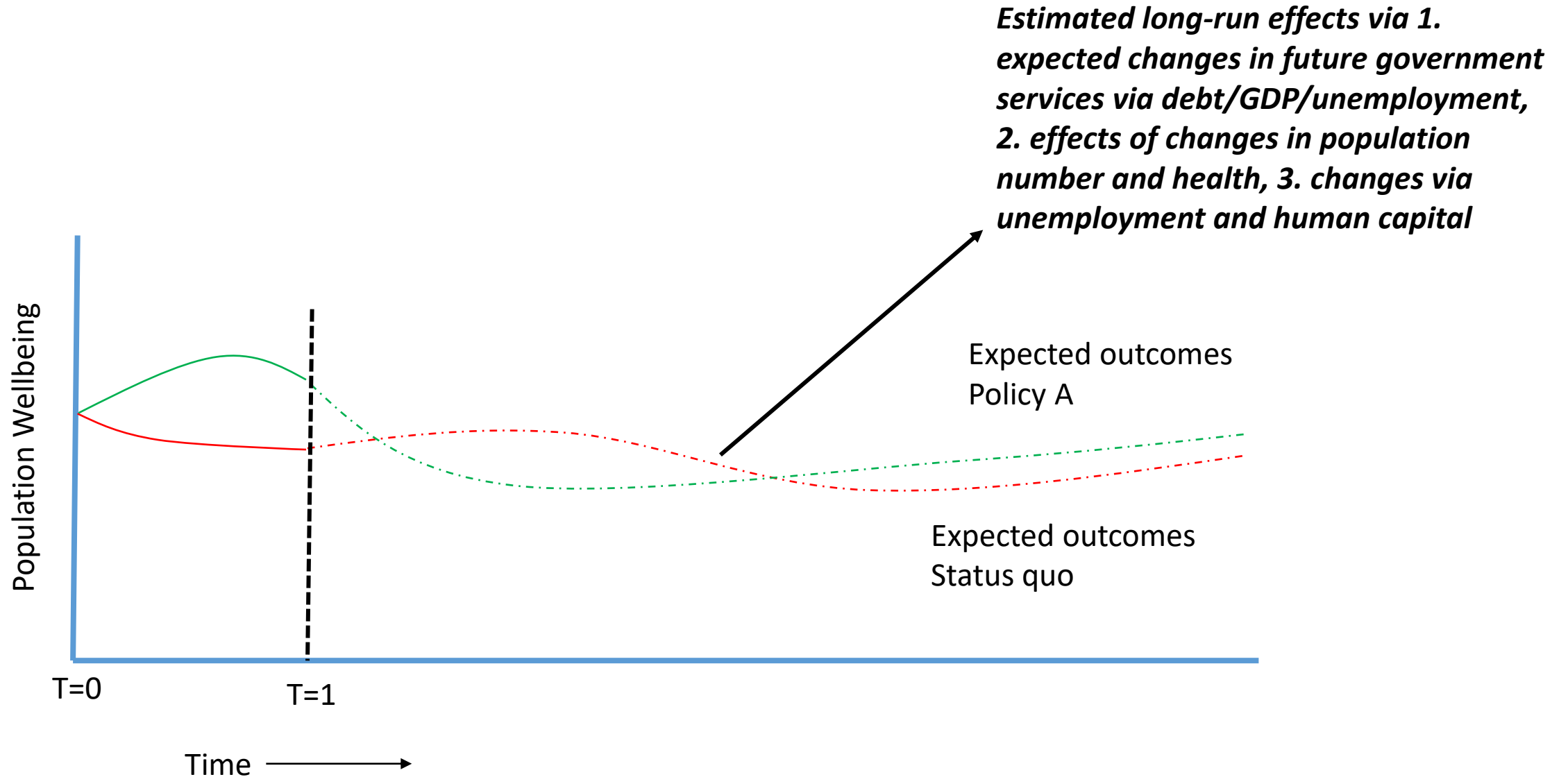
That stylised cost-benefit for Sweden?

- Q: relative to almost no restrictions, what would the costs and benefits have been of a hard lockdown in Sweden during 2020?
- Preliminary cost: 9 months of 0.5 life-sat drop for 10.4 million Swedes = 3.9 million WELLBY drop.
- This is equivalent to 209,167 corona deaths.

Yet...

- This is only a very small part of the costs of restrictions....

What about the other part????



Changes in the number of people?

- How did the number of future Canadians/Brits/Belgians/Swedes change due to actual policy versus a status quo policy? Which of these are relevant in the near future?
 - IVF treatments disrupted in many countries leading to forced childlessness.
 - Changes in birth-rates because of social distancing (you cant get pregnant from 1.5 metres!).
 - Changes in migration.
- Relevant philosophical/identity question: how much do these groups count?

IVF babies?

- As an example of a cost the mainstream does not often look at, considered the loss of IVF babies.
- In Belgium in a normal year, over 4% of all births, thus around 5,000 births are IVF babies.
- Those activities are totally stopped during corona times (“not essential”). These services run at capacity, so at least 4,000 permanently lost.
- The average baby would live 80 years with 6 WELLBY per year so 480 WELLBY. 4,000 babies is then 1.92 Million WELLBY lost, more than 4 times the WELLBY budget.
- In Canada too, the disruption of IVF alone is a multiple WELLBY loss of that WELLBY budget.
- So a key question for future policy is whether IVF will remain disrupted.

Question for Swedes:

- Have IVF treatments been disrupted in Sweden? Normally, IVF births are 2.8% of all births, so about 3,000 IVF babies per year.
- Not in 2020 as far as I know, but currently? It would be a huge loss.
- Note how a wellbeing lens forces you to look in these directions.

Birth rates?

- Now believed to be dropping at least 10% in Western countries in 2021. The proportion due to particular policies is less well-known but the problem seems to be worst in cities and hard-lockdown places (like Italy) where the social distancing measures bit harder.
- A 10% drop in birth rate means about 20 times more WELLBY loss from less future citizens than a 0.1% covid mortality.
- Birth-rate drop in Sweden? I don't know, but probably not because light-lockdown places have far lower baby busts than heavy lockdown places. However, under 2021 restrictions? I expect the cost of current Swedish restrictions to show up in the baby numbers 9 months from now.

Skilled Migration?

- Net importers of skilled migration normally get free human and social capital walking in (people whose education and socialisation were produced by another country).
- Estimates of the monetary value differ but its in the ball park of 500,000 US dollars per skilled young adult (based on just counting the value of schooling and parental investments).
- So a change in net skilled migration in Canada of 200,000 people is a yearly loss of 100 billion dollars in capital.
- One can convert this into WELLBYs by thinking of this as proportionally akin to government debt (ie expenses yet to be made to get the same human and social capital via own investments).

- Skilled migration changes probably not so relevant for Sweden in this time period, but to the degree it has been disrupted, another big cost.

How to value changes in capital stocks?

- The big ones that are relatively easy to count are:
 - Changes in Government Debt during the immediate period of the policy. Paying those back means less government expenditure (the opportunity cost).
 - Expected future changes in government expenditure due to GDP changes.
 - Expected future changes in government expenditure due to human capital changes via schooling disruption.
- It is hence via government expenditure that the big wellbeing effects of GDP, debt, and school disruptions come in.
- Why not via private consumption but look mainly at government expenditure? Because above the welfare minimum, private expenditure is largely irrelevant for aggregate wellbeing (mainly zero-sum: the gain to the individual of more consumption is largely offset by negative consumption externalities). Yet, government expenditure has a high wellbeing effect on average in well-functioning countries.

How much government expenditure buys one WELLBY?

- In the UK, we use that the WTP for a WELLBY is around 9,000 pounds but the marginal cost of the UK government in producing a WELLBY is no higher than 5,000 pounds, so 6,000 Euro per WELLBY.
- In a proper WELLBY calculation one should look at actual effects, not WTP, so the actual ***marginal cost of production*** is what counts.
- 1% of Sweden GDP is 4.854 Billion Euro, which is thus 809,000 WELLBY.
- So for every 1% GDP loss in government expenditure, Sweden loses 0.8 million WELLBY.

Reduced future government expenditure?

- [effects of 2020 government actions are all in the direct WELLBY effects]
- Sweden saw an increase in government debt of 6% GDP in 2020 and had 3% lower GDP in 2020 than 2019, expected to rebound fully by end 2021, so a cumulative 1.5% GDP less to come in 2021 activity. Presuming that government gets 40% of GDP in taxes, that is 0.6% GDP further debt. So Sweden will in the future have to reduce government expenditure by 6.6% of GDP (*or could have spent it elsewhere*).
- So Sweden has lost 5.34 million future WELLBYs due to the costs of the pandemic. This is probably the unavoidable loss, so the 'status quo' loss.
- Comparison Belgium? <https://www.nbb.be/doc/dq/n/dq3/histo/nufe20iv.pdf>
 - 6.2% lower GDP in 2020. Full rebound end 2022, meaning a cumulative 6.2% additional loss. That is 2.48% GDP additional debt.
 - Additional debt in 2020 was about 20% GDP. So relative to Sweden, Belgium has a 14.9% government expenditure reduction somewhere in the future.

Future unemployment direct WELLBY effect?

- [effects of previous unemployment are in the direct WELLBY costs]
- The huge WELLBY literature on this finds that the unemployed person is around 0.7 less satisfied with life. The knock-on cost to family and friends is probably similar in magnitude, but let's only count the cost to the unemployed.
- 150,000 unemployment years is for instance 105,000 WELLBY.
- Note that Sweden has already re-absorbed the unemployed of the early panic.

Collateral health costs?

- In the UK it is estimated that lockdowns cost 0.15% of the population (so almost the same as covid-deaths).
 - Postponed cancer screening, sent-home patients, neglected other health conditions, patients too afraid to seek help.
- Indeed 30% of the 2020 excess deaths have now been blamed in the UK on collateral damage by the government itself.
- If the same is true in Canada, it has more than lost that optimistic covid-budget already because these collateral deaths were expected to live longer than covid-deaths.
- <https://www.gov.uk/government/publications/dhsconsgadho-direct-and-indirect-impacts-of-covid-19-on-excess-deaths-and-morbidity-december-2020-update-17-december-2020>

Quick mention of other big items

- The human capital costs of disrupted schooling.
- In the UK, the Institute for Fiscal Studies (the main modellers for these things in the UK) estimated the future loss at 350 billion pounds, or around 500 billion USD.
- This is mainly because of closed schools: the bottom of the socio-economic ladder actually loses skills during lockdowns.

So that hypothetical Swedish cost-benefit?

- Q: relative to almost no restrictions, what would the costs and benefits have been of a hard lockdown in Sweden during 2020?
- Cost item 1: 9 months of 0.5 life-sat drop for 10.4 million Swedes = 3.9 million WELLBY drop.
- Cost item 2: disrupted IVF services. 2250 less babies = 1,01 million WELLBY drop.
- Cost item 3: additional loss in future government expenditure like Belgium of 14.9% GDP = 12.05 million WELLBY drop.
- Cost item 4: higher unemployment like Belgium of 150,000 extra unemployment years = 0.1 million WELLBY drop.

Conclusion\discussion

- Wellbeing maximisation as the goal of government has moved from the utopia basket into its practical trial phase, with the WELLBY intended to replace economic surplus and GDP as the primary measure of value.
- The institutionalisation of wellbeing will take decades, involving many different scientific tasks and new institutions.
- WELLBY CBAs are a useful tool to enumerate the loss of lockdowns.
 - Strong points: relatively easy to price changes in diverse dimensions. You could build a daily 'wellbeing lockdown damage' tracker for countries or the world.
 - It makes you look at particular data on mental health, health disruption, and wellbeing.
 - Weak points: it won't convince an audience that does not want to see. So it is mainly for internal consumption.
 - Also, it is not very 'fine grained': not useful to empirically identify effects of small policies.