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COVID-19, Cost-Benefit Analysis, and Politics

Dan Priel

Osgoode Hall Law School of York University, dpriel@osgoode.yorku.ca

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Abstract

[to be added]

Keywords

cost-benefit analysis, regulation, covid-19

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COVID-19, Cost-Benefit Analysis, and Politics

Of all that has changed following the outbreak of the COVID-19 pandemic, the one thing that most immediately affected people's lives has been the stay-at-home orders put in place, in somewhat different forms, in many countries around the world. While enjoying broad popular support, from the start these policies also generated strong reactions from both members of the general public and politicians, policymakers, and scholars who worried that they were not sufficiently thought through, and may end up causing more harm than good. The worry boiled down to the idea that the policies reflected a panicked response that failed to take into account the potential costs of the lockdown policies. This article is not an attempt to address every aspect of these policies; it focuses only on the question of "tradeoffs"¹ involved in them. As is clearer with every passing day, the isolation policies have saved many lives, but they also carry enormous costs, which will be felt for years to come. How, if at all, should these be weighed against each other?

Though the particular context in which this question is asked is as novel as the novel coronavirus, the question itself is not. It is arguably the most significant, most common, and also most difficult, question that policy makers and lawyers face. For when we move from abstract legal principles to the real world of implementation and enforcement, where budgets always outstrip desired goals, the question is always "at what cost?" Other things being equal, a world with less crime, fewer accidents, cleaner environment, and healthier food than our own world is a better one. But other things are never equal. Achieving these goals does not come free; in fact, achieving improvements on some of the goals just mentioned may make it more difficult to improve on other goals we are also interested in (for example, greater equality and less poverty).

Lawyers are often loath to think in these terms. Law, they say, is about justice, not efficiency; life is "priceless"; rights are "not for sale." But increasingly lawyers too acknowledge that governmental policies must involve some accounting for their downsides. Cost-Benefit Analysis (CBA) is a term used for a range of ideas and techniques on how to conduct this balancing. At its simplest, CBA is the view that public regulation of risk of harm should be based on an assessment of the expected harms and weighed against the costs of eliminating those risks. Risk-reducing actions should continue up to the point that the marginal cost of reducing the risk exceeds the expected gain from action. A related but different formulation is that in deciding which activities to regulate and to what degree, regulators should aim at bringing about the largest risk reduction for any dollar spent.

¹ See Emily Bazelon, "Restarting America Means People Will Die: So When Do We Do It?," *The New York Times* (10 April 2020), online: <[nytimes.com/2020/04/10/magazine/coronavirus-economy-debate.html](https://www.nytimes.com/2020/04/10/magazine/coronavirus-economy-debate.html)>; cf *R v Michaud*, 2015 ONCA 585 at paras 91-92 [*Michaud*].

This brief formulation may seem simple, to some it may even seem obvious, but it remains controversial in theory and incredibly difficult to implement in practice. At the abstract level, some consider CBA an immoral approach that exhibits insufficient respect to human life and for everything else that is of real value.² Even setting aside such worries, when it comes to implementing CBA, a host of questions arise on what precisely should be weighed, who should do the weighing, how to measure certain losses and benefits, what weight (if any) should be given to distributive considerations, and many others.

The COVID-19 outbreak provides an opportunity to examine some of the questions surrounding CBA with a case study of governmental policies that affected billions of people around the globe. In the context of the lockdown policies, CBA asks that we evaluate whether the costs of these policies in terms of the social and economic dislocation they cause are worth the benefits in terms of lives saved and other possible benefits. Presented this way, CBA seems obvious and counterintuitive at the same time. It is generally uncontroversial that given a certain budget, one should aim for the biggest bang for the buck, one should aim to achieve the greatest benefit. Likewise, to the extent that whatever action is taken will lead to some losses, it makes sense to try and minimize the losses and maximize the savings. To use an analogy to a now-famous thought experiment, one may think of the budget as the railway in the trolley problem: It sets absolute limits on the decision maker's available options, and there are bad consequences whichever option is taken. In such circumstances, most people think that one should choose the track that leads to fewer deaths.³

But CBA is not a trolley problem, as it requires making judgments that many find counterintuitive and even outright immoral. For example, unlike the trolley problem that directly asks us to compare lives with lives, the costs and benefits involved with the lockdown policies are of different kinds. This requires creating some common currency to compare them. This in turn requires putting a price on life, and even less intuitively, implies that some lives may not be worth saving. Standard CBA thus denies that saving lives, and preventing harm, enjoys some lexical priority over other societal goals.⁴

These questions are significant for policymakers and lawyers, as many areas of law deal, directly or indirectly, with preventing harms. What lawyers think less about is about the costs of doing so and how to balance the two, despite the fact that the law often calls for such balancing in quite explicit terms.

² See generally Frank Ackerman & Lisa Heinzerling, *Priceless: On Knowing the Price of Everything and the Value of Nothing* (New Press, 2004).

³ See Marc D Hauser, *Moral Minds: How Nature Designed Our Universal Sense of Right and Wrong* (HarperCollins, 2006) at 127-28.

⁴ For a critique of CBA on these grounds see Gregory C Keating, "Principles of Risk Imposition and the Priority of Avoiding Harm" (2018) 36 *Revus* 1; see also Cass R Sunstein, *The Cost-Benefit Revolution* (MIT Press, 2018) at ch 2 (reporting on a survey showing that many find CBA counterintuitive).

Regulatory policy guidelines published by the Canadian government's call for "evidence-based" rule making based on "robust analysis of costs and benefits, and the assessment of risk."⁵ Similarly, recognition of the need for some kind of balancing of costs against benefits has also been acknowledged by Canadian courts in both public and private law.⁶

Despite all this, CBA has received surprisingly little attention from Canadian legal academics.⁷ This short essay focuses on the different responses taken around the world to the COVID-19 outbreak. As such, it cannot seriously address many of the questions pertaining to CBA that have been canvassed in the vast literature surrounding it. Nevertheless, I hope it will spur interest beyond its particular subject matter on the need for a more open discussion of CBA in the Canadian regulatory context.

I begin this article by briefly considering some competitors to CBA that the pandemic has challenged. Of those, perhaps the most notable is how little weight rights seem to have had in discussions over the shutdown policies. Instead, discussion was dominated by attempts at evaluating the costs and benefits of different policies aimed at slowing the spread of the virus. While this may at first look like a victory for CBA, Part II argues that the pandemic also highlighted some of serious difficulties with it, especially given the level of uncertainty against which decisions had to be made. Rather than CBA, different countries

⁵ Treasury Board of Canada Secretariat, "Cabinet Directive on Regulation," s 3.0, online: <canada.ca/en/treasury-board-secretariat/services/federal-regulatory-management/guidelines-tools/cabinet-directive-regulation.html#toc3>; see also Treasury Board of Canada Secretariat, *Canada Cost-Benefit Analysis Guide: Regulatory Proposals* (President of the Treasury Board, 2007) online (pdf): <tbs-sct.gc.ca/rtrap-parfa/analys/analys-eng.pdf>.

⁶ See e.g. *Michaud*, *supra* note 1 at para 95 ("The balancing of costs and benefits is in the very nature of regulatory design and its main challenge"). The question of judicial review of regulation for failure to meet CBA requirement received relatively little judicial attention. For one short discussion see *Quebec (AG) v Canada (National Energy Board)*, [1994] 1 SCR 159 at 178-81. The need to balance costs against benefits has also been recognized in determining the standard of care in negligence. See *Ryan v Victoria (City)*, [1999] 1 SCR 201 at para 28; cf *Daborn v Bath Tramways Motor Co Ltd*, [1946] 2 All ER 333 (CA) ("if all the trains in this country were restricted to a speed of five miles an hour, there would be fewer accidents, but our national life would be intolerably slowed down" at 336).

⁷ One rare exception, focused on environmental law, is Heather McLeod-Kilmurray & Gavin Smith, "Unsustainable Development in Canada: Environmental Assessment, Cost-Benefit Analysis, and Environmental Justice in the Tar Sands" (2010) 21 J Envtl L & Prac 65 at 83-91. The paucity of discussion is especially striking when compared with the interest in the topic by American legal academics. For an imprecise but instructive comparison, I searched Heinonline, the most comprehensive database of law journals, for articles with "cost-benefit analysis" in their title. Limiting the search to the United States yielded over 250 results. A similar search in Canadian publications yielded only two results (one from 1970, the other from 1986). (The article cited in this note comes from a journal that is not in the database.) Both were brief and did not touch on the foundational issues surrounding CBA. Even accounting for the difference in population size (and correspondingly the size of the legal academy), this is a significant difference.

adopted one of several strategies, all acknowledging the need to balance costs against benefits, but without any real attempt at a precise calculation. Part III describes three such strategies and argues that the choice of strategy was, partly at least, grounded in political ideas, including rights. Those could be incorporated within CBA, in a loose sense, but they also show its limits. Finally, in Part IV, I draw some tentative conclusions about the longer-term implications of the pandemic and responses to it for future regulatory decision making in welfare states.

I. Ideas that Took a Hit

I mentioned at the outset that the debate over the lockdown policies has been couched in the language of tradeoffs. That in itself is remarkable, because it means it was not couched in the language of rights. The lockdown policies constituted a direct, savage blow to activities that only a few months ago everyone would have considered to be among our most basic rights: to wander around freely in the streets. Perhaps even more significant have been the severe restrictions imposed on people's use of their property, especially with respect to orders to shut down "non-essential" businesses. These policies, which were adopted with relatively little objection, are a challenge to those who advance rights-based views of private law, where "the nub of a property right is that the owner *rather than others* gets to determine how the thing will be used," itself derived from the right to exclude others.⁸

It is not that the language of rights has been completely absent—there were definitely those who invoked the language of rights to object to various restrictions or requirements (like the wearing of protective masks)—but these voices were completely drowned out by the demand that we stay at home for the sake of the greater good, or, paternalistically, for our own good. Many of those who invoked their individual rights (and as such not subject to government control) were widely seen not as civil libertarian heroes but as selfish cranks.⁹ If rights operate as "trumps" of individual choice over general welfare,¹⁰ then the pandemic has not been a good time for rights.

⁸ Arthur Ripstein, "Possession and Use," in James Penner & Henry E Smith, eds, *Philosophical Foundations of Property Law* (Oxford University Press, 2013) 156 at 160, 162 [emphasis in original]. Ripstein concedes (*ibid* at 160) that the right is subject to "public law limitations," but what he refers to does not include the limits imposed during the pandemic.

⁹ See *e.g.* Chris Herhalt, "Woman Roasted on Social Media after Refusing to Wear Mask in Toronto Hospital," *CTV News* (6 July 2020), online: <toronto.ctvnews.ca/woman-roasted-on-social-media-after-refusing-to-wear-mask-in-toronto-hospital-1.5012036>.

¹⁰ See Ronald Dworkin, *A Matter of Principle* (Harvard University Press, 1985) at 359. For an application of such ideas to pandemics see Janet E Mosher, "Accessing Justice amid Threats of Contagion" (2014) 51 *Osgoode Hall LJ*

Other non-consequentialist ideas that suffered at the hands of the virus are incommensurability and the lexical ordering of values. The former is the idea that goods of different kinds cannot be compared with each other. The latter suggests that because the protection of life and the prevention of life is prior to other benefits, one cannot compare one for the other. Countenancing the weighing of lives and willing to sacrifice lives for the sake of “the economy,” attempts to compare the incomparable, as well as shows their moral callousness. Each life is priceless, and therefore the protection of life must be outside any economic calculation.¹¹ In an essay entitled “Making Life Cheap,” one commentator criticized any such comparison as “straightforwardly eliminationist.” He described it as follows:

Since the value of a human life can be quantified—at \$9 million to \$10 million, according to major federal agencies—death is acceptable, and lives expendable, when more valuable goods are involved. The coronavirus pandemic has breathed new life into this old utilitarian chestnut, and it is precisely the life-reducing mindset of cost-benefit analysis that has driven the resistance to social distancing.¹²

The overheated language cannot hide the weakness of the argument. No society has ever treated life as priceless (although by most measures human life is better protected today than at any time in history).¹³ And it is actually CBA that encourages various forms of social distancing as a cost-effective way of saving lives.¹⁴ It is also wrong that this dead ideas has only been revived by the pandemic. All human societies around the world permit, and often encourage, the private ownership and operation of motor vehicles, even though that results in a staggering, and entirely foreseeable, cost to life and limb. While it is an interesting question whether the private ownership of cars would survive CBA, it is individual rights discourse that makes car ownership a matter of “personal choice” that is beyond government regulation.

CBA of risk regulation is a method that seeks to rationalize government action in order to achieve the optimal risk reduction. CBA recognizes that all human activity—and what common-sense morality tends to forget, also human *inactivity*—carries with it the risk of injury and death. Even if societies decided to

919 (there need to be “clear and convincing evidence that [a] person whose rights are to be curtailed is infected with a contagious disease ... and poses a demonstrable threat to others” at 932).

¹¹ Frank Ackerman & Lisa Heinzerling, “Pricing the Priceless: Cost-Benefit Analysis of Environmental Protection” (2002) 150 U Pa L Rev 1553 at 1562-63, 1564; Keating, *supra* note 4.

¹² Aaron Timms, “Making Life Cheap,” *The New Republic* (June 2020) 38 at 38, 40. The figures mentioned refer to value of a “statistical life,” which is currently measured at about nine million USD. For a discussion see text accompanying note 34 below.

¹³ See generally Steven Pinker, *The Better Angels of Our Nature: Why Violence Has Declined* (Penguin, 2011) at chs 3-4.

¹⁴ See *e.g.* Chris Barrett et al, “Economic and Social Impact of Influenza Mitigation Strategies by Demographic Class” (2011) 3 *Epidemics* 19.

spend all their available funds on saving lives (something that no society ever did), it would still be an open question what actions should be taken to save most lives. Since opportunity costs are costs, even in such a scenario CBA would be inescapable.

Properly understood, subjecting lockdown policies to CBA is not “a choice between lives and dollars.”¹⁵ The dollars are used by people, and when they do not have them—when “the economy” falters—people are hurt. The contrast is based on a natural but fallacious tendency to weigh immediate outcomes that are the result of a direct causal path and ignore other outcomes whose causal paths are less obvious but no less real.

II. The Triumph of CBA?

(a) CBA with Massive Uncertainty

Can we conclude from the preceding discussion, however truncated and brief, that the pandemic has finally shown that CBA is, as one commentator put it, the “only game in town”?¹⁶ Alas, it turns out that matters are not quite so simple. While the idea behind CBA is sound, in practice CBA is valuable only if it rests on good data. Otherwise, it is potentially worse than useless, as it can create the impression of a precise numerical (and as such, apolitical) guide to action when available knowledge does not warrant it. Even if the pandemic has been a victory of sorts to consequentialism, it has also provided an instructive case study of the problems with CBA in circumstances of great uncertainty.

Of course, this problem has been recognized before in other contexts, but defenders of CBA have tended to minimize its scope. In one essay, for example, Cass Sunstein has written that cases where agencies “may be operating under circumstances of *ignorance*, in which they cannot specify either outcomes or probabilities” are “rare.”¹⁷ If by this Sunstein meant cases where regulators are required to make a decision based on no information at all, then the phenomenon is indeed rare. But cases of significant uncertainty are quite common. For example, in debates in the United States over the death penalty, some have argued that empirical evidence shows it provides a powerful deterrent, and as such it “saves” many lives. Others,

¹⁵ Timms, *supra* note 12 at 40.

¹⁶ Barbara H Fried, “The Limits of a Nonconsequentialist Approach to Torts” (2012) 18 *Legal Theory* 231 at 231.

¹⁷ Cass R Sunstein, “The Limits of Quantification” (2014) 102 *Calif L Rev* 1369 at 1380, 1386. But *cf* Cass R Sunstein, *Worst-Case Scenarios* (Harvard University Press, 2007) at 163 (“at least a degree of uncertainty, in which probabilities cannot be assigned with specified bands, is not so rare”).

however, have shown how sensitive these findings to small changes in the models.¹⁸ It takes only a slight change to them to find that the death penalty *increases* the prevalence of murder.¹⁹

The difficulties with evaluating the costs and benefits of lockdown policies in the context of the COVID-19 outbreak far outweigh the difficulties with assessing the deterrent effect of the death penalty. In the death penalty studies, the relevant data are available and the biggest difficulty is isolating the impact of the death penalty from other societal changes that influence the prevalence of murder. This is difficult enough, but it is nothing compared to the difficulties arising from the levels of uncertainty decision makers are facing in the present pandemic.

Starting with the benefits of the lockdown policies, the most obvious one is saved lives. To know just how many lives have been saved by shutdown policies, one needs to know how many would have died without them. This is difficult, as there are significant differences in estimates of the infection rate, the infection fatality rate. For reasons that are as yet not entirely clear these rates have been dramatically different for different countries, or at times for different regions within one country. Even something as seemingly simple as the number of people who died from the virus—supposedly a matter of mere counting—is not quite certain, even though such a number is crucial for being able to evaluate the infectiousness of the virus. Calculations based on excess mortality suggest COVID-19 may be more lethal than official counts say; but excess mortality calculations themselves may be inaccurate, as they may reflect deaths of people deciding to forgo treatment for other conditions.²⁰ If such a choice is as a result of the lockdown policies, these deaths may be attributed not the virus but to the governmental response to it. On all these matters, our knowledge constantly improves, but it must be remembered that for all the uncertainty that still remains, initial decisions on lockdown had to be made against far higher levels of uncertainty.

Greater difficulties relate to the benefits from saved infections. Here, the main benefits come from avoided infections, of which the most obvious benefit is the saved lives of people who without isolation policies would have been died from the virus. In some exercises in CBA following the outbreak, this was

¹⁸ See John J Donohue & Justin Wolfers, “Uses and Abuses of Empirical Evidence in the Death Penalty Debate” (2005) 58 *Stan L Rev* 791 [Donohue & Wolfers, “Uses”]; John J Donohue, III & Justin Wolfers, “Estimating the Impact of the Death Penalty on Murder” (2009) 11 *Am L & Econ Rev* 249.

¹⁹ See Donohue & Wolfers, “Uses,” *supra* note 18 at 825-26. Incidentally, one of the targets of this article was Sunstein, who relying on earlier empirical studies, has argued in support of the death penalty. See *ibid* at 825. Another study, more pertinent for present purposes, has delved into the costs and benefits of a single environmental regulation, again showing some of the uncertainties involved, is Thomas O McGarity, “Professor Sunstein’s Fuzzy Math” (2002) 90 *Geo LJ* 2341.

²⁰ See Denis Grady, “The Pandemic’s Hidden Victims: Sick or Dying, but Not from the Virus,” *The New York Times* (14 May 2020), online: <[nytimes.com/2020/04/20/health/treatment-delays-coronavirus.html](https://www.nytimes.com/2020/04/20/health/treatment-delays-coronavirus.html)>.

the only benefit calculated, but while plainly significant, it is not the only benefit from not being infected. Another significant benefit of non-infection is the savings from avoided infections for those who recover. The illness for those who get sick and recover sometimes imposes significant costs from (among other things) the cost of treatment and inability to work. Additional benefits from non-infection for those who without lockdown would have been ill and recovered are even more difficult to assess at this point. Chief among them are the long-term health effects of the virus: What was initially thought to be a virulent respiratory disease is now coming to be seen as an illness that afflicts some patients' hearts, kidneys, and even their brains.²¹ How frequent these effects are among those who recover, how serious these effects are, and especially how long they last is at this stage largely unknown. In addition to the savings from avoided infections, on the side of the benefits one has to include the significant, if temporary, improvement in air quality in many cities, as well as the decline in traffic and other accidents (following a decline in economic activity).²²

On the side of costs, the most evident and immediate effect of the lockdown has been a massive economic slowdown. Unemployment in Canada jumped from 5.6 per cent prior to the pandemic to 13.7 per cent in May 2020. Entire industries (hospitality, entertainment, brick-and-mortar retail) have seen an almost complete stop in activity. Though the government provided support for small businesses, it did not fully offset the losses, and survey data suggest concern over the rise in bankruptcies in the near future.²³ Longer term effects of the lockdown policies are less clear, but past experience suggests that major economic shocks have long-term effects on the employment and earning prospects for those who are entering the labour market right now.²⁴ In addition, there have already been reports of higher incidence of domestic abuse,

²¹ See Ariana Eunjung Cha, "Coronavirus Autopsies: A Story of 38 Brains, 87 Lungs and 42 Hearts," *The Washington Post* (1 July 2020), online: <[washingtonpost.com/health/2020/07/01/coronavirus-autopsies-findings/](https://www.washingtonpost.com/health/2020/07/01/coronavirus-autopsies-findings/)>; Pam Belluck, "Here's What Recovery from Covid-19 Looks Like for Many Survivors," *The New York Times* (1 July 2020), online: <[nytimes.com/2020/07/01/health/coronavirus-recovery-survivors.html](https://www.nytimes.com/2020/07/01/health/coronavirus-recovery-survivors.html)>.

²² See Farhad Manjoo, "I have Seen the Future Without Cars, and It's Amazing," *The New York Times* (9 July 2020), online: <[nytimes.com/2020/07/09/opinion/sunday/ban-cars-manhattan-cities.html](https://www.nytimes.com/2020/07/09/opinion/sunday/ban-cars-manhattan-cities.html)>; Anne Case & Angus Deaton, *Deaths of Despair and the Future of Capitalism* (Princeton University Press, 2020) at 26, 141-42 (mortality rates go down during recessions).

²³ See Barbara Shecter, "More than a Million Canadians Believe They Are on Verge of Bankruptcy, New Poll Suggests," *Financial Post* (10 April 2020), online: <financialpost.com/personal-finance/debt/more-than-a-million-canadians-believe-they-are-on-verge-of-bankruptcy-new-poll-suggests/>.

²⁴ See Eduardo Porter & David Yaffe-Bellany, "Facing Adulthood with an Economic Disaster's Lasting Scars," *The New York Times* (19 May 2020), online: <[nytimes.com/2020/05/19/business/economy/coronavirus-young-old.html](https://www.nytimes.com/2020/05/19/business/economy/coronavirus-young-old.html)>.

mental health problems, and suicide as a result of the economic dislocation, isolation, and confinement following the shutdown policies.²⁵ (To add to the complexity, to accurately measure the effect of government isolation policies, one has to exclude from calculation behavioural changes that would have happened spontaneously.)

Another likely cost from the current crisis involves the significant debts governments incur to deal with increased expenditures and reduced revenue. In all likelihood these debts will be paid off, at least in part, from future budget cuts to various governmental programs. If history is our guide, such cuts tend to disproportionately hurt low-income individuals. To the extent that distributive considerations are relevant for CBA—and there are good reasons to think that they do—this is another likely cost of current policies, but whose magnitude it is very difficult at this stage to estimate.

With the effects of the shutdown discussed so far, one could place them on the side of costs or benefits with relative confidence. For other possible effects of the current pandemic, beyond estimating what will happen, it is difficult to know their overall valence. For instance, the lockdown policies forced many workplaces to switch quickly to remote work. This generated many immediate costs, but those may spur long-needed, beneficial changes to work practices. Several employers have indicated that they now plan to expand work-from-home practices, citing savings in expensive real estate expenses and, more surprisingly, increased productivity. If such changes prove lasting, would the positives (*e.g.*, more leisure time and less anxiety from avoided commutes to work, less pollution from fewer commutes to work) outweigh the negatives (*e.g.*, less sociability)?

In assessing the costs and benefits of the pandemic, one significant unknown is the time it will take before life returns to something resembling its pre-pandemic form. This partly depends on how long it will take to develop a vaccine or a cure for the virus. While there are encouraging signs that a treatment is not far off, they are far from certain. Worryingly, there are also discouraging indications that a vaccine may provide only temporary or limited protection. In these circumstances, even small changes can have significant effects on our ability to return to engaging in the same social interactions known from before the pandemic. By then, some changes initially thought to be temporary may become permanent.

Even more significant changes may come about as a result of the pandemic, but these are even more difficult to predict and assess. Historians have argued that some pandemics have brought with them epoch-making change: The bubonic plague that killed between one-third to one-half of Europe's population in the

²⁵ See Sebastian Payne, "Coronavirus: The Hidden Health Costs of the UK Lockdown," *The Financial Times* (26 April 2020), online: <[ft.com/content/0ccaac50-854c-11ea-b555-37a289098206](https://www.ft.com/content/0ccaac50-854c-11ea-b555-37a289098206)>; Cec Haire, "Increase in Domestic Violence Calls Persists Throughout the Pandemic, Says Non-Profit," *CBC News* (2 July 2020), online: <[cbc.ca/news/canada/newfoundland-labrador/violence-prevention-east-val-barter-domestic-covid-1.5632993](https://www.cbc.ca/news/canada/newfoundland-labrador/violence-prevention-east-val-barter-domestic-covid-1.5632993)>.

middle of the fourteenth century is cited as an important factor in bringing about the end of feudalism, the beginning of the Renaissance and the emergence of capitalism; the 1918 pandemic (together with World War I) is sometimes mentioned as bolstering the case for expanding the franchise to women. Closer to lawyers' concern, the very justification for government regulation of public health that many now take for granted may have been born in reaction to the Black Death. In a book dedicated to the social effects of pandemics, Frank Snowden writes that "[p]lague regulations ... cast a long shadow over political history. They marked a vast extension of state power into spheres of human life that had never before been subject to political authority. ... The campaign against plague ... promoted an accretion of the power and legitimation of the modern state."²⁶

It is possible that the current pandemic will have a similar impact. Before the pandemic, there were serious concerns over the vast amounts of personal data now held by tech companies and governments. In many countries the pandemic has led to the adoption of privacy-intruding policies, now possible with the use of digital technologies. Will people be willing to cast aside their worries over privacy for the sake of public health? A news report on China noted that its government has "long sought to harness vast troves of digital information to their sprawling, sometimes unruly nation more efficiently."²⁷ Following the adage that one should not let a crisis go to waste, will China and other countries take advantage of this pandemic to expand the reach of such policies? If such changes do happen, should they be included in a CBA of the effects of government policies? And if so, how?²⁸

(b) Models and Their Limits

Scientists face uncertainty all the time. This does not mean that they cannot make successful predictions. Their main tool for dealing with uncertainty is models. Models are tools for better understanding reality by way of creating a simplified representations of it.²⁹ At times, the point of the simplification is to highlight

²⁶ Frank M Snowden, *Epidemics and Society: From the Black Death to the Present* (Yale University Press, 2019) at 81-82; see also Mitchell L Hammond, *Epidemics and the Modern World* (University of Toronto Press, 2020) at 38-39.

²⁷ See Raymond Zhong, "China's Virus Apps May Outlast the Outbreak, Stirring Privacy Fears," *The New York Times* (26 May 2020), online: <[nytimes.com/2020/05/26/technology/china-coronavirus-surveillance.html](https://www.nytimes.com/2020/05/26/technology/china-coronavirus-surveillance.html)>.

²⁸ One could be even more speculative: Before the outbreak, many forecasters predicted President Donald Trump would win re-election because the US economy was doing well. Trump's disastrous response to the pandemic and its effect on the American economy are now widely seen to have hurt his chances of re-election. Should one count this as a benefit of the pandemic?

²⁹ This in itself is a simplification, as models sometimes serve other functions. For a discussion see Tarja Knuuttila, "Models, Representation, and Mediation" (2004) 72 *Phil Sci* 1260.

certain aspects of reality, at others it is to make explanations and predictions more tractable, at still others it is to deal with gaps available data. Therefore, that a model leaves out certain aspects of reality—i.e., that strictly speaking, it is false—is not an inherent problem with them.

By the same token, it is not enough to say that simply because scientists use models, uncertainty is not an issue. Not all models, and not all uncertainties, are created equal.³⁰ In the present context, early models have reached widely divergent conclusions on the wisdom of various policies.³¹ For example, a group of economists concluded that lockdown policies were justified by comparing the value of saved lives with the economic costs of such policies and concluded that the former outweighs the latter.³² As the model only calculated the benefits from saved lives against the cost as measure by decline in GDP, it excluded many of the costs and benefits mentioned above. By contrast, an epidemiologist, questioned lockdown policies by arguing that they were rushed and possibly inflated the harm caused by the illness (i.e., the benefits from government policies).³³

Some of the differences related to the costs and benefits included in the calculation, but next to questions of model design (*e.g.*, what costs and benefits are included in the calculation) and empirical questions (*e.g.*, how many people will die in the absence of lockdown policies), matters on which we can expect models to improve as better data are available, some of the differences are due to normative judgments. Here is one: what is the benefit accrued from a saved life? Setting aside ethical qualms about any attempt to answer such a questions in terms of dollars and cents, one finds in the relevant literature two different approaches that

³⁰ Cf Daniel A Farber, “Modeling Climate Change and Its Impacts: Law, Policy, and Science” (2008) 86 Tex L Rev 1655 (explaining why climate models predicting global warming are superior to economic models of the economic impact of climate change).

³¹ See Martin Enserink & Kai Kupferschmidt, “Mathematics of Life and Death: How Disease Models Shape National Shutdowns and Other Pandemic Policies,” *Science* (25 March 2020), online: <[sciencemag.org/news/2020/03/mathematics-life-and-death-how-disease-models-shape-national-shutdowns-and-other](https://www.sciencemag.org/news/2020/03/mathematics-life-and-death-how-disease-models-shape-national-shutdowns-and-other)>; Fareed Zakaria, “Why the Coronavirus Models Aren’t Totally Accurate,” *The Washington Post* (9 April 2020), online: <[washingtonpost.com/opinions/without-mass-testing-were-flying-blind-through-this-crisis/2020/04/09/bf61e178-7a9b-11ea-a130-df573469f094_story.html](https://www.washingtonpost.com/opinions/without-mass-testing-were-flying-blind-through-this-crisis/2020/04/09/bf61e178-7a9b-11ea-a130-df573469f094_story.html)>; Joel Achenbach, “‘Tell Me What to Do! Please!’: Even Experts Struggle with Coronavirus Unknowns,” *The Washington Post* (26 May 2020), online: <[washingtonpost.com/health/tell-me-what-to-do-please-even-experts-struggle-with-coronavirus-unknowns/2020/05/25/e11f9870-9d08-11ea-ad09-8da7ec214672_story.html](https://www.washingtonpost.com/health/tell-me-what-to-do-please-even-experts-struggle-with-coronavirus-unknowns/2020/05/25/e11f9870-9d08-11ea-ad09-8da7ec214672_story.html)>.

³² See Linda Thunström et al, “The Benefits and Costs of Using Social Distancing to Flatten the Curve for COVID-19” J Benefit Cost Analysis [forthcoming in 2020], online: <doi.org/10.1017/bca.2020.12>.

³³ John PA Ioannidis, “A Fiasco in the Making? As the Coronavirus Pandemic Takes Hold, We Are Making Decisions Without Reliable Data,” *Stat* (17 March 2020), online: <www.statnews.com/2020/03/17/a-fiasco-in-the-making-as-the-coronavirus-pandemic-takes-hold-we-are-making-decisions-without-reliable-data>.

in the context of the pandemic may lead to very different conclusions. One approach uses the measure of “value of statistical life” (VSL) to measure the value of each life saved. Though there is no uniform measure for VSL, it is currently typically measured at about nine to ten million USD. The other approach, known as “Quality Adjusted Life Years” (QALY) measures how many years a regulatory intervention will add, and further weighs “healthy” years higher more than others.³⁴ The latter approach thus treats the benefits from saving the life of an older person as lower than that of a young people, as the former has fewer years left to live, and those are typically of “lower” quality.

People of all age groups have died of COVID-19, but the distribution of fatalities has been very heavily skewed toward older people: In Canada, 96 per cent have those who died of COVID-19 were sixty years old or older.³⁵ In addition, those who died tended to be people with several comorbidities, i.e. people who even before the outbreak were less healthy.³⁶ One reason for the different conclusions of the two studies mentioned above is that the former used the VSL approach, whereas the latter took the age and health of most decedents into account.³⁷ Nothing in the CBA method itself answers the question which of these approaches should be adopted, and our practices do not reveal a perfectly consistent pattern. In some contexts, societies adopt something closer to the QALY approach: When it comes to allocating organs for transplantation to potential recipients, decision protocols give priority to younger and otherwise healthier

³⁴ For a discussion of these approaches and a proposal of yet another one see Sean Hannon Williams, “Statistical Children” (2013) 30 *Yale J on Reg* 63 (arguing for VSL with an added “child premium”). The text ignores many issue related to these two competing approaches.

³⁵ See Sharon Kirbey, “In Canada, the Cases of COVID-19 and Deaths are Declining. Here’s the Story Behind the Numbers,” *National Post* (11 July 2020), online: <nationalpost.com/news/in-canada-the-cases-of-covid-19-and-deaths-are-declining-heres-the-story-behind-the-numbers>.

³⁶ Eighty-one per cent of deaths from COVID-19 in Canada were of long-term care residents. See Canadian Institute of Health Information, *Pandemic Experience in the Long-Term Care Sector: How Does Canada Compare with Other Countries?* (June 2020) at 2, online (pdf): *CIHI Snapshot* <www.cihi.ca/sites/default/files/document/covid-19-rapid-response-long-term-care-snapshot-en.pdf>. According to a 2015 report, the average length of stay at a long-term care facility in Ontario was 2.7 years (the median was 1.6 years). See Health Analytics Branch, Ministry of Health and Long-Term Care, *Long-Term Care in Ontario: Sector Review* (September 2015) at 17, online (pdf): <longtermcareinquiry.ca/wp-content/uploads/Exhibit-169-Long-Term-Care-in-Ontario-Sector-overview.pdf>. While these figures do not account for the reason for the end of the stay, the two most common reasons for discharge are a move to a hospital (46.9 percent) and death (30.6 per cent). See *ibid* at 16.

³⁷ This in itself may reflect a disciplinary difference. VSL is common among economists, QALY among health care professionals. See Williams, *supra* note 34 at 120. Thunström et al, *supra* note 32, is the work of economists; Ioannides, *supra* note 33, was written by a medical doctor and epidemiologist.

patients. At other times, we reject such calculations and refuse comparisons that suggest some lives are worth more than others.

This point reveals a fundamental question about CBA that I have so far ignored, namely that it contains an ineliminable political component. Just how significant this component is, how devastating it is for CBA, is itself a (politically) contested question. I do not know of anyone who denies that some of the questions at the heart of CBA are not a matter of empirical calculation, to its critics, it undermines the entire aspiration for developing a scientific (albeit potentially mistaken) method for assessing risk regulation. For them, CBA is just better at hiding its normative choices under a veneer of false objectivity and rigor that come with quantification.³⁸ When this veneer is scratched off, it becomes evident that many quantifications that go into actual CBA rest on dubious empirical foundations lacking any scientific basis.³⁹

CBA respond by arguing that scientific questions should be separated from political ones, and to argue that scientists should be in charge of the former and the people (at least in a democracy) in charge of the latter. They point out that risk regulation is so wasteful and irrational because it is often driven by unfounded popular fears.⁴⁰ No matter how we measure the value of life, it is a matter of fact that terrorism poses a far smaller risk of death than heart attacks, and that budgetary outlays should reflect this fact (even if most people fear the former more).

For some, however, this view amounts to undermining democracy: What risks should be regulated and to what extent is a political question “all the way down.” If people care or fear some risks more than others, their choices should be respected. Those who advance these views note that public attitudes about these matters are typically correlated with standard political worldviews or ideologies: for example, people with more egalitarian views tend to be more worried about global warming; people with less hierarchical views

³⁸ See Wendy E Wagner, “The Science Charade in Toxic Risk Regulation” (1995) 95 Colum L Rev 1613 at 1632-35, 1701-702; see also Cory Coglianese & Gary E Merchant, “Shifting Sands: The Limits of Science in Setting Risk Standards” (2004) 152 U Pa L Rev 1255 at 1265, 1274, 1324.

³⁹ For demonstrations of the non-scientific, and often politically-motivated, assumptions that have gone into specific exercises in evaluating the costs and benefits of particular regulations see McGarity, *supra* note 19 at 2356-65; Mark Kelman, “On Democracy-Bashing: A Skeptical Look at the Theoretical and ‘Empirical’ Practice of the Public Choice Movement” (1988) 74 Va L Rev 199 at 239-60.

⁴⁰ See *e.g.* Stephen Breyer, *Breaking the Vicious Circle: Toward Effective Risk Regulation* (Harvard University Press, 1993) at 59-63; Cass R Sunstein, *Laws of Fear: Beyond the Precautionary Principle* (Cambridge University Press, 2005) at 126-28. This view also assumes, controversially, that experts are better than lay people at insulating themselves from cognitive biases. I cannot deal with this question here.

tend to be more concerned about drugs and want them to be more heavily regulated.⁴¹ To make risk experts decide how much to spend on different risks is to remove from democratic debate questions that have always been considered the core of public discourse. Indeed, for some of these defenders of regulatory democracy, the presentation of popular opinions on risk as “errors” is itself mistaken. As psychologist Paul Slovic put it, people’s “conceptualization of risk is much richer than that of the experts and reflects legitimate concerns that are typically omitted from expert risk assessments.”⁴²

This democratic argument is overdrawn. There are truths about risks, and usually experts know those better than most people. In making policy decisions on COVID-19, epidemiologists’ views on the risks involved should count more than the views of peddlers of conspiracy theories.⁴³ This is in fact a familiar facet of modern democracy. What percentage of the defence budget should be allocated for jet fighters as opposed to submarines, tanks, or cyberwarfare, is not a question decided by the people, nor is it typically decided by their representatives; it is a question decided by experts. The same is true of most public health decisions, such as whether to purchase another fMRI machines or to hire more doctors (at the hospital level), or how much to allocate to education for healthier eating over cancer research (at the health-care system level). The reason is simple: Most people know nothing, or less than nothing, about these matters. The amount of misinformation about COVID-19 has been significant, with numerous unfounded claims about its origins, its risks, or of reliable methods for dealing with it. For all its uncertainty, scientific expertise on matters of public health is not just “one perspective” that is no better than any other, and there is already quite clear evidence that those places that followed well-established public health procedures have done better than those who have not.⁴⁴

⁴¹ See *e.g.* Dan M Kahan et al, “Fear of Democracy: A Cultural Evaluation of Sunstein on Risk” (2006) 119 Harv L Rev 1071 at 1083-87.

⁴² Paul Slovic, “Perception of Risk” (1987) 236 Sci 280 at 285. For drawing out the regulatory implications of this view see Kahan et al, *supra* note 41.

⁴³ Those are more common than one would like to think. See Dominik Stecula, Mark Pickup & Clifton van der Linden, “A Survey of Canadians Shows a Worrying Number of Believers More Likely to Ignore Recommended Health Behaviours. The Consequences Could Be Devastating,” *Policy Options* (6 July 2020), online: <policyoptions.irpp.org/magazines/july-2020/who-believes-in-covid-19-conspiracies-and-why-it-matters> (reporting on a poll that found that as many as 25 per cent of Canadians have some belief in at least one conspiracy theory about COVID-19).

⁴⁴ See *e.g.* Charles Duhigg, “Seattle’s Leaders Let Scientists Take the Lead. New York’s Did Not,” *The New Yorker* (26 April 2020), online: <newyorker.com/magazine/2020/05/04/seattles-leaders-let-scientists-take-the-lead-new-yorks-did-not>.

Once again, however, matters are not so simple. A careful approach to CBA, one that tries to expertly weigh changes in people's welfare, will end up taking many of people's attitudes into account. On many issues pertaining to risk, people's mistaken views may cause them fear. Since such emotional effects have welfare costs, some have argued with some plausibility that they should be included in CBA.⁴⁵ If this is to be done, many of the popular errors to be excluded CBA are brought back in. Moreover, if fear should be included in the welfare calculus as it affects well being, then the same must be true of other emotions, as well as beliefs whose disappointment would lead to a reduction in welfare.⁴⁶ Sunstein, who favoured allocating risk regulation decisions to experts because they are better informed than the people, has also argued that upset over disappointed moral beliefs should be included in CBA.⁴⁷ Measurement problems are likely to be considerable, even more so if we try to separate disappointed moral attitudes from factual errors, since in such matters empirical and normative beliefs are going to be deeply intertwined: Those who believe that some crimes merit capital punishment and thus disappointed by its absence, will also tend to believe empirical evidence showing that it deters; those who believe that vaccinations cause autism will typically also hold (in that context) the moral view that vaccination is a personal choice beyond the legitimate power of the state to mandate.⁴⁸ The disappointment of a mistaken factual belief (vaccinations are dangerous) may

⁴⁵ See Matthew D Adler, "Fear Assessment: Cost-Benefit Analysis and the Pricing of Fear and Anxiety" (2004) 79 Chi-Kent L Rev 977.

⁴⁶ This difficulty is not novel. For a discussion of Jeremy Bentham's efforts to deal with it see Michael Quinn, "Popular Prejudices, Real Pain: What Is the Legislature to do When the People Err in Assigning Mischief?" in Michael Quinn & Xiaobo Zhai, eds, *Bentham's Theory of Law and Public Opinion* (Cambridge University Press, 2014) 63. For more recent discussions see Dworkin, *supra* note 10 at 196-98; Robert E Goodin, *Utilitarianism as a Public Philosophy* (Cambridge University Press, 1995) at ch 9.

⁴⁷ Compare Sunstein, *supra* note 40 at 126 with Eric A Posner & Cass R Sunstein, "Moral Commitments in Cost-Benefit Analysis" (2017) 103 Va L Rev 1809 at 1830, *passim*.

⁴⁸ *Cf* Jeremy D Fraiberg & Michael J Trebilcock, "Risk Regulation: Technocratic and Democratic Tools for Regulatory Reform" (1998) 43 McGill LJ 835 at 849-57. For psychological studies illustrating the point mentioned in the text in experimental settings see Charles G Lord, Less Ross & Mark R Lepper, "Biased Assimilation and Attitude Polarization: The Effects of Prior Theories on Subsequently Considered Evidence" (1979) 37 J Personality & Soc Psychol 2098 (upon being presented with balanced evidence on the deterrent effect of capital punishment was seen by both opponents and proponents as supporting their views and strengthened both sides' convictions); Peter H Ditto & David F Lopez, "Motivated Skepticism: Use of Differential Decision Criteria for Preferred and Nonpreferred Conclusions" (1992) 63 J Personality & Soc Psychol 568. To make things worse, studies suggest that once beliefs are formed, they tend to resist disconfirming factual information. See Lee Ross, Mark R Lepper & Michael Hubbard, "Perseverance in Self-Perception and Social Perception: Biased Attributional Processes in the Debriefing Paradigm" (1975) 32 J Personality & Soc Psychol 880.

adversely affect individual welfare no less than a challenge to a moral belief (vaccinations are a matter of personal choice). In short, whereas the “democratic” approach extend the domain of politics when it comes to *who should make the decision*, the expert-led “technocratic” approach may end up quite similar if it includes political preferences in determining *what the costs and benefits are*.

The current pandemic illustrates this problem of separating factual errors from moral beliefs, and further shows how the factual uncertainty discussed in the previous section exacerbates it. The greater is the factual uncertainty, the more likely are factual estimates to be driven by—and perhaps also be presented as—moral beliefs. Anecdotal evidence suggests that those who believe that the risk of the virus is small tend also to think that masks do not prevent the spread of the virus (even though the two beliefs are completely independent of each other), and also hold the moral view that the state cannot force individuals to wear masks. Even if we dismiss their factual views as erroneous, they may come back into the calculation in the form of their moral beliefs.

To conclude, politics may enter CBA in at least three places: when deciding a non-scientific question such as how to measure the value of life; when disappointed political beliefs are taken into account in determining the costs of a regulation; and when in circumstances of factual uncertainty political attitudes fill the gaps. Given the levels of uncertainty surrounding COVID-19, especially when the decisions on lockdown and shutdown were taken, the prospects of a successful CBA are dim.

III. Three Strategies and the Inescapability of Politics

With scientific modelling proving inconclusive, different countries settled on different approaches. In a sufficiently fine-grained picture, each country has tackled the problem somewhat differently; but zooming out from the details, we can identify several distinct approaches. One approach focused on significant lockdown of the entire population and the shutting down of many businesses as means for reducing the opportunities for infection and thus the spread of the virus. A second approach has attempted to continue with life as we know it on the assumption that this approach will achieve similar epidemiological results in the long run but at a lower cost. A third approach has focused on a very high volume of testing and tracing as a way of quickly identifying and isolating those infected.⁴⁹

⁴⁹ These are not the only ones. Another approach was adopted in New Zealand, which effectively shut its borders. On this strategy see Michael G Baker et al, “New Zealand’s Elimination Strategy for the covid-19 Pandemic and What Is Required to Make It Work” (2020) 133:1512 NZ Med J 10. This strategy has so far proven successful in New Zealand, but as the authors note, it is one that is easier to implement in an island country. Another country I will largely leave out of the following discussion is the United States, which although in some respects closest to the first strategy, raises additional issues I have no space to consider here.

My aim is not to declare winners and losers. At the time of writing, many countries are still struggling to contain the spread of the virus, in some cases after declaring victory. Other countries have seen very small number of infections for reasons that are still not entirely clear.⁵⁰

In a loose sense we can think of these three approaches as models, ideal-types that the actual approaches taken by different countries may resemble more or less closely. All three models are broadly welfarist in orientation, and all assume the state has a significant role to play in protecting individuals from various health risks. Using very broad strokes, it is not difficult to present them in terms of CBA with the impact of different decisions on health, economic activity, and privacy assessed differently. But such an impressionistic CBA can justify any conclusion. As the discussion above stressed the influence of politics on CBA, I will attempt to put them within a political framework. One of the upshots of this perspective is highlighting the limitations of the divide between left (pro-regulation) versus right (anti-regulation) analysis which remains the most common basis for political analysis of risk regulation. The different approaches I discuss below do not easily map onto this single-axis spectrum. Nor do the different models map neatly on a distinction between democratic and non-democratic regimes: versions of the third strategy, for instance, have been adopted by both.

1. Lockdown: Most western democracies have adopted shutdown as their main strategy. In Canada, it was around mid March that different provinces declared a state of emergency, which included orders for schools and many businesses to shut down, and that entry into the country was severely restricted.⁵¹ In addition, people were encouraged, and at times required, to stay at home, to practice social distancing and wear personal protective equipment when outside. The stated rationale for this approach has been “flattening the curve.” While the phrase suggests just slowing the number of cases while leaving the total number of infections similar (the flattened curve is also wider), such policies also lead to a lower mortality: Spreading the number of infections made it easier for hospitals manage new cases without being overwhelmed; it also gave time health practitioners to learn from experience and improve their treatment protocols so that those infected later received better treatment.

Though the prolonged lockdown comes with heavy costs, including the intrusion into certain rights, this approach reflects relatively high concern for privacy, which in turn reflects self-imposed limitations in the societies that opted for this approach to forgo potentially better ways of tracking the spread of the virus

⁵⁰ See Hannah Beech, “No One Knows What Thailand Is Doing Right, but So Far, It’s Working,” *The New York Times* (16 July 2020), online: <[nytimes.com/2020/07/16/world/asia/coronavirus-thailand-photos.html](https://www.nytimes.com/2020/07/16/world/asia/coronavirus-thailand-photos.html)> (Thailand, Vietnam, Myanmar, Cambodia, and Laos all reporting very low numbers of infection).

⁵¹ See Lauren Vogel, “COVID-19: A Timeline of Canada’s First-Wave Response,” *CMAJ News* (12 June 2020), online: <cmajnews.com/2020/06/12/coronavirus-1095847>.

for the sake of maintaining some privacy protections. I therefore call this approach “high security, high privacy.” This approach is definitely not libertarian—it mobilizes the power of the state to actively promote and enforce health and economic security—but it still sought to maintain some limits on government action because of concern for individual rights.

Note, however, that rights here serve not as trumps: rights do not give individuals the power to act—and even to force the state to protect the act—even if the action undermines general utility or is deemed by a majority to be undesirable. Rather, this approach suggests a possible alternative articulation of rights: Rights here serve as means for restricting government action that might otherwise pass CBA by giving weight to considerations that are difficult to quantify, and as such likely to be ignored. Conceptualized in this way rights can be incorporated into CBA, especially in circumstances of great uncertainty. In such circumstances rights can serve as a means, admittedly an imprecise and potentially manipulable one, of changing the CBA calculation, not ignoring it.

2. *Natural herd immunity*: A second approach was to ride the outbreak in the hope of achieving natural herd immunity more quickly. This was the approach initially adopted in the United Kingdom, which changed course when mortality numbers began climbing at alarming rates, and in Sweden, which persisted. Though officially denied, this approach countenances a fairly large number of deaths early in the outbreak for the sake of maintaining a functioning economy as well as achieving herd immunity relatively quickly.⁵² (Swedish officials claimed in April 2020 their country would likely reach that goal in a matter of weeks,⁵³ but more recent evidence does not support this.⁵⁴) This approach did not call for “business as usual,” as it encouraged individuals to change their behaviour (which they did). Nevertheless, in Sweden schools and businesses never shut down.

⁵² See Christina Anderson & Henrik Pryser Libell, “In the Coronavirus Fight in Scandinavia, Sweden Stands Apart,” *The New York Times* (28 March 2020), online: <[nytimes.com/2020/03/28/world/europe/sweden-coronavirus.html](https://www.nytimes.com/2020/03/28/world/europe/sweden-coronavirus.html)>; Catherine Edwards, “Coronavirus: Will Sweden Ever Have a Total Lockdown?” *The Local se* (20 April 2020), online: <thelocal.se/20200420/coronavirus-will-sweden-ever-have-a-total-lockdown>.

⁵³ See Kim Hjelmgaard, “Swedish Official Anders Tegnell Says ‘Herd Immunity’ in Sweden Might Be a Few Weeks Away,” *USA Today* (28 April 2020), online: <[usatoday.com/story/news/world/2020/04/28/coronavirus-covid-19-sweden-anders-tegnell-herd-immunity/3031536001](https://www.usatoday.com/story/news/world/2020/04/28/coronavirus-covid-19-sweden-anders-tegnell-herd-immunity/3031536001)> (interview with the chief epidemiologist at Sweden’s Public Health Agency).

⁵⁴ See Maddy Savage, “Did Sweden’s Coronavirus Strategy Succeed or Fail?,” *BBC News* (24 July 2020), online: <[bbc.com/news/world-europe-53498133](https://www.bbc.com/news/world-europe-53498133)>

Many are now looking at Sweden as an example of a misguided, even callous, approach.⁵⁵ They point out that suffered far higher fatality rates than neighbouring Scandinavian countries that adopted strict lockdown policies, while still suffering a fairly similar economic hit. At the same time, Sweden is not the worst performing country in Europe, and more recently has seen infection and mortality rates go down quite dramatically. Its economy has slowed down, although not as badly some European countries. (This in itself is not surprising if shutdown policies in other countries lead to a global slump in demand, which is likely to affect an export-led economy like Sweden's.) While some Swedish officials and economists still insist that the different policies should be evaluated at the end of the crisis, others have more recently questioned its wisdom.⁵⁶

I am not in a position to address this epidemiological question, but it is worth remembering that even if it turns out to have been wrong in the end, that we should not evaluate it with the wisdom of hindsight. From the perspective of the early months of the pandemic, this approach can be explained as follows: Given the time it would take to develop a vaccine for the virus, it is unsustainable to maintain a shutdown that will last over a year. If that is the case, then the question is not whether the negative outcomes will happen, only when. In that case, getting the pandemic over with relatively early while building herd immunity through infection and still keeping the economy open may look like a rational response. It is, however, a risky response, both in tolerating high mortality rates early on, as well as in adopting a strategy so out of step with almost all other countries. For a risk-averse politician there is safety in being able to point a policy adopted throughout the world as evidence of the soundness of her response to the pandemic.

Thus, politically this approach is interesting not because it reflects a fundamentally different ideology from the first approach. (There is a certain irony in how “socialist” Sweden became almost overnight the darling of libertarians the world over.) No less than the first approach, the Swedish approach is grounded in a welfarist approach that recognizes the role of state in maintaining public health, and with that role the inevitability of weighing costs against benefits. Instead, this approach highlights a different political factor, and that is a willingness of the Swedish public to trust public health experts, even when it comes to questions which (as shown above) are not governed by science. (This no longer sounds like a libertarian utopia.) Swedish society has long exhibited “collectivity, homogeneity, and consensualism,” which together with high trust in political institutions, reflected a willingness to allocating them to experts, even with respect to

⁵⁵ See Paulina Neuding & Tino Sanandaji, “Is Sweden’s Lax Approach to the Coronavirus Backfiring?”, *The Washington Post* (8 April 2020), online: <[washingtonpost.com/opinions/2020/04/08/is-swedens-lax-approach-coronavirus-backfiring](https://www.washingtonpost.com/opinions/2020/04/08/is-swedens-lax-approach-coronavirus-backfiring/)>; cf Timms, *supra* note 12 at 40 (without mentioning Sweden, criticizing a herd immunity strategy as “eliminationist”).

⁵⁶ See Savage, *supra* note 54; Charlie Duxbury, “Sweden Split on Coronavirus Immunity,” *Politico* (24 July 2020), online: <[politico.com/news/2020/07/24/sweden-catches-first-glimpse-of-herd-immunity-381117](https://www.politico.com/news/2020/07/24/sweden-catches-first-glimpse-of-herd-immunity-381117)>.

matters that science cannot answer.⁵⁷ This approach reflects one way of dealing with the questions that CBA cannot resolve, but it is a solution will be difficult to export to places whose political culture is different.

3. *Closer surveillance*: Several countries adopted lockdown policies quite similar to the one adopted by countries adopting the first strategy, but added to them various intrusive tracking and surveillance mechanisms as more active means of controlling the spread of the virus. To give a flavour of these approaches, “[i]n Singapore, the details of where patients live, work and play are released quickly online, allowing others to protect themselves,” and similar practices were adopted in South Korea.⁵⁸ In addition, a new law “allows South Korean health officials to access a wide range of personal data, including cellphone location information and credit card transactions, without a court order.”⁵⁹

In many ways this model is similar to the first one, but it differs from the first in being a “high security, low privacy” model. So far, this model seems to have been successful, and countries that adopted it (which along with South Korea include China and Taiwan) have been able to contain the spread of the virus with a relatively low infection and fatality rates. There are different possible reasons for this, including nothing more than the fact that many of the countries adopting this model have had a relatively recent experience with smaller epidemics. Having been hit hard during the MERS epidemic in 2015, South Korea acted quickly on the basis of a playbook prepared following that recent outbreak.⁶⁰

However, part of the difference in approach may have to do with a different political orientation. Specifically, greater willingness to give up on individual rights is at times justified by a less individualistic

⁵⁷ Jon Pierre, “Nudges Against Pandemics: Sweden’s COVID-19 Containment Strategy in Perspective” (2020) 39 *Pol’y & Soc’y* 478 at 480, 488, 489.

⁵⁸ Hannah Beech, “Tracking the Coronavirus: How Crowded Asian Cities Tackled an Epidemic,” *The New York Times* (17 March 2020), online: <[nytimes.com/2020/03/17/world/asia/coronavirus-singapore-hong-kong-taiwan.html](https://www.nytimes.com/2020/03/17/world/asia/coronavirus-singapore-hong-kong-taiwan.html)>; see also Cheryl Lu-Lien Tan, “Inside a Two-Week Quarantine in Singapore,” *The Washington Post* (3 April 2020), online: <[washingtonpost.com/opinions/2020/04/03/inside-two-week-quarantine-singapore/](https://www.washingtonpost.com/opinions/2020/04/03/inside-two-week-quarantine-singapore/)>. For similar practices in South Korea see Mark Zastrow, “South Korea Is Reporting Intimate Details of COVID-19 Cases: Has It Helped?,” *Nature* (18 March 2020), online: <[nature.com/articles/d41586-020-00740-y](https://www.nature.com/articles/d41586-020-00740-y)>.

⁵⁹ Hyonhee Shin, Hyunjoo Jin & Josh Smith, “How South Korea Turned an Urban Planning System into a Virus Tracking Database,” *Reuters* (22 May 2020), online: <[reuters.com/article/us-health-coronavirus-southkorea-tracing/how-south-korea-turned-an-urban-planning-system-into-a-virus-tracking-database-idUSKBN22Y03I](https://www.reuters.com/article/us-health-coronavirus-southkorea-tracing/how-south-korea-turned-an-urban-planning-system-into-a-virus-tracking-database-idUSKBN22Y03I)>; see also See Natasha Singer & Choe Sang-Hun, “As Coronavirus Surveillance Escalates, Personal Privacy Plummets,” *The New York Times* (23 March 2020), online: <[nytimes.com/2020/03/23/technology/coronavirus-surveillance-tracking-privacy.html](https://www.nytimes.com/2020/03/23/technology/coronavirus-surveillance-tracking-privacy.html)>.

⁶⁰ Eun A Jo, “A Democratic Response to Coronavirus: Lessons from South Korea,” *The Diplomat* (30 March 2020), online: <thediplomat.com/2020/03/a-democratic-response-to-coronavirus-lessons-from-south-korea/>.

conception of society, where individuals are more willing to make sacrifices for the sake of the common good.⁶¹ Some news reports from countries that adopted this strategy described popular efforts to enforce security measures that went even beyond government action.⁶²

IV. Where Do We Go from Here: The Welfare State and Information

It would be too facile to say that the three models described in the previous Part are straightforward application of CBA, and just reflect a different weights assigned to the costs and benefits due to uncertainty. Saying that would stretch CBA beyond breaking point. But the three approaches do show how political considerations affect the question tradeoffs that CBA attempts to address.⁶³ They can help guide thinking about risk regulation in cases of lower levels of uncertainty. They are also relevant for thinking about one question that gets frequently asked these days: What will be the long-term effects of the pandemic?

The one aspect of this question I will consider here is the effects the shutdown policies will have on the role of the state. The three models I considered in the previous Part fit a broad definition a “welfare states,” which for present purposes mean states that take an active role in reducing risks that individuals face. This definition is not exhaustive, but it is not idiosyncratic either. It is based on the idea that a major role of the state is provide, or manage the provision of, security. So understood, there is continuity between the nineteenth-century night-watchman state as a provider of security against certain risks and the twentieth-century welfare state that provides security against a wider range of risks.⁶⁴ What may have changed is the

⁶¹ For examples and discussion of such attitudes from long before the pandemic see Daniel A Bell, *Beyond Liberal Democracy: Political Thinking for an East Asian Context* (Princeton University Press, 2006) at 73-75.

⁶² See Raymond Zhong & Paul Mozur, “To Tame Coronavirus, Mao-Style Social Control Blankets China,” *The New York Times* (15 February 2020), online: <[nytimes.com/2020/02/15/business/china-coronavirus-lockdown.html](https://www.nytimes.com/2020/02/15/business/china-coronavirus-lockdown.html)> (reporting on a combination of government- and community-led efforts to restrict movement); Jo, *supra* note 60 (“It is the voluntary cooperation of the citizens that allowed the government to eschew more extreme measures and maintain a delicate balance between public safety and civil liberties. ... South Korea’s ‘democratic’ response is ... a result of public solidarity.”).

⁶³ See Max S Kim, “Seoul’s Radical Experiment in Digital Contact Tracing,” *The New Yorker* (17 April 2020), online: <[newyorker.com/news/news-desk/seouls-radical-experiment-in-digital-contact-tracing](https://www.newyorker.com/news/news-desk/seouls-radical-experiment-in-digital-contact-tracing)> (“few countries were getting away with not sacrificing some kinds of freedom. As [law professor] Kim [Min-ho] point out, the true question was which freedoms to prioritize”).

⁶⁴ Cf Stephen Holmes, *Passions and Constraint: On the Theory of Liberal Democracy* (University of Chicago Press, 1995) at ch 8 (arguing for continuity between classical liberalism and welfare). More specifically Holmes also shows that the association of freedom with security is not novel (see *ibid* at 245). See also Emma Rothschild, “What Is Security?” (1995) 124:3 *Dædalus* 53 at 61-63.

tendency to speak of that government action as an enhancement of freedom rather than as an intrusion into it.⁶⁵

Despite this continuity, it is also true that states “grew” in size compared to their nineteenth-century counterparts. One factor in this expansion in the role of the state came with the advent of new technologies, which made security against more risks possible. By “technologies,” I mean human inventions, both physical (computing machines, tracking devices) and intellectual (statistics, probability), that made it possible to collect and analyze vast amounts of information. Much of what the welfare state does requires, if it is to be done well, the deployment of these technologies. The great responsibilities that came with the assumption of great powers have created the information-hogging beast that is the welfare state. This beast—Hobbes called the state “Leviathan” for a reason—is both a (the) major provider of security and a (the) major source of potential insecurity. The primary motivation for limiting government power is also a reason to want to strengthen it.

The COVID-19 pandemic puts considerable strain on the welfare state. It does so in an obvious sense in the enormous expenditures governments are currently incurring in order to maintain the livelihood of millions while simultaneously facing a significant shortfall in revenue. In a deeper sense, the current crisis strains the welfare state in justifying expanding state power, which inevitably brings with it greater risks to individual security, for the sake of greater security.

As shown above, some of the most successful countries in controlling the spread of COVID-19, have done so by adopting highly intrusive policies. Various plans proposed in countries that followed something like the first model have all relied on adopting some of the technological tools that in effect move them toward the third model.⁶⁶ To anyone who accepts the logic of CBA, this could be justified as a response to

⁶⁵ See Lord Macmillan, *Law & Other Things* (Cambridge University Press, 1937) at 8-9 (“I am not less but more the captain of my soul in a city which is well sewered, well paved, well policed, and free from slums and the diseases they breed, in which the education, the health and welfare of my fellow-citizens are promoted by sensible measures”); James M Landis, “Law and the New Liberties” (1939) 4 *Mo L Rev* 105 at 108; *cf* ER Hopkins, “Administrative Justice in Canada” (1939) 19 *Can Bar Rev* 619 at 626-27.

⁶⁶ See Ezra Klein, “I’ve Read the Plans to Reopen the Economy. They’re Scary,” *Vox* (10 April 2020), online: <[vox.com/2020/4/10/21215494/coronavirus-plans-social-distancing-economy-recession-depression-unemployment](https://www.vox.com/2020/4/10/21215494/coronavirus-plans-social-distancing-economy-recession-depression-unemployment)>; Gideon Lichfield, “We’re Not Going Back to Normal,” *MIT Technology Review* (17 March 2020), online: <[technologyreview.com/2020/03/17/905264/coronavirus-pandemic-social-distancing-18-months](https://www.technologyreview.com/2020/03/17/905264/coronavirus-pandemic-social-distancing-18-months)>; Norimitsu Onishi & Constant Méheut, “France Weighs Its Love of Liberty in Fight Against Coronavirus,” *The New York Times* (17 April 2020), online: <[nytimes.com/2020/04/17/world/europe/coronavirus-france-digital-tracking.html](https://www.nytimes.com/2020/04/17/world/europe/coronavirus-france-digital-tracking.html)>; Natasha Singer & Choe Sang-Hun, “As Coronavirus Surveillance Escalates, Personal Privacy Plummets,” *The New York Times* (17 April 2020), online: <[nytimes.com/2020/03/23/technology/coronavirus-surveillance-tracking-privacy.html](https://www.nytimes.com/2020/03/23/technology/coronavirus-surveillance-tracking-privacy.html)>.

an emergency: The use of intrusive technology has significant costs, which are not be justified in normal times. An emergency is a time of a heightened risk of a significant loss, the prevention of which justifies incurring greater costs. But history has shown that times of emergency (real or perceived) are rarely times of rational response; it has also shown that once granted, “temporary” powers are often difficult to roll back.⁶⁷ Would emergency measures adopted today become the new normal?⁶⁸

This is the paradox at the heart of the liberal welfare state: to be effective, it requires a lot of information about—and potential control over—individuals, all for the sake of maintaining security, which is in turn justified for promoting human independence. This is not an easy position to hold: Superficially, in their opposite ways, libertarians and authoritarians regimes seem more self-consistent. The difficulty existed, of course, before the pandemic. A year ago, a lot of public debate revolved around maintaining privacy in an age of ubiquitous digital technology. These debates are almost forgotten now, and may seem almost quaint. One day we will go back to these debates, and when that happens, the way they are reshaped by the pandemic may prove to be one of its most lasting effects.

⁶⁷ Cf John Dryzek & Robert E Goodin, “Risk-Sharing and Social Justice: The Motivational Foundations of the Post-War Welfare State” (1986) 16 *Brit J Pol Sci* 1 at 11-21 (showing how an expansion in government expenditure during World War II was not entirely rolled back after the war).

⁶⁸ Cf Zhong, *supra* note 27 (“officials in some places [in China] are loading their [virus-tracking] apps with new features, hoping the software will live on as more than just an emergency measure.”).