In a world where decision making is based entirely on evidence, facts are more important than values. Governments enact policies that will increase the well-being of the people by the largest measure, and those policies are correctly implemented and continually assessed for impact. Absolutely no action is taken unless its benefits justify its costs. What happens in the decision-making process might seem like it results from a boring and very complex technocracy, but there is one thing that backs it up: cost-benefit thinking. We don't live in that world yet.

Cost-benefit analysis (CBA) is a standard method of economic analysis. It has been systematically used by the U.S. government since 1981, often under the radar of many voters and even some politicians. Despite its acceptance by the scientific community, many people are *a priori* critical of the approach. In order to calculate a benefit-to-cost ratio (how many dollars in economic, social and environmental benefits are likely to be created by one dollar expended to fully implement a policy), economists quantify and then monetize all foreseeable benefits and costs, which, among other things, effectively requires putting a monetary value on human life (the estimates usually converge on USD 9 million).

This book argues why putting a monetary value on everything in our lives should not worry us, either morally or epistemologically, when we think about the effectiveness of a policy. It argues that it is actually necessary and desirable. The book explains why cost-benefit analysis is highly important in political decision-making, why it is a truly non-partisan approach that can defeat political tribalism, and why pushing the approach forward might have the effect of a political revolution.

Cass Sunstein, the co-author of *Nudge* (an influential book on behavioral science), engages the reader from beginning to the end. He does it partly with his provocatively smart writing skills and partly with deep arguments based on his long experience with policy making. Sunstein ran the White House Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget (OMB) during President Obama's administration. Among many other things, he was responsible for writing and implementing the President's executive order no. 13563, entitled "Improving Regulation and Regulatory Review."

That executive order cemented cost-benefit analysis into the political process and effectively gave the OIRA veto power over every proposed regulation above a certain threshold of impact. Looking back, if Sunstein's arguments are even partially correct, the positive impacts of Obama's executive order (along with two previous ones issued by Reagan and Clinton, which laid the institutional groundwork for Obama's) should have been extremely great.

At the beginning of his book, Sunstein describes two main problems with current politics. First, arguments about policies are often expressive (i.e., based on values) and many people don't really care about the consequences of a policy. Second, neither the public nor politicians listen to experts often enough. Experts can be wrong, but listening to them is good, mainly for two reasons – it helps us identify potential "failure modes" and helps us ask better questions.

In his first chapter, Sunstein elaborates on the history of introducing a cost-benefit approach into the American policy-making process. However boring that topic may sound, the reader should not skip this chapter. It gives us an important insight into how technocratic principles of governance silently triumphed and were incorporated into Washington's heart.

The second chapter discusses how and why cost-benefit analysis is distancing us all (voters, citizens, and politicians) from our misleading intuitions. This doesn't seem too controversial. In the next three chapters, Sunstein talks about three important concerns with the cost-benefit approach. He admits that those concerns are valid and that we need to keep them in mind when conducting cost-benefit analyses or implementing recommendations based on them. A reader can't help but to be sympathetic to his concerns.

Distribution effects are the first issue (Chapter 3). Basically, cost-benefit analysis fails to deliver accurate results when benefits flow disproportionately to the rich. An elegant solution proposed by Sunstein is to exclude the rich from receiving "transfers" based on redistributive regulations that aim to equalize the distribution of existing benefits. This is especially important in the case of judicial interventions, which are based on cost-benefit grounds, as the reader learns further in the book. Chapter 3 also elaborates on VSLY (Value of Statistical Life Year) and the problem of preserving individual autonomy when distributing welfare payments.

Sunstein's second concern is about the accuracy with which welfare is measured (Chapter 4). He says that proxies for welfare are important and monetizing various non-cash benefits is the best available proxy. Until we develop new methods of measurement or start a "welfare revolution," we will have to deal with imperfect measurements of welfare. Sunstein does however propose important adjustments in Chapter 4, which are based on behavioral science. He discusses how to include factors such as pleasure and a sense of purpose into cost-benefit analysis.

The third concern (Chapter 5) is the lack of knowledge (often in the form of a lack of data). In principle, the reader cannot expect Sunstein to find a remedy for that. Nevertheless, it is essential to discuss the problem because missing data-points can easily render even the most high-quality cost-benefit analysis incorrect, irrelevant or even harmful in its impacts. Sunstein discusses this issue in notable depth. He considers various knowledge-gathering methods such as public opinion research, RCTs (randomized controlled trials), retrospective analysis and "measurement to react."

Chapter 6 is more philosophical, dealing with moral commitments and including problems such as willingness to pay for adherence to our own moral standards. Often lacking in the relevant literature, this topic seems surprisingly important. It should not be omitted from any CBA that at least partially deals with moral aspects of policy making. This chapter, along with chapters 9 and 10 seem like the most important contribution of this book to the field of cost-benefit analysis.

Chapters 7 and 8 (Labeling and Court Rulings) are quite concrete. They are particularly interesting because they present case studies where CBA runs into multiple limitations but is nonetheless important to pursue. Discussing cost-benefit analysis in the field of national security and privacy (Chapter 9) and freedom of speech (Chapter 10) is very bold because those are probably the most difficult areas for applying CBA. The reasons

include the huge diversity of possible effects and limited experience in quantifying and monetizing things like various human rights, which everyone values very subjectively.

The two most important conclusions of the book are well summarized at the end. First, every cost-benefit ratio can only be a proxy for welfare effects. It almost never can paint a full picture of reality because of the knowledge problem. Cost-benefit analyses are predictions, and sometimes they turn out to be wrong. In an extremely complex world, unintended consequences are common, and we should be aware of that. Second, CBA is still far better than what preceded it, and if we focus more directly on the public welfare, what is coming will be better still. We need to understand that welfare.

In my estimation, both the problem of limited knowledge and distribution effects are being solved gradually as we speak. They don't seem to pose a lethal threat to the CBA-based approach to policymaking. Distribution effects are increasingly well estimated by new impact assessment methods and CBA methodological manuals are now warning its users about cases where they might be a problem. I have come across other possible solutions that Sunstein does not mention (e.g. adjusting benefits according to the marginal utility of income for people receiving the benefits). However, since the issue of distributional effects could deserve a whole study of its own, it doesn't seem like a big shortcoming of this book.

Lack of knowledge is being solved by new technologies, big data and artificial intelligence at a pace never experienced in the past. Sunstein proposes more RCTs, public comments and retrospective reviews as data-gathering methods. Hopefully, economists will be able to keep up, so that new analyses are not run on 10-year old data. Especially when it comes to issues that arise from fast-changing psycho-societal phenomena that have never been subjected to any CBA in the first place (take social media or online dating sites as an example). In those areas, finding an effective solution to lack of knowledge and then starting to solve the problem in 10 years' time seems to be far too little, too late.

The concern about measuring welfare seems to have no clear solution on the horizon. We don't really know what we mean by a person's welfare. Humans can't even formalize their own values in any meaningful way, let alone quantify them, monetize them and correlate them to feelings that can somehow be manifested as happiness. We can set up proxies, but some things just seem to be too abstract for that. Finishing a book review might create a sense of accomplishment or relief. How do these feelings translate to happiness? How do we monetize that?

This might be precisely the area where technocratic approaches fall short, even when it is in the supreme interest of all of us that they do not. There is really no good alternative to them. Policy making based on a cost-benefit approach seems to be extremely valuable and Cass Sunstein does a great job in letting us know about it.

Jan Kleňha