# **ECONSTOR** Make Your Publications Visible.

A Service of

ZBW

Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre for Economics

Wagner, Gert G.

### Working Paper In a world with many targets, one-dimensional target indicators will always be bypassed

DIW Discussion Papers, No. 1982

**Provided in Cooperation with:** German Institute for Economic Research (DIW Berlin)

*Suggested Citation:* Wagner, Gert G. (2021) : In a world with many targets, one-dimensional target indicators will always be bypassed, DIW Discussion Papers, No. 1982, Deutsches Institut für Wirtschaftsforschung (DIW), Berlin

This Version is available at: https://hdl.handle.net/10419/248485

#### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



## WWW.ECONSTOR.EU





## Discussion Papers

Deutsches Institut für Wirtschaftsforschung

2021

In a World with Many Targets, One-Dimensional Target Indicators Will Always Be Bypassed

Gert G. Wagner

Opinions expressed in this paper are those of the author(s) and do not necessarily reflect views of the institute.

IMPRESSUM

© DIW Berlin, 2021

DIW Berlin German Institute for Economic Research Mohrenstr. 58 10117 Berlin

Tel. +49 (30) 897 89-0 Fax +49 (30) 897 89-200 https://www.diw.de

ISSN electronic edition 1619-4535

Papers can be downloaded free of charge from the DIW Berlin website: https://www.diw.de/discussionpapers

Discussion Papers of DIW Berlin are indexed in RePEc and SSRN: <u>https://ideas.repec.org/s/diw/diwwpp.html</u> <u>https://www.ssrn.com/link/DIW-Berlin-German-Inst-Econ-Res.html</u>

# In a world with many targets, one-dimensional target indicators will always be bypassed

Gert G. Wagner

#### Abstract

It is striking that economists in particular firmly believe in the benefits of rule-binding, even though this belief runs counter to the standard assumption of economic theory that we humans are self-interested and therefore extremely resourceful when it comes to circumventing inconvenient government regulations, e.g. taxes. In Public Choice Theory, politicians are even assumed to have nothing but self-interest as their guiding motive for action. Why then, in this world of thought, should ultra-self-interested politicians of all people adhere to simple rules such as the debt brake instead of bypass them, if – as is also assumed in this model world – all that matters to them is short-term electoral success, for which government debt can be helpful.

Keywords: rule-binding, Champbell, Goodhart's Law, Hobbes

JEL Classification: B10, B20, K00, P16

This piece draws on Wagner (2021). It will be published under the title "In an imperfect world policy rules cannot be perfect either" in: The Economist's Voice, 2021, <a href="https://www.degruyter.com/journal/key/ev/html">https://www.degruyter.com/journal/key/ev/html</a>

Gert G. Wagner, DIW Berlin, 10108 Berlin, Germany, gwagner@diw.de.

https://orcid.org 0000-0002-5985-4073

#### 1 Introduction

This article is not really concerned with the question if Germany's constitutional "debt brake" (*Schuldenbremse*) has an economically meaningful or a counterproductive effect? Rather, on the occasion of the debt brake discussion which was triggered by the coronavirus pandemic it is discussed how sensible it is to (self-)bind (economic) policy to simple, one-dimensional quantitative indicators? This is an interesting question in particular because it raises the question why most economists believe that politicians will strictly adhere to certain target values, when the same economists assume over and over again that self-interested individuals try to bypass rules in their personal interests.

#### 2 What rules are doing?

Rules such as the debt brake are based on the assumption that in many situations in human life it can make sense to impose self-imposed obligations in order to avoid behavior that is not criminal but nevertheless harmful. All religions have known such self-bonds for millennia (for example, with regard to food intake), and for a few millennia they have been joined by rules laid down by law (for example, with regard to holiday rest in order to avoid (self-)exploitation. And if rules or self-commitments are considered particularly important for society, they are written into state constitutions, since constitutions can usually only be changed with larger majorities than simple laws. Such as the debt brake in the constitution of Germany (Grundgesetz) or the right to bear arms in the U.S. Constitution.

However, by definition, a single target-indicator cannot represent different goals and, in particular, goal competition. Such one-dimensional indicators can easily mislead and therefore provoke to circumvent, manipulate or ignore them. In all cases trust is destroyed. As long as this mistrust only leads to the deselection of a particular government, this may not be particularly bad from the point of view of society as a whole, but if trust in politics as a whole and in the state is shaken or destroyed, then this is a serious problem.

It is striking that economists in particular firmly believe in the benefits of rule-binding, even though this belief runs counter to the standard assumption of economic theory that we humans are self-interested and therefore extremely resourceful when it comes to circumventing inconvenient government regulations. In Public Choice Theory, politicians are even assumed to have nothing but self-interest as their guiding motive for action (Lewin 1986). Why then, in

this world of thought, should ultra-self-interested politicians adhere to simple rules such as the debt brake instead of bypassing them, if – as is also assumed in this model world – all that matters to them is short-term electoral success, for which government debt can be helpful.

And economists consider analyses that do not take into account a whole bundle of influencing factors (for example, through multivariate regression analyses) to be of little value, if not misleading. But when it comes to guiding policy decisions that are supposed to take into account not just one goal but entire bundles of goals, with goal characteristics that are often in competition with each other (for example, in the case of money supply by a central bank), economists suddenly become firm believers in the usefulness of one-dimensional thinking – such as the idea that the government should not incur debt. Goal competition, which economists otherwise like to deal with, is ignored. And so is uncertainty, which economists otherwise strongly emphasize. Uncertainty is – rightly – also a central argument for the fact that a central decision maker cannot know all future needs and restrictions, and is therefore better off relying on decentralized (and competitive) decisions.

In the face of a future characterized by uncertainty, rigid rules for concrete government action will almost certainly – and reasonably – not be followed (e. g. Schäfers 2021); for only when a problem has really been completely understood can a rule of conduct that is correct in the long run be formulated in detail. This is rare, but may be the case, for example, in setting limits on the level of toxic substances in food. However, it should be noted that even in the case of such "natural" limits, value judgments inevitably play a role, since the setting of a limit for a toxic substance depends on how risk-averse a legislator or a society is.

The inevitable valuation problem with limits becomes clear and obvious when one looks at different limits for substances in food as well as for radiation doses in different countries. How, then, can economists expect that certain quantified rules should hold forever and ever, for example, with respect to limits on government debt or the adjustment of old-age pensions?

#### **3** A look in literature and history

Particularly much trust is destroyed when politicians consider it opportune to formally stick to an indicator target value, but do not want to achieve the political target (threshold) behind the indicator in mind. For example, if the definition of the unemployment rate is changed to make the measured rate smaller. There are many ways to change the numerator and/or denominator of the unemployment rate so that the rate decreases – but without changing anything about the real situation of the unemployed.

Social psychologist Donald A. Campbell put it succinctly (Campbell 1976): "The more any quantitative social indicator (even some qualitative indicator) is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor." In the economic literature this is known as "Goodhart's Law" (Rodamar 2018), although Charles Goodhart himself analyzed only monetary policy making.

Spectacular, at least for scientists who believe in indicators, was the case of the introduction of the euro in Germany, i.e. its entry into the euro zone. At the end of the 1990s the entrance of Germany was only possible because the target indicator "new government debt" was manipulated. However, not through statistical manipulation (which is said to occur occasionally in other countries) but by the fact that – as Goodhart basically fears – the state had changed its debt behavior in such a way that the statistical limit of 3 percent net new debt was not exceeded, but the material core of the new debt rule was not really observed. The following played out (cf. Vesper 1998, pp. 444 and 451).

On the European level the German government had insisted that only countries with "sound" fiscal policies and meeting certain indicator targets be admitted to the euro zone. One key indicator was net new annual government debt, which was not allowed to exceed three percent of gross domestic product in the reference year (1997). This was an ambitious target and not easy for Germany to achieve after reunification. The actual net new debt in 1997 was actually slightly below 3 percent of GDP, but not because the German government actually borrowed less in real terms, but because of statistical recalculations made for 1997 of some sub-indicators (government transfers to foreign countries and government interest expenditure) and some real actions, including land sales from federal railroad assets, lower subsidies to Deutsche Bahn and deferred military procurements and unemployment insurance benefits. In total, this corresponded to DM 16 billion or 0.4 percent of GDP.

There is an old saying to describe the effect of a behavior that attempts to optimize a onedimensional indicator: "Weighing the pig won't make it any fatter." Indeed: weighing does not, in fact, make a pig gain fat, but it does lead to the temptation to cheat by feeding the pig in such a way that it retains water – and thus weight. This way, more money can be made if the price of the pig depends on its weight.

#### 4 Outlook

As is often the case in the social sciences, these are not new insights, but they are often forgotten or (consciously) ignored. Already the much-cited British social philosopher Thomas Hobbes (1651, Chapter 5: Science) pointed out in the mid-17th century that in the case of incomplete knowledge, rigid rules are very dangerous instruments: "Ignorance of causes, and of rules, does not set men so farre out of their way, as relying on false rules."

#### References

- Campbell, Donald T. (1976): Assessing the Impact of Planned Social Change, Occasional Paper No. 8 of The Public Affairs Center, Dartmouth College, Hanover
- Hobbes, Thomas (1651/2021): Leviathan : The matter, forme, and power of a common-wealth ecclesiastical and civill. <u>https://www.gutenberg.org/files/3207/3207-h/3207-h.htm</u>
- Lewin, R. (1986); Self-Interest in Politics Earns a Nobel Prize. Science, 294, 941-942
- Rodamar, J. (2018): "There Ought to Be a Law! Campbell versus Goodhart", *significancemagazine.com*, December 2018, 9
- Schäfers, Manfred (2021), Schrauben an der Schuldenbremse, *Frankfurter Allgemeine Zeitung*, No. 206 (September 6, 2021), 17
- Vesper, Dieter (1998), Entwicklung des Staatsdefizits im Jahr 1997 ein (notwendiger) Blick zurück. *DIW Wochenbericht*, 65, 439–451
- Wagner (2021): Selbstbindungen der (Wirtschafts-)Politik an eindimensionale Indikatoren wie die Schuldenbremse (und Corona-Inzidenz) sind methodisch fragwürdig. *ifo Schnelldienst*, 74., 16-20