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Testing public reaction to constitutional fiscal rules violations

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Abstract

Politicians are less likely to breach constitutional fiscal rules than statutory rules because the breach of constitutional rules arguably puts them in a more negative spotlight and hampers their re-election prospects. This is one of the main arguments for explaining why constitutional fiscal rules tend to be more effective in correcting for political deficit bias vis-à-vis statutory rules. In this paper I isolate the reaction of the public to the potential breach of constitutional fiscal rules from the reaction of other players, such as the opposition, media and civil society organizations. Poland was chosen as a case study because it provides a highly realistic context where the numerical fiscal rule, the 60% of GDP debt limit, is enshrined in both constitutional and statutory laws. To test for the public reaction to constitutional fiscal rules violations, this study gathered data from three well-powered population-based survey experiments. In the first experiment (N = 1,106), a negative, albeit negligible, effect of constitutional breach (as compared to statutory law breach) on the policy approval was identified. The second (N = 1,587) and the third experiment (N = 1,082) displayed null results, i.e., no evidence was found that the public perceived the breach of constitutional fiscal rule as more negative than the violation of the statutory fiscal rule. It therefore seems that, on average, the public tends to care to the same extent about the violations of constitutional and statutory fiscal rules. It is of note that the experiments were conducted in highly unusual circumstances, i.e., in the context the COVID-19 crisis, presidential elections and war. Further and more extended research on these aspects should thus follow.

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1 Introduction

From their early days, constitutions have always contained some provisions per-taining to public finance. The very first constitutional laws on public finance were focused, however, on general procedural rules pertaining to taxes and state budgets. More restrictive constitutional regulations on public finance, such as numerical fiscal rules, began operating in constitutional frameworks only recently (Schaechter et al., 2012). These more stringent fiscal rules, and public perception of these rules, are precisely in the focus of this paper.

Numerical fiscal rules are long-lasting institutional (legal) restraints on public finances, normally expressed in terms of a quantitative indicator for fiscal perfor-mance (Kopits & Symansky, 1998, p. 2). The goal of fiscal rules is to correct for the so-called political deficit bias, i.e., the propensity of policymakers to spend above the incoming revenue either to increase their own re-election prospects (Nordhaus, 1975) or to constrain the fiscal choices of political opponents when they get into power (Persson & Svensson, 1989; Tabellini & Alesina, 1990). A behavioural bias called "fiscal illusion", which describes a tendency of voters to under-estimate the level of deficit, or its longer-run implications, makes a fertile ground for political deficit bias to thrive and negative fiscal balance to persist (Wagner, 1976; Buchanan & Wagner 1977; Alesina & Perotti 1996). The litera-ture further establishes several institutional causes of deficit bias with a notable example of proportional representation and parliamentary governance systems (Persson & Tabellini, 2003). As such, numerical fiscal constraints impose hard fiscal limits on governments and, if complied with, put a halt to the political defi-cit bias. This is what is expected from the fiscal rules theoretically, but empirical evidence nonetheless shows that the effectiveness of these rules is rather mixed (Heinemann et al., 2018). Some of the best-known examples of the numerical fis-cal rules, particularly in the EU context, are the deficit ceiling of 3% of GDP and debt brake of 60% of GDP initially enshrined in the Maastricht Treaty. The latter rule is also explicitly mentioned in the 1997 Constitution of Poland and it serves as the case study in this paper.

To be effective, namely to successfully correct for the political deficit bias and, thus, make fiscal policy more predictable and disciplined, fiscal rules need to be credible and durable. The credibility and durability are both more likely to be secure if politicians attempting to change or breach fiscal rules face high and enforceable (political) costs for their actions. From all laws, constitutional rules seem to attach the highest costs for changing and breaking them. Accord-ing to Drazen (2004), there are two features of constitutions which entail high political costs. First, constitutional provisions have more stringent amendment procedures than statutory laws. It should be noted that institutional requirements such as qualified-majorities, popular referenda or (in federal systems) ratifica-tions by lower-level governments, are necessary for constitutional amendments to be implemented. The second feature of constitutionalized provisions is that these legal rules refer to issues that are considered fundamental for a society in a deeper conceptual sense. Non-compliance with such fundamental rights, here

constitutional fiscal rules, may bring more fierce reaction and strong criticism from the opposition, media, civil society organizations and the public more generally. This, in turn, may impose high reputational (prestige) costs for the incumbents with the ensuing consequences for their re-election prospects. This means that politicians are less likely to breach constitutional rules than statutory rules because of the more negative spotlight the former entails. Employing terminology used by Hathaway (2003), one can further argue that constitutional fiscal rules have greater internal enforcement as compared to statutory rules. All recent papers, which examine the effectiveness of constitutional fiscal rules, use some version of this argument (Blume & Voigt, 2013; Asatryan et al., 2018; Amick et al., 2019).

Contrary to the papers assessing the effectiveness of constitutional fiscal rules, which take the coordinated public response and resulting high political costs for breaching constitutional fiscal rules as given, in this paper I explicitly attempt to test this assumption. Hence, by looking at whether a potential violation of a constitutional fiscal rule (or rather a policy triggering this violation) brings more disapproval among the public than breaching a fiscal rule embedded in ordinary legislation, I test for the micro-foundations of constitutional fiscal rules. It is to stress that what this paper attempts to do is to isolate the public reaction to a potential violation of a constitutional rule from its reaction to violation of a statutory rule. Thus, I do not study the possible reaction of other players, such as opposition, media and civil society groups. In the observational setting, these players are likely to react to constitutional violations as well (perhaps even more fiercely than the public itself) and further influence a broader public reaction. Hence, this paper disentangles an independent reaction of the public from these amplifying mechanisms.

To achieve this goal, I run a population-based survey experiment among quota representative respondents. By doing so this paper relates to a recently growing literature on people's perception of rights violation (Chilton & Versteeg, 2020), constitutional non-compliance (Gutmann et al., 2022), and fiscal policy and institutions (Arias et al., 2018; Stantcheva, 2020; Bansak et al., 2021; Roth et al., 2021; van der Does & Kantorowicz 2021, 2022; Bremer & Bürgisser, 2022). The experiment for the purpose of this paper was launched in Poland. Poland was chosen as a case study because it provides a highly realistic context where the numerical fiscal rule, the 60% of GDP debt limit, is enshrined in both constitutional and statutory laws. Furthermore, the scenario of breaching the constitutional rule became plausible, first, due to a large anti-corona stimulus package in years 2020–2021 and, second, due to an abrupt increase in spending on national defense in 2022.

In total, three well-powered survey experiments were launched. While the first two experiments used the COVID-19 pandemic farming (Study 1), the third experiment employed the war context (Study 2). In the first experiment (N = 1,106), I identified a negative, albeit negligible, effect of constitutional breach (as compared to statutory law breach) on the policy approval. This finding is in line with the theory, yet the very small effect makes this finding practically of no interest. The second (N = 1,587) and the third experiment (N = 1,082) displayed null results, i.e., no evidence was found that the public perceives the breach of constitutional fiscal rule as more negative than the violation of the statutory fiscal rule. Although, the overall

conclusion drawn by this paper is that the public tends to care to the same extent about the violations of constitutional and statutory fiscal rules, I call for more and extended research on these aspects as only a series of similar outcomes can reassure us of this finding. While the public do not seem to differentiate between the constitutional and statutory fiscal rules violations, the public does disapprove the policies, which violate the rules as such. Thus, the mere fact of a legal breach does matter for the public.

This paper proceeds as follows. In the next section it provides the details of the constitutional debt rule in Poland. Then, it moves on to discussing the research design employed in this study and its main results. Finally, the paper concludes and provides an outlook for future research.

2 The debt brake rule in poland's constitution

Chapter X (i.e., articles 216–227) of the Polish Constitution of 1997 is entirely devoted to public finance issues. The core numerical fiscal rule, the debt rule (limit), is enshrined in article 216 Sect. 5 and it reads as follows:[1]

> It shall be neither permissible to contract loans nor provide guarantees and financial sureties which would engender a national public debt exceeding three-fifths of the value of the annual gross domestic product. The method for calculating the value of the annual gross domestic product and national public debt shall be specified by statute.

The enactment of this constitutional provision was perceived as an unprecedented experiment of the Polish constituent body as none of the existing national constitutions at the time had a similar fiscal rule (Sokolewicz, 2005). The enshrinement of the debt rule into the 1997 Constitution was possible due to a nexus of the following procedural, political and historical circumstances (this passage summarizes a more in-depth discussion presented in Kantorowicz (2022)). First, the constitution-making process in Poland was long[2] as it covered about five years (effectively around 3 years)[3]. The ample time allowed for mobilisation and bargaining, which would have been less likely if the constitution-making process had been short. What is also key from the procedural point of view is that the constitutional draft had to be approved by the super-majority rule of 2/3 in the General Assembly. As a consequence, the bargaining and veto power of smaller parties such as, for instance, the Freedom Union (Unia Wolności) – the party heavily involved in the inclusion of the debt rule in the constitution – was increased. Moving beyond institutional to more political aspects, it needs to be stressed that the debt rule was backed by

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[1] An English version of the Constitution of 1997 can be found under the following link http://www.sejm.gov.pl/prawo/konst/angielski/kon1.htm (last accessed on 14.09.2020).

[2] This long period of time spent in drafting, was permitted by the prior promulgation of Little Constitution in 1992, which set the basic organization features of the state, and opened the avenues for discussions over more detailed provisions, such as debt rule.

[3] It is much more than the average of 16 months calculated by Ginsburg et al. (2009).

charismatic political leaders (e.g., professor Leszek Balcerowicz). They were promoting the rule through formal and informal channels and sensitizing the political class to the problem of excessive public debt. Furthermore, the political setting of 1993–1997 observed a conservative drift of the major leftist party in Poland and this was crucial for reaching political compromise over the debt rule introduction. Lastly, in the deliberations over the constitutional text, the argumentation in favor of debt rule was framed around the negative historical events, such as the debt trap which Poland experienced in the 1970s, and concerns over the propensity of new democracies toward populist governments, which seek short-run benefits at the expense of long-term fiscal sustainability. Moreover, for some of the drafters the introduction of the debt rule was a signal that Poland was taking membership in the European Community seriously and committing itself to keep its debt in-line with the rules set in Brussels.

Currently, from all constitutional provisions on public finance, article 216 Sect. 5 arguably enjoys the largest visibility in society. One reason for this is that the rule contains a clear quantitative focal point, implying that it is relatively easy to recognise potential non-compliance with the rule or the mere distance from the non-compliance tipping point. In that sense, the Polish debt rule fulfills the clarity criterion, which was identified as one of the most important features determining the effectiveness of fiscal rules (Kelemen & Teo, 2014). According to the European Commission, in 2010 the Polish debt rule ranked as the fourth strongest rule among all national numerical fiscal rules (i.e., fiscal rule index). Its rank dropped in the aftermath of the sovereign debt crisis in the EU when many countries joined the fiscal rules club or further extended their fiscal rule frameworks. In 2018, the Polish debt brake ranked 30th out of 129 classified rules in terms of stringency.[4]

The constitutional debt brake is supplemented by the statutory debt rules (safety thresholds) enshrined in the Act on Public Finances of 2005. Initially the Act envisaged three public debt safety thresholds. The first threshold, later on suspended by Donald Tusk's government in 2013, was set at a ratio of 50% debt-to-GDP. Exceeding this level obliged the central government to maintain a budget deficit-to-revenue ratio in the next year at the same level as in the year before. The same applied to debt at local government level. The second and still binding safety threshold is set to 55% of GDP. If public debt exceeds this level, the government is obliged to draft a balanced budget for the following fiscal year. The last binding threshold is equal to the constitutional limit for public debt (60% of GDP). If public debt reaches or exceeds such a level, the next year's budget for central and local governments must be balanced. Additionally, warranties and guarantees granted by public sector agencies are prohibited. The government is further obliged to present to parliament a fiscal consolidation program aimed at reducing the public debt-to-GDP ratio.

The constitutional debt brake supplemented by statutory provisions is considered the most effective rule of the fiscal framework in Poland (Benecki et al. 2006). Since the establishment of the rule, the public debt in Poland has officially never been greater than 60% of GDP. While in the aftermath of the sovereign debt crisis

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[4] The Fiscal Rule Index database is available at https://ec.europa.eu/info/publications/fiscal-rules-datab ase_en (last accessed on September 18, 2020).

in Europe the public debt reached a level above 50% of GDP, in 2019 it dropped to 43.8% according to the Ministry of Finance (Ministerstwo Finansów, 2020). The constitutional commitment that public debt will not reach unsustainable level signals to the financial markets that Poland is financially credible. This results in lower interest rates on government bonds and as a consequence lower debt servicing cost.

The discussions about the effectiveness of the debt brake are not conclusive, however, as a credible empirical strategy to establish the causal effect of the debt rule would require the construction of a counterfactual scenario, i.e., the fiscal performance in Poland on the assumption that the debt brake is not present. Nevertheless, such empirical strategy is difficult to implement. Furthermore, the debt brake is not flawless and some of its weaknesses are well established. Most notably, the definition of public debt, which is included in the statutory law, enables fiscal gimmickries such as moving certain debt items (e.g., the debt incurred by the Road Fund) away from the official public debt calculation. In fact, the difference in defining what constitutes a public debt leads to a disparity of about 2–3% points between the national and EU calculations of the Polish debt in terms of GDP (Ministerstwo Finansów, 2020). Some criticism is also raised with regard to the fact that the rule does not contain any escape clauses, and thus it has to be complied with under any circumstances.[5] It also applies to situations where the country experiences external, unforeseen, negative shocks such as, for instance, the COVID-19 pandemic crisis. This gives further incentives to the governing bodies to incur the debt through extraordinary funds, which are not subsumed under the definition of public debt.

This is precisely what currently has happened in Poland with the launch of the anti-corona and business rescue funds by the Law and Justice (PiS) government outside of the public finance sector. Due to these gimmickries, the disparity between the national and EU calculations of the Polish public debt is expected to increase to 10% points (Sawulski, 2020). Although this creative accounting cannot by assessed positively, it vividly demonstrates that public authorities are not keen on officially breaching the constitutional debt limit of 60% of GDP. It could be because the authorities either do not want to face the legal consequences of non-compliance with the rule[6] or fear the public backlash in the aftermath of the potential violation. In this paper I test if the public is indeed more inclined to disapprove of the governmental reforms leading to the breach of the constitutional fiscal rule than the reforms causing the violation of rules enshrined in statutory laws. Thus, I examine one of the assumptions behind the effectiveness of constitutional fiscal rules such

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[5] It is a well-known argument in the literature that fiscal rules aim to correct for the political deficit bias at the expense of policy flexibility. Policy flexibility is particularly low when fiscal rules do not provide for escape clauses and are embedded in constitutional laws. To remedy this inflexibility, the so called "Next-Generation" fiscal rules attempt to account for the economic cycle and define deficit in structural terms (Schaechter et al., 2012). As argued by Kelemen & Teo (2014), however, these kinds of rules are rather unclear to the public and markets and, thus, impair the general effectiveness of the rules. All this suggests that designing fiscal rules is not straightforward and the whole process implies several important trade-offs (Campanella, 2011).

[6] This scenario is unlikely given that the Constitutional Tribunal in Poland is dominated by the judges appointed by the current (PiS) government. For more on politicization of the Constitutional Tribunal in Poland, see Kantorowicz & Garoupa (2016).

that the public is more likely to disapprove of, and potentially (politically) punish, the governments violating constitutional rules as compared to breaching statutory rules.

3 Research design

To investigate public attitudes towards a breach of constitutional fiscal rules, I run a series of population-based survey experiments. This kind of experiments strike a good balance between the internal (random assignment of hypothetical scenarios) and external validity (access to a representative sample of population). Regarding the latter, it has to be further stressed that the context of Poland provides for a suitable testing ground. The Polish fiscal framework contains the 60% debt limit in both the constitutional and statutory laws, and this limit is currently at the risk of being violated (despite the creative accounting operations performed by the government). This all translates into a high ecological validity (the "real world" context) of this study.

Overall, I performed three survey experiments. Nonetheless, because the first two experiments dealt with the same experimental context (a potential breach of the fiscal rule due to the anti-corona stimulus package), I bundled the description of these experiments and labelled them as Study 1. The third experiment, in turn, employs a different experimental context (a potential breach of the fiscal rules caused by an increase of spending on national defense) and, thus, it deserves a separate description under the Study 2 section.

3.1 Design of study 1

The experimental conditions of Study 1 were embedded in a vignette, which described the launch of the anti-corona stimulus package by the Polish government and the likely consequences of this action, namely the growth of public debt above 60% of GDP. The vignette, which was randomly distributed across respondents, differed in only one aspect. In the control condition the respondents were informed that the debt may exceed the statutory debt limit, while in the treatment condition it was the constitutional debt limit. This experimental manipulation should be considered as relatively weak, as it is about changing a single word and towards the end of the vignette. Moreover, the scenario refers to "exceeding" of the debt limit, instead of "breaching", which arguably is more pronounced. The exact wording of the vignettes was as follows (the variation between the scenarios is denoted in brackets):

> In order to mitigate the effects of the economic crisis caused by the coronavirus (COVID-19), the Polish government has presented a package of solutions known as the "anti-crisis shield". Part of the funds allocated to the shield may come from the sale of treasury bonds, causing an increase in public debt. Do you support the economic policy of the Polish government, knowing that

increasing public debt may result in exceeding the [statutory/constitutional] debt limit of 60% of GDP?

After having read the vignettes, the respondents' approval rate towards this policy was measured on the 0–10 Likert scale, with 0 denoting "I strongly disagree", 5 "I neither agree or disagree" and 10 "I strongly agree". This measurement of the outcome variable enables to assess the effects of experimental conditions on the policy approval rate with an OLS regression.

Respondents were recruited by the survey company Pollster and participated in the survey via computer-assisted web interviewing (CAWI). The quota sample was representative in terms of age, gender, education and place of residence (urban vs. rural areas). I use these variables to compute the raking survey weights, which are then employed in the regression models for robustness checks. The target and sample quotas for age, gender, education and place of residence are displayed in Table 4 in Appendix. Although some deviations between the target and sample quotas are observed, they should not be considered as large.

The survey experiment was performed in two rounds.[7] The first experiment (N_1 =1,106[8]: 549 observations in the statutory law treatment and 557 observations in the constitutional law treatment) was launched on May 5–12, 2020, which was roughly two months after the first COVID-19 case was identified in Poland (March 4).[9] In mid-March the Polish government issued a series of harsh measures to halt the spread of the virus, including closing schools and borders. The presidential elections, initially scheduled for May 10, were postponed to, what was only later announced, June 28 (the first round of voting) and July 12 (the second round for voting in the case where none of the candidates reaches at minimum 50% of votes in the first round).[10] Thus, characterizing the context in which the first survey experiment took place, it was the period of heightened uncertainty with regard to the extent of the COVID-19 crisis and the period of moderate political uncertainty in the light of the fact that the presidential campaign and elections were deferred. The descriptive statistics of the first experiment are shown in Table 5 in Appendix.

The second survey experiment (N_2=1,587[11]: 794 observations in the statutory law treatment and 793 observations in the constitutional law treatment), run between

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[7] In both rounds, the experiment pertaining to public perception of fiscal rule violation was embedded in a larger survey investigating political, moral, and psychological determinants of compliance with the COVID-19 security measures (van Bavel et al., 2022; Azevedo et al., 2022) and the choice of leadership (Kantorowicz-Reznichenko et al., 2020).

[8] This sample size was derived after excluding respondents who failed a simple pre-treatment attention check question (respondents were asked to move a slider to the most left position) or a bot question (respondents were asked to enter a specific sequence of three digits to prove that they are not bots). In total, the survey recorded 1,823 observations, of which 1,106 passed the attention and bot checks (61%). Note that generally there are no threats to internal validity of the experimental design if the attention check questions are asked before the experimental intervention (Aronow et al., 2019).

[9] https://www.gov.pl/web/zdrowie/pierwszy-przypadek-koronawirusa-w-polsce (last accessed on August 4, 2022).

[10] For more details on the 2020 presidential elections in Poland, see Kantorowicz (2021).

[11] The survey recorded 2,261 responses, of which 1,595 passed the attention and bot checks (71%). Eight respondents subsequently did not take part in the vignette experiment.

June 29 and July 6, served as a replication of findings from the first experiment. It contained 677 respondents participating in the first experiment and 924 fresh respondents. The detailed summary statistics of the second experiment are displayed in Table 6 in Appendix. To examine whether respondents correctly noticed the experimental intervention, the second survey experiment included a manipulation check question[12]. Contextually speaking, the second experiment was performed in the period where the COVID-19 crisis appeared to be kept in check, yet where the political tensions were running at the highest level. The elections held on June 28 resulted in two candidates, the incumbent Andrzej Duda, and the challenger, Rafal Trzaskowski, going for the second round of elections on July 12. The final result recorded on July 12, i.e., 51% of votes for Duda and 49% for Trzaskowski, as well as a close to all-time record of voter participation, attest that the political rivalry was fierce and electoral mobilization was high. Overall, the two survey experiments were run in peculiar circumstances. Whereas in the context of the first experiment, respondents could have been less sensitive to the violation of the constitutional fiscal rule as the anti-crisis stimulus package was deemed necessary, in the second experiment the approval of the stimulus package could have been entirely driven by the political stance of the respondents. All this shows that the test performed here constitutes the least likely case for the breach of constitutional fiscal rules (vis-à-vis statutory rules) to have an effect on the public approval rate of the policy. In other words, if the effects are detectable under these circumstances, it is more probable that the effects exist and are more significant in ordinary times. However, this conjecture needs to be tested by future research.

3.2 Design of study 2

The second study is run to validate and provide further robustness checks for the result stemming from Study 1. First, Study 2 aims to replicate the results from Study 1 in a different context. While Study 1 uses the context of the coronavirus pandemic and the ensuing stimulus package, Study 2 employs the war context and a growing need to increase the spending on national defense. Second, the goal is to use a more direct and explicit language when referring to rule violations ("breach"). Recall that Study 1 uses a somewhat mild language when referring to the rule violation ("exceeding the debt limit"). Third, Study 2 attempts to examine whether respondents negatively react to the accumulation of public debt and, more importantly, how they perceive the violations of fiscal rules as such. Note that the experimental conditions in Study 1 allow only for testing the difference between the violations of constitutional and statuary rules, while they do not enable to test if the violation of rules per se causes a greater disapproval. This might be important forasmuch as respondents may care about the violations of fiscal rules, but they do not differentiate between the type of breach, i.e., constitutional and statutory. Overall, Study 2

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[12] After respondents stated their approval for the policy in question, they were asked whether the scenario (vignette) they have previously read mentioned (1) constitutional fiscal rule, (2) statutory fiscal rule, (3) fiscal rules promulgated with a ministerial resolution, (4) or none of the above.

Table 1 Experimental conditions in Study 2

Baseline/control	Debt treatment
The war in Ukraine led Poland to increase its defense and security spending. Do you support an increase in defense and security spending?	The war in Ukraine led Poland to increase its defense and security spending. Some of these expenses will be financed by loans, which will cause an increase in public debt. Do you support an increase in defense and security spending?
Statutory breach treatment	Constitutional breach treatment
The war in Ukraine led Poland to increase its defense and security spending. Some of these expenses will be financed by loans, which will cause an increase in public debt. Do you support an increase in defense and security spending, knowing that increasing public debt could lead to a breach of the statutory debt limit of 60% of GDP?	The war in Ukraine led Poland to increase its defense and security spending. Some of these expenses will be financed by loans, which will cause an increase in public debt. Do you support an increase in defense and security spending, knowing that increasing public debt could lead to a breach of the constitutional debt limit of 60% of GDP?

contains four experimental conditions (vignettes) as presented in Table 1. These conditions are randomly assigned across respondents.

Similar to Study 1, the respondents' approval rate towards the policy in Study 2 was measured on the 0–10 Likert scale, with 0 denoting "I strongly disagree", 5 "I neither agree or disagree" and 10 "I strongly agree". The survey was conducted via CAWI, while respondents were recruited by the survey company Dynata. The quota sample aimed to be representative in terms of age, and gender, place of residence (regions, i.e., voivodships in the Polish context) and education. These variables are subsequently used to compute the raking survey weights. The disparities in distribution of basic characteristics between the target and sample quotas are displayed in Table 7 in Appendix. These disparities are greater than in case of Study 1, indicating that empirical the strategy of employing the survey weights might be more appropriate.

Study 2 was launched in Poland on May 2–18, 2022[13] and provided the sample size of 1,082[14]. Table 8 in Appendix provides the detailed summary statistics of this study. The Russian invasion in Ukraine, which started on February 24, accelerated the process of strengthening national defense in Poland. Even though the plans to

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[13] The experiment was embedded in a larger survey investigating the public perception of economic sanctions towards Russia.

[14] There was an almost equal distribution of observations across the experimental conditions: control N=273, debt treatment N=270, statutory breach treatment N=273 and constitutional breach treatment N=266.

increase the military spending predated the war in Ukraine, the Russian invasion clearly created a momentum for this plan and opened up a broader debate about the size and type of military spending. Having had a very small space for fiscal maneuvering, the PiS government was quick to propose a constitutional change to exclude military spending from the constitutional debt limit.[15] By many, this proposal was equal with an effective abolishment of the debt limit. Eventually, this change has never been introduced but the debate around it was quite vivid, particularly in March and April of 2022.

4 Results

4.1 Results of study 1

4.1.1 Main effects

The baseline results from the first and second experiment are displayed in Table 2. It has to be noted that balancing tests show that randomization worked well and there is no bias in the distribution of main characteristics across experimental conditions (see Table 9 and 10 in Appendix testing the balancing in the first and second experiment, respectively). As for the first experiment, it appears that the effect of the potential breach of the constitutional fiscal rule (when compared to the statutory rule) has a negative and statistically significant effect on the policy approval of roughly 0.3–0.4 points (column 1–3 of Table 2). It has to be noted, however, that without controlling for extra variables, the OLS regression has a trivial fit, suggesting that type of the breach has a very small explanatory power (contrast the adjusted R^2 in columns 1–2 with this in column 3). The Cohen's d statistics of 0.13 further confirms that the main experimental effect is rather small and, practically speaking, negligible. To put this result in perspective, it needs to be underscored that, first, the survey manipulation was quite weak and, second, the survey took place at the time of heightened uncertainty concerning the spread of the corona virus.

When it comes to the second experiment and considering all observations, the coefficient is close to zero and not statistically significant suggesting that the constitutional beach treatment has no effect on the policy approval rate (see columns 4–6 in Table 2). The results for unique (fresh) respondents and (columns 7 and 9) and for respondents who passed the manipulation checks[16] (column 10 and 11) also display coefficients close to zero and do not reach conventional thresholds of statistical significance. Based on the results in the second experiment, it is safe to say that the breach of constitutional fiscal rules does not lead to a greater policy disapproval as compared to the breach of statutory rule. This contrasts with the results from the

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[15] To read more about this proposal, see https://oko.press/pis-chce-zmienic-limit-zadluzenia-pulapka-na-opozycje/ (last accessed August 2, 2022).

[16] The results for respondents who passed the manipulation check should be treated with caution. As failing the manipulation checks is likely not random such results lose the causal interpretation.

Table 2 Baseline results from the first and second experiment

	Dependent variable: Policy approval										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Constitutional breach	− 0.385**	− 0.425**	− 0.322***	0.054	0.037	0.022	0.110	− 0.111	− 0.242	− 0.235	− 0.258
	(0.174)	(0.172)	(0.154)	(0.147)	(0.151)	(0.136)	(0.186)	(0.200)	(0.181)	(0.218)	(0.283)
Female			0.005			− 0.193			− 0.513***		
			(0.156)			(0.140)			(0.192)		
Age			0.010**			− 0.0002			− 0.003		
			(0.004)			(0.004)			(0.006)		
Big cities			0.051			0.385***			0.457**		
			(0.162)			(0.142)			(0.189)		
Higher education			− 0.236			0.007			− 0.394*		
			(0.191)			(0.167)			(0.220)		
Subj. social position			− 0.117**								
			(0.046)								
Higher income						− 0.080			− 0.378*		
						(0.166)			(0.224)		
Voting incumbent			2.161***			2.248***			2.330***		
			(0.238)			(0.225)			(0.307)		
No voting			− 0.902***			− 0.892***			− 0.680**		
			(0.208)			(0.205)			(0.285)		
Constant	4.579***	4.581***	4.750***	3.950***	4.032***	3.922***	4.004***	4.288***	4.516***	3.954***	3.853***
	(0.124)	(0.121)	(0.410)	(0.104)	(0.107)	(0.282)	(0.131)	(0.139)	(0.393)	(0.149)	(0.188)
Observations	1,106	1,106	1,103	1,587	1,587	1,572	911	911	901	731	403

Table 2 (continued)

| | Dependent variable: | | | | | | | | | | |
| | Policy approval | | | | | | | | | | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Adjusted R^2	0.004	0.005	0.211	– 0.001	– 0.001	0.198	– 0.001	– 0.001	0.205	0.0002	– 0.0004
F Statistic	4.895**	6.063**	37.749***	0.137	0.062	49.391***	0.352	0.309	29.944***	1.161	0.832
Wave	1	1	1	2	2	2	2	2	2	2	2
Survey weights	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	No
Incl. obs. from wave 1	–	–	–	Yes	Yes	Yes	No	No	No	Yes	Yes
Excl. manipulation checks failures	–	–	–	No	No	No	No	No	No	Yes	Yes

The female dummy takes a value of 1 if the self-identified gender is a female and 0 if the self-identified gender is a male. Age is a discrete numerical variable. The big cities dummy captures cities above 50,000 inhabitants with a 1, and smaller cities plus villages with a 0. The higher education dummy captures respondents reporting tertiary education. The subjective societal position is measured on an 11-point Likert scale where 0 indicates that respondents locate themselves at the lowest societal position, and 10 indicates the highest societal position. This variable serves as a proxy for income, which in Experiment 1 was not measured explicitly. In Experiment 2 the income was measured, and the resulting variable was created in such a way that three top income categories were coded as a 1 and three lowest categories of income were coded with a 0. Lastly, there are two variables capturing political alignment whereby "Voting incumbent" captures these respondents who declared prospective vote for the incumbent Andrzej Duda in Study 1 or retrospective vote for Andrzej Duda in Study 2, "No voting" captures respondents who declared abstention. The reference category captures those who declared the support for the opposition candidates.

***Significant at the 1% level. **Significant at the 5% level. *Significant at the 10% level.
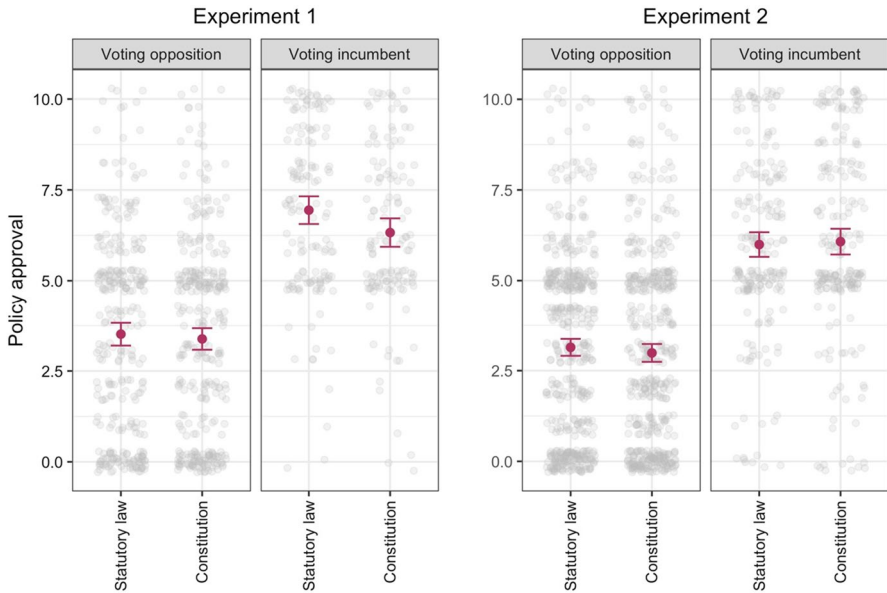
Fig. 1 Moderating effects of the political variable in the first and second experiment. The figure displays point estimates along with the 95% confidence intervals for relevant groups. The dotsrepresent observations and, thus, give an impression of the distribution of policy approval scores across differentgroups

first experiment where the effect was detectable albeit, practically speaking, it was negligible.

The difference between the effects (difference-in-differences estimate) in the first and second experiment (see column 1 and 4) is statistically significant at 10% level ($|t|=1.93$, p-value $=0.054$). Also, there is a noticeable decline of more than half a point in the average approval rates towards the stimulus package as evidenced by a drop in the intercept between the first and second experiment (this difference is statistically significant: $|t|=3.90$, p-value < 0.001). Since one of the plausible explanations for the differences in effects between the two experiments (time periods) is the degree of political tensions, in the next section I further examine the moderating effects of political variables.

4.1.2 Moderating effects: political alignment

The political alignment variable is captured by a declared vote (a prospective vote in the first experiment and a retrospective vote in the second experiment) for the incumbent presidential candidate (Andrzej Duda) or one of the opposition candidates. The results, demonstrated in Fig. 1, are as follows. Looking at the results of the first experiment it is evident that respondents voting for the opposition candidates were generally much less likely to approve the policy as compared to respondents voting for the incumbent candidate. The difference amounts to more than 3 points and is, of course, statistically significant ($|t|=16.94$, p-value < 0.001). What is furthermore noticeable is that the experimental treatment has a close to

zero and not statically significant effect among the respondents leaning towards opposition candidates (|t|=0.60, p-value = 0.549). This is in contrast to the respondents supporting the incumbent. For these respondents the constitutional breach has a negative effect of more than 0.6 points and is statistically significant (|t|=2.24, p-value = 0.026). The Cohen's d amounts to 0.27, suggesting nonetheless that the effect size is still rather small. Based on this, it is fair to say that in the early phase of the COVID-19 crisis when political feelings were moderate, the stimulus policy was much more disliked by the opposition respondents to the extent that they have not differentiated between the potential constitutional and statutory law breach. This is very much different for the respondents supporting the incumbent candidate whose party was the initiator of the stimulus package. These respondents were much more in favor of the policy in question and for them the potential constitutional breach had a negative effect on the approval rate.

The second round, experiment 2, observes some important changes. Although the difference between the respondents supporting the opposition and incumbent is still stark, it falls below 3 points (|t|=19.23, p-value < 0.001). Furthermore, supporters of both the opposition and incumbent candidates declare lower approval rates for the stimulus policy: the respondents supporting the opposition note, on average, a decline in the approval by nearly 0.4 points (|t|=2.73, p-value = 0.006) and the respondents voting for the incumbent candidate by roughly 0.6 points (|t|=3.21, p-value = 0.001). Another important take from the second experiment is that the constitutional breach no longer has an effect on the respondents supporting the current president (|t|=0.32, p-value = 0.749). The results are very similar if instead of the political alignment variable, one considers a self-declared political ideology measured on the 11-point Likert scale (recoded to three categories: right, center and left). Namely, the treatment effects are identifiable only for the right-leaning respondents in the first experiment. Note that the respondents aligning with the incumbent – Andrzej Duda – were largely located to the right on the political spectrum. The results based on this alternative variable are reported in Figure A1 in Appendix.

All this leads to several observations. First, under the condition that the policy is strongly disapproved of (mostly for political reasons) as in the case of respondents supporting the opposition candidates, the type of a potential breach (constitutional or statutory law) of fiscal rules does not matter. Second, provided that policy is not largely disapproved of as in case of the respondents who support the presidential incumbent, the context does appear to matter, albeit the uncovered effects are small or, in other words, of low economic significance. However, which is the precise context that explains the ineffectiveness of the constitutional breach as in the second experiment, is inconclusive. Is this the heightened political rivalry which makes the respondents supporting the incumbent non-responsive to the experiment treatment or is the declining support towards the anticorona stimulus package itself? The current study is not able to respond to this question and it calls for further research on this issue.
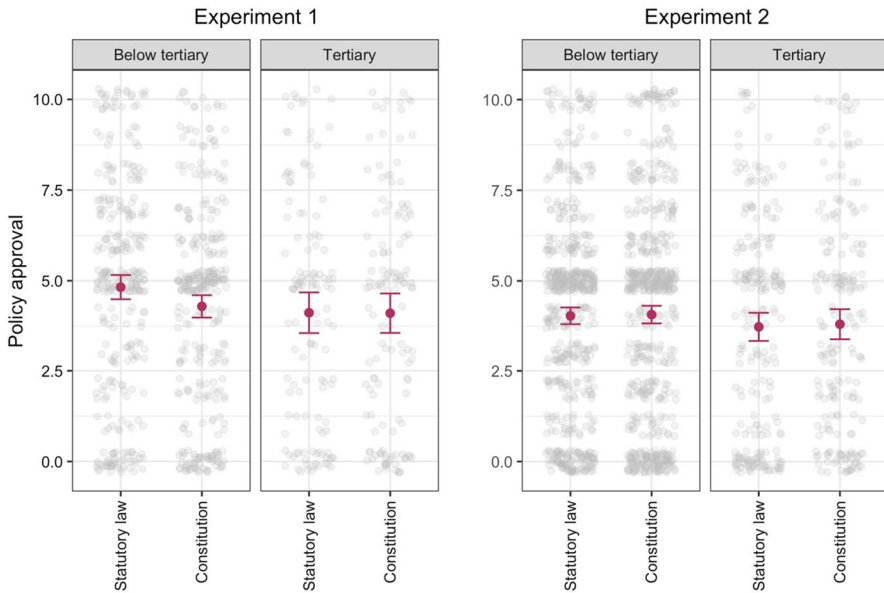
Fig. 2 Moderating effects of the education variable in the first and second experiment. The figure displays point estimates along with the 95% confidence intervals for relevant groups. The dotsrepresent observations and, thus, give an impression of the distribution of policy approval scores across different-groups

4.1.3 Moderating effects: education

It is argued in this paper that the choice of Poland as a case study is superior due to an external and ecological validity issues, i.e., the breach of the 60% debt limit in Poland is not merely a hypothetical situation, but rather a plausible scenario. This realistic context carries, however, an important drawback. Namely, the respondents might be aware that a constitutional breach of the fiscal rule also implies a statutory non-compliance and vice-versa.

To shed light on this issue, I will assume that respondents' education can serve as a proxy of knowledge about the fiscal rules. Highly educated respondents, as argument goes, could realize that a constitutional breach also triggers a statutory breach and other way round, whereas less educated respondents might not have this knowledge. Consequently, one could conjecture that the treatment effects are identifiable only for the latter – less educated (below tertiary education) – group of respondents. Figure 2 displays the results of this test. In line with the above conjecture, the negative effect of constitutional breach is found only for the less educated respondents in the first experiment. The treatment effect of roughly 0.5 should again be considered as a relatively small (negligible) effect (Cohen's d of 0.18). This suggests that the effects presented in this paper may represent a "lower bound" of the opposition to a constitutional breach, due to both potential

Table 3 Baseline results from the third experiment (Study 2)

	Dependent variable:				
	Policy approval				
	(1)	(2)	(3)	(4)	(5)
Public debt	1.225***	− 1.095***	− 1.185***	− 1.260***	− 1.292***
	(0.215)	(0.213)	(0.205)	(0.227)	(0.222)
Breach: Statutory law	− 2.333***	− 2.184***	− 2.206***	− 2.372***	− 2.390***
	(0.214)	(0.217)	(0.210)	(0.257)	(0.251)
Breach: Constitution	− 2.514***	− 2.395***	− 2.416***	− 3.117***	− 3.095***
	(0.216)	(0.216)	(0.208)	(0.256)	(0.249)
Female			0.117		0.161
			(0.149)		(0.177)
Age			0.017***		0.013**
			(0.004)		(0.006)
Big cities			− 0.026		0.029
			(0.149)		(0.177)
Higher education			− 0.177		− 0.072
			(0.178)		(0.193)
Higher income			0.257*		0.354*
			(0.151)		(0.180)
Voting PiS			1.555***		1.321***
			(0.185)		(0.228)
Constant	7.736***	7.758***	6.573***	7.769***	6.753***
	(0.151)	(0.150)	(0.295)	(0.153)	(0.338)
Observations	1,082	1,082	1,076	727	724
Adjusted R^2	0.138	0.125	0.193	0.193	0.236
F Statistic	58.458***	52.292***	29.546***	58.968***	25.793***

The female dummy takes a value of 1 if the self-identified gender is a female and 0 if the self-identified gender is a male. Age is a discrete numerical variable. The big cities dummy captures large cities and surrounding of large cities with a 1, and smaller cities plus villages with a 0. The higher education dummy captures respondents reporting tertiary education. The higher income variable was created in such a way that three top income categories were coded as a 1 and three lowest categories of income were coded with a 0. Lastly, the voting PiS variable takes a value of 1 if the respondents declare voting in prospective elections on PiS, and 0 otherwise.

***Significant at the 1% level. **Significant at the 5% level. *Significant at the 10% level.

respondents' knowledge about simultaneity of constitutional and statutory breach of fiscal rules and the (pandemic) crisis context of this study.

4.2 Results of study 2

Besides studying the differences in perception of constitutional and statutory legal breach in a different (war context), Study 2 further allows to examine the effect of the legal breach per se and check if respondents negatively react to information about a growing public debt due to an increase in spending on national defense.
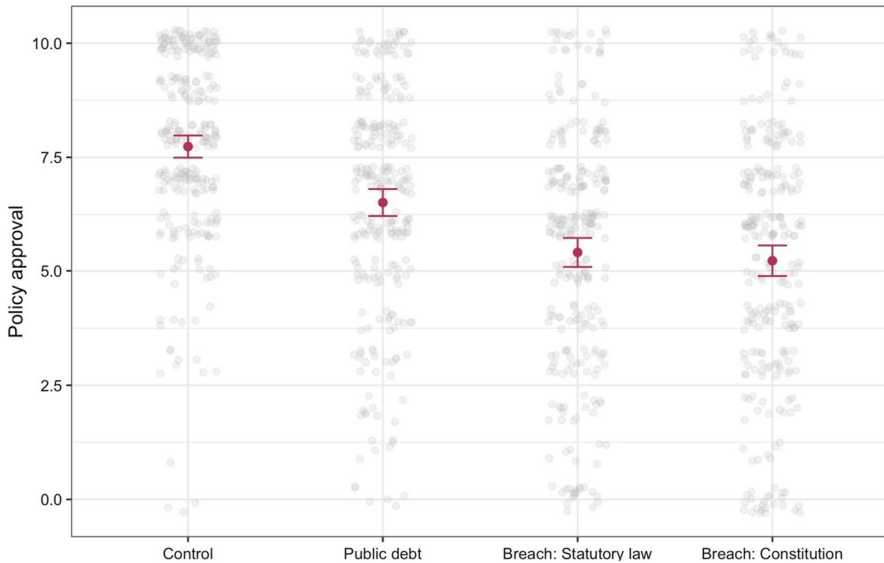
Fig. 3 Visual illustration of the baseline results from the third experiment (Study 2). The figure displays point estimates along with the 95% confidence intervals for relevant groups. The dots represent observations and, thus, give an impression of the distribution of policy approval scores across different groups

Study 2 also employs a more explicit language of "breach" and, arguably, makes this breaching aspect more salient.

Table 11 in Appendix reports the basic balancing tests. It affirms that no major disparities in the distribution of main characteristics can be identified across the experimental conditions. The main results from Study 2 are presented in Table 3. The OLS regressions displayed in columns 1–3 include all observations, while columns 4–5 deal with only those respondents who passed the manipulation checks. As to the latter, it is shown, however, that the practice of discarding subjects who failed post-treatment manipulation checks could lead to a significant bias as it is very likely that respondents do not fail these checks at random (Aronow et al., 2019). Thus, the main focus remains on interpreting the results presented in columns 1–3, while the outcomes in columns 4–5 should be treated with caution. In all columns, the coefficients should be interpreted against a reference group, which in this case is the control condition whereby respondents were informed about the need to increase spending on national defense and were asked to state their approval towards this policy.

It is evident from columns 1–3 that further informing respondents about a potential increase of public debt as a result of growing spending leads to a decline in the policy approval by more than 1 point. This result is statistically significant at any conventional level and affirms that public, on average, tends to be debt averse. Providing additional information that growing public debt may eventually cause a breach of the statutory or constitutional debt limit results in a lower approval rate

by more than 2 points. Since the regression table only allows to quickly interpret the effects in comparison to the reference group, Fig. 3 provides a visual overview of the results displayed in column 1 of Table 3. This visual inspection confirms statistically significant differences between the control group and all other treatment groups. Interestingly, it also shows a statistically significant differences between the "public debt" group and "statutory law breach" group (|t|=5.029, p-value < 0.001), on the one hand, and "constitutional breach" (|t|=5.678, p-value < 0.001), on the other hand. It is also quite evident that there is no statistically significant difference between both types of legal breach (|t|=0.772, p-value = 0.441). The overarching conclusion from this analysis is that, on average, the public expresses disapproval towards the policy if the breach occurs but the legal status of the violated rule does not make a difference. This result validates the outcomes of Study 1 whereby it was shown that the constitutional breach does not lead to statistically or practically significant reduction in the policy approval. The result is the same even though the context is different, and the language implied in the vignette more directly refers to the breach/violation of the rule, making this cue more salient.

Although with caution, it is fair to point that regressions run on samples discarding the respondents who failed the manipulation checks do provide relatively sizeable (roughly 0.75 points) and statistically significant (|t|=2.370, p-value = 0.018) difference between statutory and constitutional breach conditions. However, this result cannot be interpreted causally due to a likely non-random fashion in which respondents drop the experimental conditions. At best, along with null or negligible effects obtained in Study 1, Study 2 calls for further investigation into the public reaction to constitutional breach of fiscal and other rules. Some ideas for further research are described in the next section.

5 Conclusion

This is the first paper that attempts to test the popular reaction to breaches of constitutional fiscal rules. In line with theoretical underpinnings, constitutions amplify the political costs of non-compliance with the rules by introducing the negative spotlight on the act of breach. In this paper I isolated the reaction of the public to the potential breach of constitutional fiscal rules from the reaction of other players, such as the opposition, media and civil society organizations. The survey experiments, which were performed to test for the popular reaction to the breach of constitutional fiscal rule, were conducted under such unexpected circumstances that the constitutional breach largely did not matter. These were the circumstances related to the spread of the COVID-19 virus and health and economic uncertainty linked to it, as well as to the war context.

Despite these circumstances, in the first experiment of Study 1 I identified a negative, yet negligible, effect of constitutional breach (as compared to statutory law breach) on the policy approval. The replication was not able to confirm this finding. Experiment 2 of Study 1 displayed the null results: there was no evidence that the public perceived the constitutional fiscal rule breach more negatively than the

statutory law violation. Study 2 performed further robustness checks and extensions. By and large, it provided the same overarching conclusion: the public did not tend to react more fiercely when cued with the constitutional breach relative to the statutory breach. While the public did not seem to be moved by the constitutional breach as compared to the statutory breach, the public did react to the violation per se. When comparing the experimental condition without any legal breach with either kind of breach, the public displayed more disapproval in the latter condition. Although not a core finding, Study 2 also confirmed that the public seems to be debt averse as providing information about a potential increase of public debt due to growing spending on national defense resulted in a lesser support towards this spending.

There are several possible extensions of this study. First, more research of this kind could be performed in non-crisis and less politically contentious circumstances. This would further shed light on the question of to what extent the crisis and political context are important when assessing the constitutional breach of fiscal rules. Second, the experimental manipulation can be made stronger, so the constitutional breach becomes more salient. This would correspond better with the reality on the ground whereby information about the breach, if it occurs, is more widespread and persistent. In the experiment performed in this study, the respondents obtained only one piece of information of the legal violation. Furthermore, the information was provided in a written form. It is likely that more interactive and more visually appealing provision of information (e.g., in the form of an infographic or a short video) would induce greater reaction. Third, it would be important to examine the amplifying actions of other actors, such as opposition, media and non-governmental organization in inducing public reaction to rules' violations. It is plausible to assume that public reaction to constitutional breach may be conditional on the effort of other actors. Fourth, one could think of including other experimental treatments. The most obvious is the addition of the fiscal gimmickry treatment whereby the government creates the extraordinary funds outside the public finance sector to artificially comply with the constitutional fiscal rules. These research avenues and, more generally, the studies of the micro-foundations of constitutional rules employing (survey) experimental methods are strongly encouraged. Such investigations are crucial given that many theories in constitutional economics assume certain behavior or actions on behalf of the public, and this presumed behavior serves as the transmission channel from institutions to outcomes.

Appendix

See Tables 4, 5, 6, 7, 8, 9, 10, 11. Figure 4.

Table 4 Target and sample quotas across two experiments in Study 1

Targeted attributes	Levels' attributes	Target quota	Survey 1 All	Survey 1 Attention check	Survey 2 All	Survey 2 Attention check
Gender	Male	47.7	50.5	50.5	43.4	44.4
	Female	52.3	49.5	49.5	56.6	55.6
Age	18–29	17.7	17.6	14.7	27.8	23.4
	30–44	29.2	29.3	29.2	28.9	28.8
	45–65	32.1	34.1	35.3	31.3	34.4
	> 65	21.0	19.1	20.8	11.9	13.4
Education	Primary	17.5	10.6	8.7	10.8	9.0
	Vocational	24.1	28.4	25.8	23.4	21.6
	Secondary	34.0	36.2	37.5	41.0	42.3
	Tertiary	24.4	24.8	28.1	24.8	27.2
Place of residence	Village	39.9	33.8	35.0	40.2	39.0
	City up to do 50,000	24.1	26.8	26.2	22.7	22.9
	City between 50,000 and 200,000	16.1	19.4	19.1	18.0	18.4
	City above > 200,000	19.9	20.0	19.7	19.2	19.7

Table 5 Summary statistics of the first experiment in Study 1

Statistic	N	Mean	St. Dev.	Min	Pctl (25)	Pctl (75)	Max
Policy approval	1,106	4.385	2.901	0	2	6	10
Female	1,104	0.495	0.500	0.000	0.000	1.000	1.000
Age	1,102	47.627	17.178	18	34	63	180
Big cities dummy	1,105	0.388	0.488	0.000	0.000	1.000	1.000
Higher education dummy	1,105	0.281	0.449	0.000	0.000	1.000	1.000
Subjective social position	1,106	6.068	1.722	1	5	7	11
Political ideology	1,106	4.994	2.448	0	3	6	10
Voting incumbent	894	0.306	0.461	0.000	0.000	1.000	1.000

Table 6 Summary statistics of the second experiment in Study 1

Statistic	N	Mean	St. Dev.	Min	Pctl (25)	Pctl (75)	Max
Policy approval	1,587	3.977	2.918	0.000	1.000	6.000	10.000
Female	1,592	0.556	0.497	0.000	0.000	1.000	1.000
Age	1,595	43.625	16.958	18	30	57	85
Big cities dummy	1,595	0.381	0.486	0	0	1	1
Higher education dummy	1,595	0.272	0.445	0	0	1	1
Higher income dummy	1,583	0.257	0.437	0.000	0.000	1.000	1.000
Political ideology	1,584	4.806	2.906	0.000	3.000	7.000	10.000
Voting incumbent	1,380	0.303	0.460	0.000	0.000	1.000	1.000

Table 7 Target and sample quotas in Study 2

Targeted attributes	Levels' attributes	Target quota	Sample quota
Gender	Male	47.6	53.5
	Female	52.4	46.5
Age	18–29	23.1	28.9
	30–44	26.3	35.9
	45–65	33.9	27.0
	> 65	16.7	8.1
Education	Below tertiary	75.6	66.5
	Tertiary	24.4	33.5
Place of residence	dolnośląskie	7.7	8.5
	kujawsko-pomorskie	5.4	6.1
	lubelskie	5.6	6.2
	lubuskie	2.6	2.1
	łódzkie	6.7	6.8
	małopolskie	8.6	8.1
	mazowieckie	13.7	15.2
	opolskie	2.8	2.5
	podkarpackie	5.4	4.3
	podlaskie	3.1	3.1
	pomorskie	5.8	5.0
	śląskie	12.4	12.3
	świętokrzyskie	3.3	2.1
	warmińsko-mazurskie	3.7	2.5
	wielkopolskie	8.8	11.2
	zachodniopomorskie	4.4	3.9

Table 8 Summary statistics of Study 2

Statistic	N	Mean	St. Dev.	Min	Pctl (25)	Pct l(75)	Max
Policy approval	1,082	6.224	2.694	0.000	5.000	8.000	10.000
Age	1,117	39.862	15.295	18	27	52	77
Big cities dummy	1,117	0.544	0.498	0	0	1	1
Higher income dummy	1,080	0.579	0.494	0.000	0.000	1.000	1.000
Voting PiS	1,087	0.184	0.388	0.000	0.000	0.000	1.000
Political ideology	1,080	4.952	2.476	0.000	3.000	6.000	10.000
Female	1,117	0.535	0.499	0	0	1	1
Higher education dummy	1,117	0.335	0.472	0	0	1	1

Table 9 Balancing tests of the first experiment of Study 1

	Dependent variable					
	Female dummy	Age	Big cities dummy	Tertiary education dummy	Subjective societal position	Ideological position
	(1)	(2)	(3)	(4)	(5)	(6)
Constitutional breach	− 0.014	0.606	− 0.010	− 0.018	0.113	− 0.121
	(0.030)	(1.041)	(0.029)	(0.027)	(0.104)	(0.147)
Constant	0.502***	47.186***	0.393***	0.290***	6.011***	5.055***
	(0.021)	(0.739)	(0.021)	(0.019)	(0.073)	(0.104)
Observations	1,104	1,106	1,105	1,105	1,106	1,106
Adjusted R^2	− 0.001	− 0.001	− 0.001	− 0.001	0.0002	− 0.0003
F Statistic	0.229	0.339	0.124	0.445	1.190	0.676

The female dummy takes a value of 1 if the self-identified gender is a female and 0 if the self-identified gender is a male. Age is a discrete numerical variable. The big cities dummy captures cities above 50,000 inhabitants with a 1, and smaller cities plus villages with a 0. The higher education dummy captures respondents reporting tertiary education. The subjective societal position is measured on an 11-point Likert scale where 0 indicates that respondents locate themselves at the lowest societal position, and 10 indicates the highest societal position. The ideological position is measured on an 11-point Likert scale with larger values indicating the more right-leaning positions.

***Significant at the 1% level.**Significant at the 5% level.*Significant at the 10% level.

Table 10 Balancing tests of the second experiment of Study 1

	Dependent variable					
	Female dummy	Age	Big cities dummy	Tertiary education dummy	Rich dummy	Ideological position
	(1)	(2)	(3)	(4)	(5)	(6)
Constitutional breach	− 0.004	− 0.347	0.0005	− 0.027	0.028	0.090
	(0.025)	(0.851)	(0.024)	(0.022)	(0.022)	(0.146)
Constant	0.557***	43.860***	0.380***	0.286***	0.243***	4.763***
	(0.018)	(0.602)	(0.017)	(0.016)	(0.016)	(0.104)
Observations	1,584	1,587	1,587	1,587	1,575	1,577
Adjusted R^2	− 0.001	− 0.001	− 0.001	0.0003	0.0004	− 0.0004
F Statistic	0.021	0.166	0.0004	1.501	1.575	0.378

The female dummy takes a value of 1 if the self-identified gender is a female and 0 if the self-identified gender is a male. Age is a discrete numerical variable. The big cities dummy captures cities above 50,000 inhabitants with a 1, and smaller cities plus villages with a 0. The higher education dummy captures respondents reporting tertiary education. The rich dummy takes a value of 1 for respondents reporting the income above 6,000 PLN, and a value of 0 for lower levels of income. The ideological position is measured on an 11-points Likert scale.

***Significant at the 1% level. **Significant at the 5% level. *Significant at the 10% level.

Table 11 Balancing tests of Study 2

	Dependent variable					
	Female dummy	Age	Big cities dummy	Tertiary education dummy	Rich dummy	Ideological position
	(1)	(2)	(3)	(4)	(5)	(6)
Public debt	0.021	− 0.636	0.054	− 0.004	− 0.028	0.082
	(0.043)	(1.312)	(0.043)	(0.040)	(0.042)	(0.213)
Breach: Statutory law	− 0.022	− 2.147	0.070	0.044	0.001	0.308
	(0.043)	(1.309)	(0.043)	(0.040)	(0.042)	(0.212)
Breach: Constitution	0.003	− 1.960	0.077*	0.001	− 0.009	0.319
	(0.043)	(1.317)	(0.043)	(0.041)	(0.043)	(0.214)
Constant	0.527***	41.103***	0.495***	0.322***	0.590***	4.784***
	(0.030)	(0.925)	(0.030)	(0.029)	(0.030)	(0.150)
Observations	1,082	1,082	1,082	1,082	1,076	1,075
Adjusted R^2	− 0.002	0.001	0.001	− 0.001	− 0.002	0.0004
F Statistic	0.332	1.250	1.322	0.622	0.208	1.139

The female dummy takes a value of 1 if the self-identified gender is a female and 0 if the self-identified gender is a male. Age is a discrete numerical variable. The big cities dummy captures large cities and surrounding of large cities with a 1, and smaller cities plus villages with a 0. The higher education dummy captures respondents reporting tertiary education. The higher income variable was created in such a way that three top income categories were coded as a 1 and three lowest categories of income were coded with a 0. Lastly, The ideological position is measured on an 11-points Likert scale.

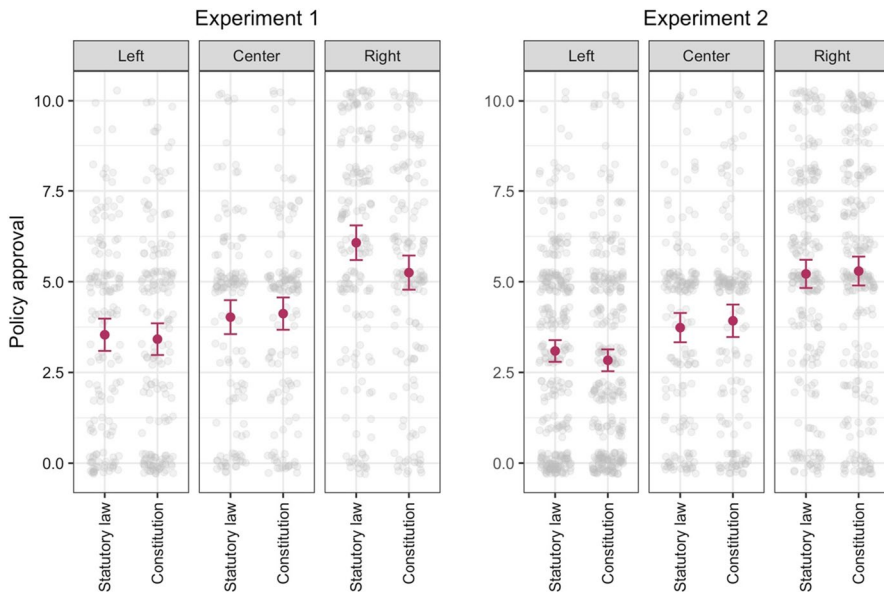***Significant at the 1% level. **Significant at the 5% level. *Significant at the 10% level.

Fig. 4 Moderating effects of the political ideology variable in the first and second experiment. *Note* The political ideology variable was measure on an 11-point Likert scale. For the purpose of this figure, it is recorded to three levels: left (scores 0–4), center (score 5) and right (scores 6–10).

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