



RESEARCH ARTICLE

Perceiving welfare state sustainability: fiscal costs, group deservingness, or ideology?

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Abstract

What shapes citizens' perceptions of long-term welfare state sustainability? Past work hints at three explanations: information about fiscal pressure, deservingness views of recipient groups, and left-right ideology. We consider all three in an experiment exposing people to information about fiscal costs and/or low deservingness in the labor market domain. Left-right ideology functions as a moderator. Unlike past work, which has concentrated on demographic pressures, information about fiscal costs does not generate worries about sustainability (separately or combined with deservingness cues). Rather, left-right ideology moderates reactions. People on the left seem to question and counterargue against fiscal pressure, such that when facing negative information, they develop more positive sustainability views. This counter-reaction coexists with statistically insignificant effects in the negative direction among people on the right. These ideological contingencies arise without partisan cues, suggesting that welfare state pressure itself is ideologically controversial in the labor market domain.

Keywords: deservingness; fiscal pressure; left-right ideology; sustainability perception; welfare state

Mature western welfare states face growing fiscal pressures that make it harder to maintain the quality of social protection. The list of “usual suspects” includes population aging, unemployment, migration, and economic globalization. Moreover, while some decades ago, it was common to argue that welfare states are resilient despite pressures (Pierson 1996, 2001) scholars have recently documented significant welfare reform along multiple dimensions (Beramendi et al. 2015; Hemerijck 2013).

These pressures and resulting reforms also affect how we think about public opinion in the welfare domain. There is increasing interest in perceptions of the welfare state's practical functioning in general (Meuleman and Delespaul 2020) and its “sustainability/affordability” in particular (Goerres, Karlsen, and Kumlin 2020). Scholars investigate how citizens perceive the economic sustainability and consequences of welfare states and find that such perceptions affect political attitudes and voting behavior (e.g., Giger and Nelson 2013).

But where do perceptions of welfare state sustainability come from? A handful of studies have focused on either of three explanatory themes (see review by Chung, Taylor-Gooby, and Leruth 2018, 841). The most explored idea is that perceptions reflect *information about fiscal costs/pressures* themselves (Jensen and Naumann 2016; Naumann 2017). Typical independent variables include the objective severity of pressures and exposure to problematizing informational cues about them. A second but less explored idea is that sustainability perceptions reflect normative *deservingness* orientations toward groups. Citizens exaggerate reform pressures linked with “undeserving” groups and downplay those linked with deserving ones. A nuanced view here is that fiscal cost information and deservingness interact. That is, fiscal cost information has a real impact, but it grows if costs are linked to the undeserving (Goerres, Karlsen, and Kumlin 2020).

The third explanatory perspective focuses on general *left-right ideology*, again a factor only occasionally considered (but see, e.g., Jensen and Naumann 2016). The assumption is that the psychology of welfare state sustainability cannot be reduced to concrete information about fiscal pressure or group-specific deservingness. Rather, fiscal pressures and their societal implications are controversial political-ideological ideas. Reactions to these ideas will vary depending on deep-seated predispositions toward welfare state spending and redistribution. We consider two variations on this theme. First, people on the ideological right might be more prone than people on the left to *accept* information about fiscal costs. If so, pressure information has a stronger tendency to produce negative sustainability views on the right; effects on the left are weaker or insignificant (see Jensen and Naumann 2016). A second and more drastic possibility is that citizens predisposed against the idea of reform pressure actively “counterargue” (Lodge and Taber 2013; Taber and Lodge 2006). This more active cognitive tendency may result in a polarization effect, where people on the left become *less* worried about welfare state sustainability when exposed to the idea that it is threatened.

Experimental studies have so far considered mostly demographic pressures related to immigration (e.g., Fietkau and Hansen 2018) and, to a lesser extent, population aging (e.g., Goerres, Karlsen, and Kumlin 2020; Naumann 2017). Overall, this research suggests that fiscal cost cues generate worries about welfare state sustainability. However, and consistent with the deservingness hypothesis, effects of pressure information may be stronger and more consistent in the immigration domain (Kumlin and Goerres 2022). Finally, there are so far few examples of strong left-right ideological contingencies in such effects.

We contribute in two ways. First, unlike past studies, we simultaneously consider all three explanations in one survey experiment. We exposed respondents to cues about fiscal costs arising as some people are unemployed or sick and/or information about the poor deservingness of these groups. Left-right ideology functions as a moderator. The simultaneous consideration of the three explanations is useful as it allows gauging their impact in one integrated setting. It also allows analysis of interactions between the three, especially the moderating role of left-right ideology on cost and deservingness effects. Other interactive examples concern whether poor deservingness enhances the effect of costs and, as we shall discuss, whether deservingness information dampens the moderating role of left-right ideology.

Our second contribution arises as our experiment shifts attention from demographic pressures (immigration and aging) to fiscal pressure in the labor market. This matters because left-right ideological processing might be stronger in this domain. Indeed, our findings suggest that neither information about fiscal costs nor deservingness (separately or combined) has net effects on welfare sustainability perceptions. Instead, we find evidence of ideology-driven information processing, where people on the left seem to question and counterargue against fiscal pressure, developing more positive sustainability views when facing negative information. This counter-reaction coexists with statistically insignificant effects in the negative direction among people on the right. Importantly, these tendencies emerge without partisan cues, which in previous studies sometimes led to counterarguing against reform pressure (c.f. Kumlin and Goerres 2022). We contribute by showing that the idea of welfare state pressure itself is ideologically controversial in the labor market domain.

The next section discusses the dependent variable (sustainability perceptions) after which we in turn consider the three explanatory perspectives. We then discuss the case, data, and methods and finally move to empirical analysis. The concluding section reflects on methodological, contextual, and thematic preconditions for the three explanatory perspectives. Such preconditions can be fruitfully addressed as research on perceived welfare state sustainability continues.

Perceived welfare state sustainability

Originally, comparative welfare attitude research studied mostly “normative preferences” about what types of policies citizens ideally want (Kumlin, Goerres, and Spies 2021). More recently, this focus has been complemented with attention also to “performance evaluations,” that is, beliefs about how the welfare state functions in practice. This development is seen not least in the oft-used “welfare modules” of the European Social Survey (Laenen, Meuleman, and van Oorschot 2020; van Oorschot and Meuleman 2012; Svallfors 2012). Better data have cast light on evaluations of the implementation processes, the quality of services and benefits, and perceptions of the social, moral, and economic consequences policies have on society (see Meuleman and Delepaul 2020). Of immediate relevance here are studies of perceptions of long-term financial sustainability of social protection (Fridberg 2012; Goul Andersen et al. 1999).

These are early days in this research vein, but some stylized facts are taking shape. First, whereas normative welfare preferences are mostly on the positive side in Europe, people seem more critical about performance, implementation, and outcomes (Roosma, Gelissen, and van Oorschot 2013, 250). An illustration is found in Figure 1 showing the distribution of our dependent variables. Asked about sickness and unemployment protection, roughly one-third of our Norwegian respondents are on the low side of 1–7 scales, where 1 means in ten years’ time Norway will not afford the present level of services/benefits. So, even in affluent Norway, where redistributive policies enjoy strong public support (e.g., Svallfors 2003), one-third of respondents have some doubt about fiscal sustainability.

A second set of findings suggests that sustainability evaluations have attitudinal and behavioral consequences. Giger and Nelson (2013) show that perceptions of the

Think ten years ahead in time. For each of the following social security systems and public services, where would you place yourself ...

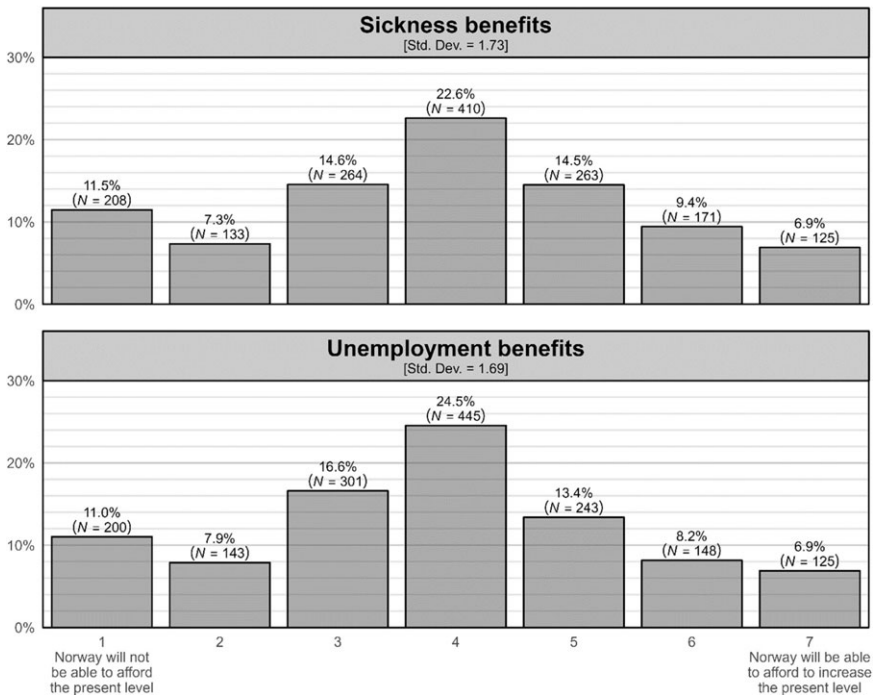


Figure 1. Perceptions of the future sustainability of two Norwegian welfare schemes: histogram of survey responses.

Note: Remaining responses to reach 100% (i.e., $N = 1813$) constitute “Don’t know” replies.

welfare state’s economic consequences help explain the long-standing puzzle of why retrenching governments often survive elections. Further, longitudinal studies find that negative sustainability perceptions may undercut normative welfare state support (Jensen and Naumann 2016; Kumlin and Goerres 2022; Naumann 2017). Such results naturally lead to the questions addressed here, that is, what in turn explains views on welfare state sustainability.

Costs as an explanation

The most basic possibility is that sustainability perceptions reflect exposure to actual fiscal cost pressure or information about it. In general, welfare attitudes research has warmed to the idea that citizens make broad economic and budgetary calculations. Studies on “trade-offs” in reform support suggest that preferences are malleable in the light of budgetary information about, for example, necessary taxes hikes and cutbacks (Busemeyer and Garritzmann 2017) or about compensation policies (Bremer and Bürgisser 2023; Häusermann, Kurer, and Traber 2019). Overall, these studies imply a perceptive and malleable citizenry that is capable of considering partly complicated economic information and trade-offs.

A susceptibility to fiscal costs is also implied by studies of actual perceptions of welfare state sustainability and its economic consequences. Thus, Europeans' perceptions of welfare state consequences on society were more negative during the financial crisis compared to eight years later (Meuleman and Delespaul 2020). Similarly, sustainability perceptions were negatively affected in Germany by the 2015 migration crisis and in Norway by a drop in oil prices in 2014 (Kumlin and Goerres 2022). Similarly, Jensen and Naumann (2016) analyzed a natural experiment on increasing pressure on public health care. Health-care support decreased after a pressure-inducing event, presumably as worries about fiscal pressure grew. Finally, some experimental studies suggest that citizens develop greater acceptance of welfare reform when exposed to general pressures such as debt and deficit (e.g., Marx and Schumacher 2016).

Other experimental studies have exposed individuals to specific reform pressures. Naumann (2017) found that Germans receiving detailed facts about population aging increase support for raised retirement age (c.f. Boeri and Tabellini 2012). By contrast Goerres, Karlsen, and Kumlin (2020) reported that a population aging cue had no effect in Germany, Norway, and Sweden, whereas cues related to employment and, above all, immigration evoked such effects. This last study also pointed out an imbalance in the experimental literature: demographic economic pressures, especially immigration, have been studied quite extensively (e.g., Aalberg, Iyengar, and Messing 2012; Bay, Finseraas, and Pedersen 2016; Cappelen and Midtbø 2016; Fietkau and Hansen 2018; Hjorth 2016; Naumann and Stoetzer 2018), with less work on other sources of fiscal pressure. Our experiment improves the balance by focusing on the general labor market and employment-related cost problems.

What overall conclusions can be drawn from extant research? First, pressure information seems to elicit effects ranging from negative (the immigration domain) to insignificant (mostly population aging). Moreover, there are few examples in these studies of positive “counterarguing” reactions, except when respondents have learned that it is a disliked political party that claims the welfare state is pressured (Kumlin and Goerres 2022). Relatedly, there are few examples of strong socioeconomic or left-right ideological contingencies. Thus, while immigration effects vary depending on economic interests, anti-immigrant sentiments, and political distrust, they seem unaffected by left-right orientations (Finseraas, Haugsgjerd, and Kumlin 2023). Similarly, the reported population aging effects have either been weak all over the left-right divide (Goerres, Karlsen, and Kumlin 2020), or as in Naumann (2017), with rightists and leftists becoming more similar – not more different – when exposed to population aging as a fiscal pressure.

Deservingness as an explanation

Much research finds that welfare state attitudes reflect beliefs about *deservingness* (van Oorschot 2006; van Oorschot et al. 2017; Petersen et al. 2011, 2012; Slothuus 2007). The most popular framework separates between five aspects of deservingness (van Oorschot et al. 2017). These include the level of “need,” as well as people’s “control” over their neediness. Moreover, an “identity” criterion posits that people are more deserving if they “belong to us” in terms of shared citizenship or ethnicity. Yet other

criteria concern “reciprocity” and “solidarity” aspects (see Mau 2003). Here, the focus is on whether recipients have made financial contributions and whether they make an effort to help their predicament or abuse the system.

The deservingness framework is typically used to explain normative welfare state attitudes, especially why support for redistribution varies across policies and associated groups (Chung, Taylor-Gooby, and Leruth 2018, 838). For example, the public holds universally high support for elderly, sick, and disabled people (Jæger 2007), whereas attitudes are less favorable toward the unemployed and the poor (Brand 2015; van Oorschot and Meuleman 2014; Roosma and Jeene 2017).

We extend the deservingness framework and ask if it can explain economic sustainability perceptions. Specifically, two types of processes may be at play. First, citizens might generally perceive greater fiscal problems when information suggests recipients engage in abuse, are lazy, or otherwise display poor reciprocity behavior. This effect can arise through both cognitive and affective mechanisms. A cognitive mechanism arises through the inference that undeserving individuals may also be fiscally more expensive. It would seem cognitively plausible to citizens that fiscal sustainability is more problematic when there is also evidence of, say, costly abuse or lack of tax contributions. A more affective mechanism suggests that cost assessments can also reflect a “transfer of affect” (Petersen et al. 2011) that precedes and shapes elaborate calculation about the plausibility of costs. Said differently, an affectively charged dislike for “the undeserving” colors the subsequent thought process concerning costs and ultimately steers sustainability perceptions in a negative direction. Overall, both cognitive and affective mechanisms suggest that information about deservingness information affects economic sustainability perceptions.

Second, we follow the suggestion by Goerres, Karlsen, and Kumlin (2020) that deservingness and actual information about fiscal costs interact. Under this view, people react to information about fiscal costs through a deservingness prism. The same information about fiscal costs will produce greater worries about sustainability if recipients seem undeserving. Again, this could happen through affective mechanisms or more elaborate processing, where fiscal pressure linked to a less deserving group seems cognitively more plausible.

We know little about deservingness-based explanations of perceived welfare state sustainability. Goerres, Karlsen, and Kumlin (2020) found that immigration-related fiscal pressure information evoked stronger effects while those related to population ageing did not matter. Pressure frames related to general employment problems mattered more than population aging but less than immigration. These patterns reflect long-standing deservingness differences across social groups. We expose the hypothesis to a different and arguably more focused test. Rather than randomizing broad group traits and let respondents make inferences about deservingness, we directly manipulate the deservingness features of one group (i.e., people currently not working).

Left-right ideology as a moderator: resisting and counterarguing against pressures?

The notion of fiscal pressure is often presented as an objective and irrefutable fact. Scholars such as Vis and van Kersbergen (2013, 841) analyze how “existing

‘objective’ problem pressure influences the range of ideas that political actors consider. Pressures are ‘objective’ to the extent that they threaten the existential conditions of material survival of a system [...]. The ‘objective’ pressure tends to facilitate the adoption of certain ideas and the neglect or abandonment of others.”

Yet, even seemingly objective problems can be interpreted through the prism of political ideology. Thus, there may be differences among individuals in how they react to, or what they make of, fiscal pressure information. We analyze the moderating role of left-right ideology and separate between two types of interactions. One builds on the standard idea from political psychology that ideological predispositions allow people to be selective in which information they accept (Campbell et al. 1960; Hitlin and Pinkston 2013; Zaller 1992). Ideology functions as a selective resistance filter, such that effects of negative pressure information become weaker or nonsignificant on the left. In their nonexperimental study, Jensen and Naumann (2016) found support for this pattern as effects of a pressure-inducing event were more pronounced and long-lasting among people with a self-designated rightist political ideology. People on the left were largely unaffected.

The second type of interaction draws on “motivated reasoning” theory (see Lodge and Taber 2013; Taber and Lodge 2006). Those ideologically predisposed against fiscal pressures may actively *counterargue* and thus react in a different direction than those whose predispositions fit the message. By example, they might actively tell themselves that welfare state spending has many positive macroeconomic effects and is good for the tax base. Thus, information about fiscal pressure is cognitively reshaped/replaced with a storyline that better suits their predispositions. Meanwhile, people on the right might not only accept pressure information but actively help its impact along by adding supportive arguments (e.g., “pressure is more severe and concerns more areas than this information says”). For both groups, then, exposure to fiscal pressure information becomes an occasion to reinforce preexisting worldviews. These active cognitive tendencies might lead to a polarization effect where people on the left and right respond in different directions after exposure to the same fiscal pressure information.

There are two basic mechanisms behind resistance and counterarguing. First, citizens are assumed to be “cognitive misers” who lack motivation to assess detailed information about an issue and the underlying situation. Therefore, they use ideological predispositions as convenient “informational shortcuts” to an opinion (Popkin 1991; Sniderman, Brody, and Tetlock 1991). Second, as motivated reasoning theory (Taber and Lodge 2006) has postulated, people may have a drive to, as it were, protect their own predispositions. On this assumption, people like, and want to hold on to, their most basic political positions. This leads them to resist, but also counterargue against, incoming information that is not in line with those positions.

Counterarguing/polarization is theoretically understandable but empirically uncommon (Coppock 2022). As discussed by Taber and Lodge (2006, 756) the “empirical pedigree of this classic expectation is even more dubious than the various selectivity hypotheses.” Some evidence in the welfare state domain exists, however. For example, the coronavirus crisis brought growing ideological polarization along the left-right self-identification continuum, influencing people’s perceptions of welfare state efficiency, capacity, fiscal constraints, and political trust (Ares, Bürgisser, and Häusermann 2021). Hence, despite all citizens experiencing the same

pandemic shock, the attitudinal gap between individuals on the left and right in redistributive preferences and the government's intervention capacity widened. In a study closer to ours, Kumlin and Goerres (2022) report instances of counterarguing against information about fiscal welfare state pressures. By example, Norwegian labor voters became *less* worried about welfare sustainability when hearing about population aging and employment problems from conservative politicians. Crucially, however, such examples refer to messages with clear partisan cues making it easier to connect ideology and information.

By contrast, we study effects of pressure information that lacks clear partisan cues. Still, the information is potentially ideologically controversial, not least as it concerns individuals exposed to "labor market risks" (Jensen 2012). Left-right ideological processing might be unusually strong in this domain compared to population aging and immigration where most work has been done. Specifically, population aging and related "life-course" policies are popular regardless of ideology (Jensen 2012). Moreover, immigration issues are controversial, but more so along the GAL-TAN (libertarian/authoritarian) dimension than in left-right terms (Kriesi et al. 2012). In contrast to these domains, labor market policies aimed at the unemployed and sick are more strongly politicized along the left-right dimension (Jensen 2012). Thus, left-right ideological acceptance/rejection and even "counterarguing" become more likely.

A final expectation considers interactions between left-right ideology and the two information types present in our experiment (costs and deservingness). Some work implies that ideology has a more powerful resistance/counterarguing function in the evaluation of fiscal costs compared to deservingness information. Specifically, Petersen et al. (2011) argue that deservingness-based reasoning is the most fundamental mode of evaluating the welfare state. It overrides ideology whenever there is clear deservingness information. Conversely, general ideology functions as a "second-best" guide to forming welfare attitudes. It kicks in when nothing can be inferred about recipient deservingness. As Petersen et al. (2011, 25) put it "... deservingness considerations reflect deep and automatic psychological processes. Given this, we predict that the "deservingness heuristic" spontaneously guides opinion formation whenever informational cues to the deservingness of welfare recipients are available [...] the impact of values decreases dramatically in the presence of deservingness relevant cues...". In terms of our experiment, the argument implies that left-right ideology interacts more strongly with the processing of information that focuses purely on fiscal costs. Conversely, messages providing clear cues on deservingness would elicit an equally large (or small) response across the ideological spectrum.

The Norwegian case

We analyze Norwegian data, which begs the question of how this might affect results. Norway is of course a rich oil-producing nation with robust public finances and considerable funded national wealth. Relatedly, the country has experienced an unusually positive macroeconomic development in recent decades, with employment and other socioeconomic indicators typically at better values than Western European averages. Also, perceptions of welfare sustainability are more positive than in countries like Germany or Sweden (Kumlin and Goerres 2022), although

with much individual variation (see Figure 1). Overall, these features might reasonably lead to the suspicion that cues about long-term fiscal pressures are less convincing to Norwegians compared to other West European countries and that such cues are an unusually easy target for resistance or counterarguing.

Empirical research, however, suggests a more complicated picture, with the upshot that our results may not be radically different than those obtained elsewhere. Importantly, the Norwegian welfare state is affected by similar, if not identical, pressures as other rich welfare states. These pressures have triggered important reforms in the 21st century, reminiscent of those in other European welfare states (see Hemerijck 2013, for an overview of European welfare reform). Examples include a major pension reform, employment activation policies, and benefit conditionality, as well as dual earner reforms (Bay et al. 2019). More than this, the subject of fiscal pressure and reform appears at least as salient in Norwegian election campaigns. Perhaps for this reason, perceptual susceptibility to reform pressure is on par with that uncovered in several other countries. For example, perceptions became significantly more negative after the 2014 fall in oil prices, which affected Norway greatly. This drop was of a similar magnitude as that produced in Germany by the 2015–16 refugee spike (Kumlin and Goerres 2022). Similarly, experimental results indicate that pressure cue effects are for the most part negative, similar to other Western European countries. A rare comparative experimental study Goerres, Karlsen, and Kumlin (2020) reported that Norwegians are roughly as susceptible to negative information about fiscal reform pressure as Swedes and more so than Germans. Interestingly, this study found little evidence of resistance or counter-argumentative reactions along the left-right scale (Finseraas, Haugsgjerd, and Kumlin 2023).

Data and methods

The experiment was part of the *Support for the affluent welfare state (SuppA)* panel survey (Kumlin et al. 2020), conducted in Norway 2014, 2015, and 2017. The survey covered a broad range of attitudes and behaviors, focusing on welfare attitudes and social capital. The second wave in 2015, which incorporated this experimental design, enlisted 5,008 respondents from the *Galluppanelet*¹ – a sample broadly representative of the Norwegian population in terms of gender, age, municipality, municipal educational distribution, and immigrant proportions in municipalities. Within this group, 1,800 respondents² were allocated to the experiment examined here.³

¹At the time of the survey, *Galluppanelet* consisted of approximately 50,000 members. All panel members are recruited through random sampling; self-recruitment is not allowed, and inactive panellists are regularly purged from the panel.

²The number of experimental participants (1,800) is notably lower than the survey sample (5,008) due to the inclusion of two other distinct experiments. However, the questionnaire was designed to ensure that each respondent participated in only one embedded experiment.

³Whereas 1,574 participants answered regarding sickness benefits, 1,605 did so concerning unemployment benefits. See the online appendix (Table A2) for information about number of respondents in each treatment group. The randomization appears to have worked as intended as experimental groups are roughly comparable when it comes to the socio-demographic composition (gender, age, education, and income) as can be seen in Table A5 (online appendix).

The experimental design was placed about halfway into the roughly 20-minute questionnaire. Prior to the experiment, respondents answered questions about political interest and social capital and political trust and later questioned batteries on socioeconomic risks, welfare state policy, and finally public service experiences and satisfaction. This sequence should help to prime respondents as they have already considered welfare state topics when approaching the experiment. We believe this is an advantage as respondents should be more likely to be interested in, understand, and engage with the somewhat demanding and future-oriented topic of welfare state sustainability introduced by the treatments. Importantly, however, none of the previous questions touched on the actual subject of welfare state sustainability. Finally, left-right self-placement was placed toward the end of the questionnaire, leaving almost 40 other opinion items between the experiment and measurement to minimize contagion.

The participants were randomly assigned to one of five experimental groups – four treatment groups and one control group. As Table 1 shows, treatments were embedded in a question asking respondents to think 10 years ahead. Using a scale from 1 to 7, they indicated the extent to which Norway will be able to afford “the present level of social security and public services.” Responses were given for both sickness and unemployment benefits. To achieve a more intuitive interpretation, the responses were standardized into a 0–1 scale to be used in the analysis.

The surrounding question text randomly varied informational elements representing the first two explanatory perspectives discussed above, that is, cues about *economic/fiscal costs* and poor *deservingness*, respectively. These treatments, then, provide straightforward tests of how costs and deservingness – separately and in combination – affect sustainability perceptions. Our third explanatory perspective highlights how responses to these cues might be resisted and even counterargued, depending on political ideology. Therefore, we will estimate interactions between treatments and ideology. For this, we use the standard question, “In politics people sometimes talk of ‘left’ and ‘right’. Where would you place yourself on a scale where 0 means left and 10 means right?”

Table 1 clarifies the experimental treatment groups. Group A did not receive specific cues about costs and deservingness. The treatment only generally and vaguely hinted at a general employment problem where “[t]here is some debate about people at an employable age who are not working and how this affects social security systems and public services in Norway,” after which they were asked about whether they think the welfare state will be affordable. If more specific cues about costs and deservingness are crucially important, then one would expect the vague treatment A to produce weaker effects compared to such presumably powerful and specific cues.

By contrast, Groups B and C received information about costs and deservingness, respectively. Specifically, Group B was clearly cued about economic/fiscal costs related to employment pressures. They were informed that “[...] the high proportion of people on various social benefits generates costs that will eventually make it difficult to maintain the current levels of social security and public services.” By contrast, Group C received no explicit fiscal cost cues but was instead exposed to the notion of poor deservingness of benefit recipients. Specifically, they were told “[...] that too many people receive unemployment benefits although they could

Table 1. Experimental design

Group A	Group B	Group C	Group D	Group E
General problem reminder	Cost problem	Deservingness problem	Cost <i>and</i> deservingness problem	Control group
There is some debate about people at an employable age who are not working and how this affects social security systems and public services in Norway.	There is some debate about people at an employable age who are not working and how this affects social security systems and public services in Norway. Many believe that the high proportion of people on various social benefits generates costs that will eventually make it difficult to maintain the current levels of social security and public services.	There is some debate about people at an employable age who are not working and how this affects social security systems and public services in Norway. Many believe that too many people receive unemployment benefits although they could have been working or receive sickness benefits while they are actually healthy enough to work.	There is some debate about people at an employable age who are not working and how this affects social security systems and public services in Norway. Many believe that the high proportion of people on various social benefits generates costs that will eventually make it difficult to maintain the current levels of social security and public services. Many (also) believe that too many people receive unemployment benefits although they could have been working or receive sickness benefits while they are actually healthy enough to work.	
Think 10 years ahead in time. For each of the following social security systems and public services, where would you place yourself on a scale from 1 to 7, where 1 means that Norway will not be able to afford the present level of social security and public services and 7 means that Norway will be able to afford to increase the level?				

have been working or receive sickness benefits while they are actually healthy enough to work.” Group D received this information as well, while also being exposed to the explicit fiscal cost problem. This last treatment tests the view that sustainability perceptions are especially affected by information about fiscal costs in combination with poor deservingness (Goerres, Karlsen, and Kumlin 2020). Finally, Group E served as a control group. These respondents were only asked about sustainability perceptions in the same way as Groups A–D with no further information.

After exposure to the varying treatments, respondents were asked separately about the sustainability of unemployment and sick leave benefits. Both these social protection schemes are potentially affected by fiscal pressure emanating from employment problems. That said, the deservingness literature also finds that “the

sick” are seen as more deserving than “the unemployed” (Heuer and Zimmermann 2020; van Oorschot 2006). From this vantage point, exposure to reform pressures might to a greater extent hurt perceived sustainability of unemployment benefits (Fridberg 2012, 149–50; Goul Andersen 1999, 249). Conversely, people may be more prone to resist, or even counterargue against, reform pressures affecting sick leave benefits. These differences, then, provide a secondary opportunity to test implications of deservingness theory in the context of our experiment. Consequently, we will report effects of treatments separately to see if these implications are borne out.

Empirical analysis

The analysis proceeds in two steps. We first examine net effects of the treatments on sustainability perceptions. We then consider how effects are moderated by left-right ideology. Net effects are presented in the left half of Table 2 (Models 1 and 2). The coefficient for each group indicates how much group perceptions are on average different from the control Group E. The coefficients and related confidence intervals are also showcased graphically in Figure 2. Following the common standard in experimental research, the models do not include control variables. Nevertheless, to increase confidence in our findings, we have also estimated models controlling for gender, age, education, and income (see Table A3 in the online appendix), which yield the same results.

Only the general problem reminder given to Group A produces a significant net difference compared to the control group (at $p < 0.05$). Specifically, perceptions in Group A are on average more positive by about 0.3 steps along the original 1–7 scale. Importantly, this effect runs in the positive direction such that on balance respondents become more prone to perceive benefits as affordable. This positive effect, then, occurs despite the treatment information having a negative (albeit general) character. Group A were generally reminded of the fiscal pressure that people at an employable are not working and that this might affect social protection. The positive impact is consistent with the idea of counterarguing against reform pressure. Under this interpretation, some people not only resist reform pressure information but may actively replace it with an alternative storyline that downplays pressures. The communicated negative information gives them stronger reason than the control group to activate such an alternative narrative.

None of the more specific informational treatments produced significant net effects. This is true for the B treatment emphasizing fiscal costs, C emphasizing deservingness problems, and D combining costs and deservingness problems. These weak net results do not fit past theory and findings that suggest that these factors affect welfare state sustainability in the negative direction. Despite good reasons, then, we could not find net effects supporting these approaches. Relatedly, as shown in Figure 2, results are largely similar across the two dependent variables. Thus, none of these comparisons fit the deservingness theory-inspired idea that reform pressures have different effects on sustainability beliefs depending on the deservingness of the group/policy in questions. Relatedly, the general reminder increases the chances that people will perceive both schemes as sustainable.

Table 2. Future sustainability perceptions of welfare schemes per experimental groups (Ordinary Least Squares (OLS) regression analysis)

	<i>Dependent Variable</i>			
	Sickness benefits	Unemployment benefits	Sickness benefits	Unemployment benefits
	(1)	(2)	(3)	(4)
Constant	0.456*** (0.017)	0.437*** (0.016)	0.569*** (0.037)	0.593*** (0.036)
Group E: control group		(Reference category)		
Group A: general problem reminder	0.063*** (0.023)	0.047** (0.023)	0.174*** (0.052)	0.071 (0.050)
Group B: cost problem	0.014 (0.023)	0.017 (0.023)	0.141*** (0.051)	0.125** (0.050)
Group C: deservingness problem	0.003 (0.023)	−0.006 (0.022)	0.058 (0.053)	−0.002 (0.051)
Group D: cost and deservingness problem	0.003 (0.024)	0.021 (0.023)	0.081 (0.051)	0.022 (0.050)
Left-right			−0.024*** (0.007)	−0.033*** (0.007)
<i>Interactions:</i>				
Group A * left-right			−0.021** (0.010)	−0.004 (0.009)
Group B * left-right			−0.022** (0.009)	−0.019** (0.009)
Group C * left-right			−0.009 (0.010)	0.001 (0.010)
Group D * left-right			−0.017* (0.010)	−0.001 (0.010)
Observations	1,574	1,605	1,505	1,533
R ²	0.007	0.004	0.111	0.108
Adjusted R ²	0.004	0.002	0.105	0.103

Note: Shown are coefficients of OLS regression with standard errors in parentheses.

*p < 0.10.

**p < 0.05.

***p < 0.01.

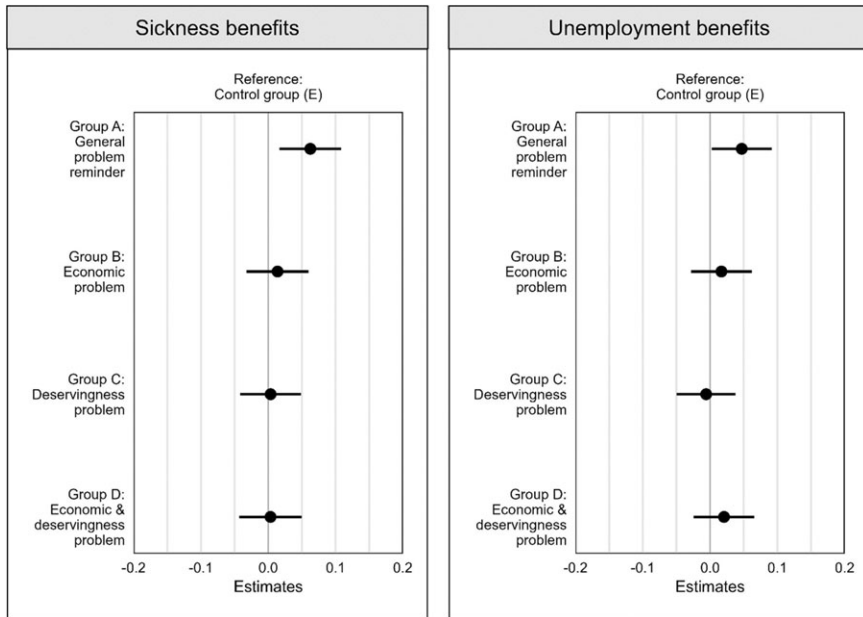


Figure 2. Comparison of the average treatment effects between groups based on Models 1 and 2 in Table 2. Thick lines represent 95% confidence intervals.

Left-right ideology as moderator

The theory section discussed how political ideology may moderate reactions to fiscal pressure frames. For example, left-leaning individuals might resist being affected by pressure frames because their orientation makes them skeptical of suggestions that favored policies would not be affordable. A more radical possibility is that leftists *counterargue* against negative pressures. Among leftists, information processing becomes an occasion to reinforce the preexisting worldview by actively thinking about a competing narrative. This would trigger effects on the dependent variable running in the opposite direction than those intended by the sender or motivated by content alone.

The results are included in Table 2 (Models 3 and 4), where treatment effects are interacted with the respondent's self-declared position on the left-right scale (ranging from 0 to 10). Given the challenging interpretation of interaction terms, Figure 3 visualizes the marginal effects for individual groups plotted against the control Group E used as a reference.

Several effects are contingent on ideology. For example, this is true for the impact of the general reminder A on sickness benefit sustainability. The previously reported positive net effect is driven largely by people who position themselves on the center and leftist ideological positions. The perceptions among right-leaning individuals are comparable to the control Group E. By contrast, the impact on unemployment benefits is more equally distributed along the left-right dimension.

The role of ideology is especially clear for the impact of specific fiscal economic pressure (i.e., Group B). Individuals on the left become less worried about sustainability of both sickness and unemployment benefits. Specifically, a

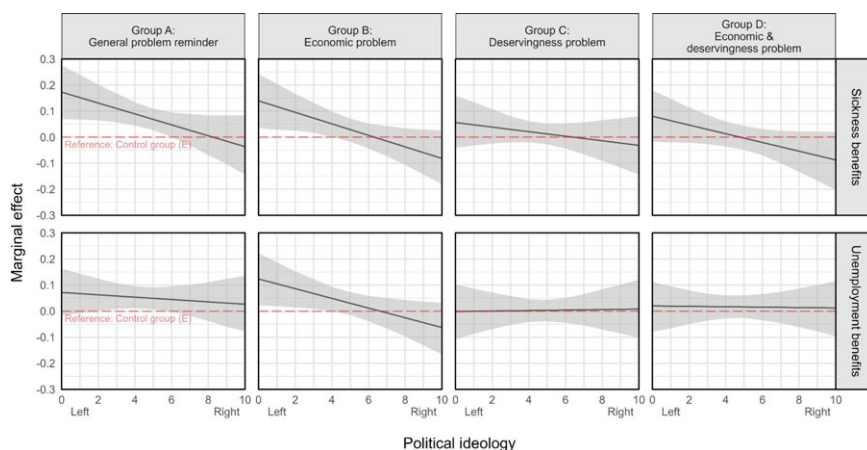


Figure 3. Marginal effects based on individuals' political ideology based on Models 3 and 4 in Table 2. The areas surrounding trendlines represent 95% confidence intervals.

statistically significant difference against the control Group E (at $p < 0.05$) is found in the 0–4 interval along the 11-point ideology scale. This positive response on the left is combined with a nonsignificant tendency on the right to become more worried. In principle, such a negative effect matches the aforementioned studies suggesting that people become worried about sustainability due to information about fiscal reform pressures. However, such a negative effect is clearly not the main tendency in our data.

The deservingness treatment (i.e., Group C) does not yield significant effects anywhere along the left-right continuum for any of the dependent variables. However, the combination of economic pressure and poor deservingness in Group D shows a tendency toward the same left-right patterning as for Groups A and B (in the case of sickness benefits). Taken on its own, this is an uncertain result as the underlying interaction term is only significant at $p < 0.10$ (see Table 2). Overall, however, the findings across all treatments suggest that it is fiscal costs rather than deservingness that provoke ideological counterarguing against reform pressure. This fits the view that ideology is less important whenever deservingness information is available. Yet, deservingness theory does not work well in accounting for sustainability perceptions themselves. Stressing deservingness problems – either separately or in combination with fiscal cost problems – does not, for the most part, affect the dependent variable one way or the other.⁴

⁴To further explore the effect heterogeneity, we estimated models that enter the political ideology as a set of dummies for *left*, *center*, and *right* orientation. The results are presented in Table A4 and Figure A1 in the online appendix. Even though this specification enables the effects to (randomly) vary across different ideological orientations, the results are consistent with Models 3 and 4 in Table 2 – that is, leftists exposed to the fiscal pressure are increasingly engaging in motivated reasoning to counterargue the perceived threat, and consequently, they become more positive about the welfare state's future sustainability. Moreover, these results also suggest that the weak frame for Group A triggered a positive response among center-positioned respondents likely because the weakly framed threat activated positive attitudes about the welfare system that were not suppressed by bringing up a more specific problem.

In summary, then, we find quite little support for our first two explanatory perspectives. These suggest that information about economic pressures and deservingness generally lead to greater worries about welfare state sustainability. Instead, our results support the third perspective, suggesting that left-right ideology moderates the effect of information about costs/deservingness on sustainability perceptions. In fact, several treatments – in particular those emphasizing fiscal economic pressure – create a backlash among left-leaning respondents, consistent with the notion of people “counterarguing” against the storyline that the welfare state is under pressure due to employment problems.

Conclusions

There is growing scholarly interest in how citizens think the welfare state functions in practice. One accumulation of studies analyzes perceptions of long-term fiscal sustainability: do people think the welfare state will be affordable? Such perceptions appear to affect political attitudes and behavior, which has in turn stimulated some research on the causes of such perceptions (see Chung, Taylor-Gooby, and Leruth 2018). Our findings build on these useful studies but also provide counterweights to past findings.

To begin with, several studies have found that sustainability perceptions on balance become more negative and welfare reform acceptance stronger, as people are exposed to or reminded about fiscal pressures. In contrast, we found little support for this effect across stimuli ranging from a mild reminder of economic employment-related fiscal pressure to a more intensive combination of employment pressure combined with poor recipient deservingness. Rather, we found several instances where fiscal cost information produced a counter-argumentative effect: fiscal worries decrease in some groups with more information about fiscal pressure. A second difference from past research concerns deservingness theory. This well-established and oft-supported framework for analyzing welfare attitudes is supported here in the limited sense that ideology matters less when a deservingness cue is provided. Crucially however, we did not find that information about poor deservingness (separately or combined with fiscal costs) triggers negative views on welfare state sustainability. Thus, while deservingness theory has been successful in explaining normative welfare attitudes, it is currently less than clear that it can explain also sustainability perceptions in the labor market domain.

Instead, it was our third explanatory perspective that received the clearest support. General political left-right ideology moderates reactions to fiscal reform pressure in the labor market domain. It is among leftist respondents that we see the positive counter-argumentative response, a pattern which coexists with statistically insignificant effects in the negative direction among rightist respondents. These reaction patterns were similar for sustainability perceptions relating to unemployment benefits and sickness benefits alike. Moreover, that these ideological contingencies arise without partisan cues in the treatments (c.f. Kumlin and Goerres 2022) suggests that the notion of a fiscally pressured welfare state itself can still be ideologically controversial.

Why did we not find support for the costs and deservingness explanations, respectively? Conversely, why was ideological counterarguing (on the left) the dominant pattern? We see several possible aspects to consider as research on perceived welfare state sustainability continues.

One ever-present source of variation is related to methods. Experimental research involves multiple design decisions that can affect results. By example, we relied on relatively mild priming cues consisting of subtle variations of question wordings. Other strategies are available. For example, Naumann (2017) exposed respondents to detailed statistical facts about population aging, whereas Kumlin (2014) investigated reactions to elaborate conclusions about welfare state development from leading experts. Other experimental studies on welfare attitudes gauge the effects of news media content (e.g., Slothuus 2007). It is possible that more intensive information would have yielded more support for costs and deservingness effects also here. That said, even subtle variations in question wordings of the type we used have generated support for these explanatory perspectives in the analysis of demographic/immigration pressures (Goerres, Karlsen, and Kumlin 2020). Overall, the currently available evidence raises a question for future research: what *type* of reform pressure and deservingness information generate hypothesized negative effects on sustainability perceptions?

Future experimental work may also pay attention to statistical power. Our treatment groups were of similar size as previous work uncovering significant main negative effects of fiscal cost cues (Kumlin and Goerres 2022). That said, more power is always preferable, and scholars may examine if the insignificant negative effects of labor market cost cues on the right are really nonexistent or rather small but real. In the latter case, we would have a genuine “polarization” effect at hand, whereas in the former case, the main reaction to fiscal pressure in the labor market domain is counterarguing on the left.

On a more substantive note, future work can explore the precise mechanisms and subgroups that drive ideological reactions. In which left-leaning subgroups is counterarguing the strongest? For example, is ideological processing especially prevalent among those with low trust in the perceived sender of pressure cues or among those with strong ideological support for welfare state spending? What role for more concrete, but left-right correlated, attitudes and interests in the labor market domain?

Future work should also pay attention to country context. As discussed, our context is one of unusual real and perceived fiscal affluence. This may weaken the negative effects of pressure cues on sustainability perceptions and strengthen counter-argumentation. On this interpretation, it is hard to generalize Norwegian findings to other countries. Yet, such a cautious inference does not quite fit the situation on the ground. We emphasized that the underlying long-term reform pressures and resulting reforms in Norway are similar to those found in elsewhere and that reform pressure is clearly salient in the political system. Moreover, research has found a tendency also among Norwegians to develop negative sustainability perceptions when given reform pressure cues about in particular immigration. Thus, we would be cautious in making claims about whether Norway is a difficult or easy case for the various explanatory perspectives tested. We need more comparative experimental theory and research to disentangle the impact of plausible contextual

variables on the extent and direction of citizens' reactions to information about fiscal pressures.

Finally, future research should theorize variation across welfare state domains. As discussed, much research focused on reactions to fiscal pressure due to population aging and immigration. However, it is possible that these domains underestimate left-right ideological contingencies in how fiscal pressure is processed. In contrast to both these domains, employment and labor market related issues tend to be more politicized along the left-right dimension (Jensen 2012). Our results suggest that ideological resistance and counterarguing against reform pressure might become a more common finding as researchers begin to compare the labor market domain with population aging and immigration.

Supplementary material. The supplementary material for this article can be found at <https://doi.org/10.1017/S0143814X24000126>.

Data availability statement. Replication materials are available in the *Journal of Public Policy* Dataverse at <https://doi.org/10.7910/DVN/SHOGDU>. Data are available from the Norwegian Agency for Shared Services in Education and Research (SIKT); see <https://doi.org/10.18712/NSD-NSD2458-V6>.

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