Article

Social policy, public investment or the environment? Exploring variation in individual-level preferences on long-term policies

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Abstract

This article studies individual-level attitudes towards long-term investment policies using novel survey data for the case of Germany. Building on a budding literature on the relationship between environmental and social policy attitudes, our first contribution to research is to show that citizens, when prompted to think about their support for long-term investment policies, support welfare state related policies such as investments in education and pensions to a greater degree than non-welfare state issues such as public infrastructure investment or renewable energy. Citizens are most supportive of using present-day redistributive policies – in our case: increasing income taxes on the rich – in order to finance long-term investment. We also find evidence that political trust is positively associated with support for long-term investment policies, but in particular investments in education and renewables. Furthermore, our analysis reveals the importance of individual political ideology. These findings have implications for public demand for tackling the long-term issues faced by society today.

Keywords

social investment, education, individual attitudes, trade-offs, Germany, infrastructure investments, environmental policy

Introduction

A large body of leading scholarship on the analysis of the politics of the welfare state is about redistribution in the past and present, that is, about the question of 'Who Wants What?' (Rueda and Stegmueller, 2019). A recently emerging line of research, however, has started to explore the temporal dimension of (re-)

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distributive policies, in particular the question of why certain individuals and collective political actors would be willing to invest in long-term oriented policies in spite of rational incentives to focus on the present (Jacobs, 2008, 2011, 2016; Jacobs and Matthews, 2012, 2017; Kraft, 2018; Jacques, 2021). This expanding focus on the temporal dimension of policymaking is mirrored in research by comparative welfare state researchers on the politics of the social investment model (Bonoli, 2013; Hemerijck, 2018; Garritzmann et al., 2018), often highlighting the political challenges associated with policy proposals that aim at maximizing long-term benefits while incurring short-term costs (Sommestad, 2012). In environmental politics, there is a longer tradition of research focusing on the politics of long-term issues such as climate change (Bernauer, 2013), but the interconnections between these and other policies oriented towards the long term so far remain underexplored. Only recently, scholars have become more interested in studying the linkages between environmental and social policy as two prominent examples of long-term oriented policies (Armingeon and Bürgisser, 2021; Beiser-McGrath and Bernauer, 2019; Bergquist et al., 2020; Fritz et al., 2021; Fritz and Koch, 2019; Gough, 2010, 2016; Otto and Gugushvili, 2020).

This article contributes to this debate by studying the dynamics of political support for different kinds of long-term oriented policy reforms. Previous work has started to explore the determinants of individual support for such policies, that is, to what extent individuals are willing to sacrifice present-day concerns in favour of long-term concerns (Armingeon and Bürgisser, 2021; Busemeyer, 2023; Jacobs and Matthews, 2012, 2017) or under which conditions governments promote long-term oriented investment policies or not (Breunig and Busemeyer, 2012; Jacques, 2021; Kraft, 2018). Complementing these perspectives, this article is concerned with better understanding variation in support across different *types* of long-term oriented policies. Ultimately, the goal is to assess the relative importance of welfare state policies compared to non-welfare issues such as investing in public infrastructure or renewable energy. As Armingeon and Bürgisser (2021) have shown, present-day concerns about inequality

and redistribution can crowd out support for long-term oriented policies. We follow up on this line of thinking and adopt a broader perspective by studying a range of long-term oriented policy reforms, directly comparing welfare state issues (education and pensions) with non-welfare state reform proposals on public infrastructure investments and renewable energy. We focus on individual-level policy preferences, which have been found to meaningfully influence policymaking dynamics even in the case of long-term policies such as climate change (Schaffer et al., 2022) and education policy (Busemeyer et al., 2020). We also move beyond existing research in this field by linking the policy output and financing dimensions, building on the work of Busemeyer and Garritzmann (2017) who show that average levels of support for additional spending on education (as prominent example of a long-term oriented policy) strongly depends on how this additional spending would be financed.

Furthermore, we explore the role of political trust and ideology in shaping support for long-term oriented policies (Garritzmann et al., 2023; Hammar and Jagers, 2006; Kulin and Johansson Sevä, 2021; Jacobs and Matthews, 2012, 2017). As argued by Uslaner and Brown (2005), the notion of political trust inherently contains a 'forward-looking element' as individuals put faith in their fellow citizens and/or their governments to honour present-day commitments. Previous research has shown that high-trusting citizens are also more likely to accept short-term costs if these costs are associated with larger benefits materializing in the future (Garritzmann et al., 2023). We add to this a focus on ideology. As argued by Beramendi et al. (2015), a strong orientation towards social-liberal values is associated with support for future-oriented social investment policies (see also Garritzmann et al., 2018). Both political trust and ideology have so far been studied as determinants of support for long-term oriented policies vis-à-vis short termism. In this article, however, we go one step further by analysing the role of these factors in explaining variation in support for different types of long-term oriented policies.

For our empirical analysis, we use original survey data of the German resident population, collected as

part of the 'Inequality Barometer' project, funded with support for the Cluster of Excellence 'The Politics of Inequality' at the University of Konstanz (DFG EXC 2035/1). Previewing our main findings, we first find that among long-term investment policies, welfare state policies (education and pensions) continue to receive higher levels of support compared to public infrastructure investments and environmental policies. This reaffirms the broad popularity of social policy even when it comes to long-term issues. Second, we find a significant degree of support for financing long-term investment policies via higher income taxes for the rich, highlighting an important link between the dynamics of redistributive policies in the present-day and intertemporal redistribution. Third, and in line with previous research, general political trust is strongly and positively associated with support for long-term investment policies, in particular education and renewable energy investment. Furthermore, individual political ideology matters as well. Individuals on the left of the social values dimension are generally more predisposed towards long-term investment policies, while those on the left of the economic ideology dimension are particularly in favour of using higher income taxes on the rich to finance these policies.

The article proceeds as follows. In the following section, we provide a more detailed account of our theoretical expectations in regards to individuals' long-term policy preferences. We then describe our research design and present the results of our empirical analysis. The final section offers concluding thoughts.

Defining and conceptualizing long-term oriented policies

Our core research aim is to explain variation in individual-level support for long-term oriented policies across different policy domains. In doing so, we aim to contribute to our understanding of the broader study of the foundations of political support for long-term oriented policies. Previous research has mainly focused on explaining support for long-term vis-à-vis short-term oriented policies (Armingeon and Bürgisser, 2021; Busemeyer, 2023; Jacobs and

Matthews, 2012, 2017), with less focus on variation in support between different kinds of long-term oriented policies. Understanding this variation better yields policy-relevant insights into which policy area should be the focus of political debates in order to maximize political support for the long term.

To start our theoretical discussion, we briefly define our dependent variable. Conceptually, we follow Jacobs (2016: 434) in defining long-term oriented investment policies as policies that require 'costly action in the present, while the benefits of such action will be slow to arrive, fully emerging only years or decades hence.' This broad definition abstracts from concrete policy domains. Nevertheless, it has been applied to a variety of policies such as pensions (Jacobs, 2011; Jacobs and Matthews, 2012), public infrastructure investments (Jacobs and Matthews, 2017), environmental or social investment policies (Armingeon and Bürgisser, 2021; Garritzmann et al., 2023). The defining characteristic of long-term oriented (investment) policies is thus not a particular policy domain, but simply the intertemporal distribution of costs and benefits along the temporal dimension.

Empirically, it is very difficult to assess this intertemporal distribution of costs and benefits, because of the fundamental uncertainty of future benefits, particularly when it comes to the very long term. Furthermore, the exact boundaries of present-day and future beneficiaries from different policies remain uncertain and ambivalent. But it is quite likely that the relative (perceived) costs and benefits of different long-term oriented policies vary across policy domains. By exploring this variation, we aim to better understand the relative popularity of different policy reform options.

In the method section below, we provide further details regarding the exact measurement of individual-level preferences on long-term oriented policies. Broadly speaking, the dependent variable is defined as individual-support for a range of future-oriented policy reforms. Our research design does not enforce severe trade-offs between different policy areas as some of the previous work on budget-neutral fiscal trade-offs has done (Armingeon and Bürgisser, 2021; Bremer and Bürgisser, 2022; Neimanns et al., 2018), but opts for an

operationalization of trade-offs which is less demanding on the ability of respondents to process and calculate cost–benefit distributions. More specifically, we prime respondents to think about a hypothetical reform initiative that would aim at improving Germany's ability to deal with an unspecified range of future challenges. Then, we confront respondents with hypothetical policy packages in the form of survey vignettes, for which respondents are asked to indicate their support.

Survey vignettes are an increasingly popular method for eliciting individuals' policy preferences (see Auspurg and Hinz (2015) and Hainmueller et al. (2014) for methodological introductions and Beiser-McGrath and Bernauer (2019), Gallego and Marx (2017), Gallego et al. (2022) for recent applications on social and environmental policy preferences). Their particular advantage for our research question is that they allow us to assess the relative causal impact of different design features of policy packages on overall support for this package. Put simply, vignette experiments allow for the identification of policy characteristics that boost support for long-term oriented policies overall.

Theoretical expectations

The vignettes cover three broad dimensions (see method section below for the detailed wording): (1) the policy domain in which the hypothetical reform would take place (pensions, education, infrastructure or the environment/renewable energy), (2) the fiscal magnitude of the proposal, and (3) the financing of the policy proposal (taxing the rich, increasing VAT, increasing public debt or cutting back spending in other parts of the public sector).

We start our theoretical discussion with the first dimension – the policy domain. The vignette includes two policy areas related to the welfare state (pensions and educational investment) and two non-welfare state issues (investments in public infrastructure and renewable energy). A first question is whether social policies in general receive higher levels of support compared to other policy domains. In European countries, and in Germany as well, the welfare state is deeply connected to people's everyday experiences as

well as the material foundations of their livelihoods. Consequently, a large body of research has shown that social policies are broadly supported by the public (Brooks and Manza, 2007), including education policy in particular (Busemeyer et al., 2020). Investing in education can enhance the prospects of upward social mobility for younger generations as well as parents with children. Increasing spending on the long-term sustainability of public pensions enhances the prospects of material security in the later stage of the life-cycle. In contrast, public support for public infrastructure investments may be more concentrated among particular constituencies that are the immediate beneficiaries of these investments. Support for environmental policy (renewable energy in our case) may be significant as well, but given its diffuse and uncertain benefits, it is likely to lose out in an immediate trade-off situation with social policies (Armingeon and Bürgisser, 2021).

Therefore, a first hypothesis is that *support for long-term investment policies in the domain of social policy should be higher than support for non-welfare state policies* (Hypothesis 1).

A related, but more difficult, question is how support for different policy options varies *within* the two broad domains (welfare state vs non welfare state issues). Regarding welfare state issues, the question is how support for education fares against support for pensions. Both policy domains have long-term implications, but also short-term effects that might boost overall levels of support. Directly comparing the two, it seems plausible to assume that the short-term benefits of increasing spending on pensions are likely to outweigh the short-term benefits of additional education investments. In the case of the latter, most of the benefits are likely to materialize in the longer term. This would suggest that support for pensions should be higher than for education. However, the existing literature examining public opinion on social investment policies finds that, by and large, support for social investment is higher than for compensatory policies (Garritzmann et al., 2018). Hence, these competing dynamics may balance each other out in the aggregate, leading to minor differences between the two social policy domains discussed.

For non-welfare state policies, there are also some differences in the likely relative distribution of short-term and long-term benefits and costs. In the case of investments in public infrastructure, the question wording (see method section below) explicitly mentions railways and roads as examples. This likely creates more immediate short-term benefits as individuals can directly see and experience the benefits of additional investments, even though the distribution of these benefits in the present-day remains more unspecific and diffuse compared to the social policy items, where the beneficiaries are easier to identify as pensioners and those in education. In the case of renewable energy investments, the materialization of benefits (in the form of avoided CO_2 emissions) is more biased towards the long term, even though there may be concentrated short-term benefits for those that are directly profiting from subsidies, credit support and so on. At the same time, investing in renewables also often creates political opposition, for example, citizen opposition to on-shore wind turbines. Taken together, this suggests that support for investments in public infrastructure should be somewhat higher than support for investments in renewable energy because of the likely larger short-term benefits of infrastructure investments. But, as in the case of social policies, these theoretical considerations remain somewhat ambiguous; we therefore refrain from formulating explicit hypotheses in this case and leave this issue open for empirical investigation.

Next, we formulate two hypotheses on the magnitude of the hypothetical long-term policy proposal and the financing side. Regarding magnitude, we expect that individuals should generally be more reluctant to support policy proposals that would transfer larger amounts of funding from the present to the future. This is in line with previous literature that has shown a significant degree of 'presentism' (Thompson, 2010) in people's attitudes towards future generations (Armingeon and Bürgisser, 2021; Busemeyer, 2023). Hence, we *expect that support for larger (in terms of funding) policy proposals should be lower* (Hypothesis 2). However, a counter-argument to this hypothesis could be that individuals have a hard time thinking about the transfer of funding from the present to the future without any mention of concrete policies.

Regarding the financing side of the hypothetical policy reform, research on fiscal trade-offs mentioned previously (Bremer and Bürgisser, 2022; Neimanns et al., 2018) informs our theoretical expectations. First, it is plausible to expect that the proposal to use income tax increases for the rich to finance long-term oriented policy reforms should receive the highest degree of support, because additional revenue would be collected from individuals that are both regarded as being able to shoulder a larger share of the financial burden as well as less deserving of support from the welfare state. Vice versa, proposals to increase taxes 'for everyone' (in our case: to raise value-added taxes) should be least popular because these proposals imply costs for all concerned, often in a regressive manner. Cutting back spending in other parts of the public sector in order to finance long-term oriented policy reforms should also be critically evaluated because it would involve concrete costs in the present (even though the vignette does not specify exactly which part of the public sector would be cut back, largely for reasons of space). Finally, increasing public debt could be slightly more supported than cutting back spending, if only because this proposal also shifts costs from the present into the future. In sum, we hypothesize that *proposals to finance long-term oriented policies with taxes on the rich will be most popular, whereas those that imply spending cuts or tax increases for everyone should be least popular* (Hypothesis 3).

So far, we have discussed theoretical expectations on relative support for different dimensions of the vignettes. Next, we develop hypotheses on the interactions between vignette dimensions and respondent characteristics, focusing on political trust and ideology.

First, we discuss the role of political trust. There is a large literature on the positive association between political trust and general support for the welfare state (see Kumlin et al., 2017, for a recent overview). As argued by Jacobs (2016; Jacobs and Matthews, 2012, 2017) and others (Gabriel and Trüdinger, 2011; Garritzmann et al., 2023; Rudolph, 2009), political trust is likely to matter when policy reforms involve short-term costs in exchange for long-term benefits. Relatedly, a number of studies have confirmed that general political trust is positively

associated with support for climate change and social investment policies (Garritzmann et al., 2023; Hammar and Jagers, 2006; Kulin and Johansson Sevä, 2021; Otto and Gugushvili, 2020). Hence, general political trust is an important resource for mobilizing support for long-term investment policies.

Therefore, a first theoretical expectation is that high-trust individuals should be more likely to support long-term oriented policy reforms across the board, when compared to low-trusting individuals. This is because high-trusting individuals are more likely to believe policymakers will 'stick with their side of the deal', meaning that policymakers' claims that short-term costs are justified by additional long-term gains are accepted by high-trusting individuals. When it comes to variation *within* the two broad domains (welfare state vs non-welfare state policies), high-trusting individuals should be even more supportive of those policies that have relatively fewer short-term benefits, namely investments in education and renewable energy. Empirically, the hypothesis implies that *political trust should, broadly speaking, increase overall levels of support for long-term oriented investment policies, in particular in the case of education and renewable energy investments* (Hypothesis 4a).

We also posit that high-trusting individuals are more likely to accept difficult fiscal trade-offs that may result from the financing of long-term investments. For instance, financing long-term oriented policies via a general increase of value-added taxes is likely to be associated with significant short-term costs, but might be perceived as providing a more reliable and robust foundation in the long term given the broad tax base. Hence, high-trusting individuals could be more supportive (or less opposed) to this proposal. Vice versa, taxing the rich may be particularly attractive for low-trusting individuals who are generally sceptical of political and economic elites and therefore prefer this option, even though it may yield less sustainable public revenue in the long term. Hence, the expected hypothesis is that *lower political trust should be associated with higher support for the proposal to tax the rich and, vice versa, higher trust should be associated with more* *support for accepting on average less popular financing proposals such as spending cuts and increasing VAT* (Hypothesis 4b).

Lastly, we discuss the role of ideology. To date, there is little research regarding the question of whether a particular political ideology is more likely to be associated with support for long-term investment policies (but see Busemeyer, 2023). Kraft (2018), for instance, argues that centrist parties should be more likely to support investment policies. This is not because centrist parties are ideologically more convinced about the value of these policies, but rather expect to be in government when the long-term benefits materialize in contrast to more extreme parties on the fringes of the political spectrum. Scholarship on environmental and climate change policy identifies a positive association between a broadly left-wing, environmental-friendly (green) ideology and policy output and support (Armingeon and Bürgisser, 2021; Knill et al., 2010). Research on social investment policies (i.e., policies such as education, active labour market policies or family–work reconciliation policies) (Beramendi et al., 2015; Garritzmann et al., 2018; Häusermann et al., 2015) provides a complementary perspective by identifying a positive association between a social–liberal value orientation (i.e., supporting green–alternative–liberal values, compare Hooghe et al., 2002) and support for investment policies. However, there is a weaker association between economic left–right ideological orientation and investment support.

In sum, these previous studies strongly suggest that it is necessary to conceptualize and measure political ideology in a two-dimensional rather than a one-dimensional space as is now quite common in the study of party politics and the welfare state (see also Häusermann et al., 2013). More specifically, we hypothesize that *support for investment-oriented policies should in general be higher among individuals that subscribe to a more liberal orientation on the social values dimension* (Hypothesis 5a). This is particularly the case for investment policies that are focused on education and the environment, since these issues are closest to the issue ownership profile of left–libertarian parties. In contrast, the economic left–right dimension should be less important in the

case of general support for long-term investment policies. However, it should be crucial in shaping patterns of support for different financing options. These are directly related to redistributive conflicts in the present-day, and there is solid evidence that support for redistribution is associated with an economic left-wing ideology (Noureddine and Gravelle, 2021). Therefore, we expect that *individuals subscribing to left-wing values on the economic left–right dimensions should be more supportive of redistributive proposals to financing long-term investment policies, in particular taxing the rich* (Hypothesis 5b). As a robustness check, we also explore the association between support for long-term oriented policies and political ideology conceptualized in a one-dimensional space from left to right.

Data and methods

The survey data for our analysis was collected as part of the 'Konstanz Inequality Barometer' in September 2020 by a professional survey company. It used a quota-based online access panel. The quotas are based on gender, age, education and region, with an additional cross-quota based upon the first three characteristics (yielding a total of 18 cells in combination). Approximately 17,000 individuals were invited to participate, resulting in a net sample size of 6000 respondents (response rate of 37 percent). The large sample size in combination with the rigorous application of the quota ensures that the data is close to being representative of the German resident population aged 18 and above.

As part of the survey, we included the vignette experiment on preferences for long-term investment policies as briefly mentioned above. Table 1 shows the (translated) exact wording of the vignette introductory text as well as the different dimensions and attributes. The first dimension focuses on the policy domain, the second on the size of the programme (in billion euros) and the third one on the financing side. Each respondent was asked to rate three vignettes, leading to a maximum number of 18,000 observations (one observation being one vignette response). In each iteration, respondents receive random policy combinations of the dimensional attributes of the vignette.[1] This allows for the identification of causal effects for each policy feature on the level of support for the overall policy package. The large number of observations in the survey allows for detailed sub-group analysis in the individual treatment conditions. In our case, these are interaction effects between respondent characteristics in terms of political trust and ideology on the one hand and support for long-term oriented policies on the other.
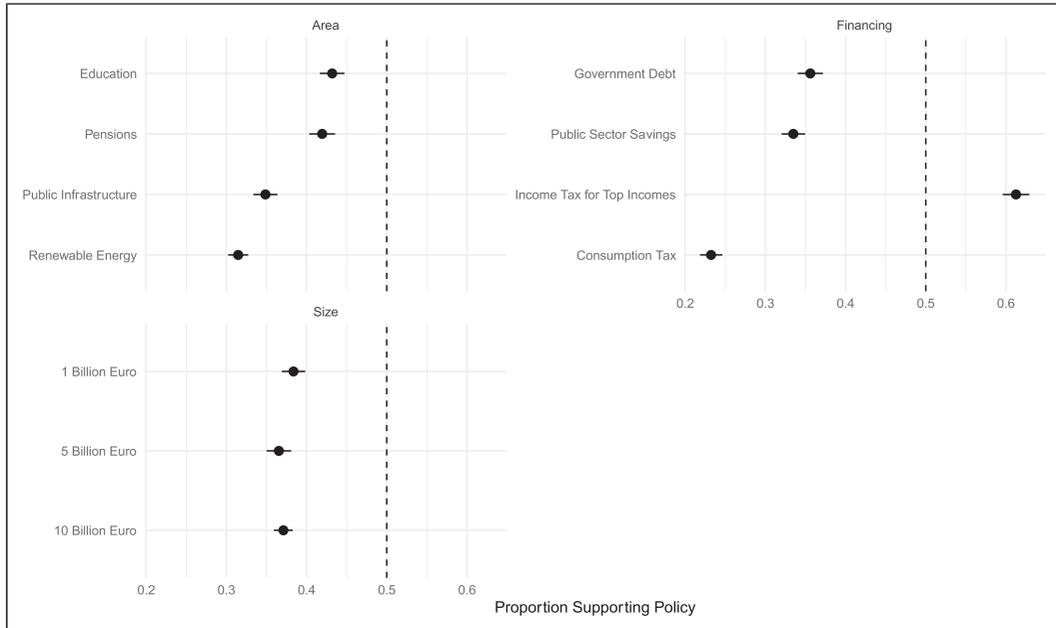
As can be seen from Table 1, the outcome variable of the vignette is a measure of agreement or disagreement with the hypothetical reform package, which is the dependent variable of our analysis. The analysis then focuses on estimating the causal effect of changes in the attributes of the vignette dimensions upon the outcome measure. For each vignette attribute we estimate the proportion of individuals supporting a policy package with this

Table 1. The vignette design.

[Introductory text:] Imagine politicians discussing various reform proposals that are meant to increase the general ability of Germany to deal with future challenges in the long term. We ask you to rate these different reform proposals.

[Actual vignette text with attributes in brackets and in bold font:] The content of the reform focuses on **[increasing public spending on old-age pensions|higher investments in the education system|more investment in public infrastructure (for example, roads and railways)|more subsidies to expand renewable energies]**. The financial size of the reform package would be **[1 bn euros|5 bn euros|10 bn euros]**. This additional spending would be financed via **[an increase in value-add-taxes | an increase in income taxes for the rich|higher public debt|cutbacks in other parts of the public sector]**.

[Outcome variable:] To what extent do you agree or disagree with this reform proposal?

5-point Likert scale from 'disagree strongly' to 'fully agree.'

Figure 1. Support for policy reform packages by vignette dimensions. Note: points indicate the estimated proportion of support for a given vignette value, averaging over the values of the other dimensions. Points to the right of the dashed line indicate majority support (proportions greater than 0.5).

feature, averaging over the values for the other policy domains. This is analogous to the marginal means approach advocated by Leeper et al. (2020). Practically speaking, the point estimates in Figures 1–5 can be interpreted as indicators of the share of respondents supporting a particular attribute of the vignette. For the interactions with respondent characteristics, the point estimates indicate support levels in the respective sub-categories of the respondent variable. The regression tables in the online Appendix allow for examination of average marginal component effects (AMCEs) (i.e., the effects of attributes relative to some baseline) that is also commonly used in the literature. AMCEs capture the change in support for the overall policy caused by a specific level of a given attribute (policy domain, size of the policy package and financing), relative to a baseline value (Hainmueller et al., 2014).[2] We estimate the effects using ordinary least squares (OLS) regression (i.e., a linear probability model) with robust standard errors clustered by respondent.[3,4]

Individual political trust is measured by responses to a general question on how much trust respondents have in the 'political institutions in Germany'. Responses are coded on a five-point Likert scale from 'no trust at all' (1) to 'full trust' (5). To ease interpretation, we create a categorial variable defined by individuals trusting political institutions if they indicate the highest levels of trust (4, 5) and not trusting political institutions otherwise (1, 2, 3). To measure individuals' political ideology we use both one- and two-dimensional approaches as explained above. For the one-dimensional measurement approach, which we mainly use as a robustness check, we ask individuals to place themselves on the left–right scale, from which we code individuals as left-wing, centre and right-wing.[5] The measurement of political ideology in a two-dimensional space follows the approach adopted by Garritzmann et al. (2018) in their study of attitudes towards different kinds of social policy. More specifically, we use five items to measure a range of attitudes related to ideology. We use polychoric factor analyses (for factor loadings,

see Appendix) to create two different dimensions, which we label the economic left–right dimension and the social values dimension. The economic ideology measure is based upon two items: (i) 'the private sector is best able to deal with economic problems', and (ii) 'public services and major industries should be state-owned'. The social values measure is based upon dis-/agreement with three items: (i) 'people who break the law should be punished more than they currently are,' (ii) 'cultural life is enriched by individuals who have migrated from other countries,' and (iii) 'women should be willing to reduce their employment to aid their families' (all items: authors' translation). In order to classify respondents, we create categorical variables from both of these variables, indicating left-wing, centre, and right-wing views, based upon the distribution of factor scores on the two underlying dimensions.

For all models we control for standard respondent characteristics: age, education, gender, income and party identification. Educational background is measured as the highest level of general education (see Appendix for exact wording). Income is coded in terms of quintiles based on the distribution of incomes in the German resident population. Party identification, which we include as control variable in addition to the ideology variables, is captured by responses to the question of which party respondents would vote for in a fictious upcoming election.

Results (I): variation across vignette dimensions

Figure 1 displays the findings regarding the impact of the different vignette dimensions. As a reminder, the point estimates give the share of respondents who support a policy package with this particular feature, with the other dimensions averaged over the range of features. Regarding policy domains, our first hypothesis is broadly confirmed: long-term oriented policies that are focused on the welfare state receive significantly higher support compared to non-welfare state issues, in line with Hypothesis 1. Notably, general levels of support for these policies seems to be lower compared to existing research. In the case of

education policy, for instance, average levels of support for additional spending on education across countries are commonly found to be higher than 70 percent of respondents (Busemeyer and Garritzmann, 2017). The lower level of support in our case might result from the fact that the framing of the question specifically refers to policies that aim at the long term. Hence, respondents might in general be less predisposed towards prioritizing the future over the present. This is supported when looking at response patterns for a different item in the survey, which directly asks respondents whether they would prioritize the needs of future generations or rather the acute concerns of citizens in the present day. In this case, it is only a relative minority of about 20 percent (with values of six and more on a 10-point scale) that would prioritize the needs of future generations. Hence, the data reveal a significant degree of short-termism and 'presentism' (Thompson, 2010) in people's views about long-term oriented policies. By and large, the results still support Hypothesis 1 by showing that prioritizing the social policy domain receives overall more support than focusing on investments in public infrastructure or renewable energy. This reinforces the well-known finding that welfare state policies are highly popular across the board, but adding the important insight that this holds true for the intertemporal dimension as well.

Moving on, there is no significant difference in support levels for education and pension investments. Regarding the non-welfare state policies, Figure 1 shows that support for expanding public investments in infrastructure is higher than investing in renewable energy. This may be surprising given the high support for climate change policies overall in Germany, but from a political economy perspective, it makes sense as investments in public infrastructure are typically associated with more tangible short-term benefits for a larger constituency compared to investments in renewable energy, for which the benefits are more long-term and diffuse.

Regarding the magnitude of spending (i.e., the amount of funding to be devoted to the proposed long-term investment policy), we do not find differences in support (contra Hypothesis 2), which may be related to the fact that these figures are too abstract and distant from respondents' everyday experiences

as already discussed above. However, the financing side matters: as expected in Hypothesis 3, the proposal to tax the rich receives the highest level of support, whereas increasing taxes for everyone via a VAT hike is deeply unpopular. Spending cutbacks and increasing public debt are somewhat in between these extremes. This suggests that the link between public investments and public indebtedness seems to be less clear-cut in the minds of the people than could be assumed. Rather, citizens do support the idea of using the revenues from redistributive policies in the present-day in order to finance long-term investments.

Results (II): interactions with respondent characteristics

Next, we explore the interaction between respondent characteristics and support for the hypothetical long-term oriented policies. Figure 2 shows the respective findings for general political trust. We find strong evidence for an interaction effect

between trust and support for long-term oriented policies (in line with Hypotheses 4a and 4b) in the policy domains and financing dimensions. Regarding policy domains, the analysis shows that overall levels of support for long-term oriented policies are higher for individuals that profess a higher level of political trust (Hypothesis 4a), except for pensions. The trust effect is particularly pronounced in the case of education, which might be related to the fact that education implies a stronger long-term orientation with less tangible material benefits when compared to pensions. Investment in renewable energy also sees a substantial increase in support among those who trust the government, whereas the difference is weaker, but still borderline significant, in the case of public investments in infrastructure. This confirms our expectations that higher levels of political trust are also associated with more long-term oriented policies *within* the two broad areas of welfare state and non-welfare state policies.
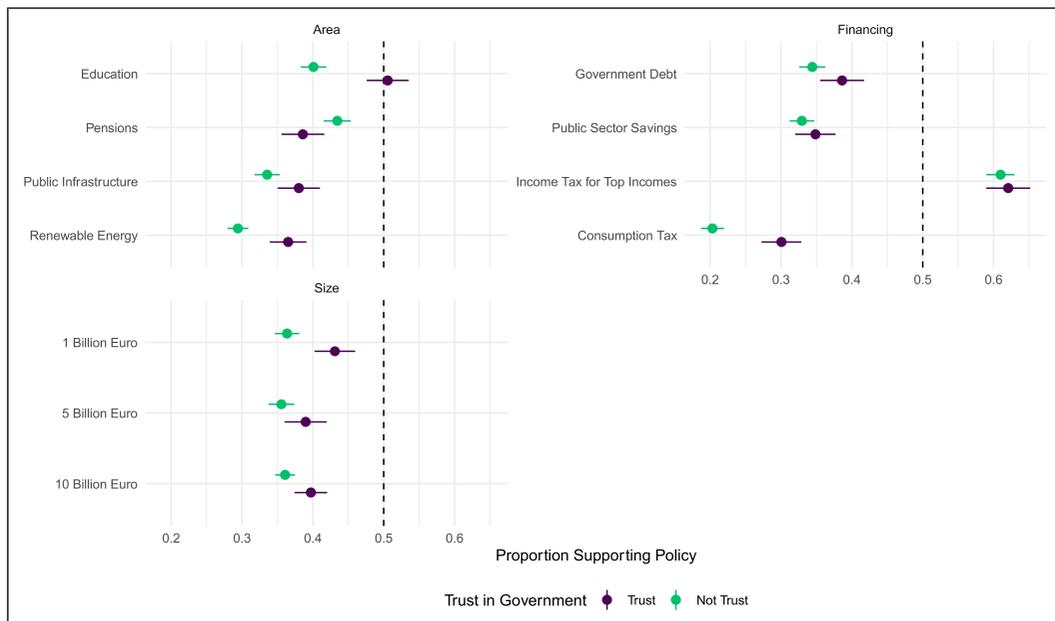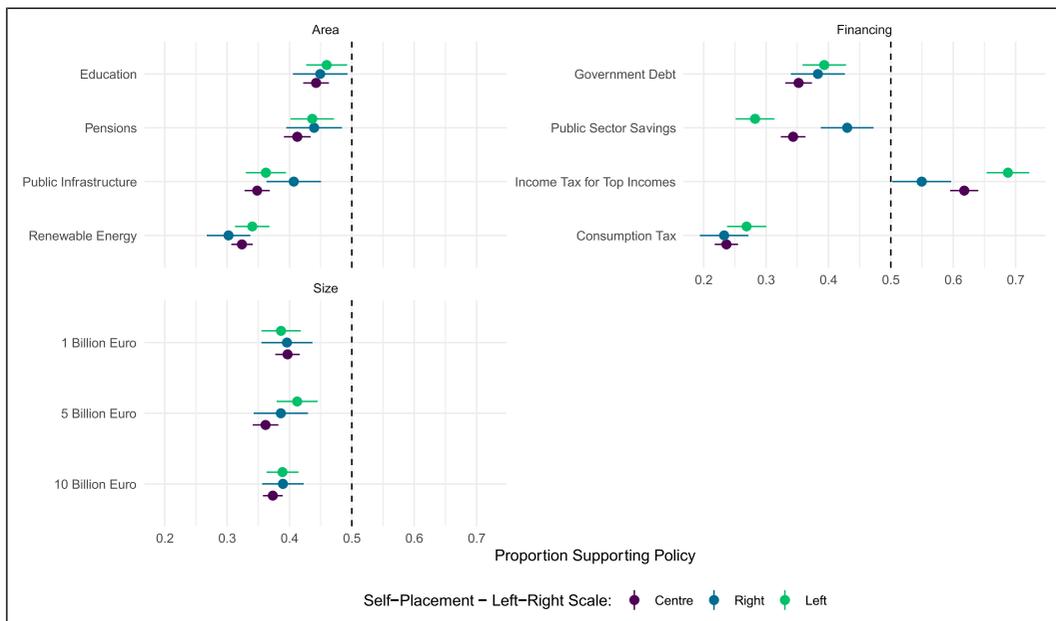

Figure 2. Support for policy reform packages moderated by trust in government. Note: points indicate the estimated proportion of support for a given vignette value, averaging over the values of the other dimensions, depending on individuals' trust in government. Points to the right of the dashed line indicate majority support (proportions greater than 0.5).

When it comes to the financing side, we also find significant effects of trust, but these are less pronounced compared to the policy domains (hence only partially supporting Hypothesis 4b). As expected, high-trusting individuals are more likely to accept hard fiscal trade-offs, that is, increasing value-added taxes and government debt, in case they are necessary to finance long-term investments. Moreover, high-trusting individuals are generally more supportive of larger budgets than low-trusting individuals. By and large, high-trusting individuals seem to be more inclined to both trust the government to pay attention to long-term investments and open to financing these in a manner that is less one-sided and therefore potentially more sustainable in the long term.

The findings on the interaction effects with respondents' ideology are more complex. We start by examining how policy support depends upon individuals' self-placement on the traditional left–right scale (Figure 3). Here we find the strongest effects

when considering individuals' preferences regarding the financing of long-term oriented policies. In particular, we find that left-wing respondents are most opposed to cutting back spending in other parts of the public sector and are most supportive of increasing income taxes for the rich. This is the opposite for right-wing individuals, who in comparison to other individuals are more supportive of public sector cutbacks and more opposed to increasing taxes for top incomes. However, independent of individual economic ideology, increasing taxes for top incomes remains the most popular financing instrument, even though ideology does matter with regard to the strength of support for this instrument with left-leaning individuals being clearly the most supportive.

We examine the role of ideology in further detail by moving to a two-dimensional conception of the policy space as described above, distinguishing between an economic left–right and a social values dimension. Regarding economic ideology (Figure 4), we did not

Figure 3. Support for policy reform packages moderated by left–right self-placement. Note: points indicate the estimated proportion of support for a given vignette value, averaging over the values of the other dimensions, depending on individuals' left–right ideology. Points to the right of the dashed line indicate majority support (proportions greater than 0.5).
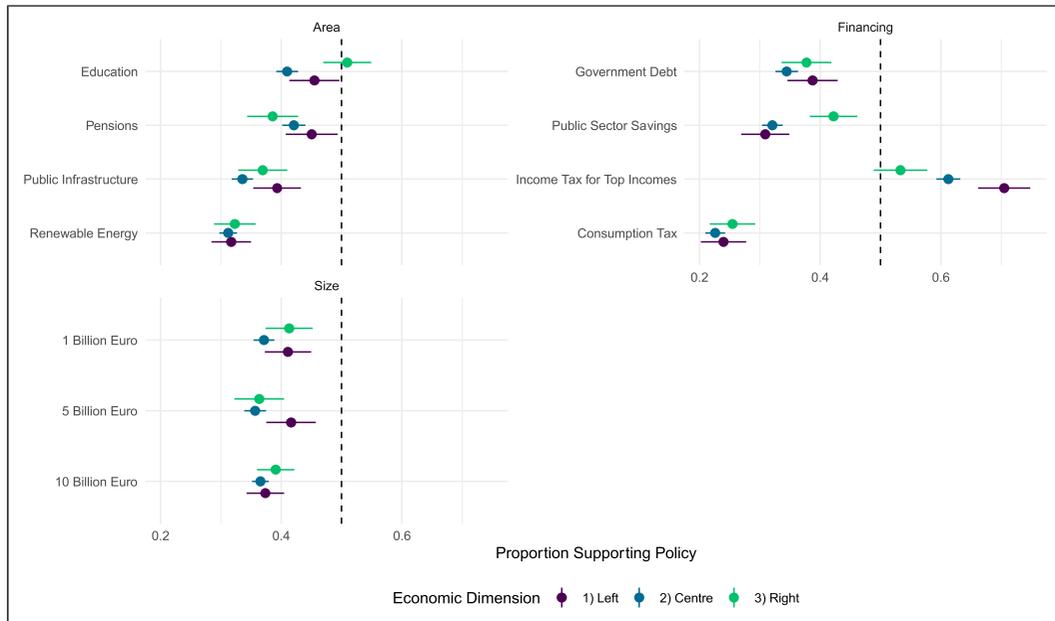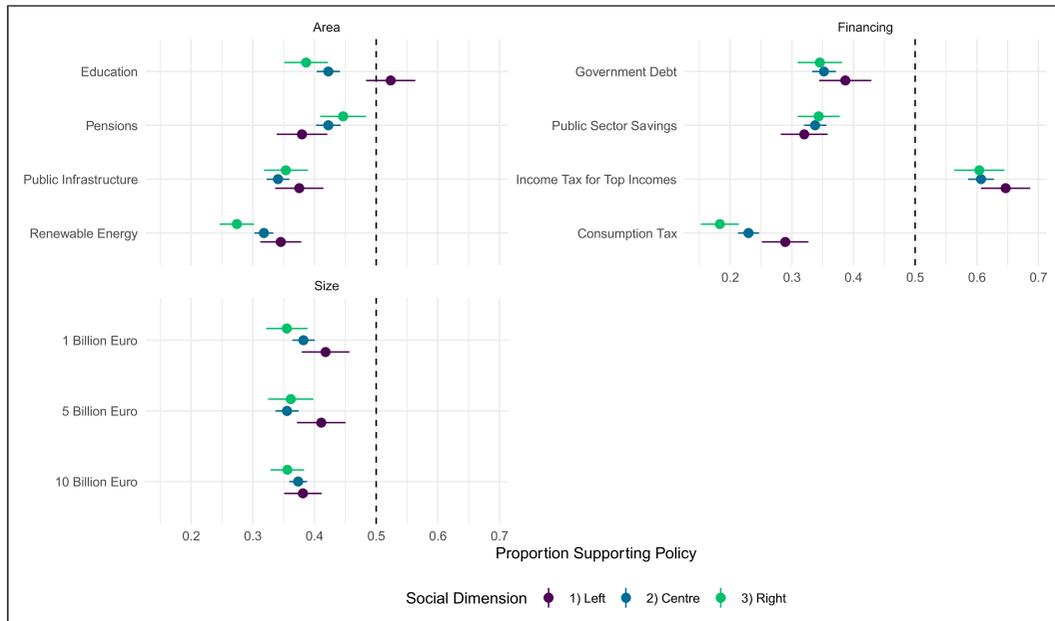
Figure 4. Support for policy reform packages moderated by economic left–right ideology. Note: points indicate the estimated proportion of support for a given vignette value, averaging over the values of the other dimensions, depending on individuals' economic ideology. Points to the right of the dashed line indicate majority support (proportions greater than 0.5).

have strong prior expectations when looking at differences between policy domains (see above). In line with this non-expectation, we do not find strong ideological effects regarding support for long-term oriented policies across different policy domains. The only exception is that economically right-wing individuals are more likely to support educational investments compared to the other domains, which might be related to the fact that these investments are less redistributive than other social policies (Busemeyer, 2015; Garritzmann, 2016). Economic ideology, however, matters most when it comes to the financing side of investment policies (confirming Hypothesis 5b), which shows that the classical one-dimensional conception of political ideology is closely associated with this first dimension in the two-dimensional conception. Here, we once again see a significant difference between left-wingers who are more supportive of increasing income taxes for the rich. In contrast, those with right-wing economic ideologies are far more accepting of public sector cutbacks to finance investment.

As above, it is interesting to note that even among economic right-wing individuals, the proposal to increase income taxes for the rich is the one that receives the highest degree of support, potentially indicating a widespread support for more redistributive policies than commonly assumed. This echoes the results found when using the left–right self-placement scale.

Moving on to the second (social values) dimension of ideology (Figure 5), we expected a positive association between social–liberal values and support for long-term investment policies (Hypothesis 5a). This expectation is partially confirmed by our analysis when looking at variation in support across policy domains. The strongest effects can be found in the case of education and renewable energy, where left-wing individuals on the social values dimension are found to be much more supportive compared to socially conservative individuals. Vice versa, socially conservative individuals are more likely to support pension spending, which is also in line with previous findings (Enggist

Figure 5. Support for policy reform packages moderated by social values dimension. Note: points indicate the estimated proportion of support for a given vignette value, averaging over the values of the other dimensions, depending on individuals' social values. Points to the right of the dashed line indicate majority support (proportions greater than 0.5).

and Pinggera, 2022). In contrast to economic ideology discussed in the previous paragraph, the social values dimension is less strongly correlated with support for different financing proposals. The exception here is the significantly lower level of support among social conservatives for the proposal to increase value-added taxes, which could be related to a 'populist' streak in the measurement of these attitudes. Turning to the size of investment proposals, social liberals tend to be more supportive of larger budgets, however this effect is not substantively large. Taken together, these differentiated findings indicate that broadening the conception of political ideology to two dimensions adds important insights that would be lost if only using a one-dimensional measurement, namely that economic left–right ideology holds explanatory power regarding the financing of long-term options as these are directly related to redistributive conflicts in the present-day, whereas ideology on the social values dimension is more important in shaping support for different types of long-term investments.

Conclusions and discussion

This article has studied individual-level attitudes towards long-term investment policies using novel survey data for the case of Germany. Our main findings can be summarized as such: first, the broad popularity of the welfare state in citizens' minds is confirmed by our finding that social policies are also more supported across the board when thinking about long-term oriented policies. Vice versa, investment policies on non-welfare issues such public infrastructure or renewable energy are less supported, even though climate change is now widely considered a salient issue in German public discourse. Relatedly, our data also reveal a significant degree of short-termism in citizen attitudes, as average levels of support for long-term oriented policies are generally moderate at best. Second, financing conditions matter with regard to support for long-term oriented policies. Taxing the rich boosts support for these policies, whereas cutbacks in other types of spending or increasing value-added taxes lowers it.

Third, political trust is an important factor. High-trusting individuals are more likely to support long-term investment-oriented policies in general and also more likely to accept hard fiscal trade-offs that might go along with their implementation. Fourth and finally, individual political ideology matters as well. Economic ideology matters primarily with regard to support for different financing proposals with taxing the rich being particularly popular with left-wingers. Social values matter more with regard to general support for long-term investment policies: as expected, social liberals are more likely to support these kinds of policies, in particular investments in education and renewables.

In closing, it is important to highlight some limitations of the present study which may serve as basis for future research. A first point in this respect is the obvious fact that this study focuses on Germany only. The political dynamics of long-term oriented policies might play out differently in other countries, but so far there is very little international comparative survey data available that would allow us to probe these differences directly. Second, another potential criticism of the research design is that the vignette juxtaposes two policy domains that are relatively clearly defined and well-known (education and pensions) with two policy areas that are more diffuse (public infrastructure and renewable energy). This may predispose individuals to favour social policy domains as respondents have a better understanding of what these policies are about and who would benefit. It is hard to assess the magnitude of this effect, but we believe that it is mitigated by the fact that the vignette wording mentions the concrete examples of roads and railways in the case of public infrastructure investments, that is, parts of the infrastructure which are used every day by citizens. Also, the salience of climate change as a political issue has been much higher than the salience of social policy topics in recent years in Germany[6] and Europe generally. Thus, it is likely that individuals have developed rather concrete attitudes towards environmental and climate change policies as well. Nevertheless, future research could pay particular attention to more specific features embedded within policy areas.

What are the overall political implications for the politics of long-term investment? A central implication of the fact that support for long-term oriented policies varies across policy domains is that the welfare state remains central in people's minds when thinking about future challenges. In spite of the growing political salience of climate change, public support for long-term oriented policies in the domain of environmental sustainability alone may not be sufficiently strong in order to promote the transformation towards a carbon-neutral economy. Rather, it is the combination of ecological and social policies that might generate sufficient support for such a transformation (see also Beiser-McGrath and Bernauer, 2019; Bergquist et al., 2020; Fritz et al., 2021; Fritz and Koch, 2019). This study therefore provides a first look at the complex linkage between environmental and social policies, and more research is clearly needed.

A second insight from our study is that social justice concerns matter, particularly with regard to the financing of long-term oriented policies. Even though explicitly earmarking tax revenue is difficult or impossible most of the time, constructing a political narrative that connects the issues of inequality and tax fairness with necessary investments in the social, physical or ecological infrastructure is not. This might be particularly attractive for policymakers of the centre-left. Long-term investment policies are already supported by social–liberal constituencies, but connecting these policies to efforts to make the tax system more progressive could mobilize additional support from economically left-leaning individuals. In other words, such a policy package could help to forge new (or renewed) coalitions between the traditional constituencies of left-wing parties in the working class and their new supporting coalitions in the professional, urban middle classes (Fritz et al., 2021; Fritz and Koch, 2019). At the same time, it remains important to also appeal to right-leaning constituents, which may be easier to do – as our results suggest – in the domains of pensions and public infrastructure, which find more support from the political right.

Finally, our findings re-affirm the central role of political trust in the politics of the long term. Political trust remains particularly crucial in

promoting support for policies with fewer short-term and more long-term benefits such as education and renewable energy investments in our case. Furthermore, political trust also affects the financing foundations of long-term policies. Our study shows that high-trusting individuals are more likely to accept ways of financing that create significant short-term costs (such as increases in value-added taxes), but might ensure more sustainable ways of securing funds in the long term. Hence, a lack of trust is and remains a considerable barrier towards the promotion of long-term oriented policies.

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Supplemental Material

Supplemental material for this article is available online.

Notes

1. In randomizing the values of the attributes there was a bug where some attribute combinations were displayed to no respondents. Nevertheless, individual attribute values are orthogonal (random) with respect to respondent characteristics as evidenced by balance tests (Appendix Section 3). However, this means we are not able to examine how attribute values interact with one another.
2. We use the following baseline values: education for the policy domain dimension, €1 billion for the size dimension, and increasing value-added taxes for the financing dimensions. Thus, for each value, the AMCE provides the average difference in support between a policy including the respective value type compared to the baseline. For example, the AMCE for Pensions is the difference in policy support comparing policies focused on Pensions to those focused on Education.
3. We use cluster robust standard errors in order to account for the inherent interdependence of observations from respondents' responses to the three vignette experiments.
4. Analysis is conducted using R version 4.2.1.
5. The left–right scale is measured from 0 to 10, with 0 indicating left-wing and 10 right-wing. We code respondents as left-wing if they answer from 0 to 3, centre if they answer from 4 to 6, and right-wing if they answer 7 to 10.
6. https://www.forschungsgruppe.de/Umfragen/Politbarometer/Langzeitentwicklung_-_Themen_im_Ueberblick/Politik_II/.

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