

Dolls, Mathias; Wehrhofer, Nils

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## Attitudes towards Euro Area Reforms: Evidence from a Randomized Survey Experimenty

*by Mathias Dolls and Nils Wehrhöfer*

headed by

**ifo** INSTITUTE

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Poschingerstr. 5, 81679 Munich, Germany

Telephone +49 89 9224-0, Telefax +49 89 9224-1462, Email Dolls@ifo.de

Editors: Mathias Dolls, Clemens Fuest

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# Attitudes towards Euro Area Reforms: Evidence from a Randomized Survey Experiment\*

MATHIAS DOLLS

NILS WEHRHÖFER

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## Abstract

We present the first evidence on public attitudes towards two prominent euro area reform proposals (European Unemployment Benefit Scheme and Sovereign Insolvency Procedure) and assess potential impediments to their implementation by means of a randomized survey experiment in Germany. We find that there is a low willingness among German voters to accept fiscal risk-sharing through common unemployment insurance, while a sovereign insolvency procedure aimed at strengthening market discipline is supported by a majority of the electorate. Our randomized treatments confronting survey participants with potential adverse effects of the reforms lead to significant downward shifts in approval rates. Altruism, cosmopolitanism, political preferences and income are important predictors of support for the reform proposals. We also show that there is a striking contrast between the low level of support for transfers to other euro area member states and a broad acceptance of inner German transfers.

**JEL Classification:** H55, H12, H63

**Keywords:** public attitudes; euro area reforms; European unemployment insurance; sovereign insolvency procedure

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\***Dolls:** ifo Institute, CESifo, ZEW and IZA. Email: [dolls@ifo.de](mailto:dolls@ifo.de); **Wehrhöfer:** University of Mannheim. Email: [nils.wehrhoefer@gess.uni-mannheim.de](mailto:nils.wehrhoefer@gess.uni-mannheim.de). We are grateful for the helpful comments and suggestions by Michael Georgiou Arghyrou, Frank Vandenbroucke and conference and seminar participants in Brussels (EconPol Europe), Madrid (ADEMU), Mannheim (MATAX, ZEW) and Munich (ifo) as well as of the Forum “Future Europe” organized by the ESMT and the German Council of Economic Experts. The usual disclaimer applies.

# 1 Introduction

Ten years after the outbreak of the financial and economic crisis and the following European sovereign debt crisis, the debate about institutional reforms in the euro area is still ongoing. To date, no consensus has been reached on the necessary policies to achieve a more sustainable institutional framework. Some observers argue that the Economic and Monetary Union (EMU) lacks instruments to deal with asymmetric macroeconomic shocks and that the risk of a break-up of the euro zone might materialize in the next recession unless member states are willing to show more solidarity with crisis-hit countries. In line with this reasoning, institutions like the IMF or the European Commission have outlined proposals including stronger elements of fiscal risk-sharing and a macroeconomic stabilization function at euro area level.<sup>1</sup> This view has been criticized by those who are concerned about permanent transfers from donor to recipient countries undermining the credibility of the no-bailout clause and incentives for sound fiscal and economic policies.

Against this background, this paper examines public attitudes in Germany towards two widely discussed proposals representing these seemingly opposing views described above: a European Unemployment Benefit Scheme (EUBS) and a Sovereign Insolvency Procedure (SIP).<sup>2</sup> We investigate the importance of potential impediments to the implementation of the reforms by means of survey experiments. The design of the survey experiments is as follows. In a short introductory text, survey participants are informed about the basic rationale of the policy proposal. Next, respondents are confronted with a pro and a contra argument to the proposal, respectively. While all participants receive the same pro argument, there are various contra arguments which are randomized across respondents. In the EUBS experiment, the pro argument states that a EUBS would stabilize the currency union in future economic crises, while the contra arguments allude to a transfer union scenario (*permanent transfers*) and to adverse incentive effects (*moral hazard*). In the SIP experiment, the pro argument states that a SIP would protect taxpayers of other member states in case of a sovereign insolvency. The contra arguments point to potential destabilizing effects in times of crises (*self-fulfilling prophecy*) and to

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<sup>1</sup>See e.g. IMF (2013, 2018), Berger et al. (2018), or the recent EU Commission’s “Reflection Paper on the deepening of the Economic and Monetary Union” as well as its roadmap for EMU reform published in December 2017 (European Commission 2017 a,b).

<sup>2</sup>A EUBS has been proposed by Andor (2014) and by the French and Italian Ministries of Finance (Lellouch and Sode 2014; MEF 2016) with the argument that it would make member states more resilient against asymmetric shocks. Proposals for a SIP for euro area countries have been presented by the German Council of Economic Experts (Andritzky et al. 2016), Gros and Mayer (2010), Giavanti et al. (2010) and Fuest et al. (2015), based on the view that the credibility of no bailout provisions and market based fiscal discipline need to be reinforced.

deteriorating financing conditions for countries with high public debt (*rising risk premia*). In both experiments, a control group receives a generic contra argument acting as a placebo treatment. Due to random assignment, differences in approval rates between subgroups can be interpreted as the causal effect of our treatments, reflecting the importance respondents attach to the different contra arguments.

Our paper provides insights into the determinants of reform preferences in the context of the debate about institutional reforms in the euro area.<sup>3</sup> We aim to contribute to a better understanding of the key politico-economic objections that need to be overcome such that reforms in the euro area become politically feasible. Thereby, we contribute to the literature studying attitudes towards fiscal integration and economic governance in Europe (Daniele and Geys 2015; Kuhn and Stoeckel 2014) as well as attitudes towards bailouts of euro zone countries during the recent sovereign debt crisis (Bechtel et al. 2014; Kuhn et al. 2017; Kleider and Stoeckel 2018; Stoeckel and Kuhn 2018).<sup>4</sup> A general conclusion from this literature is that characteristics like altruism and cosmopolitanism as well as party preferences strongly correlate with support for bailout payments, whereas economic self-interest does not seem to play a major role. We show that some of these results do not hold in the context of the reform proposals considered in this paper and discuss how our results can be reconciled with this literature.

More generally, our paper is related to different strands of the literature studying determinants of policy preferences. In the political science literature, recent contributions have conducted conjoint experiments to study which dimensions of a policy affect its public support (Bechtel and Scheve 2013; Bechtel et al. 2017; Gallego and Marx 2017). In the economics literature, several papers have shown how policy preferences can be affected by information provision. Examples are Cruces et al. (2013), Kuziemko et al. (2015) or Alesina et al. (2018) who study how information treatments concerning income distribution and intergenerational mobility affect preferences for redistribution. While we build on the latter literature methodologically, our approach differs from pure information treatments in that we provide respondents with arguments in favor of and against the policy proposals. This is motivated by the observation that the economic effects of the reform proposals considered in this paper entail a certain degree of uncertainty. In particular, winners and losers of the reforms – within and across member states – cannot be easily as-

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<sup>3</sup>Grüner (2013) proposes that reform preferences should be elicited in a standardized way across Europe and that country specific recommendations in the European Semester could be complemented by information about voters' reform priorities. Our paper focusing on reforms at the euro area rather than the national level can be seen as a first step in that direction.

<sup>4</sup>See Hobolt and de Vries (2016) for a review of the literature on public opinion towards European integration.

sessed ex-ante.<sup>5</sup>

Our key results are as follows. There is a low willingness among the German electorate to accept fiscal risk-sharing through a EUBS with 57 (18) percent of respondents rejecting (supporting) this proposal. In contrast, a SIP is much more popular. Its approval (rejection) rate amounts to 48 (21) percent. We find that our randomized treatments confronting survey participants with potential adverse effects of the reforms lead to significant downward shifts in approval rates compared to a control group receiving a generic contra argument. In case of the EUBS proposal, our results reveal that potential moral hazard effects are a more serious concern than the possibility of permanent transfers across countries. The rejection rate among respondents receiving the former (latter) contra argument is 9 (6) percentage points higher, the approval rate 5 (3) percentage points lower compared to the control group. In the light of the low overall approval rate amounting to 20 percent in the control group, these are very large effects reducing the approval rates in the treatment groups by 25 (15) percent.

In case of the SIP proposal, rejection (approval) rates in the treated groups are 5-6 (8) percentage points higher (lower) compared to the control group, with no discernible differences between the treatment groups. Given an approval rate of 54 percent in the control group, this effect amounts to a reduction in the treatment group's approval rates of 15 percent. The relative size of the treatment effects in the SIP experiment is thus similar to the effect of providing respondents with the *permanent transfers* contra argument in the EUBS experiment.

We further document a strong and positive association between both cosmopolitanism and altruism and support for the EUBS proposal. While cosmopolitanism positively affects support for the SIP proposal as well – albeit to a somewhat smaller extent –, the association between altruism and support for the SIP proposal is near zero and insignificant. One intriguing hypothesis explaining the differential association of these social dispositions on support for the SIP proposal and bailout payments to other countries studied in previous literature (Bechtel et al. 2014) is that support for the SIP is affected by two opposing perceptions. On the one hand, the SIP might be perceived as a policy that exacerbates economic conditions in crisis-hit countries. On the other hand, its rationale to protect taxpayers and to make private investors liable in case of a sovereign insolvency might be viewed as an appealing feature. These two countervailing effects might explain why we find

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<sup>5</sup>Luque et al. (2014) and Farhi and Werning (2017) provide analytical frameworks showing under which conditions the formation of a fiscal union can be rationalized and when its benefits are largest. See Brandolini et al. (2016) and Dolls et al. (2018) for analyses on potential stabilizing and redistributive effects of a EUBS.

an insignificant effect of altruism and a somewhat smaller effect of cosmopolitanism on support for the SIP compared to the EUBS proposal.

Political preferences and income are further important predictors of support for the two reform proposals. Support for the EUBS proposal is highest among voters of left-wing parties. Conversely, voters located on the two extremes of the political spectrum are significantly more likely to support the SIP proposal than voters of centrist parties. Respondents with medium and high income are more opposed to the EUBS proposal than low-income respondents. In contrast, there is a positive and highly significant correlation between income and support for the SIP. This suggests that the motive of economic self-interest cannot be rejected in our context. Our study further demonstrates that there is a striking contrast between high approval rates for inner German transfers – even in donor states – through the German fiscal equalization scheme, and a much lower acceptance of transfers to other euro zone countries.

The remainder of the paper is structured as follows. In Section 2, we present the survey experiments and the empirical strategy. Our main results are presented in Section 3. In Section 4, we discuss our results and provide robustness checks. Section 5 concludes.

## 2 Empirical Strategy

**Data and Sample** The online experiments are conducted in the German Internet Panel (GIP), a longitudinal panel survey representative of the German population aged 16 to 75.<sup>6</sup> It includes a rich set of socio-demographic characteristics as well as individual attitudes and preferences relevant in political and economic decision-making processes. A key advantage of online panels such as the GIP compared to traditional surveys is that online surveys allow for experiments where respondents are randomly split into treatment and control groups. Our survey experiments have been conducted in July 2016 and are included in GIP wave 24 ( $N = 2,834$ ).<sup>7</sup>

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<sup>6</sup>The GIP has been conducted by the Collaborative Research Center “Political Economy of Reforms” (SFB 884) at the University of Mannheim since 2012. To ensure the representativeness of the online and offline population, the GIP includes respondents without computer and Internet access, by providing them with the necessary equipment and training (Blom et al. 2015). It has been used to study a range of economic issues by means of survey experiments, as for example tax compliance (Dörrenberg and Peichl 2017) or preferences for redistribution (Engelmann et al. 2018).

<sup>7</sup>In addition, we merge selected variables from waves 14 (November 2014,  $N = 3,575$ ), 16 (March 2015,  $N = 3,426$ ), 21 (January 2016,  $N = 3,198$ ), 25 (September 2016,  $N = 2,904$ ) and 27 (January 2017,  $N = 2,867$ ) which are described in the appendix.



**Survey experiments** In both experiments, respondents first read a short introductory text describing the respective reform proposal in a neutral way. Second, respondents are provided with a pro and contra argument, respectively. While all respondents read the same pro argument, there are three different contra arguments with one of these being a generic contra statement that acts a placebo treatment. Third, respondents are asked to rate the proposal on a 5-point scale (1: “Strongly in favor”, 2: “In favor”, 3: “Indifferent”, 4: “Against”, 5: “Strongly against”).

The chosen arguments reflect the different dimensions in the policy debate. In the case of the EUBS experiment, the pro argument states that a EUBS would make the euro zone more resilient to macroeconomic shocks and that all member states would benefit from such a system. The two treatment groups receive contra arguments stating that a EUBS (a) would lead to permanent transfers from countries with low unemployment to countries with high unemployment (*permanent transfers* treatment) and (b) would have adverse incentives in the latter (*moral hazard* treatment). The control groups receives a generic contra argument that a EUBS would have disadvantages in many respects.

In the case of the SIP experiment, the pro argument states that a SIP would strengthen market discipline and that private investors rather than taxpayers would have to bear the losses when a country becomes insolvent. The contra arguments claim that a SIP (a) could intensify crises (*self-fulfilling prophecy* treatment) and (b) would benefit countries with low public debt at the expense of countries that are heavily indebted (*rising risk premia* treatment), with the latter argument appealing to the notion of unfairness. As in the EUBS experiment, the third group receives a generic contra argument. A full description of the introductory statements, the pro and contra arguments and the questions can be found in the appendix.

**Identification** It is important to differentiate between two sets of explanatory variables employed in our analysis. First, our main variables of interest measure the effect of the randomized contra arguments presented above, henceforth called information treatments  $T_i$ . Second, we additionally account for a rich set of socio-demographic characteristics and various preference variables, henceforth referred to as individual characteristics  $X_i$ . Given that the information treatments are randomized and therefore independent of all other relevant variables, we can interpret their effects in a causal manner. The individual characteristics, however, are of an observational nature and thus we cannot exclude the possibility of omitted variable bias. Therefore, their effects should be interpreted as correlations. All of our regressions are based on some form of the following equation:

$$Y_i = \beta T_i + \gamma X_i + \epsilon_i \quad (1)$$

where  $Y_i$  measures the support for a EUBS and a SIP, respectively. Since our outcome variables are of an ordinal nature, we rely on ordered logit regressions. To ease the interpretation of the results, we have condensed our 5-point scale dependent variables to three-point scale variables (“In favor”, “Indifferent”, “Against”) and will present average marginal effects instead of the raw coefficients.<sup>8</sup>

**Individual characteristics** The individual characteristics used in the various regression analyses in sections 3 and 4 include both socio-demographic (age, sex, marital status, region, income and education level) and preference variables (party preferences, risk aversion, preferences for domestic fiscal policies, indices for altruism and cosmopolitanism) as well as behavioral traits such as a variable capturing the frequency of business and economic news consumption. Summary statistics are provided in Table 4 in the appendix, together with a description of the variables.

## 3 Empirical Results

### 3.1 Randomized Survey Experiments

Figures 1 and 2 show unconditional approval and rejection rates for the EUBS and SIP proposal, respectively.<sup>9</sup> A broad majority of respondents rejects the EUBS proposal, with 37 (20) percent stating to be “against” (“strongly against”) the proposal. Only 18 percent of respondents support the proposal, with 3 percent of respondents being “strongly in favor” and 15 percent being “in favor”. An opposite picture emerges for the SIP proposal. Almost half of respondents express their support, with 8 (40) percent being “strongly in favor” (“in favor”), while 17 percent are “against” and 4 percent “strongly against” the SIP proposal. Roughly one third (SIP) to one fourth (EUBS) of respondents stated they were indifferent.

Next, we examine the causal effect of our randomized treatments on the support for the two euro area reform proposals. Average marginal treatment effects based on

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<sup>8</sup>Results do not change much when we use 5-point scale dependent variables or ordered probit regression and are available upon request.

<sup>9</sup>Out of 2834 participants taking part in wave 24 of the German Internet Panel, 2672 (2476) responded to the EUBS (SIP) question, i.e., the non-response rate is 5.7 (12.6) percent. We define the approval (rejection) rate as the share of respondents who state that they are “strongly in favor” or “in favor” (“strongly against” or “against”) relative to all survey participants who respond to the question. Approval and rejection rates by treatment assignment are shown in Table 5 in the appendix.

Figure 1: EUBS

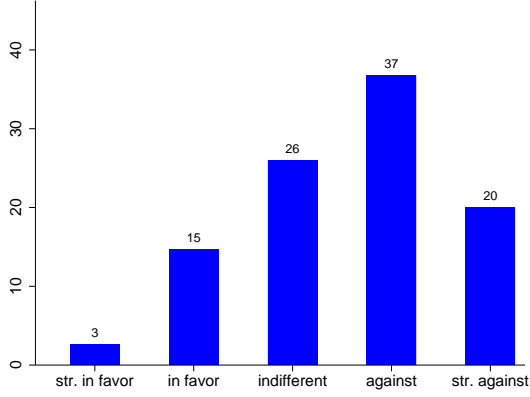
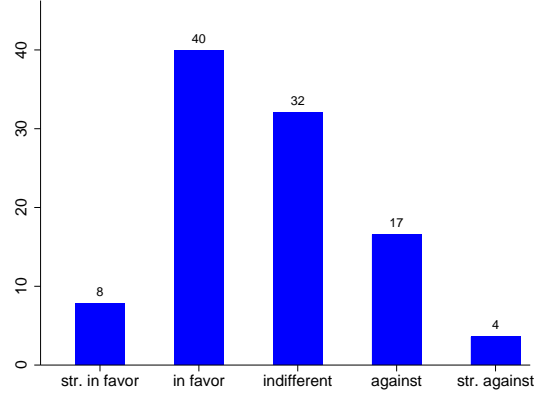


Figure 2: SIP



Notes: Figure 1 shows responses to the question: “How do you like the proposal of a common unemployment insurance system for the euro area?”, (N = 2672). Figure 2 shows responses to the question: “How do you like the proposal of a sovereign insolvency procedure for the member states of the euro area?”, (N = 2476). Source: German Internet Panel (GIP), wave 24 (July 2016).

ordered logit regressions are reported in Table 1. We find significant differences in the approval and rejection rates of our treatment groups and the control group. The *moral hazard* (*permanent transfers*) treatment leads to an increase in the rejection rate by 9.5 (5.8) percentage points relative to the control group receiving a generic contra argument against the EUBS proposal.

Likewise, approval rates in the treatment groups are 3.4 (*permanent transfers*) and 5.2 (*moral hazard*) percentage points lower compared to the control group. These are sizeable treatment effects. The *moral hazard* (*permanent transfers*) treatment reduces the approval rate by approximately 25 (15) percent relative to the control group’s approval rate, which amounts to roughly 20 percent (see Table 5 in the appendix). Interestingly, the point estimates for the two information treatments are not only statistically significant at the 1-percent level, but also statistically different at the 10-percent level suggesting a somewhat larger impact of the *moral hazard* treatment. Turning next to the treatment effects related to the SIP proposal, we find that the approval rates in the treatment groups are 8.3 (*rising risk premia*) and 7.9 (*self-fulfilling prophecy*) percentage points lower compared to the control group. Relative to the control group’s approval rate amounting to roughly 54 percent (see Table 5 in the appendix), the treatments reduce the approval rate by 15 percent which is in the same order of magnitude as the *permanent transfers* treatment effect in the EUBS experiment.

Table 1: Average marginal treatment effects

	EUBS		SIP	
	Against	In favor	Against	In favor
Treatment: Permanent transfers	5.84*** (2.14)	-3.42*** (1.19)		
Treatment: Moral hazard	9.48*** (2.05)	-5.24*** (1.05)		
Treatment: Self-fulfilling prophecy			5.28*** (1.65)	-7.92*** (2.22)
Treatment: Rising risk premia			5.62*** (1.67)	-8.34*** (2.21)
Difference (p-value)	0.087*	0.087*	0.846	0.846
N	2672	2672	2476	2476

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$  Robust standard errors in parentheses. To improve readability, marginal effects for the category “Indifferent” are omitted. Since the effects on the three outcome categories have to sum up to zero, the effect on the omitted category can easily be recovered. Results are based on the following ordered logit regression:  $Y_i = \beta T_i + \epsilon_i$ , where  $Y_i$  is the support for the respective reform proposal and  $T_i$  is a vector of treatment dummies.

The point estimates are again statistically significant at the 1-percent level, but not statistically different from each other. To sum up, all of the treatments have a statistically significant and economically meaningful effect on respondents’ support of the reform proposals pointing to critical design features to be taken into account for their political feasibility.

### 3.2 Effect of Individual Characteristics

In addition to the analysis of treatment effects, we investigate how individual characteristics correlate with the support for the two reform proposals. Results are presented in Table 2.<sup>10</sup> The key findings from these regressions are as follows.

First, support for the EUBS and the SIP proposal is significantly correlated with various preference variables. Respondents who show more altruistic behavior as measured by our altruism index are more likely to support the EUBS proposal, while altruistic preferences do not correlate with support for the SIP proposal. A one

<sup>10</sup>Some individual characteristics are included in other waves than the one containing our survey experiments (see summary statistics reported in Table 4 in the appendix). As a consequence, we lose some observations due to panel attrition when we merge these waves. Reassuringly, treatment effects are very similar when they are estimated together with the individual controls reported in Table 2. Results are available upon request.

standard deviation increase in the altruism index increases support for the EUBS proposal by 1.6 percentage points. The altruism index varies from -2.6 to 4.3 which implies that the most altruistic respondent in our sample is 11 percentage points more likely to support the EUBS proposal than the least altruistic respondent. Our cosmopolitanism index is positively associated with support for both the EUBS and the SIP proposal. A one standard deviation increase in our cosmopolitanism index increases the support for the EUBS (SIP) by 6.6 (4.5) percentage points. Given that the cosmopolitanism index varies from -2.6 to 2.9, these effects are even larger than for our altruism index: the most cosmopolitan respondent is 36 (25) percentage points more likely to support the EUBS (SIP) proposal.

With regard to party preferences, several interesting findings are noteworthy. Relative to respondents who vote for the conservative *CDU*, support for the EUBS proposal is significantly larger among respondents who state that they vote for one of the other large parties in Germany. The only exception are the voters of the right-wing populist *AfD*, whose support for the EUBS does not differ significantly from *CDU* voters. Support for the EUBS proposal is largest among voters of the more left-wing parties such as *The Left* or *The Greens*, but even voters of the liberal *FDP* are more likely to support the EUBS proposal. In total, these results point to a clear left-right divide with respect to the EUBS proposal which might appeal more to left-leaning respondents with higher preferences for redistribution or international solidarity.

Turning next to the effect of party preference on support for the SIP proposal, we find a somewhat different picture. Compared to respondents voting for the *CDU*, voters at the extremes of the political spectrum (*The Left*, *AfD*) have (weakly) significantly higher approval rates.<sup>11</sup> The support for the SIP both from the far-left and the far-right might have different underlying reasons. *AfD* voters might see the SIP as a mechanism to prevent bailout payments from German taxpayers to other euro area member states, while voters of *The Left* might show sympathy for the aim to shift the financial burden from taxpayers to private investors.

Second, we find that income is an important predictor for support of both the EUBS and the SIP proposal. Relative to respondents with monthly net incomes below 1500€ (the bottom 40% of the income distribution in our sample), respondents with incomes between 1500-4000€ (40th to 95th percentile) are 8 percentage points more likely to reject the EUBS proposal.

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<sup>11</sup>When the party dummies are replaced by a left-wing dummy, its effect on the SIP is near zero and statistically insignificant. In contrast, the coefficient is highly significant in case of the EUBS experiment with a rejection rate of left-wing voters being 9 percentage points lower compared to right-wing voters.

Table 2: Average marginal effects of individual characteristics

	EUBS		SIP	
	Against	In favor	Against	In favor
female	4.80*	-3.05*	5.17***	-8.14***
	(2.48)	(1.60)	(1.63)	(2.53)
age: 32 - 61	1.84	1.17	-3.91*	6.16*
	(3.63)	(2.34)	(2.45)	(3.68)
age: > 61	-2.08	1.34	-7.47***	11.76***
	(4.39)	(2.52)	(2.69)	(4.22)
East Germany	-3.90	2.48	1.73	-2.73
	(2.39)	(1.87)	(1.88)	(2.95)
married	2.31	-1.47	-1.72	2.79
	(2.64)	(1.68)	(1.86)	(3.00)
education: lower secondary school	3.74	-2.38	-1.86	2.92
	(6.61)	(4.20)	(4.93)	(7.75)
education: upper secondary school	7.65	-4.87	-4.73	7.46
	(6.18)	(3.93)	(4.82)	(7.57)
education: university entrance qualification	11.18*	-7.11*	-6.95	10.95
	(5.99)	(3.81)	(4.77)	(7.48)
income: 1500€ to 4000€	8.11***	-5.16***	-1.16	1.83
	(2.62)	(1.68)	(1.70)	(2.68)
income: > 4000€	14.62**	-9.30**	-14.36***	22.61***
	(6.55)	(4.18)	(5.10)	(7.97)
altruism index (1 SD increase)	-2.47**	1.57**	0.08	-0.12
	(1.25)	(0.80)	(0.79)	(1.25)
cosmopolitanism index (1 SD increase)	-9.60***	6.61***	-2.86***	4.50***
	(1.42)	(0.98)	(0.91)	(1.41)
party preference: AfD	2.89	-1.84	-4.94*	7.78*
	(4.80)	(3.06)	(2.91)	(4.57)
party preference: FDP	-10.51**	6.68**	-3.80	5.98
	(4.49)	(2.88)	(3.16)	(4.99)
party preference: SPD	-6.71*	4.27*	1.07	-1.68
	(3.53)	(2.25)	(2.25)	(3.54)
party preference: The Greens	-12.90***	8.21***	-4.65*	7.33*
	(3.85)	(2.49)	(2.51)	(3.93)
party preference: The Left	-18.43***	11.72***	-6.34**	9.98**
	(4.52)	(2.94)	(3.22)	(5.07)
party preference: other	-7.80*	4.96*	1.53	-2.42
	(4.16)	(2.65)	(2.57)	(4.06)
N	1553	1553	1481	1481

Notes: See Table 1. Results are based on the following ordered logit regression:  $Y_i = \gamma X_i + \epsilon_i$ , where  $Y_i$  is the support for the respective reform proposal and  $X_i$  is a vector of individual characteristics. Reference categories are as follows. gender: male, age: <32, marital status: unmarried, East Germany: West Germany, income: <1500€, educational: no degree, party preference: CDU. Party preference: other includes the Pirate party, NPD, other parties, non voters, and people who don't want to answer.

The point estimate is even larger for respondents with incomes above 4000€ (top 5%) amounting to roughly 15 percentage points. An opposite picture emerges for the SIP proposal where approval rates are highest among high-income respondents. Their approval rate is 23 percentage points higher compared to low-income respondents. These opposite effects are likely to reflect the perceived financial consequences of the two reform proposals. In case of the EUBS, there might be a concern among middle and high-income respondents that taxes have to be raised in order to finance the scheme, whereas the SIP might be perceived as a relief for German taxpayers by lowering the probability of future bailouts.

Third, some other covariates such as gender or age are also significantly correlated to the support for the two proposals. SIP approval rates of male and older respondents (>61) are significantly higher compared to those of female and young (18–31) respondents.<sup>12</sup> Respondents with higher education are more likely to reject the EUBS proposal, but the coefficient is only weakly statistically significant. We do not find statistically significant effects for marital status and for the East Germany dummy.

## 4 Discussion

### 4.1 Comparison to the Previous Literature

Our analysis in the previous section has shown that preference variables (altruism, cosmopolitanism, political preferences) and income are important predictors of support for the two reform proposals considered in this paper. Given that the key rationale of the SIP proposal is to make debt restructuring a credible substitute to bailouts, it is interesting to compare our results to those of the previous literature which has studied attitudes towards recent bailouts in the euro area.

Bailout payments might be perceived as mitigating the economic hardship of ordinary citizens in countries facing a deep recession, thereby appealing particularly to respondents who exhibit altruistic and cosmopolitan preferences. Bechtel et al. (2014) and others indeed find that altruism and cosmopolitanism correlate positively with support for bailout payments. If the SIP is regarded as a policy that

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<sup>12</sup>We test the hypothesis that gender differences with regard to SIP approval rates are driven by differences in risk aversion. Risk aversion might affect our outcome variables as the economic consequences of the two proposals are controversially discussed in academic and in policy debates and should thus be even harder to assess for our survey respondents. Previous research has shown that women are on average more risk-averse than men (see e.g. Croson and Gneezy (2009) or Dohmen et al. (2011)) which is also true in our sample. However, we do not find a significant correlation between risk aversion and our outcome variables. Hence, the female coefficient remains almost unchanged when risk aversion is included as a covariate.

exacerbates economic conditions in the affected country, one would expect that altruism and cosmopolitanism negatively impact the support for the SIP proposal. However, against this expectation we find a positive and highly significant relationship between cosmopolitanism and support for the SIP proposal and an insignificant coefficient for our altruism index.

Our result that respondents with very high incomes (top 5% in our sample) are much more likely to support the SIP also deviates from previous findings. In contrast to Bechtel et al. (2014), who do not find a significant association between income and support for bailouts once measures of social disposition and political preferences are controlled for, we cannot reject the motive of economic self-interest. Only the finding that voters of parties on the extreme-left and extreme-right of the political spectrum tend to have higher approval rates for the SIP proposal than voters of centrist parties lends support to the hypothesis that the SIP is perceived as a substitute to bailouts. Bechtel et al. (2014) find these voters to be more disapproving of bailouts.

How can these seemingly contrasting results be reconciled? One explanation for the insignificant effect of altruism on support for the SIP proposal could be that the SIP – in contrast to bailout payments to other EU countries or to the EUBS proposal – is perceived as a rather technocratic proposal whose assessment is not influenced by respondents’ altruism. It could also be the case that voters with an altruistic or a cosmopolitan inclination have sympathy for the pro-argument in our survey experiment which states that the SIP would make private investors rather than taxpayers liable for the burden of a sovereign insolvency. This appreciated effect of the SIP would then offset or even overcompensate the perception of a destabilizing policy, explaining the strong and positive association between the SIP and our cosmopolitanism index as well as the lack of correlation with the altruism index. Similarly, the direct referral to tax money in our survey experiment might induce respondents with high income, who bear a large share of the income tax in Germany, to give stronger support to the SIP proposal.

## 4.2 Heterogeneous Treatment Effects

We investigate whether some respondents in the treatment groups react more strongly to the contra arguments than others. For example, it is conceivable that some respondents are better informed than others and already formed an opinion about the two proposals before taking part in the survey experiments. This could be the case as the debate about EMU reform has been featured prominently in economic news since the outbreak of the European sovereign debt crisis in 2009 (Picard 2015).



Provided that respondents with pre-determined attitudes are equally represented in control and treatment groups, the treatment effect should be larger for respondents that have not formed their opinion prior to the survey experiment. We exploit a GIP survey question on the frequency of business and economic news consumption as a proxy for the level of knowledge about the reform proposals in order to test this hypothesis.<sup>13</sup>

In a first step, we calculate the correlation between the frequency of business and economic news consumption and our outcome variables and find that frequent consumption of business and economic news correlates positively with support for the SIP, but not the EUBS proposal. The statistically significant correlation between the frequency of business and economic news consumption and support for the SIP proposal disappears, however, when we control for other individual characteristics such as income which is positively correlated with business and economic news consumption. In a second step, we run the following ordered logistic regressions:

$$Y_i = \beta T_i + \gamma X_i + \theta T_i X_i + \psi_i \quad (2)$$

That is, we interact the treatment dummies with the variable capturing the frequency of business and economic news consumption.<sup>14</sup> We do not find significant marginal heterogeneous treatment effects with regard to the degree of business and economic news consumption, neither for the EUBS nor the SIP proposal. In other words, our treatment effects are significant and economically important even for those respondents who frequently consume business and economic news and who are, arguably, more likely to be familiar with the rationale and potential effects of the reform proposals.

In addition, we test for other heterogeneous treatment effects by estimating equation 2 separately for all covariates reported in Table 2. As in our main analysis presented in section 3.1, we run these regressions both with 3- and 5-point scaled dependent variables. Marginal heterogeneous treatment effects are only weakly significant in the EUBS experiment and when we measure our dependent variable on a 5-point scale, pointing to a rather uniform impact of the treatments across socio-demographic groups. Results are presented in Table 7 in the appendix. Respondents with medium income, *AfD* voters, and male respondents react slightly more strongly

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<sup>13</sup>The question on business and economic news consumption reads as follows: “How often do you watch or read business and economic news?”. Summary statistics are provided in the appendix.

<sup>14</sup>As detailed in Ai and Norton (2003), the coefficient of the interaction term in nonlinear models is not the relevant factor in determining heterogeneous effects. Therefore, we calculate the average marginal heterogeneous treatment effects based on the approach described in Karaca-Mandic et al. (2012).

to the *moral hazard* treatment compared to low-income respondents, *CDU* voters, and female respondents, respectively. Overall, these results suggest that our treatment effects are not strongly driven by specific subgroups of the population.

### 4.3 Attitudes towards inner German Transfers and Fiscal Rules

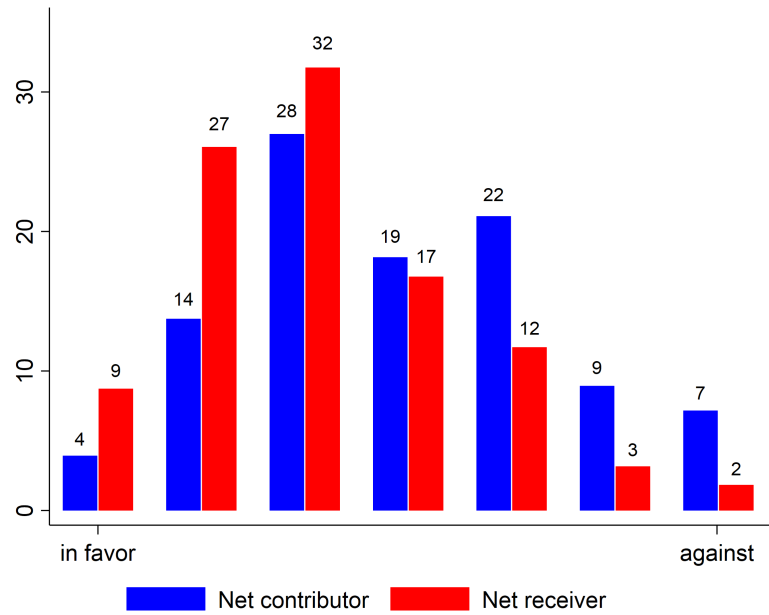
An interesting question is how public attitudes towards domestic fiscal policies compare with attitudes towards the euro area reform proposals analyzed in this paper. To answer this question, we exploit survey questions contained in the GIP measuring support for the German fiscal equalization scheme (*Länderfinanzausgleich*) and the German public debt ceiling or “debt brake” (*Schuldenbremse*). The objective of the fiscal equalization scheme is to ensure equal living conditions across the German states. The main criticism against the scheme echoes the arguments put forward against the EUBS proposal, namely that it does lead to moral hazard and permanent transfers between the 16 federal states in Germany. The German debt brake is a fiscal rule that imposes stringent limits on the (cyclically adjusted) deficits of the federal government and the German states. It aims to ensure fiscal discipline and sustainable public finances and hence has similar policy objectives as the SIP proposal.

Figures 3 and 4 show that an overwhelming majority of respondents is in favor of the two policy measures. Overall, 61% (73%) of respondents approve the fiscal equalization scheme (debt brake), 15%–17% are indifferent and only a minority expresses disapproval. Figures 3 presents approval rates of respondents living in net contributor and net recipient states of the fiscal equalization scheme, respectively. Remarkably, approval rates are relatively high even in states paying more into the scheme than they receive. The positive appraisal of the fiscal equalization scheme is thus in stark contrast with the low approval rates for the EUBS proposal presented above. Conversely, approval rates for the SIP proposal are almost as high as for the German debt brake. As shown in Figure 4, the debt brake is supported both in states which are expected to comply with and in states which are likely to violate its rules, even though fiscal consolidation needs are likely to be higher in the latter.<sup>15</sup>

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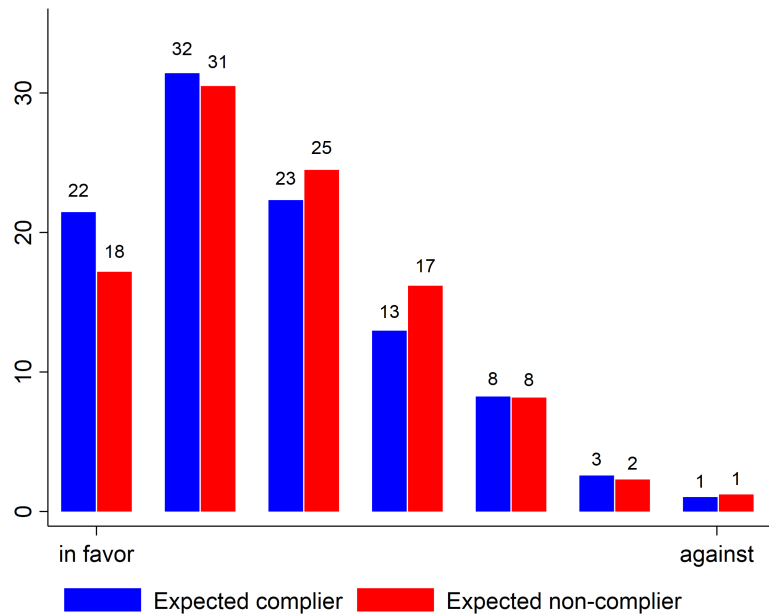
<sup>15</sup>The expected compliance is based on a survey of state legislators conducted by Heinemann et al. (2016).

Figure 3: Support for German fiscal equalization scheme (*Länderfinanzausgleich*)



Notes: The Figure shows responses to the question: “How do you like the German fiscal equalization scheme?”. Source: German Internet Panel (GIP), wave 14 (February 2015), N = 2600.

Figure 4: Support for German debt brake (*Schuldenbremse*)



Notes: The Figure shows responses to the question: “How do you like the German debt brake?”. Source: German Internet Panel (GIP), wave 27 (March 2017), N = 2562.

Table 3: Domestic policies and euro area reform proposals

	EUBS		SIP	
	Against	In favor	Against	In favor
<i>fiscal equalization scheme</i> reference category: in favor				
indifferent	3.17	-1.82		
	(2.47)	(1.43)		
against	17.93***	-10.31***		
	(2.34)	(1.44)		
N	2,414	2,414		
<i>government responsible for unemployed</i> reference category: fully responsible				
partly responsible	9.84***	-5.61***		
	(2.17)	(1.28)		
not responsible	20.41***	-11.64***		
	(2.69)	(1.64)		
N	2,311	2,311		
<i>debt brake</i> reference category: in favor				
indifferent			4.06**	-6.28**
			(1.77)	(2.74)
against			3.59*	-5.55*
			(2.12)	(3.26)
N			2,230	2,230

Notes: See Table 1. Results are based on the following ordered logit regression:  $Y_i = \gamma X_i + \epsilon_i$ , where  $Y_i$  is the support for the respective reform proposal and  $X_i$  is the support for the respective domestic policy.

Moreover, we find that support for the fiscal equalization scheme and the debt brake positively correlate with support for the EUBS and the SIP proposal, respectively. The corresponding regression results are presented in Table 3. Among respondents opposing inner German transfers through the fiscal equalization scheme, the rejection rate of the EUBS proposal is 18 percentage points higher relative to respondents who are in favor of the fiscal equalization scheme. Correspondingly, respondents who

reject the German debt brake are more likely to oppose the SIP proposal, albeit the magnitude of this effect is smaller and only weakly statistically significant.

These results indicate that a majority of voters in Germany is not against fiscal transfers *per se*. While inner German transfers are widely accepted, respondents seem to be much more skeptical with regard to (suspected) transfers to the unemployed in other countries. Clearly, such comparisons always have to be taken with a grain of salt. For instance, it is conceivable that some respondents are concerned about a common unemployment insurance scheme which leaves little room for subsidiarity, or even reject unemployment insurance in general. We use a GIP question on the responsibility of the government to ensure decent living standards for the unemployed, which can serve as a proxy variable measuring respondents' attitudes towards unemployment insurance.<sup>16</sup> 32% of respondents hold the view that the government should be fully responsible, 44% express it should be partly responsible and 24% do not assign any responsibility to the government. This distribution of responses does not suggest that a large fraction of respondents shares a more general aversion towards unemployment insurance. Not surprisingly, however, there is a significant correlation between the perceived role of the government to assure the living standards of the unemployed and support for the EUBS proposal. As shown in Table 3, respondents who state that the government does not bear any responsibility are 20 percentage points more likely to disapprove of the EUBS proposal compared to those agreeing that the government is fully responsible.

#### 4.4 Robustness Checks

The main identifying assumption of our analysis is that the randomization of our information treatments worked properly. We check the validity of this assumption by regressing the treatment dummies on observable characteristics. As one can see in Table 8 in the appendix, the randomization worked quite well as only three out of 114 coefficients are statistically significant which is well within the range of expected false positives at the 5% level. Moreover, by regressing the treatment dummies on an indicator variable which takes the value one if an observation is not in all waves used in our analysis, we check whether sample attrition might affect our results. Reassuringly, we find that this does not present a threat to our identification as the randomization is independent of the probability to stay in the sample (see first line of Table 8).

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<sup>16</sup>The question reads as follows: "Is it in your view the government's responsibility to ensure decent living standards for the unemployed?". Summary statistics are provided in the appendix.

Even if the identifying assumption holds, one might still be concerned about the external validity of our results. Though our sample is representative for the German population, respondents might have developed some form of expert bias since they are confronted with political and economic questions on a regular basis. We test whether expert bias matters for our results by comparing respondents from different recruitment waves (2012 and 2014). The two groups neither differ in their assessment of the reform proposals nor in their reaction to the treatment variables.

Another concern might be that some of our information treatments are harder to understand than others, inducing respondents not to answer the question. While the overall non-response rate for the SIP question (12.6%) is more than twice as high as for the EUBS question (5.7%) indicating that the SIP experiment is harder to digest for respondents, non-response rates do not vary strongly across treatments (*EUBS* permanent transfers/moral hazard/control: 5.6%/4.5%/7.1%; *SIP* self-fulfilling prophecy/rising risk premia/control: 12.4%/12.0%/13.5%). To provide further evidence that the treatments are comparable in complexity, we compare the median time the respondents took to answer both questions conditional on their treatment status (*EUBS* permanent transfers/moral hazard/control: 48/47/44 seconds; *SIP* self-fulfilling prophecy/rising risk premia/control: 52/50/44 seconds). Consistent with the non-response rates reported above, the median is higher in the *SIP* compared to the *EUBS* treatment groups, while it is lower in the control compared to their respective treatment groups. Reassuringly, the difference between the two treatment groups is very small in both experiments. As a final robustness check, we control for the possibility that individuals who answered the questions extremely slowly or quickly might not answer them carefully by excluding the top 10% and bottom 10% in terms of duration from our sample. Again, our results prove to be robust.<sup>17</sup>

## 5 Concluding Remarks

The debate about reforming the institutional architecture in the euro zone has gained momentum after the election of President Macron in France. Reform proposals put forward so far point in different directions. On the one hand, some observers advocate a fiscal union design with deeper fiscal integration and stronger elements of fiscal risk-sharing. Supporters of this approach take the US with its federal income tax system and an unemployment insurance program with federal support in times of crises as an example for the euro area. On the other hand, critics point out

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<sup>17</sup>Results on expert bias and cut-off sample are available upon request.

that the euro area consisting of independent nation states is not comparable to a monetary union like the US. According to this view, fiscal policy should remain under national responsibility and the credibility of the original Maastricht rules, notably the no-bailout clause, needs to be reinforced. Until now, these opposing views, described by Brunnermeier et al. (2016) as the “Rhine-divide in economic philosophies” between France and Germany, or more general between Northern and Southern European countries, have prevented an agreement among policy makers as to which set of reforms would make the euro zone less prone to crises.

This paper has presented the first randomized survey experiment in the context of euro area reforms. We have elicited public attitudes in Germany towards two reform proposals that arguably represent the different views described above: a common unemployment insurance scheme and a sovereign insolvency procedure for euro area member states. We provide evidence that the EUBS (SIP) proposal is rejected (supported) by a majority, but that the level of support critically depends on the contra-arguments provided to respondents. Respondents who are confronted with the *moral hazard* (*permanent transfers*) contra argument have an approval rate which is 25 (15) percent lower compared to a control group receiving a generic contra argument. The treatment effects in the SIP experiment are of similar magnitude. Approval rates of respondents receiving the *self-fulfilling prophecy* or the *rising risk premia* treatment are 15 percent lower compared to those in the control group. Moreover, we have shown that there is a striking difference between the broad acceptance of inner-German transfers through fiscal equalization on the one hand and the low level of support for fiscal transfers in the euro area on the other hand. These results highlight the relevance of politico-economic objections against reforms in a heterogeneous currency union like the euro area.

Besides their value for academic research, survey experiments can serve the purpose of informing policy makers about critical design choices that need to be addressed to gain broader political support for reforms. In future research, it would be interesting to study the determinants of attitudes towards reforms also in other countries and with respect to a broader set of policies. For example, reform packages that combine elements of insurance and market discipline, as proposed by Bénassy-Quéré et al. (2018), might face less resistance than one-sided proposals. Such research, together with thorough ex-ante evaluation studies, should feed the discussion about the future of the European Union and the euro zone, as it would contribute to a better understanding of the effects and political feasibility of reforms.

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# Appendix

## Description of Survey Experiments

*With the following two questions, we would like to hear your opinion on the current discussion about institutional reforms in the euro area.*

### EUBS experiment

*A proposal to make the euro area more resilient to economic crises is to introduce a common unemployment insurance system for euro area member states. It is supposed to support especially those member states of the euro area that suffer from high unemployment due to adverse labor market conditions. The unemployed would receive unemployment benefits partly from the common unemployment insurance scheme at euro area level in which all member states have to pay in contributions.*

*There are different opinions with respect to the introduction of a common unemployment insurance system.*

*The **proponents** say:*

*“A common unemployment insurance system for euro area member states can help to better absorb future economic crises in the euro area and would thus stabilize the currency union as a whole. All member states would benefit from such a system.”*

*1st treatment (“permanent transfers”):*

*The **opponents** say:*

*“A common unemployment insurance system for euro area member states would lead to permanent transfers between the member states. Countries with low unemployment would have to permanently pay transfers to countries with high unemployment.”*

*2nd treatment (“moral hazard”):*

*The **opponents** say:*

*“With a common unemployment insurance system for euro area member states, countries that face high unemployment don’t have incentives to improve their labor market conditions anymore as unemployment benefits are paid by the other member states.”*

*Control group:*

*The **opponents** say:*

*“A common unemployment insurance system for euro area member states has disadvantages in many respects.”*

*“How do you rate the proposal of a common unemployment insurance system for*

*the member states of the euro area?”*

### **SIP experiment**

*Another proposal to make the euro area more resilient to economic crises is to introduce a sovereign insolvency procedure for euro area member states. It is supposed to make private investors liable for the public debt of the insolvent member state. If a member state becomes insolvent, the owners of sovereign bonds (creditors) must forgo part of their claims against the insolvent member state (debtor).*

*There are different opinions with respect to the introduction of a sovereign insolvency procedure.*

*The **proponents** say:*

*“A sovereign insolvency procedure for euro area member states strengthens market discipline and protects taxpayers of other member states. Private investors cannot rely on taxpayers of other member states being liable in case of a sovereign insolvency. The rising costs of high public debt will stop member states from becoming overindebted.”*

*1st treatment (“self-fulfilling prophecy”):*

*The **opponents** say:*

*“A sovereign insolvency procedure for euro area member states can intensify crises in the euro area. If private investors expect that a member state cannot repay its public debt, they will grant new credits only to unfavorable conditions. A member state with financing problems can thus become insolvent only because of financial market expectations.”*

*2nd treatment (“rising risk premia”):*

*The **opponents** say:*

*“A sovereign insolvency procedure for euro area member states amplifies the differences in the financing conditions between euro area member states. Member states with low public debt and a high degree of creditworthiness benefit at the expense of other member states with high public debt and a low degree of creditworthiness, as private investors will pay more attention to the credit default risk of sovereign bonds.”*

*Control group:*

*The **opponents** say:*

*“A sovereign insolvency procedure for euro area member states has disadvantages in many respects.”*

*“How do you rate the proposal of a sovereign insolvency procedure for the member states of the euro area?”*

## Description of Individual Characteristics

We construct indices for altruism and cosmopolitanism by running a factor analysis on a set of variables that are supposed to capture the respective underlying latent variable. For our altruism index, we use self-assessed altruism (from 1 “very selfish to 11 “very altruistic”), the share of income that the respondent would donate in a hypothetical dictator game (from 0 to 1000€) and the approval of the statement “I cannot understand why some people are engaged in an effort that does not benefit them personally” (from 0 “don’t approve at all” to 10 “strongly approve”). In the case of our cosmopolitanism index, we employ EU support (from 1 “strongly against the EU” to 5 “strongly in favor of the EU), self-assessed ignorance of EU institutions (from 1 “very good knowledge of EU institutions” to 11 “very bad knowledge of EU institutions”), anti-immigration preferences (from 1 “ease restrictions for immigration” to 11 “restrict restrictions for immigration”), a dummy for having dual citizenship and a dummy for being a foreigner.

The resulting factor loading that we use as weights to construct our indices are presented in Table 6. Reassuringly, all signs turn out to be as expected. The altruism index is positively related to both the self-assessed altruism and the donation share in the hypothetical dictator game and is negatively related to anti-altruism sentiment. With respect to the cosmopolitanism index, higher EU support, having dual citizenship and being a foreigner contribute positively, while anti-immigration preferences and self-assessed ignorance of EU institutions contribute negatively. Finally, the resulting indices are normalized to mean zero and standard deviation one and their distributions are displayed in Figure 5.

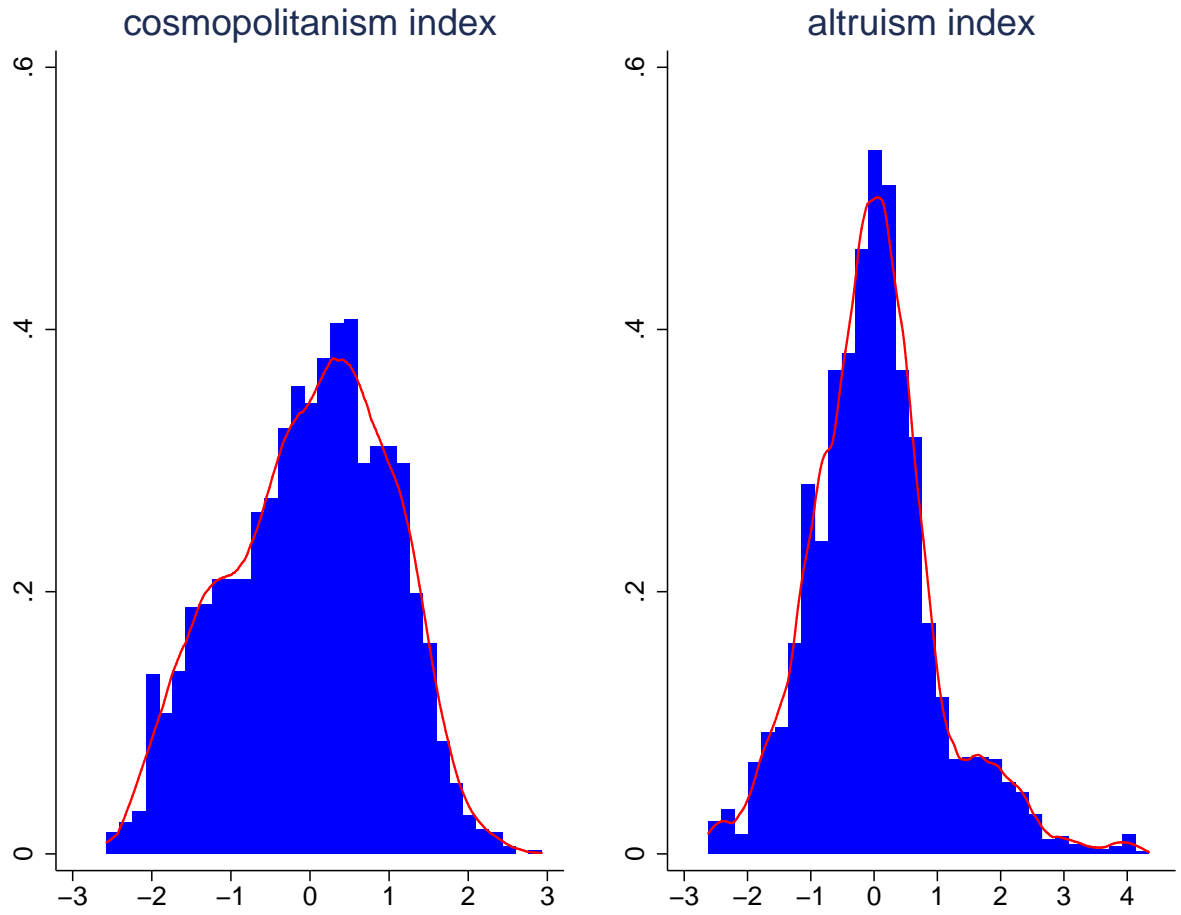
Party preference are measured by dummy variables for *CDU* (Christian Democrats), *SPD* (Social Democrats), *The Greens* (Environmentalists), *FDP* (Market Liberals), *The Left* (left-wing populists), *AfD* (right-wing populists) and a dummy variable for other party preferences including the Pirate party, NPD, other parties, non-voters and respondents who do not want to disclose their preference.

The list of socio-demographic variables includes dummy variables equating one if the respondent is female, lives in East Germany or is married, respectively, as well as three age categories (young: 18 - 31, middle: 32 - 61, old: > 61). In addition, we account for four education levels: no degree, lower secondary school (*Hauptschule*), upper secondary school (*Realschule*), university entrance qualification (*Abitur/Fachabitur*). Income is defined as respondents’ net income, i.e. gross income plus benefits minus income tax minus social insurance contributions. We

account for three income classes: less than 1500€ (corresponding roughly to the bottom 40% of the income distribution in our sample), between 1500€ and 4000€ (40th to 95th percentile) or more than 4000€ (top 5%). Risk aversion is measured by self-assessed risk preference on a scale from 1 “very risk-averse” to 11 “very risk-loving”. The question on business and economic news consumption used in Section 4.2 is a 7-point scale variable ranging from 1 “not at all” to 7 “several times a day”. We condense the variable into the following three categories: 1: “at least once a day”, 2: “at least once per week, but less than every day” 3: “less than once per week”. With regard to preferences concerning domestic fiscal policies analyzed in Section 4.3, we exploit survey questions on the German fiscal equalization scheme (*Länderfinanzausgleich*) and the German debt brake (*Schuldenbremse*). Both are 7-point scale variables ranging from 1 “very good” to 7 “very bad” which we condense into the three categories 1: “in favor” (1-3), 2: “indifferent” (4), 3: “against” (5-7). In addition, we make use of a question asking about the responsibility of the government to ensure decent living standards for the unemployed. It is a 11-point scale variable ranging from 0 “government should not be responsible at all” to 10 “government should be fully responsible” which we condense into the following three categories: 1: “not responsible” (0-3), 2: “partly responsible” (4-6), 3: “fully responsible” (7-10).

## Additional Figures and Tables

Figure 5: Distribution of the altruism and cosmopolitanism index



Notes: The kernel density is estimated with an Epanechnikov kernel and the optimal bandwidth is determined by minimizing the mean integrated squared error.



Table 4: Summary statistics

	mean	sd	min	max	N	GIP wave
EUBS	3.57	1.05	1.00	5.00	2,672	24
SIP	2.68	0.96	1.00	5.00	2,476	24
German fiscal equalization scheme	3.45	1.48	1.00	7.00	2,600	14
German debt brake	2.74	1.37	1.00	7.00	2,562	27
government responsible for unemployed	5.39	2.41	0.00	10.00	2,690	27
female	0.49	0.50	0.00	1.00	2,834	24
east	0.21	0.41	0.00	1.00	2,834	24
married	0.59	0.49	0.00	1.00	2,834	24
age: 18 - 31	0.17	0.38	0.00	1.00	2,834	24
age: 32 - 61	0.59	0.49	0.00	1.00	2,834	24
age: > 61	0.24	0.43	0.00	1.00	2,834	24
education: no degree	0.03	0.18	0.00	1.00	2,555	25
education: lower secondary school	0.17	0.37	0.00	1.00	2,555	25
education: upper secondary school	0.30	0.46	0.00	1.00	2,555	25
education: university entrance qualification	0.50	0.50	0.00	1.00	2,555	25
income: 0€ - 1500€	0.42	0.49	0.00	1.00	2,299	25
income: 1500€ - 4000€	0.54	0.50	0.00	1.00	2,299	25
income: > 4000€	0.04	0.19	0.00	1.00	2,299	25
economics news: daily or more	0.48	0.50	0.00	1.00	2,587	14
economics news: at least weekly	0.36	0.48	0.00	1.00	2,587	14
economics news: less than weekly	0.16	0.37	0.00	1.00	2,587	14
party preference: CDU	0.23	0.42	0.00	1.00	2,092	25
party preference: AfD	0.12	0.32	0.00	1.00	2,092	25
party preference: FDP	0.08	0.28	0.00	1.00	2,092	25
party preference: SPD	0.18	0.38	0.00	1.00	2,092	25
party preference: The Greens	0.14	0.35	0.00	1.00	2,092	25
party preference: The Left	0.09	0.28	0.00	1.00	2,092	25
party preference: other	0.17	0.37	0.00	1.00	2,092	25
risk preference	5.05	2.25	1.00	11.00	2,597	14
altruism index	0.00	1.00	-2.62	4.34	2,508	21
cosmopolitanism index	0.00	1.00	-2.57	2.93	2,236	16,24,25

Notes: Both the altruism and the cosmopolitanism index were constructed using factor analysis as described in the appendix. See also Figure 5 and Table 6.

Table 5: Support for EUBS and SIP by treatment assignment

	str. in favor	in favor	indifferent	against	str. against
EUBS: Permanent transfers	2.8%	13.7%	26.2%	36.9%	20.4%
EUBS: Moral hazard	2.7%	12.3%	23.6%	38.7%	22.7%
EUBS: Control group	2.3%	18.0%	28.3%	34.7%	16.7%
SIP: Self-fulfilling prophecy	5.4%	39.5%	33.7%	17.4%	3.9%
SIP: Rising risk premia	8.5%	36.2%	33.3%	18.4%	3.5%
SIP: Control group	9.5%	44.0%	29.2%	13.8%	3.4%

Notes: The table shows the share of respondents in treatment and control groups who are “strongly in favor”, “in favor”, “indifferent”, “against” and “strongly against” the EUBS and the SIP proposal, respectively.

Table 6: Factor loading used in the construction of the indices

	altruism index	cosmopolitanism index
self-assessed altruism	0.316	
share in hypothetical dictator game	0.309	
anti-altruism sentiment	-0.031	
EU Support		0.557
anti-immigration preference		-0.576
self-assessed ignorance of EU institutions		-0.251
dual citizenship		0.041
foreign		0.078
N	2,678	2,236

Notes: The table shows the factor loading used as weights to construct the altruism and the cosmopolitanism index, respectively.

Table 7: Average marginal heterogeneous treatment effects

	EUBS			
	str. against	against	in favor	str. in favor
<i>Gender</i>				
permanent transfers x female	-0.95 (3.01)	-0.80 (1.60)	0.97 (2.18)	0.22 (0.45)
moral hazard x female	-5.83* (3.08)	-2.82* (1.45)	4.09* (2.09)	0.83* (0.44)
<i>Income</i>				
moral hazard x 1500€ to 4000€	6.33* (3.38)	2.48 (1.97)	-3.96 (2.55)	-0.78 (0.55)
moral hazard x > 4000€	-4.83 (10.90)	-2.34 (3.75)	3.36 (6.38)	0.68 (1.23)
permanent transfers x 1500€ to 4000€	2.47 (3.23)	1.74 (2.02)	-2.11 (2.57)	-0.44 (0.54)
permanent transfers x > 4000€	-7.35 (10.87)	-3.96 (4.96)	5.40 (7.12)	1.10 (1.45)
<i>Party preference (remaining parties not shown)</i>				
moral hazard x AfD	8.56 (8.54)	-6.29* (3.25)	0.60 (3.86)	0.29 (0.71)
permanent transfers x AfD	8.37 (9.00)	-3.70 (3.52)	-0.87 (4.12)	-0.01 (0.76)

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses. To improve readability, marginal effects for the category “Indifferent” are omitted. Since the effects on the five outcome categories have to sum up to zero, the effect on the omitted category can easily be recovered. The results are based on the following ordered logistic regression equation:  $Y_i = \beta T_i + \gamma X_i + \theta T_i X_i + \epsilon_i$ , where  $Y_i$  is the support for the respective reform proposal,  $T_i$  is a vector of treatment dummies,  $X_i$  is a vector of individual characteristics, and  $T_i X_i$  is a full interaction of both. The calculation of the average marginal effects is based on the methods described in Karaca-Mandic et al. (2012). Every horizontal line indicates a new regression. We conducted regressions for every combination of covariate and treatment. For the sake of brevity, we only report results which are at least significant at the 10% level. The remaining results are available upon request.

Table 8: Randomization check

	permanent transfers	moral hazard	EUBS control	self- fulfilling prophecy	rising risk premia	SIP control
<i>Sample attrition</i> reference category: leaves sample						
stays in the sample	-0.011 (0.030)	0.013 (0.030)	-0.003 (0.030)	0.029 (0.030)	-0.021 (0.031)	-0.008 (0.030)
<i>Gender</i> reference category: male						
female	0.000 (0.018)	0.007 (0.018)	-0.007 (0.018)	0.007 (0.018)	-0.009 (0.018)	0.002 (0.018)
<i>Age</i> reference category: 18 - 31						
32 - 61	-0.044* (0.025)	0.015 (0.024)	0.028 (0.024)	0.013 (0.024)	-0.018 (0.024)	0.005 (0.024)
> 61	-0.031 (0.028)	0.010 (0.028)	0.021 (0.028)	0.010 (0.028)	-0.025 (0.028)	0.015 (0.028)
<i>Region</i> reference category: West Germany						
East Germany	-0.001 (0.022)	-0.039* (0.021)	0.040* (0.022)	0.010 (0.022)	0.001 (0.022)	-0.011 (0.022)
<i>Marital status</i> reference category: not married						
married	-0.013 (0.019)	0.014 (0.019)	-0.001 (0.019)	-0.008 (0.019)	-0.001 (0.019)	0.009 (0.019)
<i>Educational status</i> reference category: no degree						
lower secondary school	0.027 (0.058)	-0.033 (0.061)	0.007 (0.058)	0.039 (0.058)	-0.112* (0.062)	0.073 (0.055)
upper secondary school	0.019 (0.056)	-0.052 (0.059)	0.033 (0.056)	0.015 (0.056)	-0.123** (0.060)	0.108** (0.053)
university entrance qualification	0.029 (0.055)	-0.054 (0.058)	0.025 (0.055)	0.038 (0.055)	-0.111* (0.059)	0.073 (0.052)
<i>Household income</i> reference category: < 1500€						
1500€ - 4000€	-0.014 (0.021)	0.005 (0.021)	0.009 (0.021)	0.043** (0.021)	-0.015 (0.021)	-0.028 (0.021)
> 4000€	0.029 (0.055)	-0.008 (0.053)	-0.021 (0.053)	0.023 (0.054)	-0.065 (0.051)	0.042 (0.056)
<i>Party preference</i> reference category: CDU						
AfD	0.010 (0.038)	-0.014 (0.039)	0.004 (0.038)	-0.047 (0.038)	0.022 (0.038)	0.025 (0.039)
FDP	0.025 (0.043)	-0.073* (0.042)	0.048 (0.044)	-0.078* (0.042)	0.033 (0.043)	0.045 (0.044)
SPD	0.056* (0.034)	-0.060* (0.034)	0.003 (0.034)	-0.004 (0.034)	0.018 (0.034)	-0.015 (0.034)
The Greens	0.025 (0.036)	-0.035 (0.037)	0.010 (0.036)	0.002 (0.037)	-0.006 (0.036)	0.004 (0.036)
The Left	0.069 (0.043)	-0.067 (0.042)	-0.001 (0.042)	0.003 (0.043)	0.025 (0.042)	-0.028 (0.042)
other	0.063* (0.035)	-0.039 (0.035)	-0.025 (0.034)	0.005 (0.035)	0.013 (0.035)	-0.018 (0.035)
altruism index	0.004 (0.010)	0.003 (0.010)	-0.006 (0.009)	0.008 (0.010)	0.007 (0.009)	-0.016 (0.009)
cosmopolitanism index	0.011 (0.010)	-0.004 (0.010)	-0.007 (0.010)	0.019* (0.010)	-0.004 (0.010)	-0.014 (0.010)

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$  Robust standard errors in parentheses. This table shows the results of linear regressions in the form of  $y_i = \beta_0 + \beta_1 X_i + \epsilon_i$ , where  $y_i$  is an indicator taking the value one if  $i$  is part of a particular treatment group and  $X_i$  is the respective covariate. Each horizontal line indicates a new regression.

## **EconPol Europe**

EconPol Europe - The European Network for Economic and Fiscal Policy Research is a unique collaboration of policy-oriented university and non-university research institutes that will contribute their scientific expertise to the discussion of the future design of the European Union. In spring 2017, the network was founded by the ifo Institute together with eight other renowned European research institutes as a new voice for research in Europe.

The mission of EconPol Europe is to contribute its research findings to help solve the pressing economic and fiscal policy issues facing the European Union, and thus to anchor more deeply the European idea in the member states. Its tasks consist of joint interdisciplinary research in the following areas

- 1) sustainable growth and 'best practice',
- 2) reform of EU policies and the EU budget,
- 3) capital markets and the regulation of the financial sector and
- 4) governance and macroeconomic policy in the European Monetary Union.

Its task is also to transfer its research results to the relevant target groups in government, business and research as well as to the general public.