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**Determinants of Public Opinion Support for a
Full Embargo on Russian Energy in Germany**

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Abstract

Western powers have discussed and implemented several policies in response to the full scale Russian invasion of Ukraine in February 2022. One such possible answer was an immediate embargo on all Russian energy exports to the EU. While seen as a strong measure against Russia’s war effort, some EU governments were unenthusiastic, due to potential negative economic impacts on the short run, by pressuring prices for consumers and fueling inflation. Public opinion also seemed divided on the matter. We use a framing survey experiment in Germany ($n = 3,251$) to test what factors influence support for an immediate embargo against Russian energy. Results indicate that out of seven possible frames tested, the only one that has an effect on embargo support is whether the rest of the German public is in favor or not. Results are in line with contemporary models of public opinion formation and legitimacy, and shed light on the conditions that may help framing other potentially costly issues to garner public support, such as measures to tackle climate change.

Introduction

The Russian invasion of Ukraine on February 24, 2022 led to an unprecedented package of sanctions by the EU, UK, and US against Russia. One major debate is on a full embargo on Russian energy products (coal, oil, and natural gas). This debate is particularly important in Germany, due to its high level of reliance on Russian energy and the size of its economy. German public opinion is divided, with support varying from majority

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to minority depending on how and when the question is asked. It is not clear how much support there is for such an embargo or for extended involvement in the war, in particular given the likely high personal costs and the uncertainties about potential consequences. This paper thus asks “*under what conditions are German citizens willing to support a full Russian energy embargo?*”

We answer this question with a vignette experiment embedded in a survey fielded in Germany (n = 3,000) in early May 2022, as appropriate reactions to the Russian invasion were still a hot topic of political debate in the country. The vignette randomizes seven different frames in an excerpt of an article about an immediate full energy embargo, and subsequently asks respondents to tell whether they support the measure or not. Frames are designed to capture factors known to influence public opinion on policy, such as economic impact, expected personal costs, ideology, and domestic public opinion. Given the nature of this subject, we also include frames that are more specific to the war and to foreign policy, namely expected impacts on the war, and the EU’s position and Germany’s international standing. Finally, a major point in this debate was the moral argument, namely that Germany has a historical obligation to fight against wars of aggression, crimes against humanity, and Fascism in Europe, reason why we also include such a moral frame in the vignettes.

Results indicate that the only factor that influences support for an embargo is whether a majority of German public opinion is said to be in favor of it. None of the other frames’ effects reach conventional levels of statistical significance. Based on reported news consumption about the war, exploratory analysis also shows that results are not driven by those with less information, contrary to previous findings in framing experiments (Druckman and Leeper, 2012). We may interpret this as an indication that, given an extremely salient issue which dominates the news cycle, even respondents who follow news and are well informed might not have firm opinions due to the sheer complexity of the issue and the vast uncertainty related to the potential outcomes of any policy, relying thus on wisdom of the crowds cues for decision making.

Public Opinion on Policy

While self-interest matters for citizens' preference formation in relation to policies which may affect their pockets (e.g. Campbell, 2003; Mettler et al., 2005; Sears and Citrin, 1982), plenty of research shows that other factors also contribute to drive support or opposition for policies, such as ideology and identity (Gelman, 2009) or public opinion clues – for instance, whether the majority of the public is in favor (Wrátil and Wäckerle, 2022).

In the particular case of how EU countries should respond to Russia's aggression against Ukraine, several factors could potentially be the main driver to preference formation among individuals. First, the price of policies, in particular of a full energy embargo, is certain to be felt by consumers of Russian energy, at least in the short run. Quite simply, if the EU were to put an immediate halt to imports of Russian gas, coal, and oil, it would have to purchase from other sources in order to meet internal demand, which would mean higher prices for consumers due to basic laws of supply-and-demand. On the other end, the expected outcome of such a measure is very uncertain: while the most enthusiastic proponents claim it could bring the war to an end shortly, by asphyxiating Russia's economy, others claim it could bring both economic devastation to countries most dependent on Russian energy, such as Germany, or even risk escalating the war and make the EU or NATO direct parts to it.

When it comes to public support for policies which may be costly in the short run, much work has been done in relation to climate change measures. For instance, Stokes (2016) finds that even policies with high diffuse popular support are difficult to implement because voters concentrated in areas that are most affected can galvanize their opposition to it and punish elected officials seen as responsible. Conversely, Kono (2020) shows that politicians from areas with higher concentration of carbon and fuel industries in the US are more likely to support climate change legislation if their state has better unemployment benefits, which offset some of the cost of those policies to their voters. This indicates that, in the event of a costly policy, state subsidies can help mitigate popular opposition (Gaikwad, Genovese and Tingley, 2022).

Our first two hypotheses are thus that¹

- H1a) *People who are told that prices of products and services will rise as a result of an embargo show less support for the embargo than people who are not told of rising prices.*
- H1b) *People who are told that the government will give subsidies to help German households cope with rising prices show more support for the embargo than those who are not told about government subsidies.*

Personal costs are not the only ones that matter here. Much of the debate in relation to the embargo was around the overall costs for the economy. On the one hand, academic economists' forecasts put the worst case scenario at a 3% GDP drop in Germany for 2022, which was lower than the 4.5% caused by the Covid-19 pandemic in 2020 (Bachmann et al., 2022). On the other hand, industry-associated think-tanks gave much darker prognoses², warning of catastrophic economic consequences and energy shortages. This line was also adopted by the government: Robert Habeck, the Minister for Economy from the Green Party, said that an immediate embargo could lead to energy supply shortages, and "mass unemployment, poverty, people who can't heat their homes, people who run out of petrol".³ These contradicting messaging styles form our next set of hypotheses:

- H2a) *People who are informed of a factual macroeconomic prognosis of the embargo's consequence show similar levels of support to an embargo as those who are not informed of a macroeconomic prognosis;*
- H2b) *People who are informed with a fear-based macroeconomic prognosis show less support to an embargo than those who are not told of macroeconomic forecasts;*

Naturally, the other major debated outcome of an embargo would be its impact on the war itself. Beliefs that the embargo could help end the war soon should drive higher

¹This study and hypotheses have been preregistered under <https://osf.io/hvw9z>. The numbering of hypotheses here does not follow that of the preregistration – they were reordered to better fit the flow of the argument. However, all of them, and their wording, remain exactly the same.

²<https://www.ft.com/content/e82b11a1-cf1f-4543-9f9f-6ab70da6b746>

³Cited in <https://www.theguardian.com/world/2022/mar/14/russian-gas-oil-boycott-mass-poverty-warns-germany>

support for it, while believing that it would represent an escalation and bring the risk of increased conflict should decrease support. This is our next set of hypotheses:

H3a) *People who are told the embargo might help end the war quickly show higher levels of support for it than those who are not informed about the possible impact of an embargo on the war.*

H3b) *People who are told the embargo may lead to further military escalation of the war show lower levels of support for it than those who are not told about the possibility of further military escalation.*

Research on policy support shows that material interests are not the only, or even main, drivers of support (e.g. Gelman, 2009). One element that may matter is ideology: if a policy is seen as matching one's ideological inclination, the person would be more inclined to support it even if materially that would cost them more (Kuhn, Solaz and van Elsas, 2018; Sears et al., 1980). In this specific case, one political group in Germany would be expected to support the embargo on fossil fuels for ideological reasons: Green party voters. When the war started, the party had just gotten back to a governing coalition, having received a record vote share in the September 2021 general elections, in which a quick switch away from fossil fuels was a major party line – referred to as a green energy transition. We may expect, therefore, that support for a green energy transition should drive support for the energy embargo, which would effectively require more investment in alternative forms of energy, in particular among Green Party voters:

H4a) *People who are told an embargo can accelerate the adoption of green energies show more support for an embargo than those who are not told anything about green energy transition.*

H4b) *The effects of the green energy frame (H4a) is stronger for Green Party voters than for other citizens.*

Citizens may also take cues from public opinion to form their preferences, in particular in topics that are complex and uncertain. This would stem from a *consensus heuristic*,

whereby one may think that the majority's opinion on an issue should be "good" or more "valid" (Axsom, Yates and Chaiken, 1987; Mutz, 1998). This guides our next hypothesis:

H5 *People who are informed that a majority of public opinion in Germany is in favor of an embargo show more support to the embargo than people who are told a majority of public opinion in Germany opposes the embargo.*

Given the international nature of the embargo, and how it is intrinsically connected to foreign policy in the EU multilevel system, we may also expect that not only German public opinion may matter, but also what other countries in the EU see as the right course of action. Further, at the time of the survey, international political debates often saw other EU member states, in particular in Eastern Europe and Ukraine itself, criticizing Germany for not doing enough, and being too timid in its opposition to Russia. The next hypotheses are that

H6a) *People who are told the EU is united in favor of an embargo show more support for an embargo than people who are not told any information about the EU's position;*

H6b) *People who are told the EU is united in favor of an embargo and that Germany is currently accused of opposing it show more support for an embargo than people who are not told any information about the EU's position or Germany's standing in it.*

Finally, one last element that was prominent in the debate at the time refers to the moral aspect of the embargo: put simply, Russia was financing the war through its energy exports, a war in which by then multiple allegations of war crimes and crimes against humanity by the Russian army had been credibly made. Buying Russian energy was therefore directly financing the war and thus stopping would be the morally correct thing to do. Moreover, in Germany in particular there was a discourse in relation to its historical responsibility to stand against wars of aggression and crimes against humanity, particularly in Europe, due to the Holocaust and its actions during the Nazi period. The last set of hypotheses thus is

H7a *People who are told that energy purchases by Germany help finance Russia’s war show higher levels of support for the embargo than those who are not told about the connection between energy payments and war expenses.*

H7b) *People who are told that Germany has a historical obligation to not support Russia’s war show higher levels of support for an embargo than those who are not told of a historical obligation.*

Experimental Setup

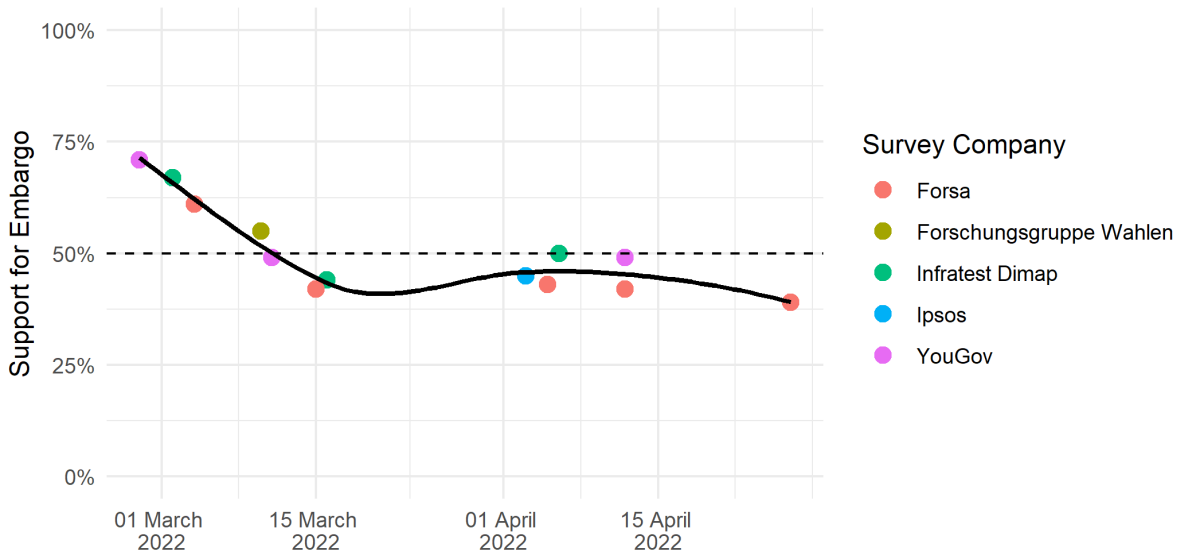
To answer our research question we use a vignette experiment.⁴ All respondents are shown a paragraph talking about the war. It is introduced to all with the following text: *“Since the Russian invasion of Ukraine started on February 24, Germany and its EU partners have been working to support the Ukrainian side, with new measures currently discussed. One such measure is a full embargo on the purchase of Russian oil, gas, and coal, often referred to as a full energy embargo”*. After that, there are seven dimensions which are manipulated for the remainder of the paragraph:

- a) **Moral frame**, with three conditions (33% of respondents in each): Either the text reads that a) “Among other sources, Russia is financing the war with payments for energy, including from Germany”; b) “Observers accuse Germany of not fulfilling its historic obligation and continuing to support Russia with payments for energy” or c) no mention of these two are present in the text
- b) **Public opinion frame**, with two conditions (50% of respondents in each): Either the text reads that a) “According to a survey by Allensbach, 57% of the public is against a full embargo” or it reads that b) “According to a survey by Forschungsgruppe Wahlen, 55% of the public is in favor of a full embargo”.⁵ Figure 1 shows that in the months before this study was conducted, public support has hovered around 50%.

⁴The design has been preregistered prior to data collection at <https://osf.io/hvw9z>, and received ethical clearance from the Ethics Committee at the University of Vienna.

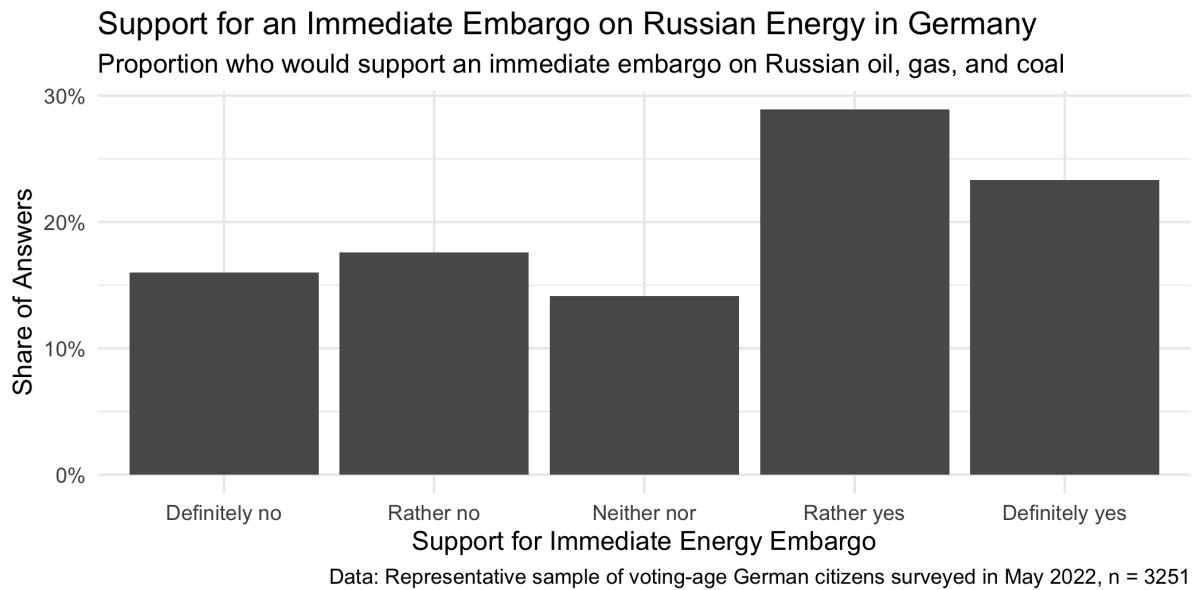
⁵These are actual numbers from surveys fielded and reported within two months before fieldwork.

Figure 1: Percentage Support for an Energy Embargo in the Public



- c) **International pressure frame**, with three conditions (33% of respondents in each): Either the text reads that a) “The European Parliament has voted in favor of a full embargo, and an absolute majority of EU countries support the measure” (EU solidarity), or that b) “The European Parliament has voted for a complete energy embargo and a majority of EU member states support the measure. Germany is internationally accused of being the main opponent of an embargo” (international pressure), or c) no mention to the EU position and member states is present (control);
- d) **Green transition frame**, with two conditions (50% of respondents in each): Either the text reads that a) “The embargo could accelerate a green energy transition and widespread adoption of renewables in Germany” (green energy treatment) or b) there is no mention to renewable energy transition (control).
- e) **Personal cost frame**, with three conditions (33% of respondents each): all respondents read that “This measure is likely to increase gas and heating costs for German citizens in the near future”. Then either the text reads that a) “Prices for other products and services are also expected to rise” (negative) or that b) “The federal government has announced it would provide subsidies to help German households”

Figure 2: Percentage Support for an Energy Embargo



(positive), or c) no mention of further negative/positive consequences (control)

- f) **Societal economic cost frame**, with three conditions (33% of respondents each): Either the text reads that a) “This measure could lead the German GDP to fall by 3% in 2022, which is less than the impact of Corona in 2020” (economic assessment frame), or that b) “This measure could bring catastrophic consequences for the German economy and industry” (economic fear frame); or c) no mention of societal economic consequences (control)
- g) **War outcome frame**, with three conditions (33% of respondents each): that a) “The embargo could bring the war to an end within weeks” (positive frame); or b) “The embargo has the risk of further escalating the conflict”; or c) neither of these conditions are shown.

Afterwards, all respondents are asked whether they are in favor of an immediate full embargo on Russian energy, on a response scale from 1 = Definitely yes to 5 = Definitely no. Figure 2 shows the distribution of this variable across all respondents. The largest group of respondents answer "Rather yes" (29%), only 16% of respondents are definitely opposed to the embargo. Taken together with those respondents answering "Definitely yes", 52% of respondents voice their support for an energy embargo.

They are also asked whether they expect a full energy embargo would lead to energy price increases for German consumers. This serves as a manipulation check, as the text says for all, when introducing condition (e), that the measure is likely to increase gas and heating costs for German citizens in the near future. An example of how a respondent would see the experiment is in Figure 3. In this case, we observe the “soft” moral frame comes first, followed by the frame that public opinion is in favor. This respondent gets control for the green energy frame, meaning it is not present, and so on. It is important to notice that the question appears directly after the text in the same page.

The order of the frames is partially randomized for each respondent. While the sequence is always the one in the list above, we have a rolling system whereby each one randomly appears as the first one, and then the others follow in that sequence. For instance, if the personal cost frame is randomly the first, then the second is the societal economic cost, third is war outcome, fourth is moral, and so on. This way, we are able to test whether e.g., the highest effect is always on the first or last frame to appear. Prior to the experiment, we asked respondents how often they followed news about the war, which allows us to test whether effects are conditioned on knowledge, and also about vote choice, with a typical question on which party they would vote for if elections were the following Sunday.

Data

The data was collected with an online survey administered by the company Luc.id, between May 4 and May 14, 2022, using representative quotas for age*gender, education, and region. The experiment was embedded in a broader survey, which afterwards asked questions about NATO’s Article 5, and views on EU integration and EU defense cooperation. Those came after our experiment in the survey flow and would not prime respondents in one way or another. The total average survey time was around 9 minutes. Following the preregistered plan, we exclude respondents who finished the entire survey in less than four minutes, as it is very unlikely someone could have done so while paying attention to all questions based on pre-testing.

Figure 3: Screenshot of an example of the experimental stimulus as seen by respondents

Since the Russian invasion of Ukraine, which began on February 24, Germany and its EU partner countries have been supporting Ukraine and new measures are constantly being discussed or introduced. One such potential measure is a total ban on the purchase of Russian oil, gas and coal, also known as a total energy embargo.

Observers accuse Germany of not fulfilling its historic commitment and continuing to support Russia with payments for energy. According to a recent study conducted by the research group Wahlen, 55% of Germans are in favor of a complete energy embargo. This measure would likely increase heating and fuel costs for citizens in Germany in the near future. It is expected that the prices of other products and services would also increase. This measure could lead to a three percent drop in German economic output. This would be a smaller decrease than caused by the corona pandemic in recent years. The embargo could end the war within a few weeks.

Based on your knowledge and reading the previous text, please answer the following questions.

Are you for the immediate introduction of a complete ban on imports of oil, coal and gas from Russia (energy embargo)?

Definitely yes

Rather yes

Neither nor

Rather no

Definitely no

Note: This is an automatic translation into English. The German original is in the Online Appendix.

Results

Following the preregistration plan, we first present a comparison of means across all experimental conditions, in Figure 4, including 95% confidence intervals for each. The “support” question is coded so that the highest value (5) indicate more support, while the ‘definitely no’ answer is 1. The first thing to notice is that general agreement with an embargo is around 3.2 on the 1-5 scale, suggesting an almost even split. Regarding the frames themselves and our hypotheses, the only hypotheses to which we find supporting evidence are *H5* and *H2a*. *H5* is the public opinion hypothesis, according to which there would be higher support if the public is said to be in favor of the embargo. The average support among those informed the public is in favor is 3.35, against 3.17 among those told the public is against, which is significant in a Welch two-sample t-test ($t = -3.5885$, $df = 3149$, $p < .001$). *H2a* on its turn was a null hypothesis, that informing the public based on factual economic forecasts would not change support for an embargo in relation to no mention of the economy, and this is what we observe: the averages are almost exactly the same, and clearly no significant difference between the two groups. However, alarmist economic prognoses dampen support for the embargo, a finding we explore in more detail below.

There is no evidence in support of any of the other hypotheses. Moral arguments have no impact on Germans’ support for an embargo, nor does the EU’s position or mentions that Germany is currently blocking more ambitious responses. For all the arguments seen in international media about Germany’s responsibility, or the pressure put by foreign officials – in particular the Ukrainian government and its Ambassador to Germany – demanding more and faster action, it seems clear that the German public is not moved by such discourses. Surprisingly, personal cost considerations also play no role: neither does being reminded that not only energy but also other prices will go up decrease support, nor does being told about possible government subsidies increase it. This seems to be a case of policy where other concerns override self-interested cost calculations.

In Table 1 we run models including all binary treatment indicators as predictors. For all conditions, there is a “no mention” pure control and we take this as the reference

Figure 4: Average Support for an Immediate Full Embargo on Russian Energy across Experimental Conditions

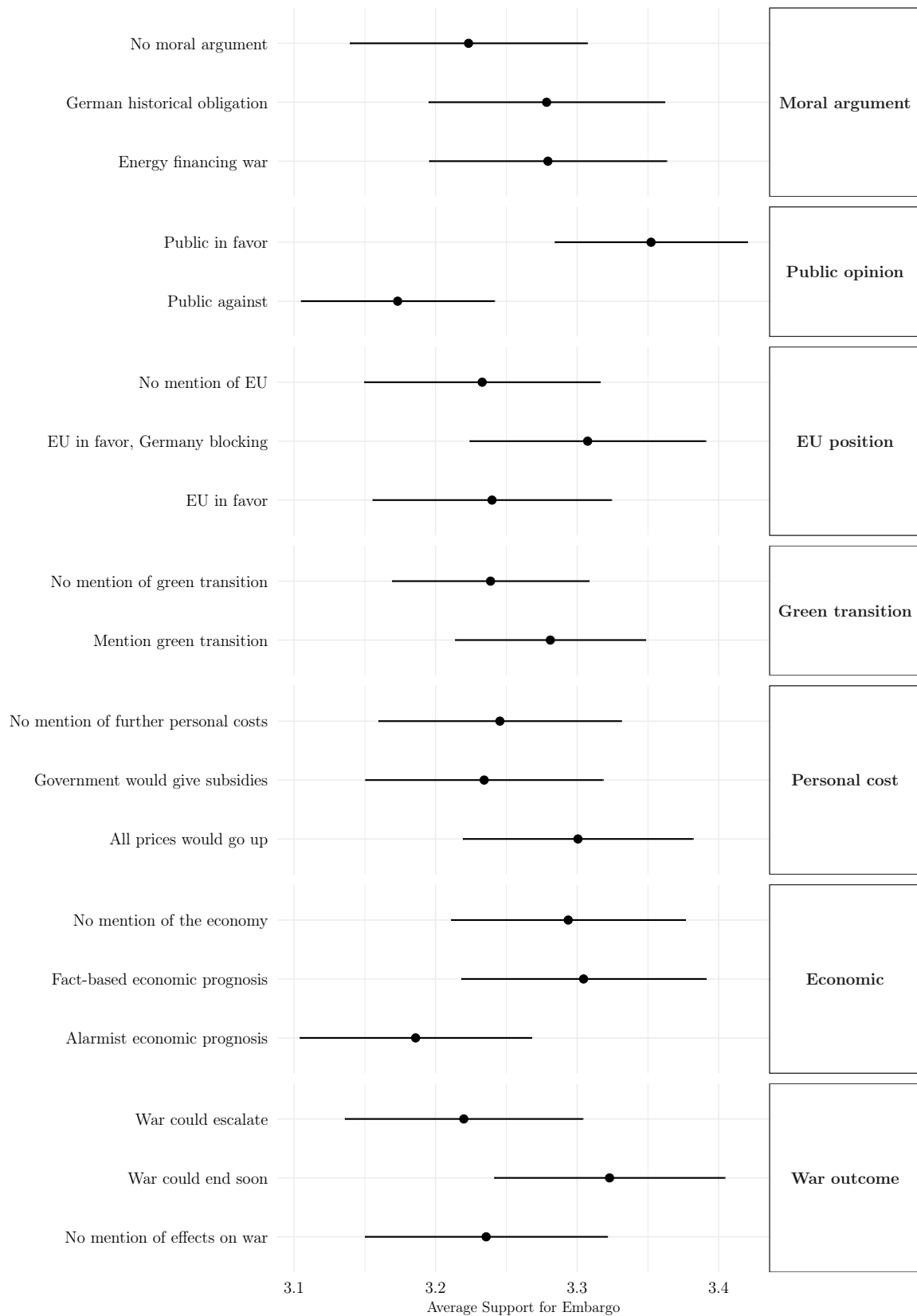


Table 1: Effects of frames on embargo support

	Original scale		Binary support	
	Model 1	Model 2	Model 3	Model 4
<i>Moral frame</i>				
Energy financing the war	0.05 (0.06)	0.05 (0.06)	0.01 (0.09)	0.01 (0.09)
Historical obligation	0.05 (0.06)	0.03 (0.06)	0.04 (0.09)	0.01 (0.09)
<i>Public opinion frame</i>				
Public in favor	0.18*** (0.05)	0.17*** (0.05)	0.20** (0.07)	0.20** (0.07)
<i>International pressure frame</i>				
EU in favor	0.01 (0.06)	-0.02 (0.06)	-0.03 (0.09)	-0.07 (0.09)
EU in favor, Germany blocking	0.08 (0.06)	0.07 (0.06)	0.10 (0.09)	0.09 (0.09)
<i>Green transition frame</i>				
Green transition	0.04 (0.05)	0.03 (0.05)	0.04 (0.07)	0.02 (0.08)
<i>Personal cost frame</i>				
All prices increase	0.05 (0.06)	0.06 (0.06)	0.05 (0.09)	0.05 (0.09)
Government subsidies	-0.01 (0.06)	-0.01 (0.06)	-0.05 (0.09)	-0.05 (0.09)
<i>Economic frame</i>				
Alarmist economic prognosis	-0.11 (0.06)	-0.13* (0.06)	-0.07 (0.09)	-0.11 (0.09)
Fact-based economic prognosis	0.02 (0.06)	0.01 (0.06)	0.11 (0.09)	0.11 (0.09)
<i>War outcome frame</i>				
War could end soon	0.08 (0.06)	0.08 (0.06)	0.13 (0.09)	0.13 (0.09)
War could escalate	-0.02 (0.06)	-0.02 (0.06)	-0.01 (0.09)	-0.01 (0.09)
Green voter		0.92*** (0.10)		1.48*** (0.17)
Green voter * Green transition		-0.03 (0.14)		0.01 (0.24)
R ²	0.01	0.06		
Adj. R ²	0.00	0.06		
Num. obs.	3153	3153	3251	3251
AIC			4511.57	4330.95
BIC			4590.69	4422.25
Log Likelihood			-2242.78	-2150.47
Deviance			4485.57	4300.95

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

category. Model 1 reiterates the findings from the mean comparisons: the only frame that has an impact is the public being in favor, and that is not only significant but also substantively the largest impact (the effect is equivalent to 0.13 standard deviations on the dependent variable). We also observe that while the catastrophic economic arguments do not lower support significantly in relation to no mention of the economy, they do when compared to the fact-based economic forecasts of a 3% GDP contraction for Germany. This result shows that when voters are confronted with the alarmist discourse about the macroeconomic effects of an embargo, a discourse which was spread by both the German government and industry lobbyists, support drops dramatically in relation to when they are informed with the facts based on forecasts by academic economists.

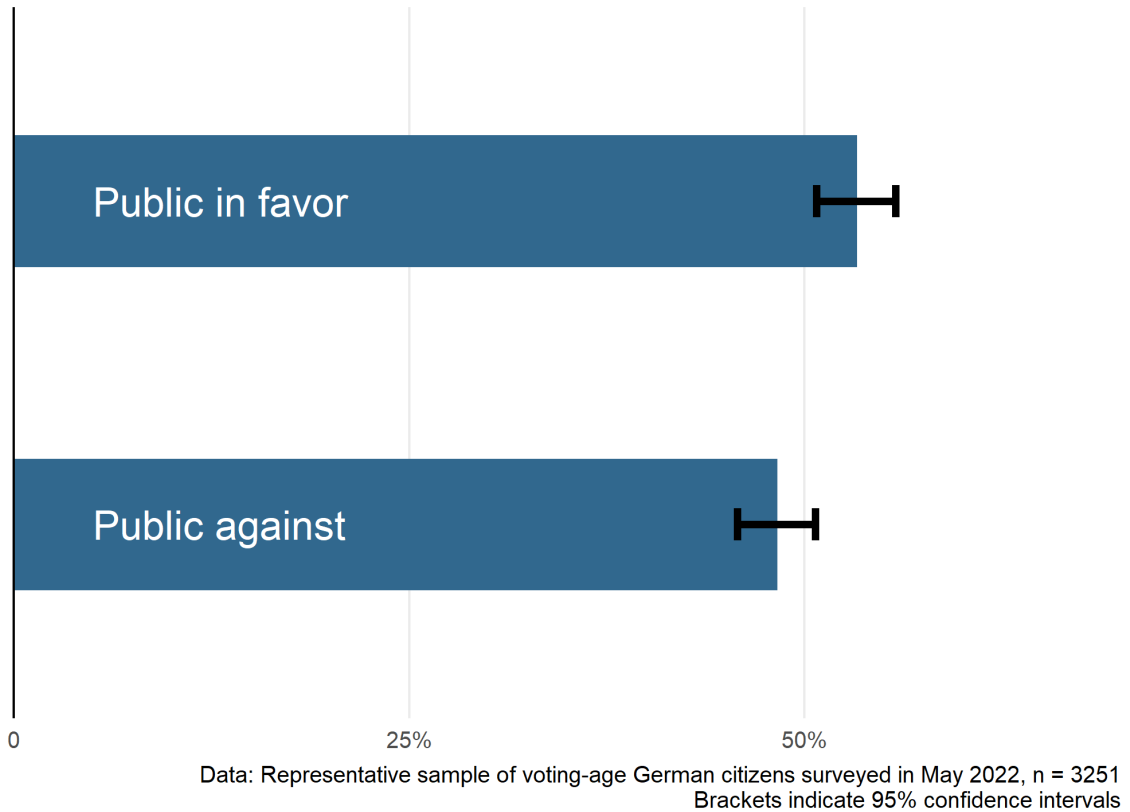
In Model 2, we test $H4a$, namely that the green transition frame should be stronger among Green party voters. There is no evidence of that. In fact, Green party voters are already significantly more supportive of an embargo, and reading or not about how it may speed up a green energy transition makes no difference for them. Finally, Models 3 and 4 recode the dependent variable so that support for an embargo (categories “rather yes” and “definitely yes”) are recoded as a 1, and the rest (both opposition and “neither nor”) are recoded as 0. One may say that the original 5-point scale is not truly continuous and one should not run a linear model on it. We observe that recoding the outcome, and running a logistic regression, does not change results.

This transformation, however, aids with visualizing the effects. For the two conditions which have significant impacts on embargo support, we plot the percentage levels of agreement in Figure 5. It shows that the effects of public opinion, and of alarmist versus factual economic prognoses, are enough to shift support for the embargo from a majority to a minority, crossing the 50% line. These highlight the importance of these frames in such a sensitive and uncertain matter.

Figure 5: Percentage Support for an Embargo Across Experimental Conditions

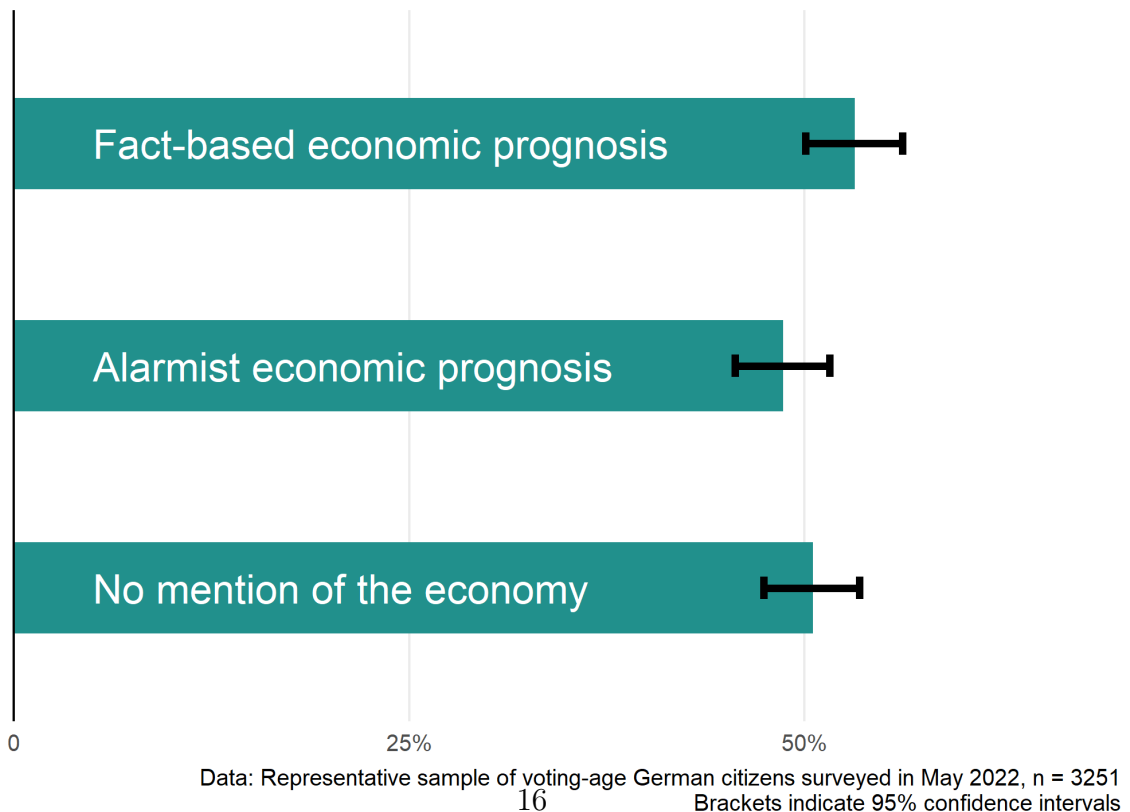
Support for an Immediate Embargo on Russian Energy in Germany

Proportion who would support an immediate embargo on Russian oil, gas, and coal, if told the German public is in favor or against this measure:



Support for an Immediate Embargo on Russian Energy in Germany

Proportion who would support an immediate embargo on Russian oil, gas, and coal, depending on how economic consequences are presented:



Conclusion

This paper explores the determinants of public support for policy reforms, looking at the important case of Germans' support for banning all energy imports from Russia in reaction to the war in the Ukraine. Public approval of such a measure is regarded, by both the media and politicians, as an important factor in determining whether the country will go forward with the reform. Importantly, German public opinion has hovered around 50% support for an energy embargo and, as of May 2022, the German government has been reluctant to fully embrace tough energy sanctions against Russia.

Using a survey experiment fielded in Germany in May 2022, we test whether the framing of a potential energy embargo can affect support for it. We find that framing the issues morally, in terms of a green transition, connected to personal and societal costs, or related to potential effects on the war does not change whether respondents support an embargo. The only condition that reliably affects whether respondents support the embargo is whether we state that the public in Germany supports the embargo or not. This is strong evidence that Germans react to cues by others, particularly other Germans. International pressure by other countries in Europe supporting the embargo, however, has no effect.

Overall, these findings have important implications for public opinion formation around high-salience and high-stakes measures. First, public opinion serves as an important cue for voters, especially on issues that are complex, such as the war in Ukraine. Second, there should be a lot of caution around survey construction when asking about these issues. Existing surveys on the issues have in part employed biased questions that tip the support for an embargo one way or the other. Even small shifts, especially around 50% (leading to interpretation of a majority supporting or opposing the embargo) might have considerable influence on public opinion more broadly. Third, trying to change public opinion by appealing to moral questions or historical guilt show little promise in changing public opinion and neither does the promise of a green transition. Fourth, we found weak effects for an alarmist economic framing in comparison to the more optimistic, realistic economic projection. This shows that warnings of larger economic consequences might

dampen public support. By adapting the more pessimistic framing of the consequences of an energy embargo, the German government might therefore have limited public support, especially during the time when opinions on the issue were still being formed.

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