Pre-Analysis Plan

Experiment on Crisis Framing and Fiscal Solidarity in the EU

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Overview and motivation

In the wake of the euro area (EA) crisis, several scholars argued that the policy response was strongly influenced by the way in which the crisis was portrayed, paving the way for fiscal austerity and labour market reforms (Blyth 2013; Matthijs and Blyth 2018). One influential narrative was that the crisis was in essence fiscal, notably due to mismanagement by successive Greek governments (Ferrara 2020). The adjustment programmes treated it as a country-specific crisis, for which responsibility could be attributed and which did not pose an existential threat to the currency union. It is therefore plausible to assume that this public account of the EA crisis constrained reforms, such as introducing a joint debt instrument (Matthijs and McNamara 2015).

This type of framing of the crisis did not gain traction during the Covid-19 pandemic. There were attempts to renew claims of moral hazard in the European South, notably the Dutch finance ministers accused Spain to have neglected preparing for a pandemic (Khan 2020). But leading politicians, experts and the media in Europe portrayed the public health crisis as a common, existential threat for which nobody was responsible. Scholars noted that an initial reflex to close borders and control exports in mid-March was followed by a surprising willingness to extend cross-border fiscal solidarity (Genschel and Jachtenfuchs 2021; Bremer et al. 2021).

The EA and Covid-19 crises have stimulated a lively debate about the sources of public support for risk sharing in the EU (e.g., Becthel, Hainmueller and Margalit 2014; Daniele and Geys 2015; Baccaro, Bremer and Neimanns 2021). Recent research shows that, in times of crisis, citizen support for European fiscal integration is conditional upon the design of EU risk-sharing instruments (Vandenbroucke et al. 2018; Beetsma et al. 2020; Bremer et al. 2021). This paper aims to add to this research by showing that the way in which the crisis experience is framed by policymakers, experts and the media shapes cross-country public

acceptance of supranational fiscal stabilisation tools and inter-state financial solidarity in the EU. Thus, we ask whether and how crisis frames affect public support towards fiscal and financial solidarity in the EU.

To answer this question, we use a factorial vignette experiment on public support for European fiscal solidarity and financial risk sharing in times of crisis. The experiment is embedded in an online survey regarding a broad range of EU-related issues. The survey will be administered to a representative sample of citizens in 15 EU countries and will be conducted by Gallup. Fieldwork in all countries is expected to begin in the week of 24-28 May 2021. The completion of the fieldwork is expected for 21 June 2021.

In the experiment, we ask respondents to imagine a future crisis scenario and randomly vary the frames of the hypothetical crisis, making reference to the opinions expressed by media and experts with regard to each attribute of interest. We then ask respondents about their opinions on a hypothetical proposal of the Commission to issue common debt to tackle the crisis, as well as other questions about their willingness to support other countries hit by the crisis and their vote in a hypothetical referendum on EU membership in their country.

We design the proposed survey experiment by deriving its factors (i.e., frame dimensions) from a conceptualisation of the prevalent communicative practices of policymakers, media and experts regarding the EA and the Covid-19 crises. Specifically, we propose to implement a factorial vignette experiment with the following factors that reflect key dimensions in the policy debate on the EA and Covid-19 crises: (1) the degree of *commonality* of a crisis; (2) the extent of *attributability* of the crisis to decisions made by affected member states; (3) the intensity of the *threat* posed by the crisis for the integrity of the EU polity. Each factor can take two different levels. In the next section, we explain in greater detail the design of the experiment.

Experimental Design

The survey will be simultaneously fielded in 15 EU countries[1] and will include a survey experiment in each country, which will test whether public opinion towards fiscal integration and financial risk sharing is sensitive to different crisis frames. Based on a large literature uncovering the effects of framing on citizen attitudes and preferences towards economic policy (e.g., Ardanaz, Murillo and Pinto 2013; Harrel, Soroka and Iyengar 2016; Barnes and Hicks 2018; Ferrara et al. 2021), we expect this to be the case. To this end, we design a 2 x 2 x 2 factorial vignette experiment in each country with variations in a future, hypothetical crisis scenario.

Each vignette differs on three factors that have two different levels each. We combine these three factors and randomly vary each level within them to generate our experimental vignette. The first factor is related to the degree of *commonality* attributed to a crisis. The two levels this factor can take are (a) “common” and (b) “idiosyncratic”. Accordingly, based

[1] The countries are Austria, France, Finland, Germany, Greece, Hungary, Ireland, Italy, Latvia, Netherlands, Poland, Portugal, Romania, Spain, Sweden.

on whether the respondent is randomly exposed to a "common" frame or to an "idiosyncratic" frame the first part of the vignette reads as follows:

a) "Common" frame:

"*We will now ask you to imagine a possible scenario taking place in the future.*
Imagine you are in 2024. The EU falls into an economic crisis. The media and most experts expect the crisis to hit ***all EU member states, including [COUNTRY]****, very hard."*

b) "Idiosyncratic" frame:

"*We will now ask you to imagine a possible scenario taking place in the future.*
Imagine you are in 2024. The EU falls into an economic crisis. The media and most experts expect the crisis to hit ***some EU member states very hard, but not [COUNTRY]****."*

The second factor has to do with the extent of *attributability* of the crisis to decisions made by governments in the affected member states. The factor varies based on the emphasis on the self-inflicted nature of the crisis, and most notably the influence of past political decisions in generating the current crisis context. The two levels this factor can take are (a) "attributable" and (b) "non-attributable". The second, randomized piece of text of the vignette is one of the two sentences below:

a) "Attributable" frame:

"*According to media and experts, the crisis is primarily caused by* ***past policy decisions taken by governments in the EU****, which produce disruptive and unexpected economic effects."*

b) "Non-attributable" frame:

"*According to media and experts, the crisis is primarily caused by a* ***sudden event occurring outside the EU****, which produces disruptive and unexpected economic effects."*

The third factor is related to the intensity of the *threat* posed by the crisis for the integrity of the EU polity. The variation in this factor is given by the degree to which the crisis is presented as an existential threat for the integrity and stability of the EU polity. The two levels this factor can take are (a) "existential" and (b) "non-existential". Thus, the third, randomized piece of text of the vignette is one of the two sentences below:

a) "Existential" frame:

"*Due to the severity of the crisis, media and experts point out that there is a* ***high risk*** *that the EU will break up and claim that political stability in Europe is* ***under threat****."*

b) "Non-existential" frame:

"*Despite the severity of the crisis, media and experts point out that there is **no risk** that the EU will break up and claim that political stability in Europe is **NOT under threat**.*"

The combination of the three pieces of text, which are randomized across the two levels of each factor, yields an experimental vignette that is presented to each respondent. As an example, if a respondent is randomly assigned to a crisis scenario has the three frames (1) idiosyncratic, (2) attributable, (3) non-existential, she will read the following vignette:

"*We will now ask you to imagine a possible scenario taking place in the future.*

*Imagine you are in 2024. The EU falls into an economic crisis. The media and most experts expect the crisis to hit **some EU member states very hard, but not [COUNTRY].***

*According to media and experts, the crisis is primarily caused by **past policy decisions taken by governments in the EU**, which produce disruptive and unexpected economic effects.*

*Despite the severity of the crisis, media and experts point out that there is **no risk** that the EU will break up and claim that political stability in Europe is **NOT under threat**."*

The resulting 2 x 2 x 2 factorial design yields eight different scenarios, as shown in Table 1 below:

Table 1: List of experimental groups

Commonality	Attributability	Threat	Experimental Group
Common	Attributable	Existential	Group 1
		Non-existential	Group 2
	Non-attributable	Existential	Group 3
		Non-existential	Group 4
Idiosyncratic	Attributable	Existential	Group 5
		Non-existential	Group 6
	Non-attributable	Existential	Group 7
		Non-existential	Group 8

Respondents will be thus randomly exposed to one of eight treatment groups. Given our comparative perspective over the two episodes of the EA and the Covid-19 crises, in our analysis, we are mostly interested in assessing the potentially diverging effects of different frames on public support for solidarity and risk sharing at the EU level, rather than comparing the effect of each treatment group to a control condition in which there is no exposure to frames. For this reason, our survey experiment will not include a pure control

group that is exposed to no frame. This choice is also warranted by the fact that, in a crisis context, voters are always exposed to crisis frames, while it is rather unrealistic to imagine a situation in which no exposure to crisis descriptions takes place. However, as explained in greater detail below, we will include one question that will be posed to each respondent both before and after the treatment. This will allow us to have at least one pre-treatment measure of solidarity to compare with the post-treatment response.

After being exposed to one of the eight vignette combinations, respondents will be then asked to answer four questions that we will use to create the dependent variables of our analyses:

E1. To tackle the crisis, the President of the European Commission announces in a press conference a new, unprecedented programme to issue common debt backed by all EU countries. The objective of the new EU common debt is to provide financial assistance to the EU member states that are more severely hit by the crisis.

Under this scenario, to what extent do you approve of the Commission's announcement?

Disapprove Completely — Approve Completely

0 1 2 3 4 5 6 7 8 9 10

99 Don't know

E2. Under this scenario, do you think [COUNTRY] should or should not provide financial help to EU member states that are more severely hit by the crisis?

1. No, [COUNTRY] should NOT provide any financial help
2. Yes, [COUNTRY] should provide financial help
99. Don't know

E3. Under this scenario, would you be willing to support the EU member states facing severe economic and financial difficulties with a contribution based on a 1% increase in your income tax?

1. Yes
2. No
99. Don't know

E4. If there was a referendum on [COUNTRY]'s membership of the European Union after this announcement, how would you vote?

1. Remain
2. Leave
3. No vote
99. Don't know

Moreover, in a set of questions administered to each respondent before the treatment, we will ask respondents the following question:

Pre-E2. Imagine a country in the EU facing an economic crisis. Do you think [COUNTRY] should or should not provide any financial help?

1. No, [COUNTRY] should NOT provide any financial help
2. Yes, [COUNTRY] should provide financial help directly on its own
3. Yes, [COUNTRY] should provide financial help, but only by contributing to an EU-led initiative
99. Don't know

Hypotheses

We expect that different crisis frames will affect public attitudes towards EU-level collective action in times of crisis. In our analysis, we will take into account attitudes towards for fiscal integration, financial risk sharing and EU membership. We leave the clarification of the operationalisation of our dependent variables for the final section of the pre-analysis plan. Here, we present the hypotheses that we aim to test with our analysis.

First, the degree of commonality attributed to a crisis is relevant. Politically, it drives home the point that members are part of a community of risk in which each member can identify with the situation of being unfortunate (Baldwin 1990: 24-31; Stone 1999). Narratives of shared crisis experience may redesign the boundaries between deserving in-groups and less deserving outgroups: as "bonding" and "bounding" go hand in hand (Ferrera 2005), the shared perception of a crisis that hits symmetrically all EU member states may facilitate an extension of inter-state solidarity. We expect that highlighting the common nature of the crisis can prime respondents to the expression of "we-feeling" or rally around the EU flag that positively influence their attitudes towards collective action to solve the crisis. Thus, we formulate the following hypothesis:

Hypothesis 1a: Support for fiscal integration/financial solidarity/remain is, on average, stronger when the common nature of the crisis is highlighted than when the crisis is portrayed as idiosyncratic.

The second dimension of *attributability* follows directly from collective action problems of risk-sharing. Two are of particular relevance. First, the fortunate members may renege on their commitment to help another member of the risk pool in order to avoid the costs. Second, the unfortunate members may have taken more risks before the downside risk materialised because they figured that they could share it with others. When a crisis is

clearly attributable, fortunate members with a commitment problem (or dynamically inconsistent preferences) have an incentive to accuse the unfortunate ones of Moral Hazard. Thus, an emphasis on the self-inflicted nature of the crisis, and most notably the influence of past political decisions in generating the current crisis context, may shape the perception of crisis-stricken countries being responsible for their misfortunes. In public debates, this plays out in morality tales that feed into stereotypes of self-righteous "saints" and reckless "sinners", depending on which side the accusers support (Dyson 2014; Matthijs and McNamara 2015). This leads us to propose the following hypothesis:

> *Hypothesis 1b: Support for fiscal integration/financial solidarity/remain is, on average, stronger when the non-attributable origin of the crisis is highlighted than when the crisis is portrayed as attributable.*

The third dimension is related to the *intensity of the threat* that a crisis poses for the integrity of the EU. Even if the initial impact is region-specific, crises tend to spill over through integrated markets and political processes. While policies may address the functional problems, the political fallout from perceived or real collective action problems indicated above can lead to acrimonious and divisive conflict. The perceived intensity of the threat influences evaluations of the costs and benefits of inter-state solidarity. When the stability of the EU polity is at stake, considerations of "togetherness" can take precedence over the pursuit of narrow self-interest triggering efforts at polity maintenance (Ferrera, Miró and Ronchi 2021). Thus, the shared impression of a crisis posing an existential threat to the integrity of the EU may catalyse the willingness of the public to advance European risk-sharing. Accordingly, we put forward the following hypothesis:

> *Hypothesis 1c: Support for fiscal integration/financial solidarity/remain is, on average, stronger when the existential consequences of the crisis are highlighted than when the crisis is portrayed as non-existential.*

We also expect highlighting the common nature, the non-attributable origin and the existential consequences of the crisis *in combination* will reinforce the effects of the individual attributes compared to crisis scenarios in which the crisis is portrayed as jointly idiosyncratic, attributable and non-existential. We will first assess differences between combinations of *two* crisis frames that are theorized to produce effects going in the same direction against the *two* opposite frames within the same dimension. Therefore, we will test the following hypotheses:

> *Hypothesis 2a: Support for fiscal integration/financial solidarity/remain is, on average, stronger when the common nature of the crisis is highlighted in combination with its non-attributable origin than when the crisis is portrayed as both idiosyncratic and attributable.*

> *Hypothesis 2b: Support for fiscal integration/financial solidarity/remain is, on average, stronger when the common nature of the crisis is highlighted in combination with its existential consequences than when the crisis is portrayed as both idiosyncratic and non-existential.*

Hypothesis 2c: Support for fiscal integration/financial solidarity/remain is, on average, stronger when the non-attributable origin of the crisis is highlighted in combination with its existential consequences than when the crisis is portrayed as both attributable and non-existential.

Finally, we will consider jointly the effect of the three frames of the crisis that we expect to generate greater support (i.e., common nature, non-attributable origin and existential consequences) against the three frames that we expect to reduce support (i.e., idiosyncratic nature, attributable origin and non-existential consequences). The following hypothesis will then be tested:

Hypothesis 3: Support for fiscal integration/financial solidarity/remain is, on average, stronger when the common nature of the crisis is highlighted in combination with both its non-attributable origin and existential consequences than when the crisis is portrayed as jointly idiosyncratic, attributable and non-existential.

All the hypotheses laid out so far involve the assessment of differences among respondents belonging to different treatment groups, which receive different pieces of information about the nature of the hypothetical crisis. In a second set of analyses, we aim to assess the difference between the pre-treatment and post-treatment attitudes of the respondents. In particular, we leverage a pre-treatment measure of support for financial solidarity as a pure control measure that works as a benchmark to understand whether respondents shift their attitudes compared to a non-treated environment.

Using the differential between our pre-treatment measure and post-treatment measure of financial solidarity (see the final section for the operationalisation of this variable), we test a set of hypotheses that is similar to those outlined above. We start by considering pre-/post-treatment differences at the level of single frames and test the following hypotheses:

Hypothesis 4a: Switching from pre-treatment lack of support for inter-state solidarity to post-treatment support for inter-state solidarity should be more likely (less likely) when the common (idiosyncratic) nature of the crisis is highlighted. Vice versa, switching from pre-treatment support to post-treatment lack thereof should be more likely (less likely) when the idiosyncratic (common) nature of the crisis is highlighted.

Hypothesis 4b: Switching from pre-treatment lack of support for inter-state solidarity to post-treatment support for inter-state solidarity should be more likely (less likely) when the non-attributable (attributable) origin of the crisis is highlighted. Vice versa, switching from pre-treatment support to post-treatment lack thereof should be more likely (less likely) when the attributable (non-attributable) nature of the crisis is highlighted.

Hypothesis 4c: Switching from pre-treatment lack of support for inter-state solidarity to post-treatment support for inter-state solidarity should be more likely (less likely)

when the existential (non-existential) consequences of the crisis are highlighted. Vice versa, switching from pre-treatment support to post-treatment lack thereof should be more likely (less likely) when the non-existential (existential) nature of the crisis is highlighted.

We then move to considering pre-/post-treatment differences taking into account combinations of two attributes and test the following hypotheses:

Hypothesis 5a: Switching from pre-treatment lack of support for inter-state solidarity to post-treatment support for inter-state solidarity should be more likely (less likely) when the common (idiosyncratic) nature of the crisis is highlighted in combination with its non-attributable (attributable) origin. Vice versa, switching from pre-treatment support to post-treatment lack thereof should be more likely (less likely) when the idiosyncratic (common) nature of the crisis is highlighted in combination with its attributable (non-attributable) origin.

Hypothesis 5b: Switching from pre-treatment lack of support for inter-state solidarity to post-treatment support for inter-state solidarity should be more likely (less likely) when the common (idiosyncratic) nature of the crisis is highlighted in combination with its existential (non-existential) consequences. Vice versa, switching from pre-treatment support to post-treatment lack thereof should be more likely (less likely) when the idiosyncratic (common) nature of the crisis is highlighted in combination with its non-existential (existential) consequences.

Hypothesis 5c: Switching from pre-treatment lack of support for inter-state solidarity to post-treatment support for inter-state solidarity should be more likely (less likely) when the non-attributable (attributable) origin of the crisis is highlighted in combination with its existential (non-existential) consequences. Vice versa, switching from pre-treatment support to post-treatment lack thereof should be more likely (less likely) when the attributable (non-attributable) origin of the crisis is highlighted in combination with its non-existential (existential) consequences.

Finally, we assess pre-/post-treatment differences taking into account the combination of all three attributes and test the following hypothesis:

Hypothesis 6: Switching from pre-treatment lack of support for inter-state solidarity to post-treatment support for inter-state solidarity should be more likely (less likely) when the common (idiosyncratic) nature of the crisis is highlighted in combination with both its non-attributable (attributable) origin and its existential (non-existential) consequences. Vice versa, switching from pre-treatment support to post-treatment lack thereof should be more likely (less likely) when the idiosyncratic (common) nature of the crisis is highlighted in combination with both its attributable (non-attributable) origin and its non-existential (existential) consequences.

Sampling plan

Data Collection Procedure

The survey will be fielded in the following 15 EU countries: Austria, France, Finland, Germany, Greece, Hungary, Ireland, Italy, Latvia, Netherlands, Poland, Portugal, Romania, Spain, Sweden. The survey questionnaire consists of an introductory section, a common core section, five crisis-specific modules (respectively, about the EA crisis, the refugee crisis, the social crisis, the Covid-19 crisis and the Brexit crisis), a section about socio-demographic information, and a final section about political indicators. Our factorial vignette experiment is part of one of the five crisis-specific modules, namely that about the EA crisis.

To reduce the length of the survey questionnaire and the cognitive burden required to complete the survey, each respondent will be randomly assigned to only two of the five crisis-specific modules. Thus, our experiment will be administered to only a subset of all the respondents of the survey. We expect the median respondent to take around 20 minutes to complete the administered survey questionnaire. The survey is translated into the countries' main language(s) and will be accessed on personal computers and mobile devices.

The sample is randomly drawn from a large online panel provided by the survey company Gallup. Quotas for demographic categories will be used in order to ensure that each country sample will be representative of the country population for the following categories: age, gender, education, and NUTS1 region of residence. We will also set quotas per crisis-specific modules, so to ensure that we have a balanced number of respondents across the modules that are randomized in the survey.

Sample size

In each of the 15 countries, the survey will be administered to 2,000 respondents. Due to the randomization of the crisis-specific modules, the EA crisis module will be allocated to 800 respondents per country[2]. This means that we expect to have a total sample of 12,000 respondents (800 respondents x 15 countries). Thus, each of the eight treatment groups is expected to have a total of 1,500 respondents. From this sample, we will not consider in our analysis inattentive respondents and "Don't know" answers (see below). On the basis of prior experience with vignette experiments, we expect the analysis sample to be around 85-90% of the full sample (i.e., 10,200 – 10,800 respondents).

Sample size rationale

The countries have been selected to cover the widest possible geographical extension inside the EU. We attempted to maintain a good balance across different macro-regions of the EU, selecting four countries in Southern Europe (i.e., Italy, Greece, Portugal and Spain), four

[2] 2 modules will be allocated to 2,000 respondents (2x2,000=4,000). Since there are five crisis-specific modules, it means that each module will have 800 respondents (4,000/5 = 800).

countries in Western Europe (i.e., Austria, France, Germany and the Netherlands), four countries in Central, Baltic and Balkanic Europe (i.e., Hungary, Latvia, Romania and Poland) and three countries in North and Northern Europe (i.e., Finland, Ireland and Sweden).

The major driver in the determination of the sample size was given by financial resources. After aggregating the responses across countries, we expect the sample size to be powerful enough to allow for accurate estimates based on a comparison with the smaller sample size employed by studies making use of a similar experimental design (e.g., Baccaro, Bremer and Neimanns 2021). However, we have no expectations about sufficient statistical power for national sub-samples and leave the comparison of regional differences for exploratory analysis.

Stopping rule

Due to the module-specific quotas implemented in the survey, data collection within a country will stop when 800 complete responses for the EA crisis module have been collected. Should the objective of 800 responses for the EA crisis not be attained, data collection will stop when 2,000 complete survey responses have been collected.

Variables

Manipulated variables

The crisis frames highlighted in the vignette constitute the key explanatory variables (see above). By including a dummy for each of the different frames (or combinations thereof), minus a reference category, one can estimate the effect of crisis frames on support for fiscal integration and financial risk sharing. Here are the manipulated variables that we will consider in our analysis:

V1. Idiosyncratic nature (ref.)

V1. Common nature

V2. Attributable origin (ref.)

V2. Non-attributable origin

V3. Non-existential consequences (ref.)

V3. Existential consequences

V4. Idiosyncratic nature + attributable origin (ref.)

V4. Common nature + non-attributable origin

V5. Idiosyncratic nature + non-existential consequences (ref.)

V5. Common nature + existential consequences

V6. Attributable origin + non-existential consequences (ref.)

V6. Non-attributable origin + existential consequences

V7. Idiosyncratic nature + attributable origin + non-existential consequences (ref.)

V7. Common nature + non-attributable origin + existential consequences

Measured variables

1. Dependent variables

First, to test Hypotheses 1-3, we will make use of a set of dependent variables that will be created from the answers to the questions posed just after the exposure to the experimental vignette. We will make use of four dependent variables, constructed in the following manner:

- *Support for fiscal integration* (ordinal), which is measured by the respondents' approval of a (hypothetical) announcement of debt mutualization made by the Commission on an 11-point Likert scale from 0 to 10.

- *Support for inter-state solidarity* (dichotomous), which is measured by respondents' acceptance of their country providing financial help to other hardly hit member states.

- *Individual contribution to inter-state solidarity* (dichotomous), which is measured by respondents' acceptance to give a contribution based on a 1% increase in income tax to provide financial help to other hardly hit member states.

- *Vote in EU referendum* (categorical), which is measured by respondents' intention to either (a) vote for remain or (b) vote for leave or (c) not voting in a (hypothetical) referendum on EU membership held in their country.

Second, to test Hypotheses 4-6, we will construct the following dependent variable. We will first dichotomize the three-level pre-treatment variable on support for inter-state solidarity (i.e. pre-E2, see above). The new pre-treatment variable will take value 1 if respondents are in favour of providing financial help to an EU country in crisis (be it either directly on its own or only by contributing to an EU-led initiative) and 0 otherwise. We will then subtract this variable to the dichotomous variable "*Support for inter-state solidarity*" (see second bullet point above) to obtain the following:

- *Pre-post change in support for inter-state solidarity* (categorical), which is measured by the change in respondents' acceptance of their country providing financial help to other hardly hit member states before and after the treatment[3].

2. Independent variables

In addition to the manipulated variables described above, which will constitute the main explanatory variables in the analysis, we will use the following measured variables as controls in some of the model specifications of our regression framework:

- *Ideological left-right position* (ordinal), which is measured by respondents' self-placement on a left-right dimension on a 11-point Likert scale from 0 to 10.

[3] The variable takes value (a) -1 if the respondent changes from support to no support, (b) 0 if no change takes place, (c) 1 if the respondent changes from no support to support.

- *EU position* (ordinal), which is measured by respondents' self-placement on an anti-/pro-European integration dimension on a 11-point Likert scale from 0 to 10.

- *Age* (continuous), which is measured by the number of age years of the respondent.

- *Gender* (categorical), which is measured by the respondent self-identification with the category (a) male, (b) female, or (c) other.

- *Education* (continuous), which is measured by the number of age years at which the respondent stopped full-time education.

- *Area of residence* (categorical), which is measured by whether the respondent says she lives in (a) a rural area or village, (b) a small or middle size town, or (c) large town or city.

- *Country* (categorical).

We will use other variables that relate to the political attitudes and socio-economic background of the respondents to measure individual-level differences in an explanatory fashion (e.g., institutional trust, European identity, etc.). Furthermore, the above-mentioned independent variables will be used for exploratory tests of heterogenous treatment effects (e.g., by macro-regions, ideological positions, etc.).

Analysis plan

Statistical models

All hypotheses will be investigated using individual-level data and different model specifications. All the dependent variables we take into account in our analysis (see previous section) are ordinal, categorical or dichotomous. We will start from estimating ordered logit models for ordinal variables, multinomial logit models for categorical variables and logit models for dichotomous variables. The analysis will be run with and without the control variables discussed in the previous section, including country-level fixed effects. In a second set of analyses, we will test our hypotheses using simple OLS regression estimators. All models will use robust standard errors.

Transformations

"Don't know" and "prefer not to say" categories will be coded as missing values for all variables employed in the analysis, unless we explicitly conduct exploratory analysis for these categories. Other than that, no transformations will be used.

Data exclusion

Some respondents will be *ex-ante* excluded from the survey due to the quota system described above. The sample is randomly drawn from the Gallup survey and these respondents are excluded only after responding to questions about demographic categories. Moreover, if the EA crisis module is administered to 800 respondents before reaching the total amount of 2,000 survey respondents in each country, the module-specific quotas will prevent new respondents from being assigned to the experiment.

We expect the median respondent to take around 20 minutes to respond to the full survey. In our main analyses, we plan to exclude respondents who take less than 5 minutes to respond, as it is practically impossible to respond meaningfully to all questions in our survey questionnaire in such a short period. Based on previous experience with survey questionnaires of similar length, we expect this to reduce the total sample of respondents by around 5%. We will check the differences between results with and without the exclusion of these respondents, to assess the sensitivity of our findings to this choice.

Missing data

Missing data will be left as is. Therefore, respondents who have missing data will be excluded from the analyses. "Don't know" and "prefer not to say" will be recoded as missing data in the main analyses, while we will leave the exploration of these answers as a distinct response for exploratory analysis.

Further exploratory analysis

We will carry out further exploratory analyses to uncover patterns of public opinion on fiscal integration and financial solidarity at the EU level. For example, we will perform heterogeneity tests by macro-regions within the EU to test whether the results are driven by specific sets of countries. Also, we plan to perform analyses aimed at assessing the presence of interactive effect between the different operationalization of our treatment variable and individual ideological positions in the left-right space and/or on European integration.

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