# Strategic Interdependence and Preferences for Debt Mutualization in the Eurozone

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**Abstract**

Existing research argues that a "democratic constraint" blocks the path towards fiscal integration in the eurozone: Voters in creditor countries are fundamentally opposed to debt sharing, while voters in debtor countries are unwilling to leave the euro, which constrains national politicians. However, this literature neglects that preferences are strategically interdependent across countries and dependent on the information processed by voters. Based on two linked survey experiments in Germany and Italy, conducted at a crucial moment during the COVID-19 pandemic, we show that a majority of German voters accept debt mutualization in order to stave off a break-up of the euro as a result of Italexit. In contrast, Italian voters prefer Italexit if austerity and structural reforms are required to remain in the euro. Our experimental results thus first suggest that there is no insurmountable opposition towards debt mutualization in German public opinion and second that there is a serious risk of Italian public opinion turning against the euro if further austerity is imposed. Furthermore, they help to explain why German politicians relaxed their hostility to joint debt and agreed to the introduction of the EU's pandemic recovery fund in 2020.

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## Introduction

International integration is becoming increasingly contentious at the domestic level. The most visible manifestations of popular opposition to continued integration were the Swiss and British referenda of 2014 and 2016, respectively, in which a majority of citizens voted to reject the restrictions that come with membership in supranational institutions. More generally, national governments now face stronger constraints when negotiating at the international level. If in the past governments' efforts to further international cooperation could rely on the tacit support of citizens, in recent years they have had to face an increasingly recalcitrant public opinion (Hooghe & Marks, 2009; Beramendi & Stegmueller, 2020; de Vries et al., 2021; Walter, 2021; Zürn, 2018).

Public opinion has also played a constraining role in the European Union (EU), the most ambitious example of international (economic) integration (Farell & Newman, 2017), particularly in the context of monetary unification. The Economic and Monetary Union (EMU) was conceived as a preliminary step towards political integration (e.g. Padoa Schioppa, 2004), but it is broadly accepted that the construction of the eurozone is rendered more fragile by the absence of a common fiscal capacity to respond to economic shocks (Copelovitch et al., 2016).

Despite extensive economic interdependencies within the EU, the European treaties explicitly prohibit fiscal risk-sharing across countries.[1] During the euro crisis, the "no-bailout clause" of the treaty was bent to allow for financial assistance to member states in case of systemic risk, but the determination to prevent moral hazard remained: any financing was made contingent on strict conditionality, including austerity and structural reforms to be implemented by recipient countries. Alternative solutions, especially proposals for

1. In this paper, we use the terms "debt mutualization" and "fiscal risk-sharing" interchangeably.

"Eurobonds", were heatedly debated during the crisis, but did not lead to any meaningful action.

Political scientists have explained the lack of progress towards fiscal integration by pointing to a "democratic constraint" (Beramendi & Stegmueller, 2020) or "constraining dissensus" (Hooghe & Marks, 2009, 2018). The argument is that public opinion in northern countries is strongly opposed to risk-sharing and cross-border redistribution and this limits the northern politicians' room for moving towards greater fiscal integration (Beramendi & Stegmueller, 2020; Degner & Leuffen, 2020; Howarth & Schild, 2021; Schneider & Slantchev, 2018; Walter et al., 2020). At the same time, voters in southern countries remain strongly attached to the euro and unwilling to leave it despite the high cost required to remain (austerity and structural adjustment) (Clements et al., 2014; Fernández-Albertos & Kuo, 2016; Jurado et al., 2020; Walter et al., 2018), which reduces the leverage of southern politicians in negotiations. During the euro crisis, this combination created a strategic imbalance that allowed creditor countries to shift the burden of adjustment onto debtor countries (Copelovitch et al., 2016; Frieden & Walter, 2017), making any moves towards debt sharing unlikely.

Although this "democratic constraint" explains Europe's response to the eurozone crisis of the early 2010s, recent developments during the COVID-19 pandemic are difficult to reconcile with it and call for a reevaluation of the scholarly consensus about the (in)feasibility of debt mutualization in Europe. Albeit temporary and limited in scope, the launching of NextGenEU, which is financed by joint European debt, and Germany's change in position – from staunch opposition against common debt to being a driving force behind the pandemic recovery fund – require us to reassess the conditions under which voters in northern countries may agree to some form of fiscal risk-sharing, and the conditions under which voters in southern countries are willing to remain in the common currency. Are

southern voters still determined to stay in the euro despite all odds? Do northern voters not take into consideration the risks associated with the eurozone's disintegration?

This paper addresses these questions with two linked survey experiments conducted in Germany and Italy in April 2020. We ran our experiments at a crucial moment in the debate on "coronabonds" (which later evolved into the NextGenEU plan) when the raging COVID-19 pandemic produced an exogenous, negative shock to attitudes towards euro membership in Italy as a systemically important country. Our research design exposed voters in Germany to a hypothetical scenario in which Italy faced a financial crisis that could lead to its exit from the common currency. They were asked to evaluate the costs of a possible breakup of the euro for the German economy against the costs of allowing debt mutualization in order to protect the euro. Voters in Italy were presented with the same scenario of their country facing a financial crisis and were asked to weigh the costs of a disorderly exit from the euro against the costs of implementing austerity and structural reforms as a condition for remaining.

Our results suggest that the preferences of northern voters with regard to fiscal mutualization depend on expectations about what the counterpart will do. When evaluating the costs of euro breakup and debt mutualization simultaneously, the former have a greater impact on preferences in Germany, which dovetails with similar evidence about the preferences of German interest groups (Walter et al., 2020). Differently from Greek voters in 2015 (Jurado et al., 2020; Walter et al., 2018), Italian voters weigh the cost of austerity reforms more heavily than the costs of a disorderly exit. Ironically, it seems that members of the eurozone need to experience a serious threat of disintegration first (with a systemic country being willing to exit) before they can integrate further.

Beyond the eurozone, our results underline the importance of taking into account citizens' perceptions of interdependencies in the international political economy when explaining

public opinion about integration or disintegration. The current literature is correct to emphasize that the choices of national leaders in the international arena are increasingly constrained by domestic public opinion. However, we highlight that citizens' preferences are iteratively and dynamically influenced by their perceptions of what other countries will do and by the manner in which these decisions are portrayed. In other words, strategic interdependencies shape public opinion. In line with the new interdependence approach (Farell & Newman, 2016), these political feedback effects need to be taken into account when explaining governments' positions in international negotiations.

**Fiscal integration and Europe's democratic constraint: A brief overview**

When the euro was created, intergovernmental conflicts prevented the introduction of tools for risk-sharing and debt mutualization (Dyson & Featherstone, 1999; Eichengreen & Frieden, 2001; McNamara, 1998). Northern European countries feared that they would have to pay for the profligacy of southern European member states. Therefore, they intentionally excluded any mechanism for fiscal risk-sharing from the Maastricht Treaty.

The euro crisis, however, revealed the problems of an incomplete monetary union. When Greece lost access to financial markets, and several other member states followed suit, the European partners had to bail them out, first through ad-hoc measures and then through the introduction of the European Stability Mechanism (ESM). However, the fiscal architecture of the eurozone was not fundamentally changed: countries receiving financial assistance were required to sign a Memorandum of Understanding, committing to structural reforms and austerity policies. Moreover, the mechanisms of fiscal surveillance were strengthened through the introduction of the Fiscal Compact. Although debtor countries received help to

service their debts (Schelkle 2017), the burden of adjustment fell almost exclusively onto them (Frieden & Walter, 2017; Walter et al., 2020).

There was no shortage of ideas for an alternative resolution of the eurozone crisis, but northern states were reluctant to implement them. This resistance has been described as resting on a strong moral foundation (Carstensen & Schmidt, 2018; Hien, 2019; Matthijs, 2020; Matthijs & McNamara, 2015), but the most common explanation focuses on public opinion. In the last few decades, European policymakers have increasingly been confronted with Eurosceptic publics (Hooghe & Marks, 2009, 2018). Faced with a "constraining dissensus", political leaders increasingly had to "worry about the electoral consequences of their European policies" (Hooghe & Marks, 2009, p. 21).

Numerous studies show that voters in northern European countries were strongly opposed to fiscal integration. For instance, a majority of Germans were opposed to European bailouts and support for Eurobonds was particularly low in countries that would have been net contributors (e.g., Kanthak & Spies, 2018; Nicoli, 2019). Beramendi and Stegmueller (2020) argue that the opposition towards fiscal integration is rooted in domestic economic interests that diverge across the eurozone. This heterogeneity in citizens' preferences makes risk-pooling among member states difficult as "leaders weigh heavily the preferences of their national electorates when negotiating policy" (Beramendi & Stegmueller, 2020, p. 640). Based on interviews with policymakers in Austria, Germany, and the Netherlands, Walter et al. (2020, pp. 225–229) confirm that elites were aware of the popular opposition towards fiscal transfers and that this opposition constituted the main obstacle for further fiscal integration. According to Schneider and Slantchev (2018, p. 3), Germany's strategy was "firmly rooted in domestic politics" and "Merkel's tough talk on Greece brought her political gains domestically". Taken together, opposition towards fiscal integration by northern governments was "aligned fully with an extremely hostile public opinion towards

Eurobonds" (Howarth & Schild, 2021, p. 219, also see Bernhard & Leblang, 2016; Börzel & Risse, 2018; Degner & Leuffen, 2020).

Simultaneously, southern governments faced their own version of the "democratic constraint". The prolonged eurozone crisis substantially increased dissatisfaction with the EU (de Vries, 2018; Guiso et al., 2016; Hobolt & de Vries, 2016). Remarkably, however, support for the euro remained high (Hobolt & Wratil, 2015; Roth et al., 2016; Walter et al., 2018). Even in the crisis-ridden south, voters still fundamentally supported the euro despite austerity and a prolonged recession. There was a broad consensus in debtor countries that exit from the euro should be avoided at all costs, not just in Greece but also in other countries (Walter et al., 2020, Chapter 4). Many southern voters thus had conflicting preferences because they supported the euro but opposed austerity policies (Clements et al., 2014; Fernández-Albertos & Kuo, 2016; Franchino & Segatti, 2019). As citizens compare the status quo against possible alternatives (de Vries, 2018), the prospect of leaving the euro was even less attractive than austerity for voters in the south.

In the negotiations with creditors, this popular support for the euro influenced the southern governments, which is illustrated by events around the third Greek bailout in 2015. Jurado et al. (2020) show that while the far-left government led by *Syriza* was trying to renegotiate the terms of the agreement with the creditors (the "Troika"), support for the euro remained high in Greece (around 75 percent), despite the negative consequences of austerity for the Greek population (Xezonakis & Hartmann, 2020). In summer 2015, when a majority of voters rejected the third bailout package in a popular referendum, more than three-quarters of respondents wanted to keep the euro, and only 13 percent preferred exit (Walter et al., 2018, p. 982). Arguably, popular support for the euro deprived the Greek government of a credible exit option and reduced its bargaining power (Varoufakis, 2017, p. 478).

Public opinion, therefore, favored the negotiation position of creditor countries: while southern countries had no credible alternative, northern countries had no incentive to allow for greater fiscal integration. This is why Beramendi and Stegmueller (2020, p. 642) argue that "Europe's perpetual stasis has clear and traceable democratic origins", while Schneider and Slantchev (2018, p. 28) contend that "strong domestic opinions can lead to suboptimal foreign policies." The strategic imbalance led to constant muddling through (Jones et al., 2016), as EU leaders took "the path of least political resistance, keeping the euro afloat with regulatory measures while avoiding populist pressures that would arise in major treaty reform" (Hooghe & Marks, 2018, p. 117). Meanwhile, the fundamental problems of the eurozone remained unsolved (Copelovitch et al., 2016; Jones et al., 2016; Matthijs & Blyth, 2015).

In 2020, however, the debate about fiscal risk-sharing returned with a vengeance. The COVID-19 pandemic affected all European countries, but southern countries like Italy and Spain were initially hit more strongly than northern countries. Furthermore, the fiscal capacity of southern countries to respond to the economic shock was lower due to high government debt. Consequently, in March 2020, nine heads of states from the eurozone signed a letter to European Council President Charles Michel, demanding common European bonds to finance the crisis response. Following the script from the euro crisis, northern governments, including Germany and the so-called "Frugal Four" (Austria, Denmark, Netherlands, Sweden), initially opposed this idea. However, in a surprising turn of events, the German government shifted its position in May when Angela Merkel and French President Emmanuel Macron proposed a pandemic recovery fund, including grants to member states financed through joint European debt. The initiative paved the way for "Next Generation EU", a €750 bn instrument to respond to the pandemic. The centerpiece of this pandemic recovery fund is the Recovery and Resilience Facility which distributes

funds to member states raised through joint borrowing. Although there is no mutualization of legacy debt and transfers to the south remain limited compared to the deficits incurred due to the pandemic, this was a surprising shift in the German and European position with regard to fiscal risk-sharing.

**The role of strategic interdependence in the formation of preferences**

The argument about a democratic constraint neglects that choices in "debtor" and "creditor" countries are strategically interdependent. When a eurozone member experiences financial difficulties, creditor countries need to evaluate the costs of stabilizing a country against the risk that the country could exit from the eurozone, especially if it is economically and politically important to them (Schneider & Tobin, 2020). Debtor countries, in turn, need to evaluate the costs of staying in the eurozone against the costs of a possible exit. The former is contingent on whether creditor countries agree to "share the burden". In short, support for debt sharing in creditor countries depends on whether debtor countries threaten to exit, while support for exit in debtor countries depends on whether creditor countries are willing to agree to debt mutualization.

As argued above, a credible threat of rupture of the eurozone was absent during the euro crisis, due to popular attachment to the euro in the southern countries directly affected by the crisis. As implied by the literature on the "democratic constraint", in these circumstances the unconditional preferences of the northern electorates constrain northern policymakers to oppose any move towards fiscal risk-sharing and debt mutualization. However, the COVID-19 pandemic introduced an important change in background conditions.

The epicenter of a possible new financial crisis moved to Italy, a systemically important country, which would be more difficult to "ring-fence" than a crisis in Greece or other

countries. Furthermore, already before the pandemic, Italy had high levels of Euroscepticism as a result of 25 years of economic stagnation, and the health emergency increased it further, as we illustrate later in the paper. Against this background, analyses that focus on unconditional preferences (e.g., "are you for or against debt mutualization?", "are you for or against remaining in the euro?") are likely to suffer from omitted variable bias. Rather, we need to study the *strategic* preferences of voters, which depend on perceptions of what other countries might do when faced with a potentially highly disruptive crisis.[2]

Debt mutualization, breakup, or a continuation of the status quo are all possible outcomes of a fiscal crisis, but the impact of each of these outcomes for individual countries is difficult to determine in advance. If voters had complete information and full capacity to process it, they would objectively estimate both the costs and the probability of different outcomes under alternative scenarios, and form their preferences accordingly (Gabel, 1998). However, this is not realistic. Most people do not possess clearly specified attitudes on complex issues (Zaller 1992). They have a number of different partially inconsistent ideas and considerations in their head, but their specific preferences, as expressed in surveys, depend on the type of information voters process when forming their "causal beliefs" (Rho & Tomz, 2017).

In this paper, we manipulate the information processed by voters by using frames. Specifically, we focus on frames that provide information about the costs associated with a country exiting or remaining in the eurozone for both debtor and creditor countries. A large literature on issue framing shows that highlighting the positive or negative consequences of a policy choice in survey experiments substantially affects individual-level preferences (Amsalem & Zoizner, 2020; Chong & Druckman, 2007; Lupia, 1994; Slothuus & de Vreese, 2010). Here, we do not use frames to selectively emphasize different features of the same

2. Appendix B formalizes the argument about the strategic interdependence of preferences with a simple game theoretical model.

policy choice, but to convey information about the costs of different options, which voters may not consider if it was not made available to them (Rho & Tomz, 2017; Tversky & Kahneman, 1973).

As argued above, Europe's crisis resolution strategy adopted during the eurozone crisis prescribes that countries unable to roll over their debts receive financial support from the ESM in exchange for strict conditionality, including austerity and structural reforms. The unpopularity of these measures led to a decline in support for the euro (Fernández-Albertos & Kuo, 2016; Franchino & Segatti, 2019). We thus expect that voters in debtor countries are more likely to support euro exit if they receive information that links continued membership in the euro to the implementation of austerity measures. Conversely, we expect voters in creditor countries to be less supportive of the continued membership of debtor countries in the euro if they receive information linking continued membership with the need for debt mutualization or fiscal guarantees, which are unpopular in creditor countries.

> **Hypothesis 1:** Support for a debtor country remaining in the eurozone (exiting from it) is lower (higher) when voters receive information highlighting the costs of the debtor country remaining in the euro (the implementation of austerity policies for the debtor country; debt mutualization for the creditor country).

Following a similar logic, voters receiving information about the costs of a debtor country exiting the euro should become more favorable to keeping the eurozone intact. Exit would carry substantial costs for both debtors and creditors due to externalities and knock-on effects. These costs are difficult to specify a priori because there is no precedent of a country exiting the eurozone that could offer guidance. Nonetheless, we can speculate about the costs of exit of a systemically important country based on the existing economic literature (Eichengreen, 2010; Manasse, 2019). In the country that exits, at a minimum, there would be the costs and uncertainty associated with a currency changeover. In all likelihood, the

exchange rate would depreciate, and inflation would increase, which would erode the purchasing power of non-indexed income. A severe recession and the bankruptcy of many businesses are also possible, especially if their assets are redenominated while their liabilities remain in euro. Furthermore, domestic banks' holdings of local sovereign bonds would likely lead to capital losses and bankruptcies in case of exit. At the same time, an exit would also impose severe adjustment costs on other member states, and even threaten the euro in its current form. For creditor countries, it would likely result in appreciation and competitive losses for their export industry and endanger the stability of Europe's financial system. We thus expect the following:

> **Hypothesis 2:** Support for a debtor country remaining in the eurozone (exiting from it) is higher (lower) when voters receive information highlighting the costs of the debtor country exiting from the euro (disorderly exit for the debtor country; threat to export-led growth and financial stability for the creditor country).

The question of which types of costs, exit or stay, have the greatest impact on voters' preferences is largely an empirical question. Nonetheless, prospect theory provides some guidance (Quattrone & Tversky, 1988; Tversky & Kahneman, 1974, 1992). It suggests that the assessment of costs and benefits is not symmetrical, but depends on the perspective from which they are evaluated. Specifically, if the evaluation is conducted from the "domain of gains", decision-makers exhibit risk-aversion, which means that when given a choice between a certain and a risky prospect with the same expected outcome, they choose the certain outcome. Vice versa, if the evaluation is conducted from "the domain of losses", decision-

makers are risk-seeking and prefer the uncertain to the certain prospect even though they have the same expected outcome.[3]

When applied to the hypothetical scenario of our experiment, prospect theory thus suggests that the impact of information about the costs and benefits of the eurozone will depend on whether the eurozone is perceived from the "domain of losses" or from the "domain of gains". In the former case, information about its costs will weigh more heavily on preferences; in the latter case, the opposite applies. To put it differently, respondents who see the eurozone as fundamentally a good thing, worth preserving, will place more weight on information about the costs of breaking up the euro, while respondents who see the eurozone negatively as bringing losses will give more weight to information about the costs of remaining in the euro. To the extent that voters in debtor countries have a more negative perception of the euro than those in creditor countries, information about the costs of remaining in the euro will move preferences more than information about the costs of a euro breakup in debtor countries, and vice versa for credit countries.

> **Hypothesis 3a:** For voters in a debtor country, information emphasizing the costs of a euro breakup has a *smaller* impact on preferences than information emphasizing the costs of remaining in the euro.

> **Hypothesis 3b:** For voters in a creditor country, information emphasizing the costs of a euro breakup has a *larger* impact on preferences than information emphasizing the costs of maintaining the eurozone intact.

3. Drawing on prospect theory, Carreras (2019) argues that British voters in districts facing long-term economic decline were more likely to evaluate the economic consequences of Brexit positively and more likely to vote for Brexit (the risky option).

## Data and methods

We study public preferences for reform of the eurozone at a crucial time during the COVID-19 pandemic, and we focus on one key debtor country, Italy, and one key creditor country, Germany. Italy's pre-existing high level of public debt (135 percent of GDP in 2019), the increase in the public deficit caused by COVID-19 (9.5 percent of GDP in 2020), and 25 years of economic stagnation in which Italy's growth rate has usually been lower than its interest rate, make Italy especially vulnerable to a fiscal crisis. At the same time, public support for the euro has been lower in Italy than in most other European countries (European Commission, 2019). Survey evidence, discussed later in the paper, suggests that COVID-19 caused an exogenous drop in support for the EU at the time we launched our study.

The possibility of Italexit implies a threat to the euro in its current form. As the third biggest economy of the eurozone, Italy's exit would have severe consequences for other member states. This is especially the case for Germany, which headed the creditor front during the eurozone crisis and strongly influenced Europe's crisis resolution strategy. Germany has been one of the primary beneficiaries of the eurozone because its export-led growth model arguably benefits from the single market and an undervalued real exchange rate (Scharpf, 2018, Johnston & Regan, 2016). Moreover, German public opposition to debt mutualization was an important determinant of the German government's position during the eurozone crisis, as detailed above. Yet, German public opinion has been highly supportive of the euro (European Commission, 2019). We thus need to know whether German voters would support debt mutualization if this was necessary to avoid Italexit and a breakup of the eurozone.

We use a linked survey experiment in both countries. Fieldwork began on March 31, 2020 – immediately after European heads of state asked the Eurogroup (made up of eurozone

finance ministers) to present a proposal for Europe's joint fiscal response to the pandemic – and ended before the Eurogroup meeting on April 7 where this proposal was discussed. To allow for the completion of the surveys in a short period with representative samples, we conducted them with *SWG* in Italy and *respondi* in Germany. Both surveys were based on a common questionnaire, and we closely coordinated and monitored implementation. In Italy and Germany, we sampled 2,118 and 2,246 respondents, respectively, from a large pool of individuals, who were recruited online and by telephone to ensure a balanced composition of the population.[4] We used sample quotas to ensure a representative sample based on age, gender, and education. In the analysis, we further use weights to correct for deviations in our sample from the true population. The weights account for the inclusion probability with respect to region, age, gender, education, and past vote choice, but results do not depend on them (or the type of weights).

In both Italy and Germany, the survey included a factorial survey experiment.[5] In Italy, we had conducted a first wave of our survey about preferences towards the euro in October 2019. This allows us to compare baseline attitudes towards remaining or exiting from the euro before and at the beginning of the pandemic. We made the second wave as comparable as possible to the first wave. In Italy, we asked all respondents to imagine a basic scenario in which Italy is faced with a financial crisis:

> *Italy faces a crisis of confidence in financial markets. Capital flies out of the country; customers try to withdraw their deposits from banks; and the interest rate spread with Germany increases. As a result, the Italian government is unable to meet its financial obligations. Other European countries offer Italy a bailout package.*

4. For further information on our survey, see Appendix A.
5. The experiment was pre-registered and received Institutional Review Board (IRB) approval.

*Before deciding whether to accept or not the bailout package, the government calls a referendum. The referendum asks citizens whether they want to stay in the euro and thus accept the bailout package, or whether they want to reject the bailout package and therefore exit the euro.*

We adapted this scenario to the German case by asking respondents to imagine the following basic scenario:

*Italy faces a crisis of confidence in financial markets. Capital flies out of the country; customers try to withdraw their deposits from banks; and the interest rate that the Italian government has to pay to issue government debt increases. As a result, the Italian government is unable to meet its financial obligations.*

*The Italian government is unwilling to sign a bailout plan similar to the Greek one after the financial crisis, which would condition the disbursement of funds on the implementation of austerity measures, and is contemplating exit from the euro.*

*Due to its weight in the negotiations with other eurozone countries, the German government can prevent Italy from exiting the euro or facilitate Italy's exit.*

In both countries, the basic scenario emphasized the strategic interdependence of countries. In Italy, the choice to exit or remain in the euro was set against the background of a European bailout plan. Even more explicitly, in Germany, the basic scenario centered on Italy not being willing to accept a bailout plan. The final sentence about the German government being able to prevent or facilitate Italy's exit acknowledged the importance of Germany in shaping the European negotiations.

After the basic scenario, we asked Italian respondents how they would vote in a hypothetical referendum about euro membership. This was a heuristic device aimed at eliciting preferences about a real decision-making situation as opposed to simply expressing an

opinion (Landa & Meirowitz, 2009, p. 494). In reality, it seems unlikely (but not impossible) that a decision about Italexit would be preceded by a popular referendum. Nonetheless, the possibility of such a referendum has been repeatedly discussed by key political actors in Italy and is salient in the Italian public sphere.[6]

In designing the basic scenario, we drew inspiration from the Greek crisis of June 2015, which saw the freezing of liquidity by the European Central Bank (ECB), capital flight and depositors' run on banks, a rapid increase of risk premia on government bonds, and financing problems for the treasury due to mounting interest rates. This kind of scenario is considered realistic by Italian economists (e.g., Manasse, 2019). However, our basic scenario diverts from the Greek events in one crucial respect: In Greece, the consequence of a "no" vote was ambiguous because it was not clear whether it implied renegotiation of the bailout package or euro exit (Walter et al., 2018). We eliminated the ambiguity and created a stark choice between accepting the bailout package and remaining in the euro, or rejecting it and exiting the euro. In the German scenario, the reference to Italy being unwilling to follow the established crisis-resolution script was intended to signal to respondents that acceptance of a bailout plan similar to those that had been imposed on debtor countries during the eurozone crisis was ruled out.

We randomly combined the basic scenario with two frames on the costs of "Italremain" or "Italexit" for Germany and Italy, respectively.[7] All frames were pure issue frames, providing no information about endorsements by parties or other actors. For Italy, the *costs of Italremain* scenario highlighted that the European bailout plan was contingent on the implementation

6. The referendum would have to take the form of a consultative referendum (*referendum di indirizzo*) in the Italian legal systems and its organization would have to be authorized by a constitutional law approved by two-thirds of both chambers. A consultative referendum was held on June 18, 1989, when Italians overwhelmingly approved giving the European Parliament a mandate to draw up a European constitution. In June 2020, a citizens' initiative was launched for the organization of a similar referendum, see https://www.gazzettaufficiale.it/eli/id/2020/06/13/20A03215/sg (accessed on December 7, 2020).
7. For Italy, the basic scenario and the *costs of Italremain* frame were essentially the same as in the October 2019 survey; the *costs of Italexit* frame was new. For the exact wording of these frames, see Appendix A.

of austerity policies and structural reforms. These were the policies that crisis countries had had to implement in return for European financial support during the euro crisis. In contrast, the *costs of Italexit* scenario highlighted the costs of a disorderly exit from the euro for Italy, i.e., inflation, reduced purchasing power, bank insolvencies, and possible retaliation by other countries. For Germany, the *costs of Italremain* scenario emphasized the need for Germany to agree to some form of debt mutualization to keep Italy in the eurozone. The *costs of Italexit* scenario concentrated on the negative implications of a collapse of the euro for the competitiveness of the German export industry.

In both countries, the combination of frames resulted in a 2 x 2 factorial design with four different scenarios, as summarized in Table 1.[8] Respondents were shown one out of four different scenarios (three treatment groups and a control group). Afterward, we asked Italian respondents "How would you vote in this referendum?". In Germany, we asked, "In your view, what should the German government do in response to this crisis?". We use answers to these questions as our key dependent variables.[9]

**Table 1**. List of all experimental groups in Italy and Germany

| | Frame I | Frame II | Experimental group |
|---|---|---|---|
| 1 | No costs of Italremain | No costs of Italexit | Control group |
| 2 | | Costs of Italexit | Treatment 1 |
| 3 | Costs of Italremain | No costs of Italexit | Treatment 2 |
| 4 | | Costs of Italexit | Treatment 3 |

8. To be as realistic as possible, our frames combine various elements. While we are able to identify overall treatment effects of the frames thanks to randomization, which ensures exogeneity by design, we are unable to specify the role that different elements of our frames play. For example, for the austerity frame in Italy, we cannot determine to what extent any shift in preferences is due to easier rules for layoffs, expenditure cuts, privatization, etc. This is acceptable, in our view, because these elements have historically been bundled together in bailout packages.

9. The Italian dependent variable has four categories: accept the bailout and remain in the euro, reject the bailout and exit the euro, would not vote, and don't know. We merge respondents from the last two categories to simplify the analysis. The German dependent variable has three categories: prevent Italexit; facilitate Italexit; don't know.

## Support for fiscal integration vs. breakup in the shadow of the COVID-crisis

We present our results in three steps. First, we examine how baseline support changed in Italy after the outbreak of the coronavirus. This allows us to validate our hunch that COVID-19 was an exogenous shock for the attitudes of Italian voters, increasing support for exit. Second, we analyze the results of the framing experiment. We estimate multinomial probit models and calculate average treatment effects (ATE) and predicted probabilities to test whether the frames have the expected effects.[10] Finally, we discuss some robustness checks.

*Support for the euro in Italy and Germany*

Figure 1 illustrates that support for euro membership in Italy was considerably lower in April 2020 than in October 2019. Support for Italremain decreased from 51 percent to 34 percent, while support for Italexit increased from 30 percent to 37 percent. This means that an absolute majority for remaining in the euro before the breakout of Covid-19 turned into a relative majority for Italexit after it. Yet, uncertainty also increased: in October 2019, 18 percent indicated that they did not know how they would vote in a hypothetical referendum, increasing to 28 percent six months later. Regression results show that the changes in preferences in Italy between 2019 and 2020 are statistically significant (Table C.1 in the appendix). In Germany, there was also a close horse race in April 2020: a relative majority of 42 percent of respondents wanted Italy to remain in the euro, whereas 38 percent of respondents favored Italexit. Nearly one-fifth of the respondents were uncertain.

10. Robustness tests which include control variables (age, age squared, gender, education, subjective income, national identity, economic knowledge, and region) do not change the results (Tables C.3 and C.4). The results also remain the same if we use linear probability models instead of multinomial probit models (see Appendix D.2).

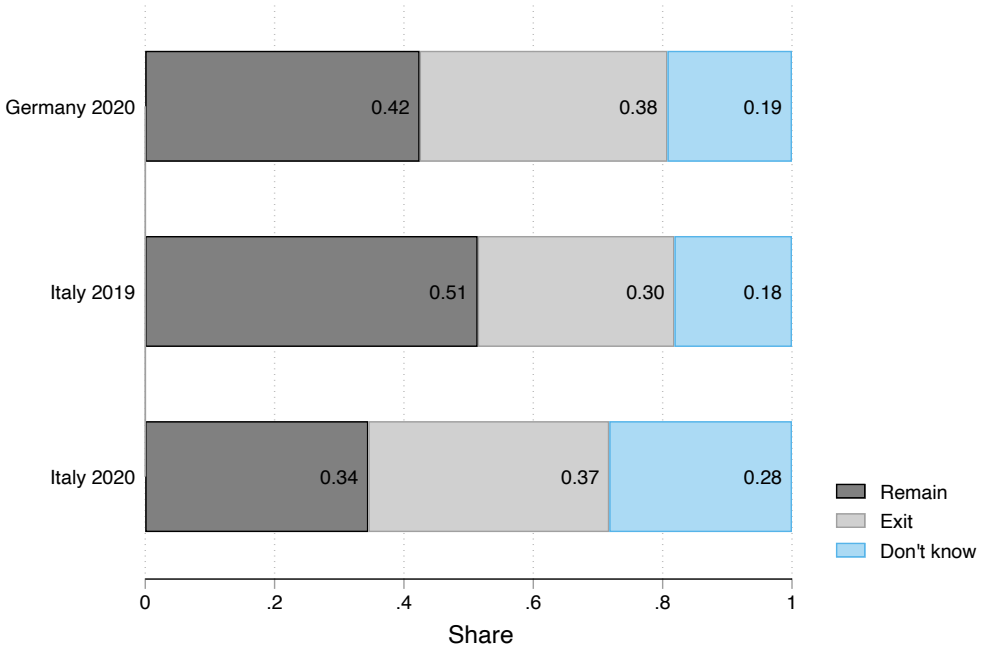


**Figure 1**. Preferences for Italexit and Italremain in Germany (April 2020) and Italy (October 2019 and April 2020)

Note: Only observations from the control group are included; survey weights are applied.

Our surveys also show that German voters assess the benefits of the euro more positively than Italian voters and that Italian voters assessed the euro more positively in fall 2019 than in spring 2020. In Italy, the average value on a scale from 0 to 10 (where higher values indicate higher perceptions of having benefited from the euro) was 3.78 in 2019, decreasing to 3.47 in 2020 (see Appendix C.2). In Germany, the average value was 5.17. Furthermore, the share of Italian respondents who reported not having benefited at all from the euro increased from 25.43 percent to 31.16 percent, while only 12.62 percent of German respondents fall in this category. Overall, these descriptive findings suggest that the pandemic was, indeed, an exogenous shock for attitudes on the euro in Italy and that Italians are more likely to evaluate euro membership negatively, whereas Germans are more likely to evaluate it positively.

*Evidence from the Italian survey experiment*

In the next step, we examine the effects of the framing experiment in Italy. Figure 2 shows the average treatment effects of the two frames and their combination. The *costs of Italremain* frame has a strong effect on preferences, which is in line with our Hypothesis 1: informing voters that Italy's continued membership in the eurozone is contingent on the implementation of austerity measures increases support for Italexit by 15.57 percentage points and reduces support for remain by 13.35 percentage points.

Contrary to Hypothesis 2, we do not find a statistically significant effect of the *costs of Italexit* frame. This scenario hardly shifts preferences. Although surprising, this result is in line with research on Brexit, which finds that British voters also discounted the costs of exit in the 2016 referendum (Carreras, 2019; Grynberg et al., 2020). The results from the combined treatment are in line with Hypothesis 3a: when both frames are presented together, the *costs of exit* frame clearly prevails. It increases support for Italexit by 14.83 percent, which is only marginally smaller than the effect of the *costs of exit* frame alone.

To test whether the frames can alter the democratic majorities for or against Italexit, we also calculate the predicted probabilities for voting in the referendum by treatment (Figure 3). In nearly all scenarios, we find a relative majority in favor of Italexit. Only under the *costs of exit* frame (scenario 2), we find a relative majority in favor of Italremain, but the difference between exit and remain is statistically insignificant. In contrast, the frame making austerity a requirement for Italy's continued membership in the euro has a strong effect, leading to an absolute majority in favor of Italexit (52.92 percent, scenario 3). When both frames are combined (scenario 4), there is still a majority (52.09 percent) for Italexit, which indicates that the costs of austerity and conditionality prevail over the costs of exit. Overall, these results suggest that Italian voters would prefer exiting the euro if remaining in the euro after a fiscal crisis required austerity.

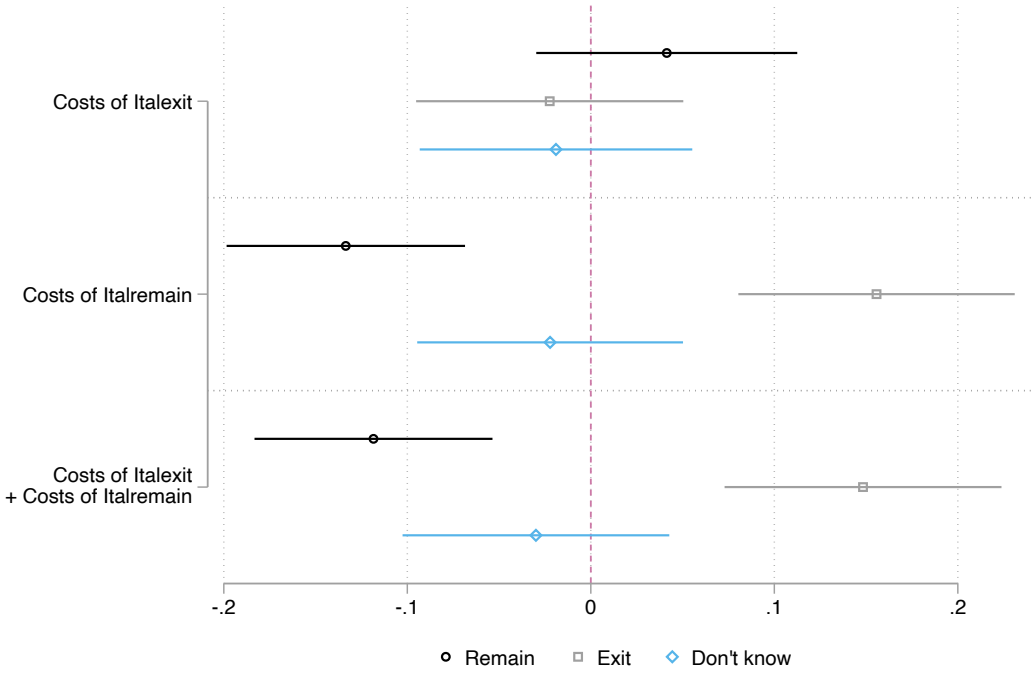


**Figure 2**. Average treatment effects of frames on preferences towards Italexit in Italy

Note: Average treatment effects and 95 percent confidence intervals based on multinomial probit models.

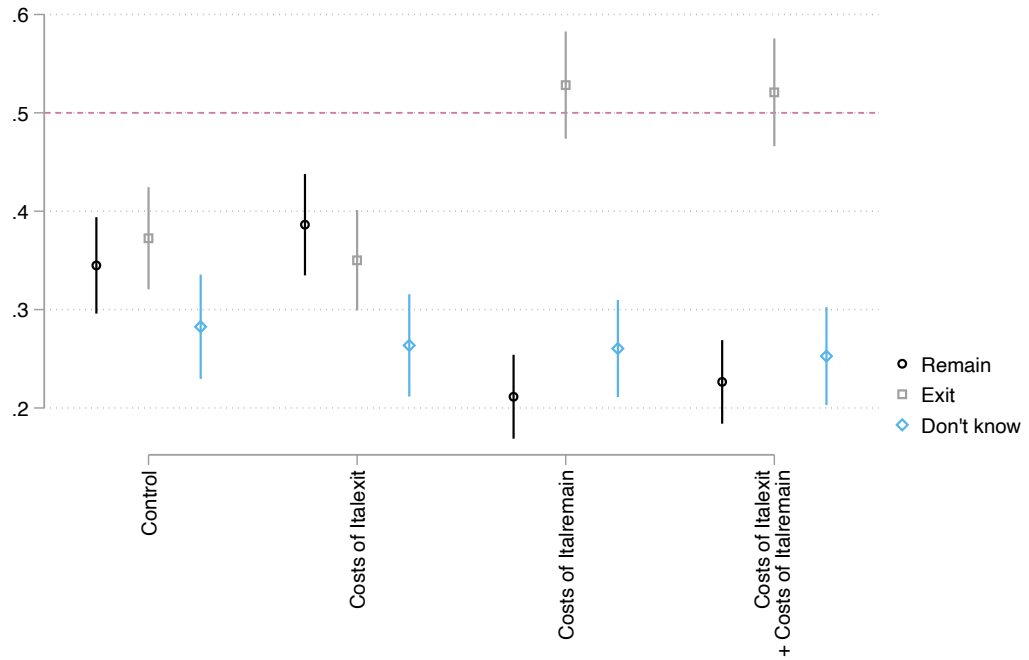


**Figure 3**. Predicted probabilities of preferences towards Italexit in Italy

Note: The figure shows the predicted probabilities and 95 percent confidence intervals based on the same regression models used to calculate the ATEs shown in Figure 2.

*Evidence from the German survey experiment*

Results from the German survey are also in line with our expectations (Figure 4). The frame highlighting the costs of Italremain for Germany increases support for exit by 9.02 percentage points, while it decreases support for remain by 10.37 percentage points (Hypothesis 1). Thus, German voters react negatively to debt mutualization. However, the frame highlighting the costs of Italexit for the German economy has a larger effect: it increases support for remain by 14.85 percentage points and decreases support for exit by 12.96 percentage points (Hypothesis 2).

Importantly, when the costs of Italremain and Italexit are mentioned simultaneously, the costs of Italexit prevail and the treatment effects are very similar to the scenario where only the costs of Italexit are mentioned: support for Italy remaining in the eurozone increases by 8.61 percentage points, while support for Italy exiting from the eurozone decreases by 9.67 percentage points. This is in line with Hypothesis 3b and suggests that German voters are more worried about the costs of Italexit for the German economy than about the costs of debt mutualization.

Figure 5 again shows the predicted probabilities associated with the different frames. As shown above, in the control group, a relative majority of Germans favor Italremain. The difference between the shares of voters preferring remain and exit is statistically insignificant, though. The costs of Italexit frame substantially bolsters the electoral majority for Italremain, leading to an absolute majority (57.27 percent) in favor of remain. The frame emphasizing the costs of Italy remaining in the euro for Germany leads to a relative majority in favor of Italexit (47.34 percent). When the costs of remain and exit are presented together, an absolute majority (51.04 percent) is in favor of Italremain and debt mutualization.

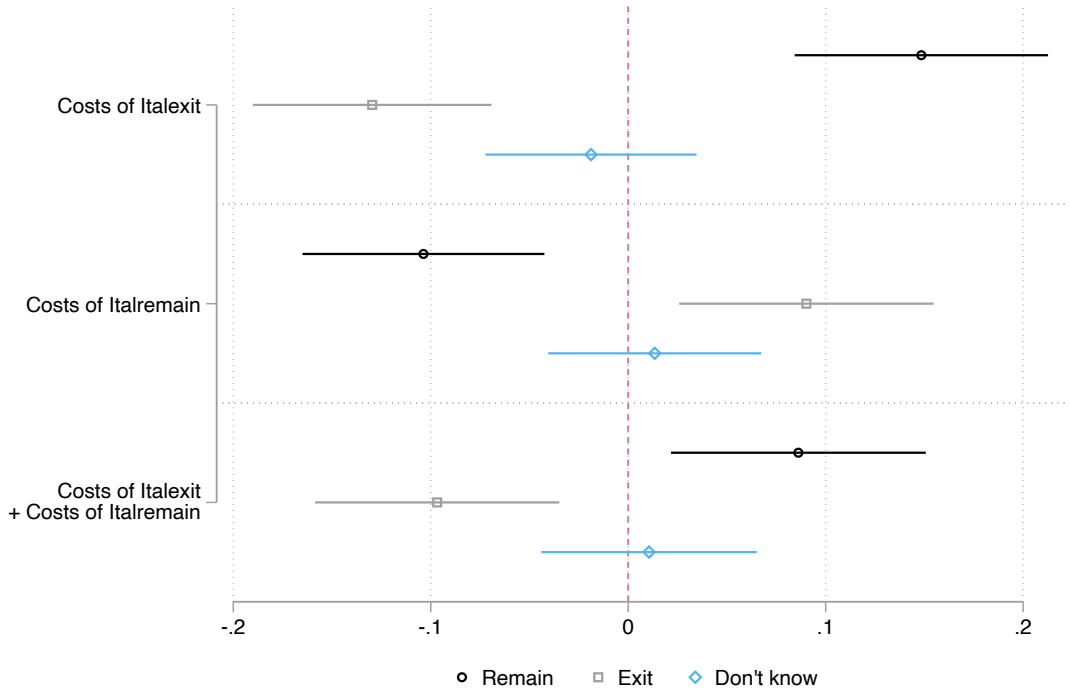


**Figure 4**. Average treatment effects of frames on preferences towards Italexit in Germany

Note: Average treatment effects and 95 percent confidence intervals based on multinomial probit models.

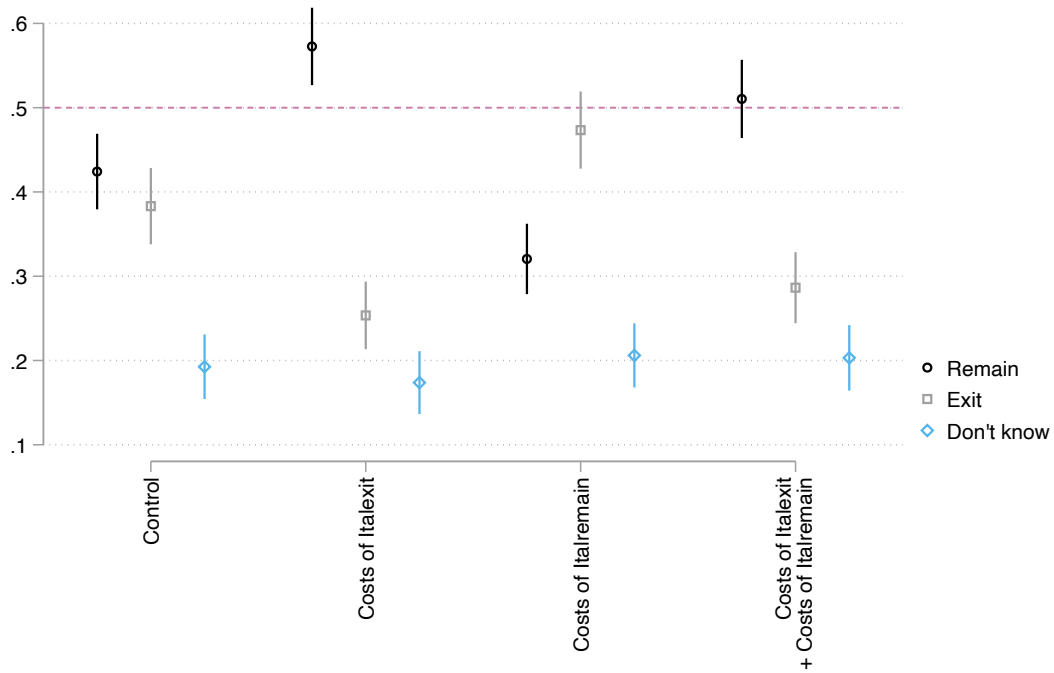


**Figure 5**. Predicted probabilities of preferences towards Italexit in Germany

Note: The figure shows the predicted probabilities and 95 percent confidence intervals based on the same regression models used to calculate the ATEs shown in Figure 4.

*Robustness checks*

To probe our results, we ran additional robustness checks. First, we explored heterogeneous framing effects. The implications of euro membership and debt mutualization are cognitively demanding. Education, economic knowledge, or interest in economics may condition how individuals react to the frames due to their complexity (Chong & Druckman, 2007). However, heterogeneous effects are absent for most frames and individuals react to the treatments in similar ways (Figures D.7 to D.12). Given the complexity of our frames, we also tested whether treatments effects differed by response time. The results are neither affected by respondents' response time to the entire survey nor the time that they took to read the vignettes (Figures D.5 and D.6).[11] We also tested to what extent framing effects could be contingent on national identity or attitudes towards the EU (Figures D.13 to D.16). Again, heterogeneous effects are largely absent.[12] Second, as a further test that voter preferences respond to the strategic interdependence of countries, we used a different dependent variable. In Italy, we asked respondents whether they prefer to remain or exit from the euro if Germany and other European governments do not agree to debt mutualization. In Germany, we asked respondents whether they prefer a scenario in which Germany and other European governments do not agree to share debts and Italy exits the euro or one in which Germany and other European governments agree to share debts and Italy remains in the eurozone.[13] The results with this variable are similar to the main analysis (see Appendix E): Italian voters are willing to exit the euro in the absence of debt mutualization. In turn, German voters are willing to accept debt mutualization if the

11. To improve the quality of our data and to increase the likelihood that respondents would engage with the survey, they had to stay on the page with the vignette for 30 seconds. An attention check, moreover, was used to screen out inattentive respondents (also see Appendix A.1).
12. Individuals with an exclusive national identity and a negative assessment of the EU are somewhat less affected by the costs of remain treatments. This finding can largely be attributed to ceiling effects with support for exit among those individuals already being high in the control group.
13. These questions were asked immediately after the question which we used in the analysis above.

alternative is a breakup of the eurozone. This confirms that preferences depend on the expected choices of the counterpart.

## The debate on coronabonds in Italy and Germany

The experimental evidence suggests that German public opinion becomes more favorable to debt mutualization when it is aware that there is a threat of breakup of the euro, relaxing the "democratic constraint" on more fiscal integration. In this section, we document that this experimental evidence resonates with the political debate on coronabonds in Italy and Germany in 2020. Based on a review of national newspapers, we show that German policymakers started to respond to the pandemic by following the script of the euro crisis, suggesting the intervention of the ESM.[14] However, they quickly began to worry about the integrity of the eurozone, especially with regard to a possible Italexit, which led them to embrace a mutualization of COVID-related sovereign debt. This corroborates the voter-level results of the survey experiment, suggesting that citizens' perceptions of strategic interdependencies are important to consider when evaluating the extent to which politicians are constrained by public opinion.

*Italy's threat to "go alone"*

Italy was hit by the pandemic earlier and more violently than other European countries. After other European countries blocked the exports or the transit of medical masks and other protective gear, requisitioning them for domestic use,[15] there were outpourings of indignation in the Italian daily press[16] and the emergence of a widespread perception that

14. We explain the rational and research design behind this section in more detail in Appendix G.
15. E.g., "L'Europa e il sovranismo delle mascherine", Corriere della Sera. 7 March 2020; "Caos mascherine", La Repubblica. 16 March 2020.
16. "Viva la Ue: Parigi e Berlino si tengono le mascherine", Il Fatto Quotidiano, 6 March 2020; "E Alibaba invia un milione di mascherine alla Croce Rossa", La Repubblica, 18 March 2020.

Italy had been abandoned by its European partners.[17] A survey fielded at the end of April 2020 found that 79 percent of Italians believed that EU support for Italy had been too little or not at all adequate during the crisis.[18] Another survey suggested that 67 percent believed being part of the union was a disadvantage for Italy, up from 47 percent in November 2018.[19]

In this period, the Italian government – a coalition between the M5S and the PD – tried to convince the EU to introduce "corona recovery bonds". The government never explicitly threatened exit from the euro but faced with a stalemate in the negotiations in early April, prime minister Conte declared repeatedly that if Europe failed to live up to expectations, Italy would "go alone" ("farà da sola").[20] Although this was an ambiguous declaration, it could be read as a veiled threat that Italy was prepared to leave the euro if circumstances forced it to do so. For example, it was interpreted as such by Alesina and Giavazzi, two famous Italian economists, in a commentary in Italy's most circulated newspaper:

> That the Premier should address European meetings with phrases such as 'Ready to go alone' is not only counterproductive but absolutely lacking in credibility. How can Italy threaten to leave Europe and the euro?[21]

Similarly, the *Financial Times* (FT) worried about the risk of Europe "losing Italy", writing that "there is a rising feeling among even its pro-European elite that the country is being abandoned by its neighbors… Many in Rome now feel that unless bold action is taken by northern European countries, they risk Italy turning its back on the European project forever."[22]

17. "Se l'alleato diventa Xi", La Stampa, 17 March 2020; "Il mondo non sarà mai più come prima: vincitori e vinti della guerra al coronavirus", La Stampa, 11 April 2020.
18. See https://www.iai.it/sites/default/files/laps-iai_2020_covid.pdf (accessed 21 March 2021).
19. "Coronavirus: Is Europe losing Italy?", Financial Times, 6 April 2020.
20. "Il promemoria per Bruxelles", Corriere della Sera, 14 April 2020.
21. "Per noi sarebbe un errore voler fare da soli", Corriere della Sera, 21 April 2020.
22. "Coronavirus: Is Europe losing Italy?", Financial Times, 6 April 2020.

*German reactions to the threat of Italexit*

In Germany, politicians initially rejected calls to introduce Eurobonds. For example, Markus Söder, the leader of the Bavarian CSU, gave a "clear no to Eurobonds".[23] This echoed Merkel's statement from the eurozone crisis, when she had said that there would be "no Eurobonds, as long as I live".[24] Instead, the German government argued that countries like Italy and Spain should avail themselves of the existing institutional channels, i.e., apply for an ESM loan.[25]

Rapidly, however, concerns about the integrity of the eurozone emerged. Stories about the increasing unpopularity of the EU in Italy featured prominently in German media. German newspapers cited results from the Italian opinion polls mentioned above, showing a clear drop in approval for the EU[26] and a massive fall in Germany's reputation in Italy.[27] Several news outlets argued that this rise in Euroscepticism could endanger the euro and speculated about the consequences for Germany.[28] For example, the *Handelsblatt* wrote that "Italy and Spain could soon lose the confidence of the financial markets and become the target of speculative attacks – and this would also put the euro itself at risk … A return to the deutschmark would be a disaster for the German export industry".[29]

Consequently, beginning in April, German policymakers became increasingly worried about the EU coming apart. CDU executive board member Elmar Brok declared that Germany refuses Eurobonds, "the Le Pens and Salvinis will scream for joy", emphasizing that there

23. "Corona-Krise; Riesenstreit um's EU-Geld", Bild, 9 April 2020.
24. "Merkel zur Schuldenpolitik: 'Keine Euro-Bonds, solange ich lebe'", Der Spiegel, 26 June 2012).
25. "Droht die Euro-Krise?", Handelsblatt, 27 March 2020; "Merkel lehnt Corona-Bonds ab", Spiegel Online, 27 March 2020; "Berlin ringt um Corona-Bonds", Süddeutsche Zeitung, 1 April 2020.
26. E.g., "So viel Empathie war noch nie", Süddeutsche Zeitung, 3 April 2020; "Die Wut der Italiener", Die Welt, 17 April 2020; "Deutsch-italienisches Verhältnis; Gestörte Beziehung", Handelsblatt, 21 April 2020.
27. "Die Deutschen halten sich noch immer für eine überlegene Rasse", Die Welt, 1 April 2020; "Die Hoffnung ist, dass Deutschland die EU verlässt", Die Welt, 18 May 2020.
28. E.g., "Alle mit einem", Süddeutsche Zeitung, 2 April 2020; "Angst um Europa", Handelsblatt 2, April 2020; "Ein neuer Ansatz für Europa", Handelsblatt, 7 April 2020.
29. "Gemeinsame Haftung für Staatsschulden: Brauchen wir Euro-Bonds?", Handelsblatt, 24 March 2020.

would be no post-crisis recovery in Germany if major EU countries fall to radicals.[30] Other policymakers began to argue that "solidarity" with other European countries was in the economic self-interest of Germany. For example, foreign minister Maas said that "as an export-oriented economy, solidarity is also in our own interest: if large parts of the EU are deep in crisis – who will buy our products?".[31] Similarly, finance minister Scholz highlighted Germany's position as an *Exportnation*[32] and the close integration of Europe's economies,[33] while Merkel argued that "we will only do well in the long run if Europe does well".[34]

They were influenced by German businesses, which worried about the lack of demands for exports and their supply chains, which had been disrupted during the first lockdown. Moreover, the shift in Germany's position gained further traction after the German Constitutional Court declared parts of the ECB's bond-buying programs unconstitutional in early May. Concerns arose that the agreed volume of the ECB's pandemic emergency purchase program (PEPP) could prove insufficient but that an expansion of it would be politically contentious given the court's decision.[35]

Therefore, only two weeks after the court's ruling, Germany abandoned its opposition to debt mutualization. Together with Macron, Merkel proposed a pandemic recovery fund that would be financed by joint European debt and would include transfers to EU member states that were hit particularly hard by the pandemic. With this initiative, the German government aimed to repair broken trust, particularly among the Italian public.[36] One senior advisor

30. "Streit uber Schulden", Frankfurter Allgemeine Sonntagszeitung, 5 April 2020.
31. "Angst vor dem Hinterhalt", Die Welt 23, April 2020.
32. "Hektische Arbeit an einer Alternative", Die Welt, 21 April 2020.
33. Deutscher Bundestag, Plenarprotokoll 19/164. 29 May 2020.
34. Wiederaufbau: EU-Kommission will Autoindustrie stützen, Handelsblatt, 28 April 2020.
35. "Die EZB gerät unter Zugzwang", Handelsblatt, 15 May 2020; "The chain of events that led to Germany's change over Europe's recovery fund", Financial Times, 22 May 2020.
36. "German conservatives' eurobond awakening", Politico, 20 May 2020; "Merkels letzter Ausweg", Die Welt, 20 May 2020.

quoted in the FT said that "the big concern is that the economic crisis will destroy the European single market and even threaten the future of the EU".[37]

Reactions to the Merkel-Macron Plan in German media and politics were relatively favorable.[38] They generally regarded the plan as necessary to avoid the political and economic collapse of the euro and the EU. Eckhardt Rehberg, a leading CDU parliamentarian, argued in parliament: "Doing nothing would be disastrous not only for us as the Federal Republic of Germany – 60 percent of our exports go to the EU – but it would also be disastrous for Europe".[39] Even Friedrich Merz, a conservative politician from the right wing of the CDU, argued that "help to our partners is also in our own interest".[40]

The decision to introduce the recovery fund was also directly linked to public opinion in Italy. Söder, who had initially refused debt mutualization, argued in May that "a disintegration of Europe and thus of the single market would be the far greater risk in financial terms alone ... If we hesitate now or underestimate the psychological impact [of the pandemic], we risk a second Brexit in Italy".[41] Similarly, Armin Laschet, who was later elected as CDU leader, said that "Eurosceptic sentiments have increased among many people in Italy. We have many centrifugal forces … We must prevent the north and south from drifting apart."[42] From a critical perspective, another leading CDU politician was quoted as saying that "one gets the impression that the aim here is to counteract Germany's waning popularity [in other European countries] with money."[43]

37. "The chain of events that led to Germany's change over Europe's recovery fund", Financial Times, 22 May 2020.
38. "Ende der Schaukelpolitik", Die Welt, 23 May 2020; "Es war mutig von der Kanzlerin", Die Welt, 30 May 2020; "Zwei für einen Tango", Frankfurter Allgemeine Zeitung, 20 May 2020; "Merkel konnte, Macron musste", Frankfurter Allgemeine Sonntagszeitung, 24 May 2020.
39. Deutscher Bundestag. Plenarprotokoll 19/166. 18 June 2020.
40. "Merz (CDU) zur EU-Wiederaufbauhilfe", Deutschlandfunk. 28 May 2020.
41. "Wir haben nur diesen einen Versuch", Frankfurter Allgemeine Zeitung, 28 May 2020.
42. "Wir brauchen keine Staatsgründung", Frankfurter Allgemeine Zeitung, 10 June 2020.
43. "Merkels 500-Milliarden-Plan; Darum soll Deutschland nicht noch stärker werden", Bild, 25 May 2020.

After intense European negotiation, the plan resulted in the decision of the European Council in July 2020 to set up NextGenEU. Scholz called this Europe's "Hamiltonian moment".[44] He explicitly interpreted it as an entry into a fiscal union and stated that "we will continue along this path".[45] Although this may be an overstatement, German policymakers reframed the debate by focusing on the risks of a possible euro breakup, avoiding a popular backlash against the first concrete step towards debt mutualization.

**The role of COVID-related solidarity**

The above reconstruction shows that the risk of a euro breakup featured prominently in the German debate. However, at the time our survey was fielded, there was also a surge of COVID-related support for Italy in the German public discourse. This raises the possibility that altruistic, rather than cost-benefit considerations, explain Germany's support for common debt (Kuhn et al., 2018; Kuhn & Kamm, 2019). While COVID-related solidarity does not necessarily affect the treatment effect of our informational frames, it may inflate the size of the majority in favor of debt mutualization.

We are unable to rule out this possibility. However, we are able to measure the impact of priming respondents to think about the effects of COVID and compare this impact to the effect of highlighting the costs of Italexit for Germany. Our experiment included an additional frame that focused on the COVID-19 pandemic as the trigger of the crisis and absolved the Italian government from responsibility for fiscal deterioration, attributing it to

44. "Jemand muss vorangehen", Die Zeit, 19 May 2020.
45. "Finanzminister Scholz warnt vor Sparkurs in Europa nach der Coronakrise", Handelsblatt, 2 February 2021.

the health crisis. Specifically, the frame preceded the vignette describing the basic scenario and went as follow:

> *The corona crisis has forced the Italian government to significantly increase public expenditures, both to reinforce health care infrastructure and to contain the consequences of the recession. This has led to a large increase in the Italian public deficit as a share of Gross Domestic Product and a downgrade of Italian government bonds by rating agencies. As a consequence, now [the basic scenario follows].*

We randomly combined this frame with the basic scenario and the two other frames highlighting the costs of Italremain and Italexit. This resulted in four additional experimental groups as shown in Table 2 for which we recruited 2,265 additional German respondents.

**Table 2**: List of additional experimental groups including the COVID-19 frame

| | Frame I | Frame II | Frame III | Experimental group |
|---|---|---|---|---|
| 5 | COVID-19 | No costs of Italremain | No costs of Italexit | Treatment 4 |
| 6 | | | Costs of Italexit | Treatment 5 |
| 7 | | Costs of Italremain | No costs of Italexit | Treatment 6 |
| 8 | | | Costs of Italexit | Treatment 7 |

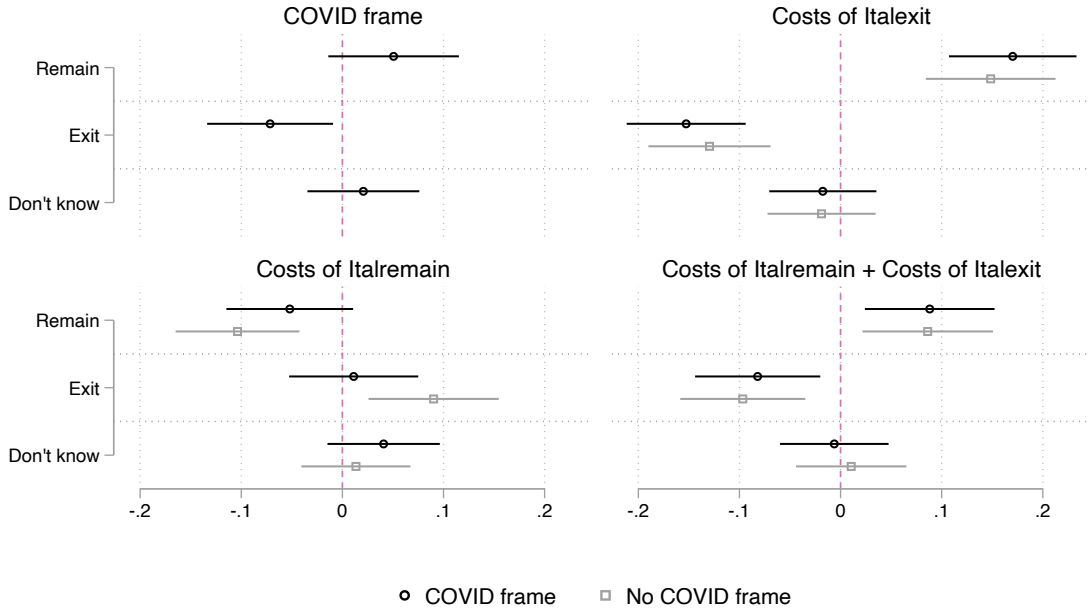


**Figure 6**: Average treatment effects of the COVID-19 frame in Germany

Note: The figure shows the average treatment effects and 95 percent confidence intervals based on multinomial probit models. All treatment effects are calculated with reference to the control group which only received the basic scenario. The full regression table with the results for the COVID-frame is shown in Appendix F.

Figure 6 plots the average treatment effects. The results show that highlighting the COVID-19 pandemic as the cause of the crisis reduces support for Italexit by 7.15 percentage points relative to the control group. However, the COVID frame does not have a statistically significant effect on the support for Italy's continued membership in the euro and the negative effect of the COVID frame on support for Italexit is smaller than the cost of Italexit frame shown in Figure 4. When both appeals are combined, the effect is only marginally larger than appealing to Germany's self-interest alone (-15.27 compared to -12.96 percentage points). In combination with other frames, the COVID frame hardly matters, except when coupled with the frame that highlights the costs of Italy remaining in the eurozone. In this case, the two frames cancel each other out: the marginal effect on support for Italexit decreases from 9.02 to 1.12 and becomes statistically insignificant. When the COVID frame is added to the combined costs of Italexit and costs of Italremain frame, it does not change

the results. German public opinion is thus more affected by the costs of Italexit than by sympathy with the plight of COVID-stricken Italy.

In Italy, we also included a similar COVID-frame in the experiment, testing to what extent the pandemic influences preferences towards the eurozone. The wording of the frame and its treatment effect are shown in Appendix F (see Figure F.2). The results indicate that the COVID frame has a positive effect on the likelihood that respondents support remaining in the eurozone but that it does not undermine the treatment effects of the other two frames. Moreover, in Italy, we had also included the cost of Italremain frame in our previous survey from October 2019. The frame had the same effect in this survey, and the difference in the effect size between the two waves was statistically insignificant (see Appendix F). Overall, this suggests that our experimental results are not only influenced by the unique circumstances of the COVID-19 pandemic but that they are likely to hold beyond it.

**Conclusion**

The COVID-19 pandemic has brought about a large increase in public debt. In low growth Italy, the level of public debt is especially worrisome, and may eventually be perceived as too high by financial markets in the absence of external support. Other countries, such as Spain, also had to increase their debt levels. It is thus not surprising that renewed requests for debt mutualization emerged in spring 2020.

In explaining why European politicians rejected any type of cross-country sharing of fiscal risks during the euro crisis, political scientists introduced the notion of a "democratic constraint," which attributes the lack of progress towards fiscal integration to the constraining role of domestic public opinion. Voters in northern countries are strongly opposed to debt sharing or fiscal transfers, while voters in southern countries are unwilling

to leave the eurozone, which makes it more difficult to distribute the burden of adjustment more symmetrically between debtor and creditor countries.

However, this literature has not paid sufficient attention to the role that strategic interdependence plays in shaping preferences. As suggested by our survey experiment, for German voters, the costs of a possible breakup of the euro loom larger than the costs of debt mutualization. When they are given an opportunity to consider both costs simultaneously, a majority in favor of fiscal risk-sharing emerges. In turn, the preferences of Italian voters are more strongly affected by the prospect of having to implement austerity and structural reforms in order to stay in the euro than by any consideration of the negative consequences of a disorderly exit.

To be clear, we are not arguing that the previous literature was wrong to emphasize the democratic constraint. In fact, we think that it captures the strategic situation of the early 2010s rather well. In the absence of a credible threat of exit, northern politicians responded to the unconditional preferences of their electorate not to extend financial assistance to southern countries beyond what was strictly necessary to save the euro (Copelovitch et al., 2016; Degner & Leuffen, 2020; Jones et al., 2016). However, with the epicenter of the crisis moving to Italy – a more Eurosceptic country than Greece and a larger systemic threat – the strategic situation has changed, which affects public opinion in northern countries as well. The results of our survey experiment suggest that when a credible threat to the stability of the euro emerges, public opinion in the north becomes more favorable to risk-sharing and ceases to be a hard constraint for fiscal integration. This dovetails nicely with similar findings of the preferences of interest groups in Germany, which also prefer some risk-sharing to the collapse of the euro (Walter et al., 2020).

Increased awareness of the systemic risks for the integrity of the eurozone helps to explain Germany's surprising shift in the negotiations over coronabonds. The position of German

elites in the wake of the pandemic was different from a few years before when they had staunchly rejected all proposals for debt mutualization. Initially, the German government suggested that countries like Italy and Spain apply for loans from the ESM, but eventually, it became a strong supporter of the European pandemic recovery fund, which includes elements of joint fiscal liability that resemble Eurobonds quite closely. Newspaper evidence suggests that German politicians responded to the threat of a breakup of the euro and took the reaction of public opinion in southern countries, especially Italy, into account when conceiving their response. Although there was a surge in pandemic-related solidarity, our results show that the consideration of the negative consequences of a euro breakup was sufficient to generate a majority for risk-sharing in Germany.

A few remarks about the scope conditions of our argument are in order, though. For our mechanism to apply, it is necessary that the threat of euro exit is issued by a systemically important country. A sudden negative shift in public opinion in smaller countries is unlikely to have the same effect. Furthermore, for preferences in northern countries to shift towards greater support for fiscal risk-sharing, the majority has to see membership in the euro as a positive arrangement that is worth preserving; in other words, it has to assess it from the "domain of gains."

Moreover, this paper does not try to explain how debt mutualization comes about. Instead, it makes a more circumscribed argument that public opinion in northern countries is not necessarily an obstacle to it. Put differently, favorable public opinion in key northern countries is a necessary condition for reform of the economic architecture of the eurozone, but in all likelihood, it is not a sufficient condition. Reform still has to overcome a large set of veto points, both in individual European countries and within European institutions. Relatedly, we do not make an argument about a long-term shift in unconditional German

attitudes toward risk-sharing, but more narrowly, that German public opinion is more sensitive to the framing of strategic interdependence than previous research has allowed for.

Finally, we do not want to imply that the recovery fund or even full-fledged Eurobonds would solve all problems of fiscal sustainability in the eurozone. In fact, the pandemic recovery fund may be too small to provide a meaningful economic stimulus. What really matters for the solvency of high-debt countries is a supportive monetary policy with the central bank that commits to putting a floor on bond prices when financial markets lose faith in them (De Grauwe, 2013). The ECB has clearly moved in this direction during the pandemic by launching the PEPP. However, the European treaties explicitly prohibit the ECB to act as an "overdraft facility" for member states and the legitimacy of the ECB's bond-buying programs is regularly contested by the German Constitutional Court. Although it is probably not sufficient to stave off a possible fiscal crisis, a joint fiscal capacity is thus an important step towards putting the euro on more solid ground.

Regardless of whether or not fiscal tensions in the eurozone resurface, our findings have far-reaching implications for how we study preferences for international integration (and disintegration) beyond the issue of debt mutualization in the eurozone. Although the eurozone is the most extensive form of international integration, economic interdependencies are widespread (Farell & Newman, 2016), and global challenges such as climate change or rising geo-economic tensions over energy and raw materials are likely to exacerbate the need for international negotiations to address these interdependencies. Our findings shed light on some of the difficulties associated with such negotiations.

First, further international integration is more readily accepted when the voters of countries that are "winners" of economic integration are primed to take the costs of disintegration into account. Second, voters in "losing" countries tend to underestimate the destructive potential of economic disintegration and take a more risk-seeking approach to disintegration. This is

a significant source of instability, as some literature on the causes of Brexit suggests (Carreras, 2019; Grynberg et al., 2020). Third, in a world of partial information and radical uncertainty, the assessment of the costs of benefits of integration and disintegration depends on the type of information processed by voters to form "causal beliefs" (Rho & Tomz, 2017). In this context, political elites are less constrained by public opinion than they sometimes pretend to be (de Vries et al., 2021; Gabel & Scheve, 2007). Preferences respond to information and arguments, creating room for national leaders to shape the public's response.

**References**


Amsalem, E., & Zoizner, A. (2020). Real, but Limited: A Meta-Analytic Assessment of Framing Effects in the Political Domain. *British Journal of Political Science*, *Online first*, 1–17.

Beramendi, P., & Stegmueller, D. (2020). The Political Geography of the Eurocrisis. *World Politics*, *72*(4), 639–678.

Bernhard, W. T., & Leblang, D. (2016). Sovereign Debt, Migration Pressure, and Government Survival. *Comparative Political Studies*, *49*(7), 907–938.

Börzel, T. A., & Risse, T. (2018). From the euro to the Schengen crises: European integration theories, politicization, and identity politics. *Journal of European Public Policy*, *25*(1), 83–108.

Carreras, M. (2019). 'What do we have to lose?': Local economic decline, prospect theory, and support for Brexit. *Electoral Studies*, *62*, 102094.

Carstensen, M. B., & Schmidt, V. A. (2018). Power and changing modes of governance in the euro crisis. *Governance*, *31*(4), 609–624.

Chong, D., & Druckman, J. N. (2007). Framing Theory. *Annual Review of Political Science*, *10*(1), 103–126.

Clements, B., Nanou, K., & Verney, S. (2014). 'We No Longer Love You, But We Don't Want To Leave You': The Eurozone Crisis and Popular Euroscepticism in Greece. *Journal of European Integration*, *36*(3), 247–265.

Copelovitch, M., Frieden, J. A., & Walter, S. (2016). The Political Economy of the Euro Crisis. *Comparative Political Studies*, *49*(7), 811–840.

De Grauwe, P. (2013). The Political Economy of the Euro. *Annual Review of Political Science*, *16*(1), 153–170.

de Vries, C. E. (2018). *Euroscepticism and the Future of European Integration*. Oxford University Press.

de Vries, C. E., Hobolt, S. B., & Walter, S. (2021). Politicizing International Cooperation: The Mass Public, Political Entrepreneurs, and Political Opportunity Structures. *International Organization*, *75*(2), 306–332.

Degner, H., & Leuffen, D. (2020). Crises and Responsiveness: Analysing German Preference Formation During the Eurozone Crisis. *Political Studies Review*, *18*(4), 491–506.

Dyson, K. H. F., & Featherstone, K. (1999). *The Road to Maastricht: Negotiating Economic and Monetary Union*. Oxford University Press.

Eichengreen, B. (2010). The Breakup of the Euro Area. In A. Alesina & F. Giavazzi (Eds.), *Europe and the Euro* (pp. 11–51). University of Chicago Press.

Eichengreen, B., & Frieden, J. (2001). *The Political Economy Of European Monetary Unification*. Westview Press.

European Commission. (2019). *Eurobarometer 91.5 (2019). Kantar Public, Brussels. GESIS Data Archive, Cologne. ZA7576 Data file Version 1.0.0*.

Farrell, H. & Newman, A. (2016). The new interdependence approach: theoretical development and empirical demonstration. *Review of International Political Economy,* 23:5, 713-736.

Farrell, H. & Newman, N. (2017). BREXIT, voice and loyalty: rethinking electoral politics in an age of interdependence. *Review of International Political Economy*, 24:2, 232-247.

Fernández-Albertos, J., & Kuo, A. (2016). Economic Hardship and Policy Preferences in the Eurozone Periphery: Evidence From Spain. *Comparative Political Studies*, *49*(7),

Franchino, F., & Segatti, P. (2019). Public opinion on the Eurozone fiscal union: Evidence from survey experiments in Italy. *Journal of European Public Policy*, *26*(1), 126–148.

Frieden, J. A., & Walter, S. (2017). Understanding the Political Economy of the Eurozone Crisis. *Annual Review of Political Science*, *20*(1), 371–390.

Gabel, M., & Scheve, K. (2007). Estimating the Effect of Elite Communications on Public Opinion Using Instrumental Variables. *American Journal of Political Science*, *51*(4), 1013.

Grynberg, C., Walter, S., & Wasserfallen, F. (2020). Expectations, vote choice and opinion stability since the 2016 Brexit referendum. *European Union Politics*, *21*(2), 255–275.

Guiso, L., Sapienza, P., & Zingales, L. (2016). Monnet's error? *Economic Policy*, *31*(86), 247–297.

Hien, J. (2019). The Religious Foundations of the European Crisis. *JCMS: Journal of Common Market Studies*, *57*(2), 185–204.

Hobolt, S. B., & de Vries, C. E. (2016). Public Support for European Integration. *Annual Review of Political Science*, *19*(1), 413–432.

Hobolt, S. B., & Wratil, C. (2015). Public opinion and the crisis: The dynamics of support for the euro. *Journal of European Public Policy*, *22*(2), 238–256.

Hooghe, L., & Marks, G. (2009). A Postfunctionalist Theory of European Integration: From Permissive Consensus to Constraining Dissensus. *British Journal of Political Science*, *39*(1), 1–23.

Hooghe, L., & Marks, G. (2018). Cleavage theory meets Europe's crises: Lipset, Rokkan, and the transnational cleavage. *Journal of European Public Policy*, *25*(1), 109–135.

Howarth, D., & Schild, J. (2021). Nein to 'Transfer Union': The German brake on the construction of a European Union fiscal capacity. *Journal of European Integration*, *43*(2), 207–224.

Johnston, A., & Regan, A. (2016). European Monetary Integration and the Incompatibility of National Varieties of Capitalism. *JCMS: Journal of Common Market Studies*, *54*(2), 318– 336.

Jones, E., Kelemen, R. D., & Meunier, S. (2016). Failing Forward? The Euro Crisis and the Incomplete Nature of European Integration. *Comparative Political Studies*, *49*(7), 1010–1034.

Jurado, I., Walter, S., Konstantinidis, N., & Dinas, E. (2020). Keeping the euro at any cost? Explaining attitudes toward the euro-austerity trade-off in Greece: *European Union Politics*, *21*(3), 383–405.

Kanthak, L., & Spies, D. C. (2018). Public support for European Union economic policies. *European Union Politics*, *19*(1), 97–118.

Kuhn, T., & Kamm, A. (2019). The national boundaries of solidarity: A survey experiment on solidarity with unemployed people in the European Union. *European Political Science Review*, *11*(2), 179–195.

Kuhn, T., Solaz, H., & van Elsas, E. J. (2018). Practising what you preach: How cosmopolitanism promotes willingness to redistribute across the European Union. *Journal of European Public Policy*, *25*(12), 1759–1778.

Landa, D., & Meirowitz, A. (2009). Game Theory, Information, and Deliberative Democracy. *American Journal of Political Science*, *53*(2), 427–444.

Lupia, A. (1994). Shortcuts Versus Encyclopedias: Information and Voting Behavior in California Insurance Reform Elections. *The American Political Science Review*, *88*(1), 63–76.

Manasse, P. (2019). Perché I Costi Sono Altissimi E I Benefici Trascurabili. In C. Stagnaro (Ed.), *Cosa Succede Se Usciamo Dall'euro?* IBL libri.

Matthijs, M. (2020). Hegemonic leadership is what states make of it: Reading Kindleberger in Washington and Berlin. *Review of International Political Economy*, 1–28.

Matthijs, M., & Blyth, M. (Eds.). (2015). *The Future of the Euro*. Oxford University Press.

Matthijs, M., & McNamara, K. (2015). The Euro Crisis' Theory Effect: Northern Saints, Southern Sinners, and the Demise of the Eurobond. *Journal of European Integration*, *37*(2), 229–245.

McNamara, K. R. (1998). *The Currency of Ideas: Monetary Politics in the European Union*. Cornell University Press.

Nicoli, F. (2019). Integration through crises? A quantitative assessment of the effect of the Eurocrisis on preferences for fiscal integration. *Comparative European Politics*, *17*(3), 397–425.

Padoa Schioppa, T. (2004). *The Euro and Its Central Bank Getting United after the Union*. Cambridge, MA: MIT Press.

Quattrone, G. A., & Tversky, A. (1988). Contrasting Rational and Psychological Analyses of Political Choice. *The American Political Science Review*, *82*(3), 719–736.

Rho, S., & Tomz, M. (2017). Why Don't Trade Preferences Reflect Economic Self-interest? *International Organization*, *71*(S1), S85–S108.

Roth, F., Jonung, L., & Nowak-Lehmann Danziger, F. (2016). Crisis and Public Support for the Euro, 1990–2014. *JCMS: Journal of Common Market Studies*, *54*(4), 944–960. 8

Scharpf, F. W. (2018). International Monetary Regimes and the German Model. *MPIfG Discussion Paper*, *18*(1).

Schelkle, W. (2017). The Political Economy of Monetary Solidarity. Oxford University Press.

Schneider, C. J., & Slantchev, B. L. (2018). The Domestic Politics of International Cooperation: Germany and the European Debt Crisis. *International Organization*, *72*(1), 1–31.

Schneider, C. J., & Tobin, J. L. (2020). The Political Economy of Bilateral Bailouts. *International Organization*, *74*(1), 1–29.

Slothuus, R., & de Vreese, C. H. (2010). Political Parties, Motivated Reasoning, and Issue Framing Effects. *The Journal of Politics*, *72*(3), 630–645.

Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, *5*(2), 207–232.

Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases. *Science*, *185*(4157), 1124–1131.

Tversky, A., & Kahneman, D. (1992). Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and Uncertainty*, *5*(4), 297–323.

Varoufakis, Y. (2017). *Adults In The Room: My Battle With Europe's Deep Establishment*. Random House.

Walter, S. (2021). The Backlash against Globalization. *Annual Review of Political Science*, 24, 421–42.

Walter, S., Dinas, E., Jurado, I., & Konstantinidis, N. (2018). Noncooperation by Popular Vote: Expectations, Foreign Intervention, and the Vote in the 2015 Greek Bailout Referendum. *International Organization*, *72*(04), 969–994.

Walter, S., Ray, A., & Redeker, N. (2020). *The Politics of Bad Options: Why the Eurozone's Problems Have Been So Hard to Resolve*. Oxford University Press.

Xezonakis, G., & Hartmann, F. (2020). Economic downturns and the Greek referendum of 2015: Evidence using night-time light data. *European Union Politics*, *21*(3), 361–382.

Zaller, J. R. (1992). *The Nature and Origins of Mass Opinion*. Cambridge: Cambridge University Press.

Zürn, M. (2018). *A Theory of Global Governance: Authority, Legitimacy, and Contestation*. Oxford. Oxford University Press.

# ONLINE APPENDICES/SUPPLEMENTAL MATERIAL

## Strategic Interdependence and Preferences for Debt Mutualization in the Eurozone

**Table of Contents:**

## APPENDIX A: Further information about the survey

### A.1. Short description of the survey

The paper draws on two waves of an online survey about preferences towards the euro, which were conducted among citizens over the age of 18 in Italy and Germany. The first wave only included Italy, and it was fielded by SWG using their online panel in October 2019 (17-23 October 2019). The second wave was again conducted by SWG in Italy (31 March – 7 April 2020) as well as respondi in Germany (31 March – 7 April 2020). The second wave was based on a common questionnaire, and we closely coordinated and monitored the implementation of the surveys in both countries.

The use of an online survey was necessitated by the complexity of the information presented, which requires considerable cognitive effort by the respondents. Moreover, we wanted to minimize the effects of social desirability bias which often arises with face-to-face surveys.

We used two survey companies that maintain large online panels in the respective countries. Since non-probability panels are less likely to be representative of the population than probability sampling for telephone or face-to-face surveys, both survey companies employed a quota sampling approach on age and gender (interlocked), education, and region in each country to ensure that the samples are as representative of the population as possible.

To correct for other sources of sampling bias, the survey includes additional post-stratification weights for age, gender, education, and political preferences (past vote choice). Population targets were obtained by Eurostat and aggregated opinion polls that were conducted during the survey fieldwork period.

The implementation of the online survey included timers which allowed the survey companies to clean the data by removing responses that were equal to or less than 33% of the median duration per country. To further filter out inattentive respondents, we included a screener question as an attention check (Berinsky et al. 2013).

Respondents' consent was obtained at the beginning of the survey. Respondents were informed that the survey was anonymous, their participation voluntary, and that the data would be used for scientific purposes and kept in a data repository to allow subsequent use. Respondents had to indicate that they were citizens of the particular country, 18 years of age or older and that they had read and agreed to the information given in the consent message.

The survey then included questions on the following aspects: demographic information, political preferences, attitudes towards the EU, experimental manipulation and post-treatment questions, socio-economic information, and economic knowledge. We also included an open feedback question at the end of the survey, which allowed respondents to tell us what they thought about the survey. A limited number of respondents thought that the survey was too long and cognitively complex, but overall the response was overwhelmingly positive.

**A.2. Italian frames and questions used as dependent variables:**

Costs of remain (between the two paragraphs of the basic scenario):

> *Acceptance of the bailout package implies that the Italian government commits to implementing some policy changes. The measures that the Italian government needs to implement involve making it easier for companies to fire employees, cutting public expenditures (e.g. pension cuts, social expenditure cuts, etc.), increasing taxes (both income taxes and value-added taxes), privatizing state assets, and introducing a haircut on savings in troubled banks. These measures may lead to a recession and increase unemployment.*

Costs of exit (between the two paragraphs of the basic scenario):

> *Refusal of the bailout package implies exiting the Euro. This is likely to usher in a turbulent period in which the new currency quickly loses value vis-à-vis the Euro, inflation rises reducing the purchasing power of citizens, and the banks face solvency problems and cut their lending to households and enterprises. The European partners may also react by restricting Italy's access to their markets. These measures may lead to a recession and increase unemployment.*

Question:

> How would you vote in this referendum?
>
> 1. I would accept the bailout package and remain in the Euro
> 2. I would reject the bailout package and leave the Euro
> 3. I wouldn't vote
> 4. I don't know

In Italy, the full scenario, including the basic scenarios and all frames, read as follows:

> *Please imagine the following scenario:*
>
> *Italy faces a crisis of confidence in financial markets. Capital flies out of the country; customers try to withdraw their deposits from banks; and the interest rate spread with Germany increases. As a result, the Italian government is unable to meet its financial obligations. Other European countries offer Italy a bailout package.*
>
> *Acceptance of the bailout package implies that the Italian government commits to implementing some policy changes. The measures that the Italian government needs to implement involve making it easier for companies to fire employees, cutting public expenditures (e.g. pension cuts, social expenditure cuts, etc.), increasing taxes (both income taxes and value-added taxes), privatizing state assets, and introducing a haircut on savings in troubled banks. These measures may lead to a recession and increase unemployment.*
>
> *Refusal of the bailout package implies exiting the Euro. This is likely to usher in a turbulent period in which the new currency quickly loses value vis-à-vis the Euro, inflation rises reducing the purchasing power of citizens, and the banks face solvency problems and cut their lending to households and enterprises. The European partners may also react by restricting Italy's access to their markets. These measures may lead to a recession and increase unemployment.*

*Before deciding whether to accept or not the bailout package, the government calls a referendum. The referendum asks citizens whether they want to stay in the euro and thus accept the bailout package, or whether they want to reject the bailout package and therefore exit the euro.*

**A.3. German frames and questions used as dependent variables:**

Costs of exit (between the two paragraphs of the basic scenario):

*Italy's exit from the Euro, as the third-largest economy of the eurozone, may lead to a domino effect and even to the end of the euro in its current form. This would imply a large appreciation of the new German currency, which may reduce the competitiveness of the German export industry, and lead to enterprise failures and job losses. The consequences for the German economy may be serious.*

Costs of remain (between the two paragraphs of the basic scenario):

*The measures that the German and other European governments would need to implement to avoid Italy's exit involve some form of debt mutualization such as jointly guaranteed government debt (commonly referred to as Eurobonds); authorize the European Central Bank to buy Italian bonds without limits; or introduce a European unemployment insurance financed by a European tax. These measures would increase Germany's public debt and may imply higher taxes or higher inflation. The consequences for the German economy may be serious.*

Question:

In your view, what should the German government do in response to this crisis?

1. Prevent Italy's exit from the Euro
2. Facilitate Italy's exit from the Euro

98. I don't know

In Germany, the full scenario, including the basic scenarios and all frames, read as follows:

*Please imagine the following scenario:*

*Italy faces a crisis of confidence in financial markets. Capital flies out of the country; customers try to withdraw their deposits from banks; and the interest rate that the Italian government has to pay to issue government debt increases. As a result, the Italian government is unable to meet its financial obligations. The Italian government is unwilling to sign a bailout plan similar to the Greek one after the financial crisis, which would condition the disbursement of funds on the implementation of austerity measures, and is contemplating exit from the euro.*

*Italy's exit from the Euro, as the third-largest economy of the eurozone, may lead to a domino effect and even to the end of the euro in its current form. This would imply a large appreciation of the new German currency, which may reduce the competitiveness of the German export industry, and lead to enterprise failures and job losses. The consequences for the German economy may be serious.*

*The measures that the German and other European governments would need to implement to avoid Italy's exit involve some form of debt mutualization such as jointly guaranteed government debt (commonly referred to as Eurobonds); authorize the European Central Bank to buy Italian bonds without limits; or introduce a European unemployment insurance financed by a European tax.*

*These measures would increase Germany's public debt and may imply higher taxes or higher inflation. The consequences for the German economy may be serious.*

*Due to its weight in the negotiations with other eurozone countries, the German government can prevent Italy from exiting the euro or facilitate Italy's exit.*

## A.4. Variable coding

**Table A.1**. Coding of additional variables from the survey

| Variable | Survey question | Operationalization |
|---|---|---|
| Region | "In which region do you live?" | For Italy: dummy variable *south*; 1 for Southern regions, including islands; 0 for all other regions<br>For Germany: dummy variable *east*; 1 for East Germany; 0 for West Germany, including Berlin |
| Exclusive national identity | Do you see yourself as 1 Italian only; 2 Italian and European; 3 European and Italian; 4 European only; 5 None; 98 Refusal; 99 I don't know | Binary categorical variable; 1 coded as 1, 2 to 5 coded as 0, 98, and 99 coded as missing |
| Female | What is your gender? 1 Male 2 Female 3 Other 98 Prefer not to say | Binary categorical variable 1 coded as 0, 2 coded as 1, 3, and 98 coded as missing |
| Age | What is your date of birth (dd/mm/yy)? | Three age groups generated (<30; >=30 & <60; >=60) |
| Education | What is your highest educational qualification? | Continuous variable based on a detailed list of Italian education levels according to the ISCED classification |
| Subjective income | Thinking of your household's total monthly or weekly income, is your household able to make ends meet, that is, pay your usual expenses easily or with difficulty? | Continuous variable, 0-10; 0 = With great difficulty; 10 = Very easily |
| Past vote | Which party did you vote for in the last [Italian general election on 4 March 2018/German federal election on 24 September 2017]? | Categorical variable based on a detailed list of Italian/German parties; smaller parties are coded as "Other party"; abstention, "I would prefer not to say" and "I don't remember" coded as "No party" |
| Economic knowledge | 1. What does the gross domestic product (GDP) measure? 2. What is the exchange rate? 3. Inflation is the term used to describe... | The variable is coded as the sum of correct answers to three knowledge questions. Four response options were given for each question. |
| Benefitted from the euro | Taking everything into account, would you say that [Italy/Germany] has on balance benefited or not from being a member of the European common currency, the Euro? | Continuous variable, 0-10; 0 = Not benefited at all; 10 = Benefited a lot |
| Interest in economics | How interested would you say you are in economic affairs? | Continuous variable, 0-10; 0 = Not interested at all; 10 = Very interested |
| Assessment of EU membership | Generally speaking, do you think [Italy's/Germany's] membership in the European Union is a bad or good thing? | Continuous variable, 0-10; 0 = Totally a bad thing; 10 = Totally a good thing |

**APPENDIX B: Strategic interaction as a game-theoretic model**

The clash between northern and southern countries over the issuing of Coronabonds can be formalized as a two-person game between Germany (heading the northern front) and Italy (heading the southern front). The game starts with the Italian government finding itself in the condition of not being able to honor its financial commitments due to the additional burden of the corona crisis and asking the German government to share a portion of the additional debt. We assume that the actions of both governments conform to public opinion in the respective countries. The German government moves first by choosing between two possible options: allow for debt mutualization (MUTUALIZE), or not allow for it (NON-MUTUALIZE). Next Italy moves by choosing whether to remain in the eurozone (REMAIN) or to exit (EXIT). The game generates four possible states of the world: 1) one in which Germany allows for mutualization of risk and Italy remains in the eurozone (MR); 2) one in which Germany agrees to mutualization and Italy exits (ME); 3) one in which Germany does not allow for mutualization and Italy remains (NR); and 4) one in which Germany does not allow for mutualization and Italy exits (NE).

We assume that Germany's first preference is the status quo, i.e. NR (non-mutualize and Italy remains) and that Germany's last preference is ME (debt mutualization but Italy exits nonetheless,) because in this case, Germany would pay the costs of mutualization without being able to deter a breakup of the eurozone. However, we also assume that German voters are uncertain between MR (mutualization and Italy remaining in the eurozone) (MR) and NE (non-mutualization and Italy exiting) and that they decide between the two options based on information about the costs and benefits of these two options. With MR, Germany benefits from keeping the eurozone intact but pays the costs of debt mutualization. With NE, the opposite happens.

In contrast, we assume that Italy's first preference is MR, i.e. a state in the world in which they remain in the eurozone while benefiting from debt mutualization and that Italy's last preference is ME, which implies paying the costs of euro exit without benefiting from debt mutualization. Italian voters are assumed to be uncertain between NE and NR, two states of the world in which Germany does not agree to debt mutualization. In NR, they value to costs of exit from the eurozone as greater than the costs of remaining. In NE, the opposite applies. Again, we assume that the Italian voters' preferences can be moved by providing information about the costs and benefits of these two options. Table B.1 displays the pay-offs.

**Table B.1.** Pay-off matrix from the interaction between Germany and Italy (with ordinal payoffs)

| | | **Italy** | |
|---|---|---|---|
| | | Remain (R) | Exit (E) |
| **Germany** | Mutualize (M) | MR<br>(3 or 2), 4 | ME<br>1,1 |
| | Non-Mutualize (N) | NR<br>4, (2 or 3) | NE<br>(2 or 3), (3 or 2) |

Table B.1 shows that if the game is played simultaneously, an outcome involving debt mutualization is not feasible because the strategy of mutualization is strictly dominated for Germany (since it prefers NON-MUTUALIZE to MUTUALIZE both if Italy plays EXIT

and if it plays REMAIN). The equilibrium is Italexit or the status quo depending on the preferences of Italian voters between exiting or remaining in the euro contingent on Germany refusing debt mutualization. However, if the game is played sequentially (Figure B.1), debt mutualization becomes a feasible outcome if Italy prefers NE to NR and if Germany prefers MR to NE. In other words, for debt mutualization to emerge two conditions have to be satisfied: 1) Italy must credibly threaten exit; 2) Germany must consider that the costs of debt mutualization are lower than the costs of Italexit. Table B.2 presents all four possible combinations.

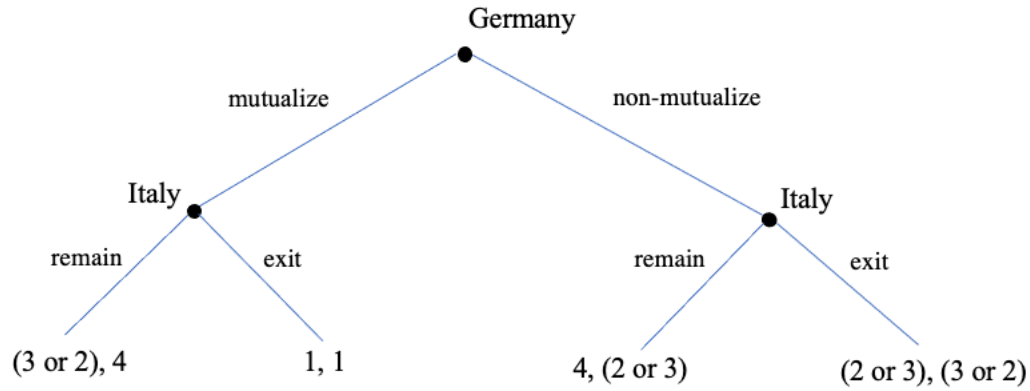


**Figure B.1**. Decision tree for a sequential game with Germany as a first-mover

**Table B.2**. Four possible outcomes based on the sequential game with Germany as a first-mover

| | | **Italy** | |
|---|---|---|---|
| | | NE>NR | NR>NE |
| **Germany** | MR>NE | Debt sharing (Mutualize & Remain) | Status quo (Non-Mutualize & Remain) |
| | NE>MR | Euro breakup (Non-Mutualize & Exit) | Status quo (Non-Mutualize & Remain) |

## APPENDIX C: Additional tables and figures

### C.1. Support for Italexit in Italy over time

**Table C.1**. Determinants of supporting Italexit in Italy based on the pooled sample from 2019 and 2020; marginal effects of timing of the survey based on multinomial probit regressions

| | Model 1 | Model 2 |
|---|---|---|
| **Remain** | | |
| Year=2020 (ref: 2019) | -0.196*** | -0.163*** |
| | (-5.20) | (-4.61) |
| **Exit** | | |
| Year=2020 (ref: 2019) | 0.0956** | 0.0498 |
| | (2.61) | (1.48) |
| **Don't know** | | |
| Year=2020 (ref: 2019) | 0.101** | 0.113** |
| | (2.87) | (3.25) |
| Control variables included? | No | Yes |
| Observations | 1172 | 1172 |

t values in parentheses

* p<0.05 ** p<0.01 *** p<0.001

Note: Only observations from the control group included; survey weights applied. Model 2 includes age, age squared, gender, education, subjective income, national identity, economic knowledge, and region as control variables.

## C.2. Assessment of having benefited from the euro in Italy and Germany

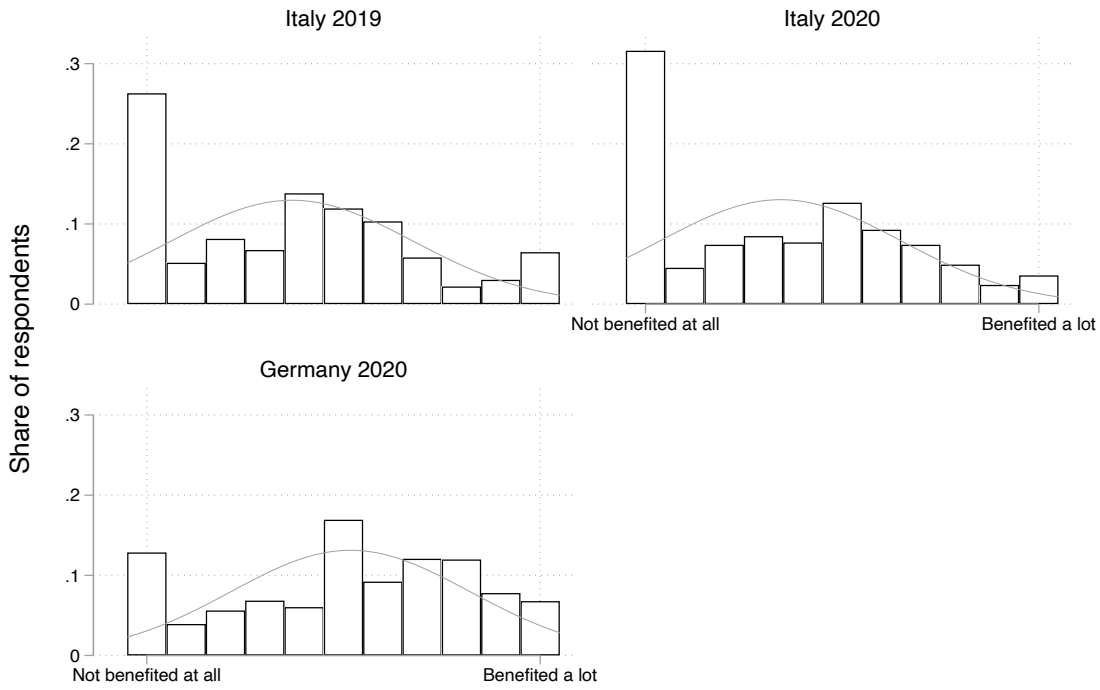


**Figure C.1**. Assessment of having benefited from the euro in Germany (April 2020) and Italy (October 2019 and April 2020)

Note: The figure shows responses to the survey question "have you and your family benefited or not benefited from [Italy/Germany| being a member of the euro. It shows the distribution of responses on a scale from 0 to 10 and normal distributions. Survey weights applied.

**Table C.2**. Determinants of evaluating the Euro positively in Italy based on the pooled sample from 2019 and 2020

| | (1) | (2) |
|---|---|---|
| Year=2020 | -0.333*** | 0.111 |
| | (-3.73) | (1.36) |
| National identity=1 | | -2.439*** |
| | | (-27.40) |
| Age | | -0.0954*** |
| | | (-6.02) |
| Age # Age | | 0.000880*** |
| | | (5.65) |
| Female | | -0.141 |
| | | (-1.72) |
| Education | | 0.0987*** |
| | | (5.25) |
| Subjective income | | 0.197*** |
| | | (10.97) |
| Southern Italy=1 | | -0.0272 |
| | | (-0.31) |
| Economic knowledge | | -0.117** |
| | | (-2.76) |
| Constant | 3.788*** | 5.658*** |
| | (57.65) | (13.00) |
| Observations | 7896 | 7896 |

*t* statistics in parentheses, survey weights included
* p<0.05 ** p<0.01 *** p<0.001

## C.3: Determinants of support for Italexit in Italy and Germany

**Table C.3.** Determinants of supporting Italexit in Italy; average marginal effects based on multinomial probit regressions with additional covariates

| | (1) | (2) | (3) |
|---|---|---|---|
| ***Treatment effects*** | | | |
| Costs of Italexit | | | |
| Remain | 0.041 | 0.048 | 0.036 |
| | (1.141) | (1.431) | (1.062) |
| Exit | -0.022 | -0.015 | 0.011 |
| | (-0.604) | (-0.422) | (0.306) |
| Don't know | -0.019 | -0.033 | -0.047 |
| | (-0.501) | (-0.888) | (-1.300) |
| Costs of Italremain | | | |
| Remain | -0.134*** | -0.110*** | -0.123*** |
| | (-4.031) | (-3.497) | (-3.882) |
| Exit | 0.156*** | 0.152*** | 0.159*** |
| | (4.055) | (4.218) | (4.418) |
| Don't know | -0.022 | -0.042 | -0.036 |
| | (-0.601) | (-1.199) | (-1.059) |
| Costs of Italexit + costs of Italremain | | | |
| Remain | -0.118*** | -0.065* | -0.072* |
| | (-3.582) | (-2.023) | (-2.186) |
| Exit | 0.148*** | 0.128*** | 0.124*** |
| | (3.856) | (3.527) | (3.506) |
| Don't know | -0.030 | -0.062 | -0.052 |
| | (-0.807) | (-1.754) | (-1.533) |
| ***Covariates*** | | | |
| Age | | | |
| Remain | | -0.010* | -0.006 |
| | | (-2.294) | (-1.252) |
| Exit | | -0.001 | -0.003 |
| | | (-0.122) | (-0.548) |
| Don't know | | 0.011* | 0.009 |
| | | (2.243) | (1.937) |
| Age squared | | | |
| Remain | | 0.000* | 0.000 |
| | | (2.431) | (1.436) |
| Exit | | -0.000 | 0.000 |
| | | (-0.052) | (0.253) |
| Don't know | | -0.000* | -0.000 |
| | | (-2.159) | (-1.807) |
| Female | | | |
| Remain | | 0.033 | 0.037 |
| | | (1.421) | (1.558) |
| Exit | | -0.087*** | -0.077** |
| | | (-3.349) | (-2.958) |
| Don't know | | 0.054* | 0.040 |
| | | (2.106) | (1.605) |
| Education | | | |
| Remain | | 0.021*** | 0.020*** |
| | | (4.358) | (4.008) |

| | | |
|---|---|---|
| Exit | -0.011 | -0.010 |
| | (-1.958) | (-1.608) |
| Don't know | -0.010 | -0.011 |
| | (-1.767) | (-1.869) |
| Subjective income | | |
| Remain | -0.016*** | -0.014** |
| | (-3.521) | (-2.803) |
| Exit | 0.015** | 0.017*** |
| | (2.850) | (3.306) |
| Don't know | 0.001 | -0.004 |
| | (0.302) | (-0.774) |
| National identity | | |
| Remain | -0.254*** | -0.169*** |
| | (-11.037) | (-6.515) |
| Exit | 0.345*** | 0.267*** |
| | (16.112) | (10.775) |
| Don't know | -0.091*** | -0.098*** |
| | (-3.589) | (-3.755) |
| Economic knowledge | | |
| Remain | 0.004 | -0.002 |
| | (0.282) | (-0.155) |
| Exit | 0.056*** | 0.063*** |
| | (4.311) | (4.762) |
| Don't know | -0.060*** | -0.061*** |
| | (-4.775) | (-5.010) |
| Southern Italy | | |
| Remain | -0.035 | -0.056* |
| | (-1.369) | (-2.134) |
| Exit | 0.034 | 0.042 |
| | (1.203) | (1.511) |
| Don't know | 0.001 | 0.013 |
| | (0.051) | (0.483) |
| Forza Italia (Ref: Lega) | | |
| Remain | | 0.104 |
| | | (1.818) |
| Exit | | -0.033 |
| | | (-0.514) |
| Don't know | | -0.071 |
| | | (-1.500) |
| Fratelli d'Italia | | |
| Remain | | 0.011 |
| | | (0.246) |
| Exit | | -0.021 |
| | | (-0.352) |
| Don't know | | 0.011 |
| | | (0.179) |
| M5S | | |
| Remain | | 0.094** |
| | | (2.906) |
| Exit | | -0.099* |
| | | (-2.534) |
| Don't know | | 0.005 |
| | | (0.145) |

| | | | |
|---|---|---|---|
| PD | | | |
| Remain | | | 0.341*** |
| | | | (8.910) |
| Exit | | | -0.320*** |
| | | | (-7.372) |
| Don't know | | | -0.021 |
| | | | (-0.562) |
| Other | | | |
| Remain | | | 0.251*** |
| | | | (5.439) |
| Exit | | | -0.269*** |
| | | | (-5.150) |
| Don't know | | | 0.018 |
| | | | (0.370) |
| No party | | | |
| Remain | | | 0.100* |
| | | | (2.464) |
| Exit | | | -0.248*** |
| | | | (-5.344) |
| Don't know | | | 0.148** |
| | | | (3.199) |
| Observations | 2118 | 2047 | 1925 |

t statistics in parentheses, survey weights included

* p<0.05 ** p<0.01 *** p<0.001

**Table C.4.** Determinants of supporting Italexit in Germany; average marginal effects based on multinomial probit regressions with additional covariates

| | (1) | (2) | (3) |
|---|---|---|---|
| ***Treatment effects*** | | | |
| Costs of Italexit | | | |
| Remain | 0.148*** | 0.162*** | 0.164*** |
| | (4.537) | (5.274) | (5.393) |
| Exit | -0.130*** | -0.136*** | -0.133*** |
| | (-4.205) | (-4.578) | (-4.441) |
| Don' | -0.019 | -0.026 | -0.031 |
| | (-0.691) | (-1.026) | (-1.304) |
| Costs of Italremain | | | |
| Remain | -0.104*** | -0.106*** | -0.092** |
| | (-3.320) | (-3.513) | (-3.033) |
| Exit | 0.090** | 0.078* | 0.079* |
| | (2.748) | (2.451) | (2.454) |
| Don't know | 0.013 | 0.027 | 0.014 |
| | (0.488) | (1.045) | (0.550) |
| Costs of Italexit + costs of Italremain | | | |
| Remain | 0.086** | 0.087** | 0.084** |
| | (2.620) | (2.781) | (2.690) |
| Exit | -0.097** | -0.090** | -0.084** |
| | (-3.067) | (-2.919) | (-2.697) |
| Don't know | 0.011 | 0.004 | -0.000 |
| | (0.379) | (0.141) | (-0.011) |
| ***Covariates*** | | | |
| Age | | | |
| Remain | | -0.023*** | -0.020*** |
| | | (-5.524) | (-4.603) |
| Exit | | 0.012** | 0.012** |
| | | (2.846) | (2.719) |
| Don't know | | 0.011** | 0.008* |
| | | (2.998) | (2.355) |
| Age squared | | | |
| Remain | | 0.000*** | 0.000*** |
| | | (5.108) | (4.163) |
| Exit | | -0.000* | -0.000* |
| | | (-2.294) | (-2.249) |
| Don't know | | -0.000** | -0.000* |
| | | (-3.157) | (-2.360) |
| Female | | | |
| Remain | | 0.004 | -0.009 |
| | | (0.174) | (-0.401) |
| Exit | | -0.052* | -0.022 |
| | | (-2.299) | (-0.994) |
| Don't know | | 0.048* | 0.032 |
| | | (2.527) | (1.714) |
| Education | | | |
| Remain | | 0.002 | 0.000 |
| | | (0.303) | (0.026) |
| Exit | | 0.013 | 0.010 |
| | | (1.940) | (1.384) |

| | | |
|---|---|---|
| Don't know | -0.015** | -0.010 |
| | (-2.621) | (-1.706) |
| Subjective income | | |
| Remain | -0.013** | -0.009* |
| | (-3.227) | (-2.316) |
| Exit | 0.009* | 0.007 |
| | (2.349) | (1.660) |
| Don't know | 0.004 | 0.003 |
| | (1.089) | (0.854) |
| National identity | | |
| Remain | -0.249*** | -0.185*** |
| | (-10.754) | (-7.278) |
| Exit | 0.236*** | 0.190*** |
| | (10.540) | (7.817) |
| Don't know | 0.013 | -0.005 |
| | (0.663) | (-0.260) |
| Economic knowledge | | |
| Remain | 0.035** | 0.026* |
| | (2.844) | (2.005) |
| Exit | 0.017 | 0.020 |
| | (1.416) | (1.587) |
| Don't know | -0.052*** | -0.046*** |
| | (-5.551) | (-4.916) |
| East Germany | | |
| Remain | -0.024 | -0.006 |
| | (-0.812) | (-0.204) |
| Exit | 0.031 | 0.015 |
| | (1.082) | (0.539) |
| Don't know | -0.007 | -0.009 |
| | (-0.285) | (-0.398) |
| SPD (Ref: CDU/CSU) | | |
| Remain | | 0.024 |
| | | (0.685) |
| Exit | | -0.020 |
| | | (-0.586) |
| Don't know | | -0.004 |
| | | (-0.160) |
| AfD | | |
| Remain | | -0.348*** |
| | | (-9.312) |
| Exit | | 0.369*** |
| | | (9.088) |
| Don't know | | -0.021 |
| | | (-0.765) |
| FDP | | |
| Remain | | -0.088 |
| | | (-1.825) |
| Exit | | 0.081 |
| | | (1.669) |
| Don't know | | 0.007 |
| | | (0.192) |
| Die Linke | | |
| Remain | | 0.006 |

| | | | |
|---|---|---|---|
| | | | (0.145) |
| Exit | | | -0.008 |
| | | | (-0.181) |
| Don't know | | | 0.001 |
| | | | (0.041) |
| Bündnis90/Die Grünen | | | |
| Remain | | | 0.079* |
| | | | (2.239) |
| Exit | | | -0.116*** |
| | | | (-3.550) |
| Don't know | | | 0.037 |
| | | | (1.388) |
| Other | | | |
| Remain | | | -0.133* |
| | | | (-2.567) |
| Exit | | | -0.005 |
| | | | (-0.103) |
| Don't know | | | 0.138** |
| | | | (2.987) |
| No party | | | |
| Remain | | | -0.226*** |
| | | | (-5.481) |
| Exit | | | 0.128** |
| | | | (2.931) |
| Don't know | | | 0.098** |
| | | | (2.737) |
| Observations | 2246 | 2178 | 2009 |

t statistics in parentheses, survey weights included
* p<0.05 ** p<0.01 *** p<0.001

## APPENDIX D: Additional tables and figures from the survey experiment

### D.1. Average levels of support for Italexit by scenario

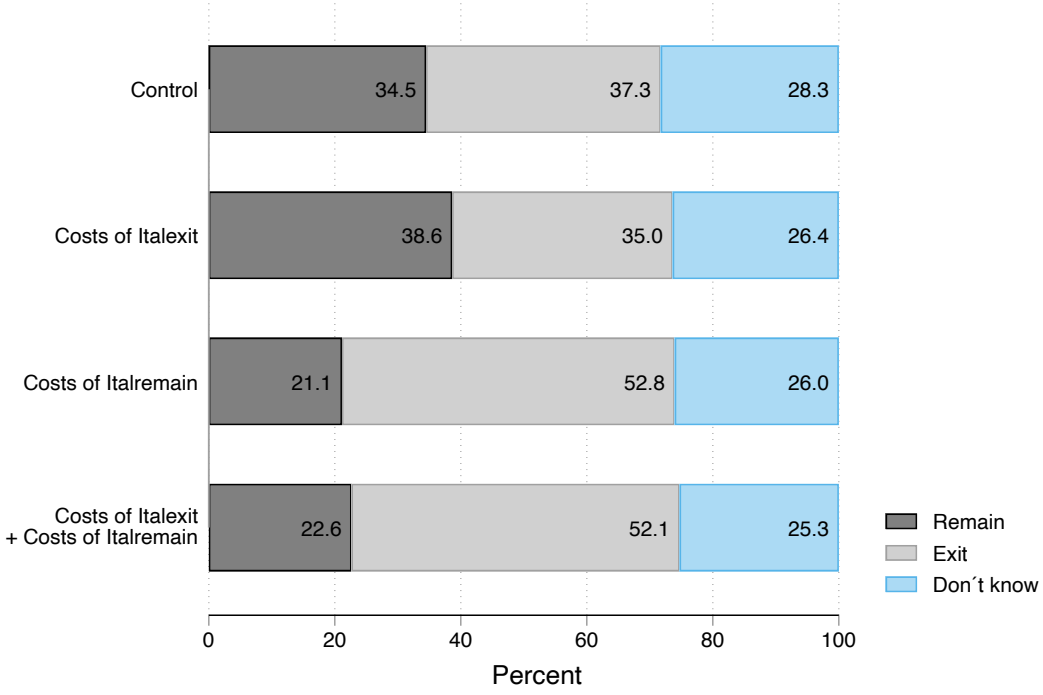


**Figure D.1**. Average levels of support for Italexit and remain by scenario in Italy

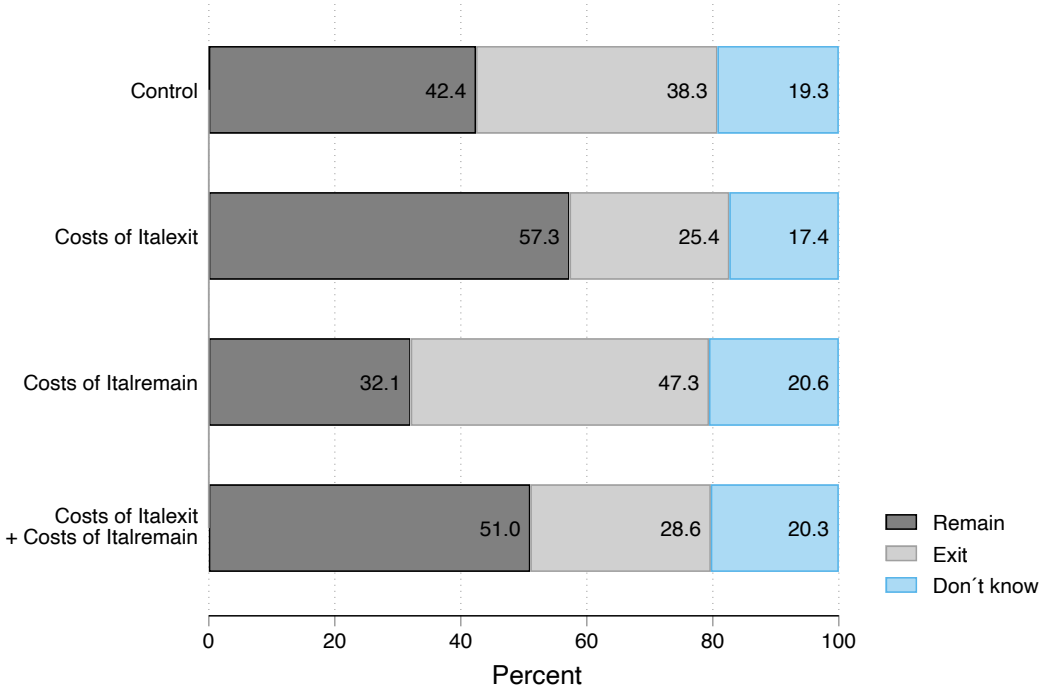


**Figure D.2**. Average levels of support for Italexit and remain by scenario in Germany

## D.2 Results from linear probability models

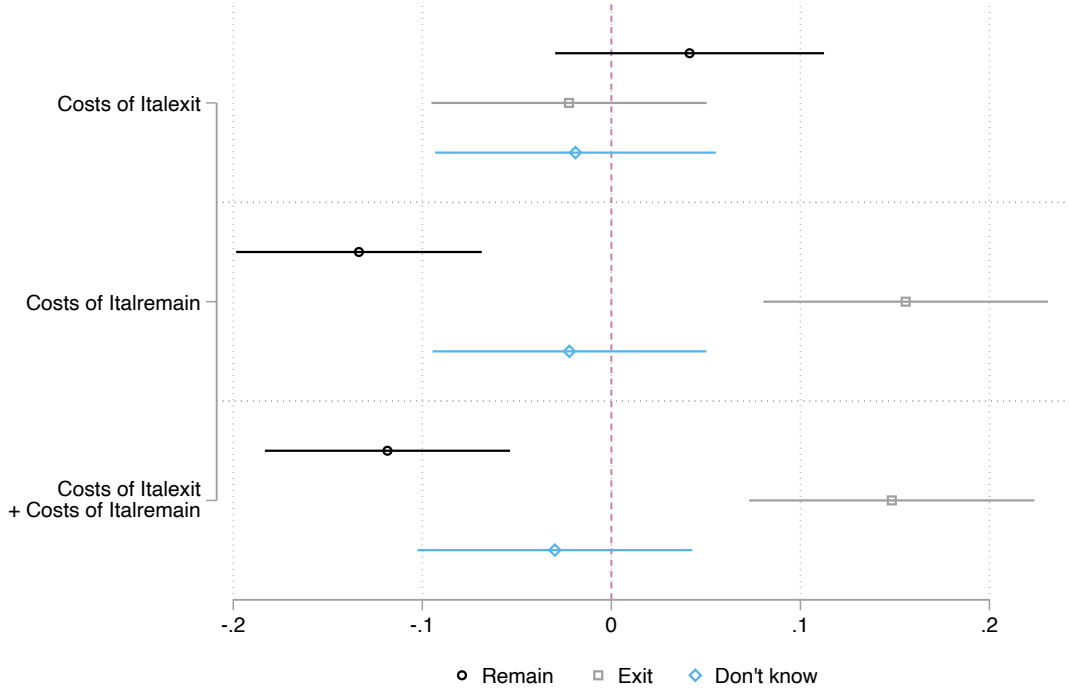


**Figure D.3**. Average treatment effects of preferences towards Italexit in Italy based on linear probability models

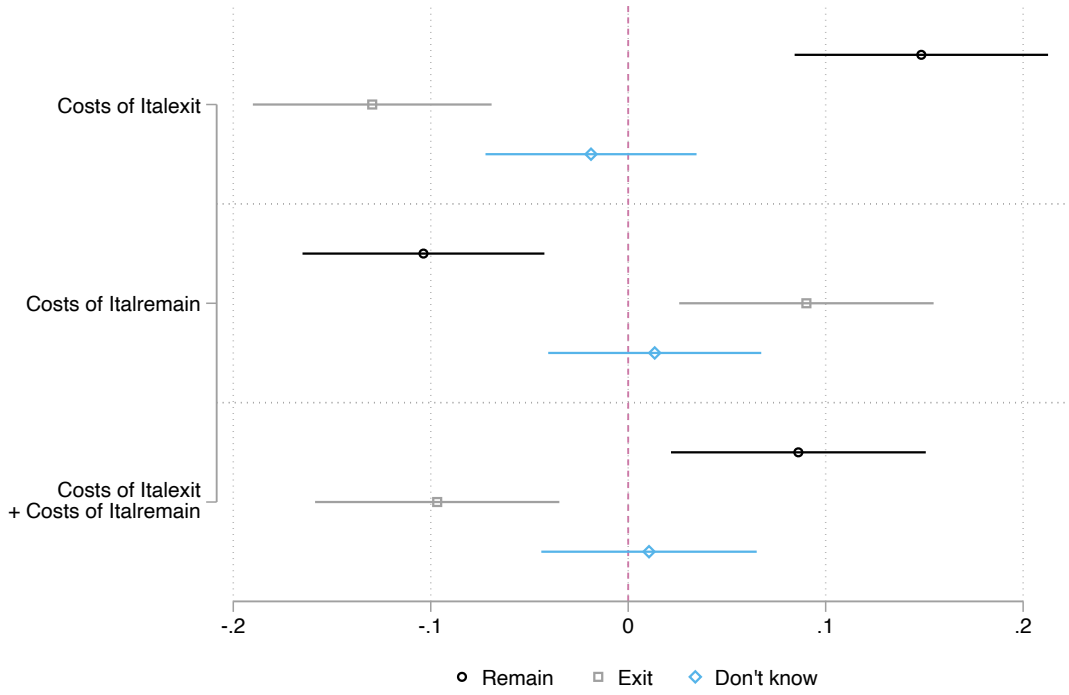


**Figure D.4**. Average treatment effects of preferences towards Italexit in Germany based on linear probability models

## D.3. Testing for survey response time

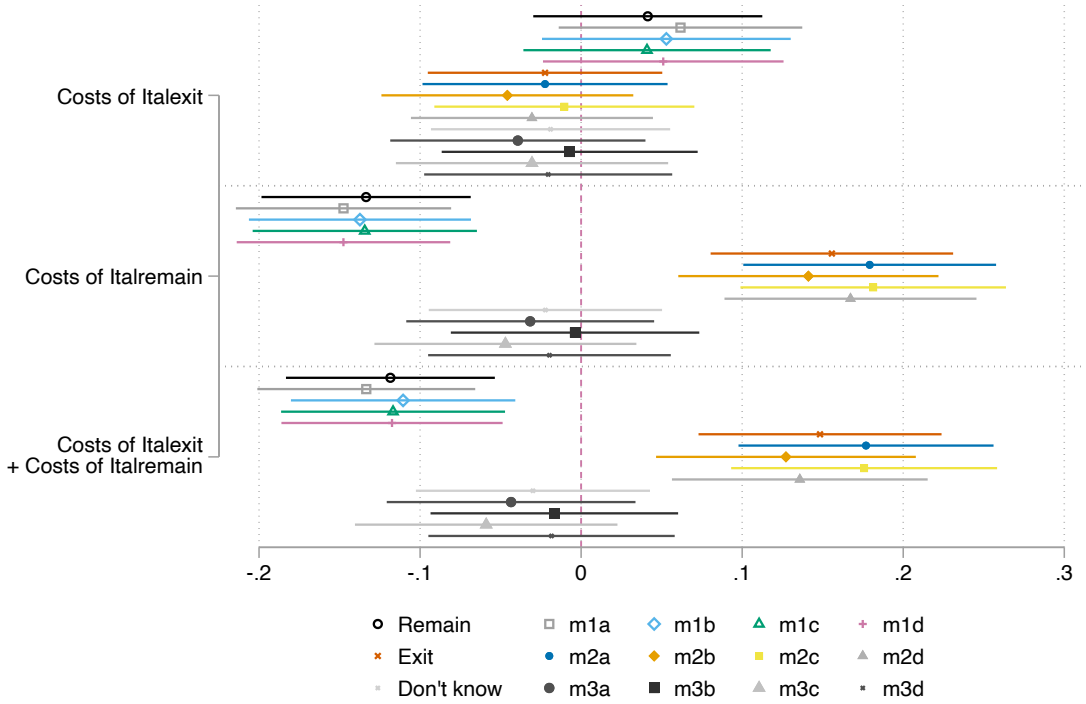


**Figure D.5.** Replication of Figure 2 from the main analysis; excluding 10% of the fastest and slowest respondents in Italy

Note: Models denoted "1" show treatment effects for remain, "2" for exit, and "3" for don´t know. Models denoted "a" exclude the 10% of respondents with the fastest total survey response time, "b" for the 10% slowest being excluded. Models denoted "c" exclude the 10% of respondents with the shortest time spent on reading the experimental scenario, "d" for the 10% with the longest time spent on reading the experimental scenario being excluded.

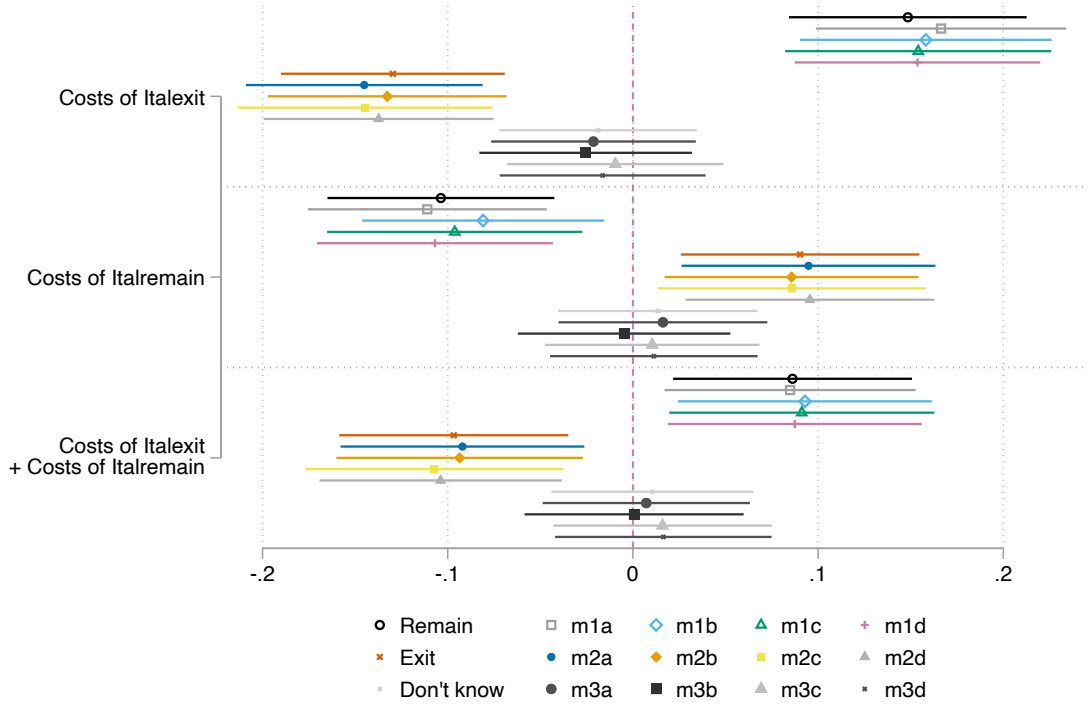


**Figure D.6.** Replication of Figure 4 from the main analysis; excluding 10% of the fastest and slowest respondents in Germany

Note: Models denoted "1" show treatment effects for remain, "2" for exit, and "3" for don´t know. Models denoted "a" exclude the 10% of respondents with the fastest total survey response time, "b" for the 10% slowest being excluded. Models denoted "c" exclude the 10% of respondents with the shortest time spent on reading the experimental scenario, "d" for the 10% with the longest time spent on reading the experimental scenario being excluded.

## D.4. Heterogeneous treatment effects

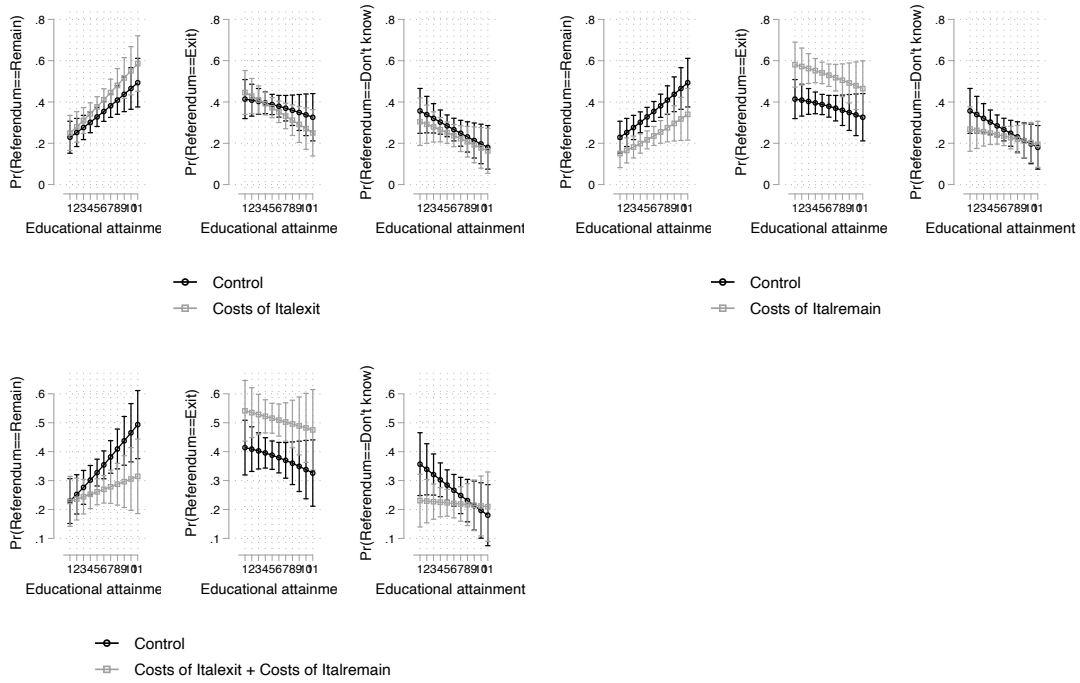


**Figure D.7**. Heterogeneous treatment effects by educational attainment in Italy

Note: Irrespective of individual educational attainment, individuals tend to react to the treatments in similar ways. Under the combined treatment of costs of exit and remain (lower left panel), individuals with low educational attainment are more likely to become undecided. Nevertheless, the positive effect of this combined treatment on the likelihood to vote exit is evident across education levels.

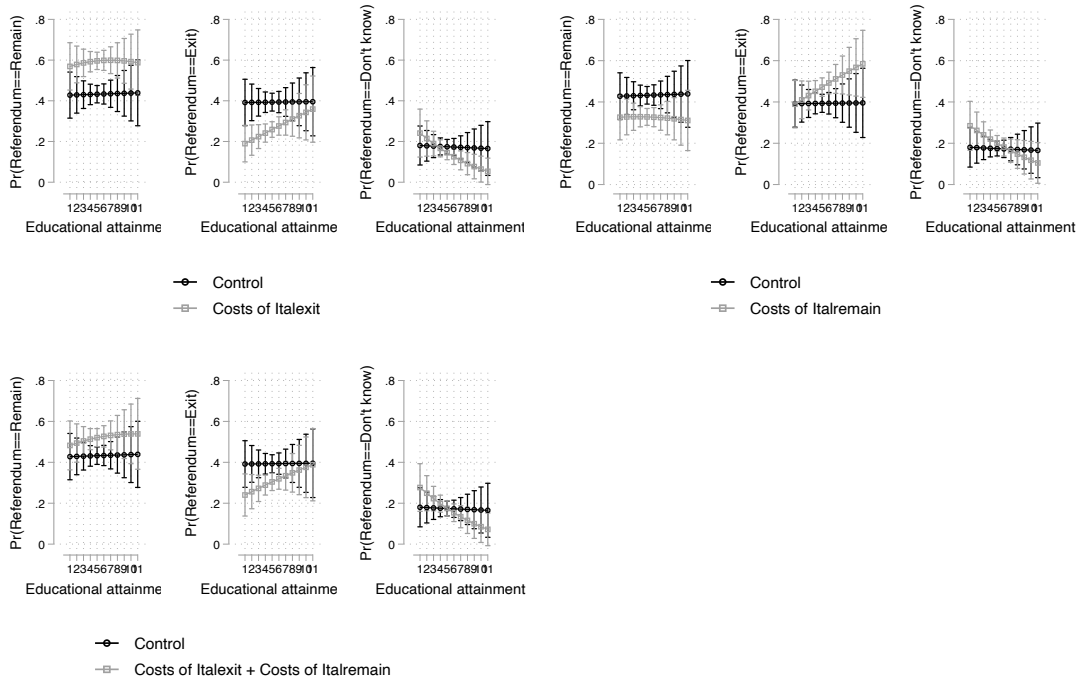


**Figure D.8**. Heterogeneous treatment effects by educational attainment in Germany

Note: Irrespective of individual educational attainment, individuals tend to react to the treatments in similar ways. As a partial exception, individuals with low education are particularly sensitive to the potential costs of an Italexit, reducing their support for exit (upper left panel). In contrast, individuals with high educational attainment weigh the costs of Italremain more heavily, increasing their support for exit (upper right panel). However, we do not observe any heterogeneous treatment effects by education educational background for the likelihood to support remain. A comparison of the results for the combined frames (lower left panel) with the frames introduced separately (upper left and right panels) similarly demonstrates that the cost of Italexit frame is more decisive for respondents across all educational levels.

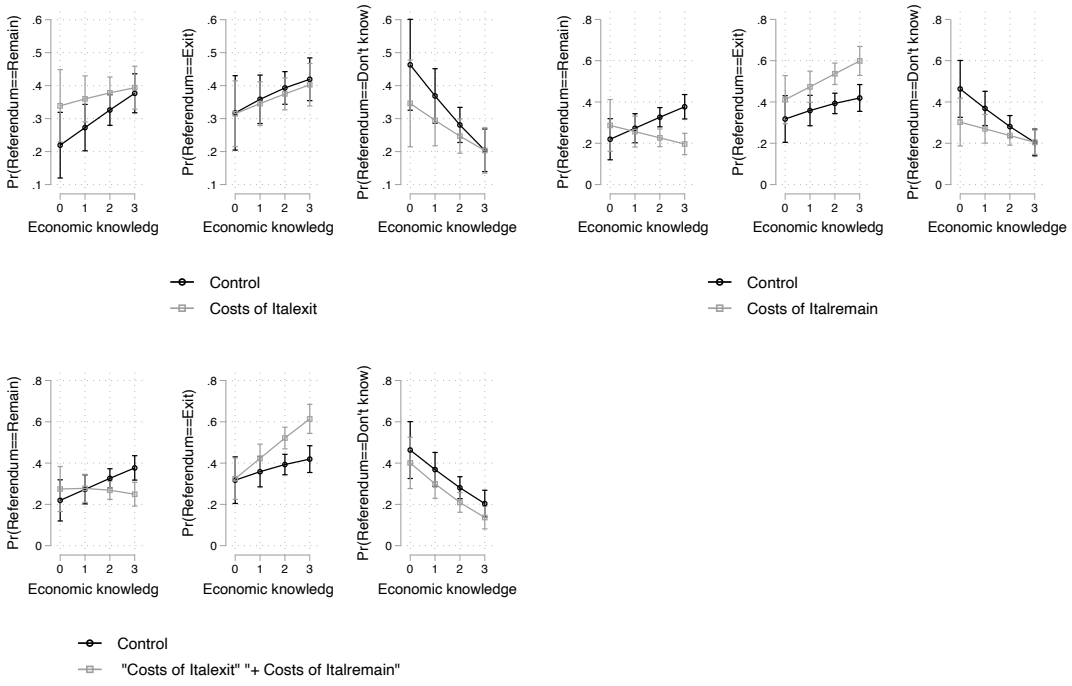


**Figure D.9**. Heterogeneous treatment effects by economic knowledge in Italy

Note: Those with low economic knowledge react more strongly to the costs of Italexit frame and less strongly to the costs of Italremain frame. Overall, the share of responses in the lowest two knowledge categories is low with 10, respectively 14 percent of respondents answering none or only one of the three factual knowledge questions correctly. Heterogeneous treatment effects are more negligible when comparing medium (2) with high (3) levels of knowledge.

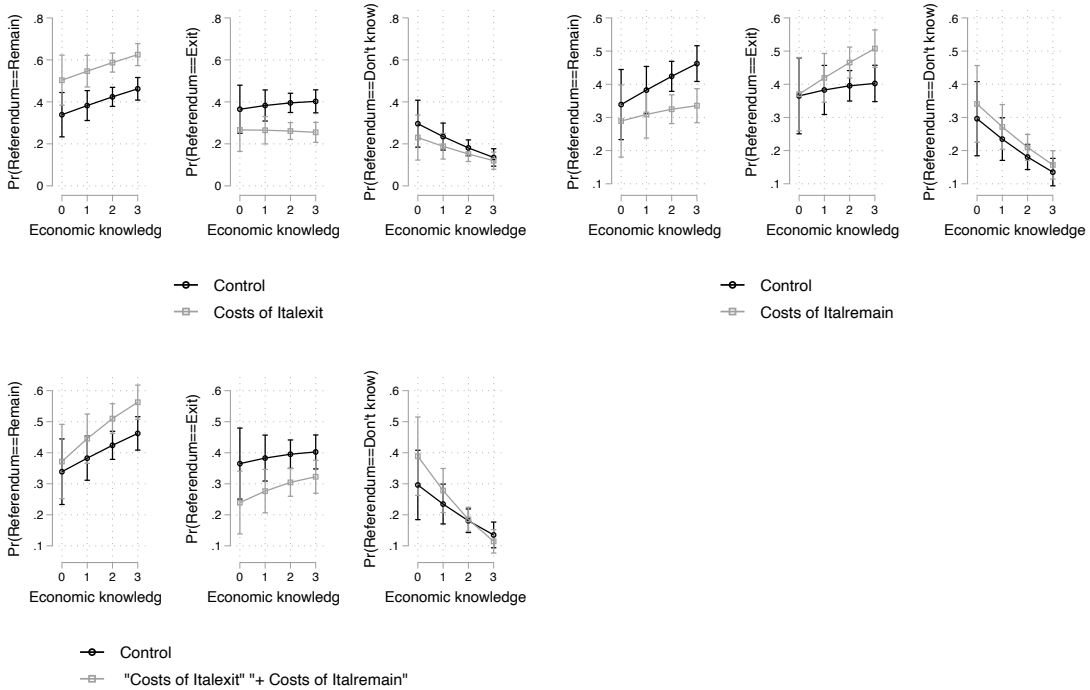


**Figure D.10**. Heterogeneous treatment effects by economic knowledge in Germany

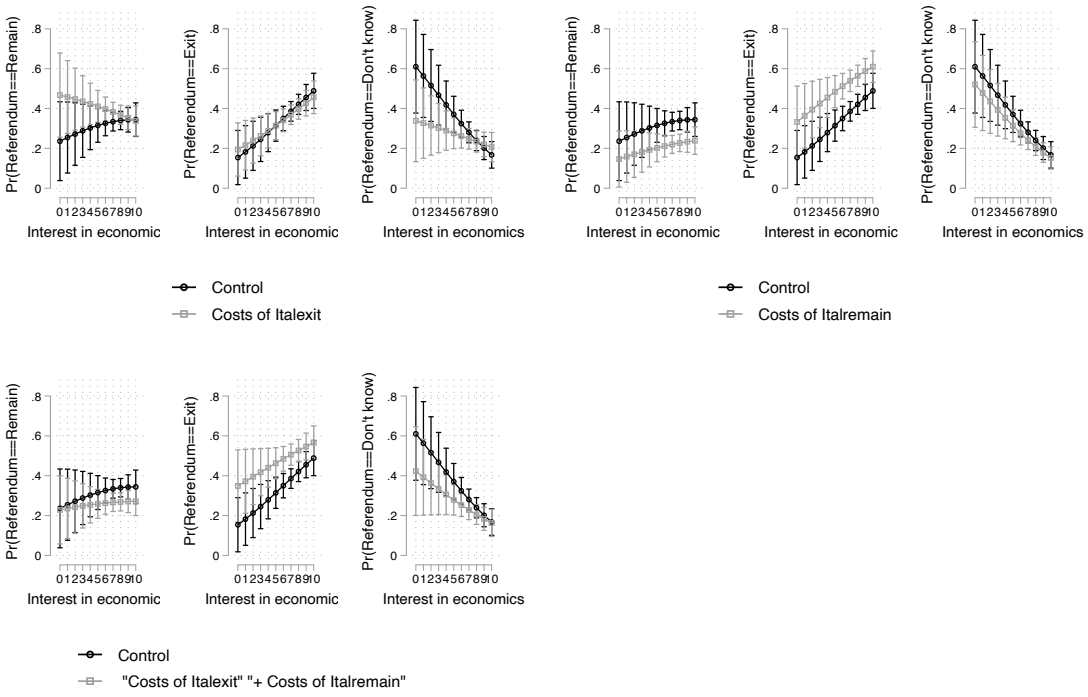


**Figure D.11**. Heterogeneous treatment effects by economic interest in Italy

Note: Interest in economic issues included as an alternative indicator to economic knowledge. See Table A.1 for variable operationalization. Those with low interest in economics react more strongly to the costs of Italexit frame. There are no strong heterogeneous effects for support for exit.

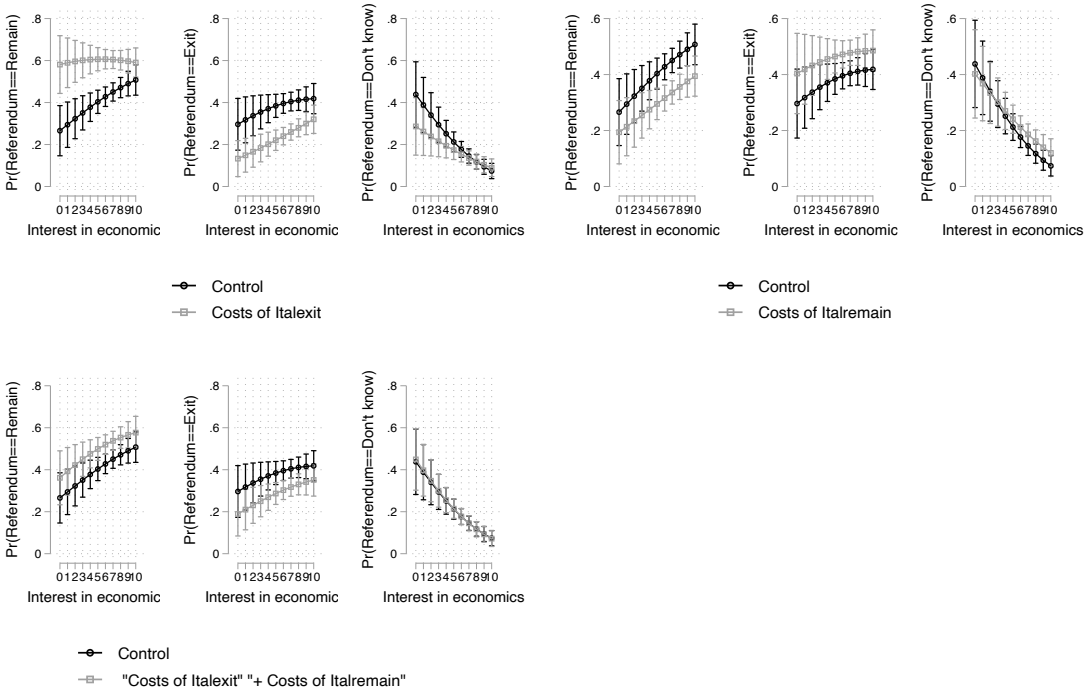


**Figure D.12**. Heterogeneous treatment effects by economic interest in Germany

Note: Interest in economic issues included as an alternative indicator to economic knowledge. See Table A.1 for variable operationalization.

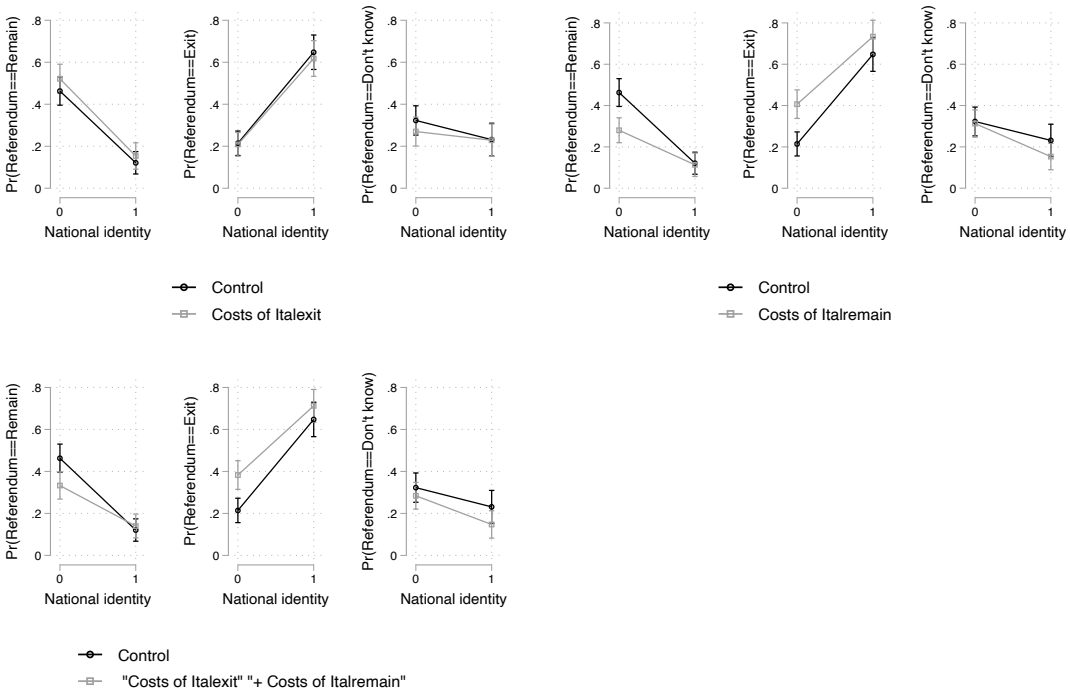


**Figure D.13**. Heterogeneous treatment effects by national identity in Italy

Note: Those with an exclusive national identity hardly react to the costs of Italremain treatment. Support for remain among those individuals is already at very low levels in the control group. There are no strong heterogeneous treatment effects for support for exit.

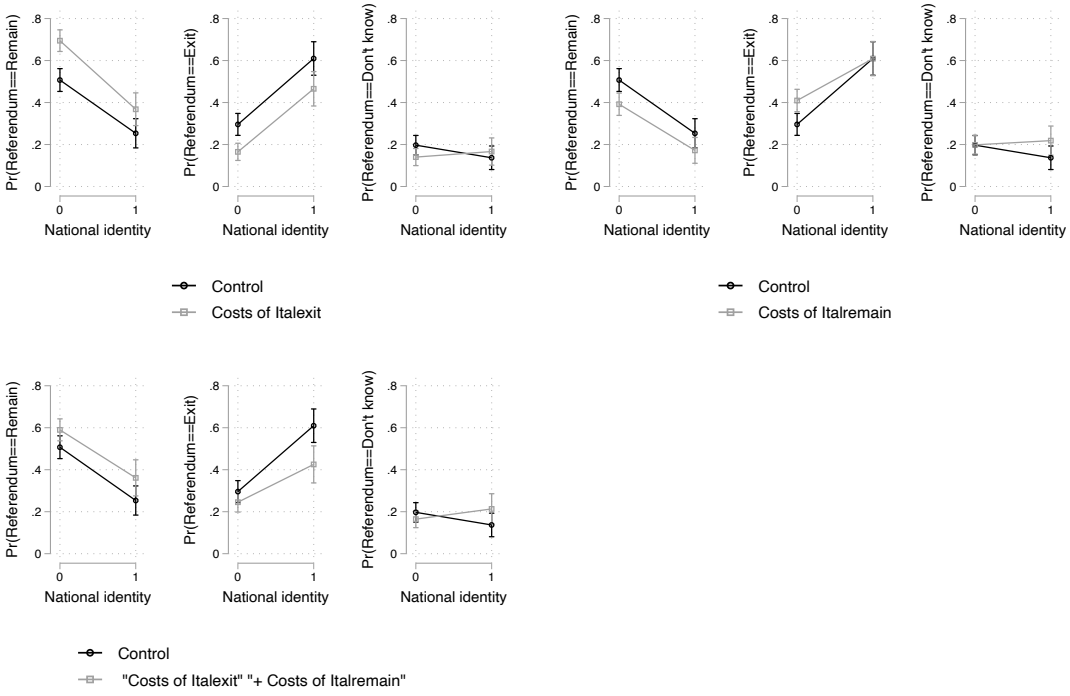


**Figure D.14**. Heterogeneous treatment effects by national identity in Germany

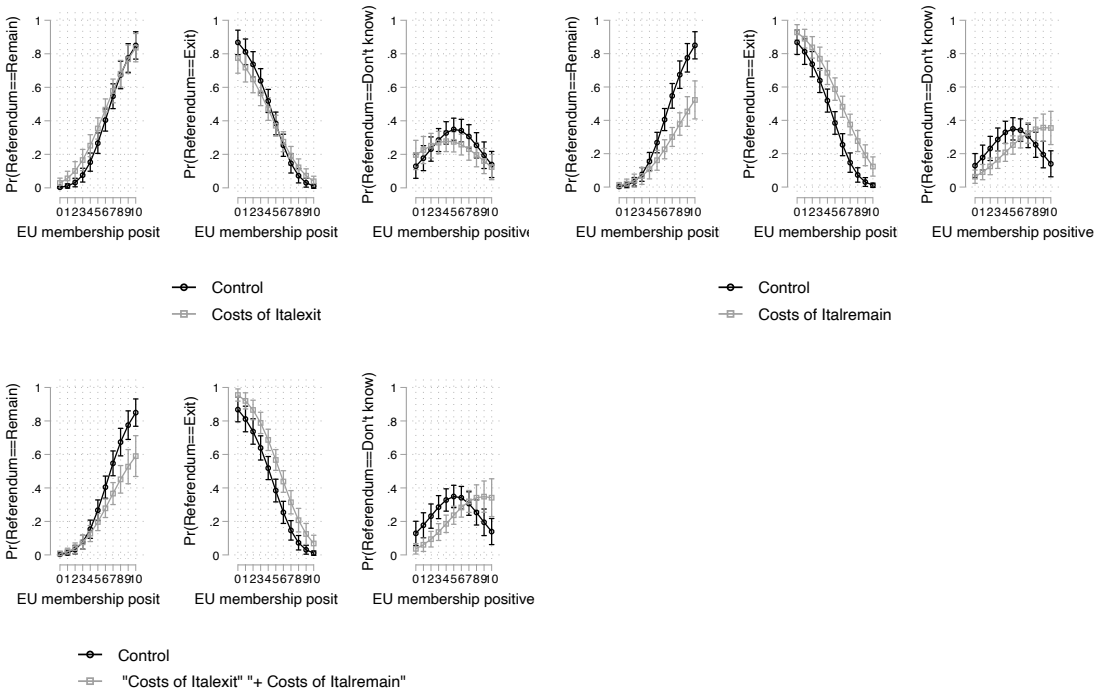


**Figure D.15**. Heterogeneous treatment effects by assessment of EU membership in Italy

Note: Assessment of EU membership included as an alternative indicator to national identity. See Table A.1 for variable operationalization. Those assessing EU membership more positively react more sensitively to the costs of Italremain with support for remain being reduced accordingly. For support for exit, there are no strong heterogeneous effects.

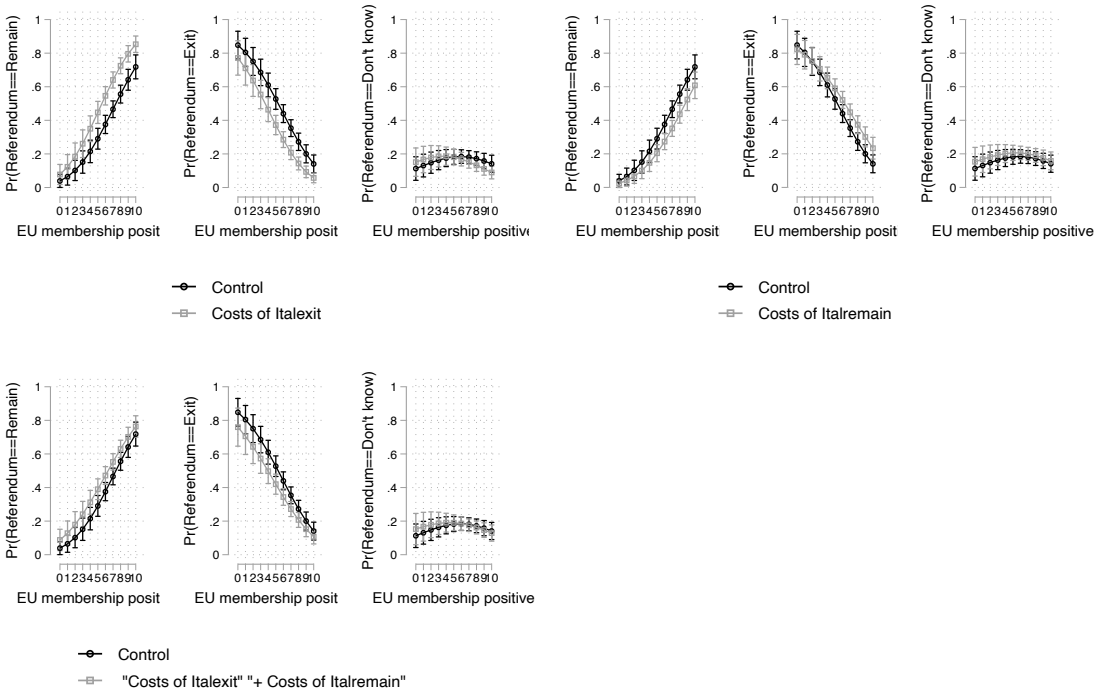


**Figure D.16**. Heterogeneous treatment effects by assessment of EU membership in Germany

## APPENDIX E: Results from the survey experiment with a second dependent variable

In this appendix, we show results from the analysis with the second variable, as discussed in the robustness checks section. In Italy, respondents could indicate their preferred choice out of the two following options: 1) "Germany and other European governments do not agree to debt mutualization, and Italy remains in the Euro" and, 2) "Germany and other European governments do not agree to debt mutualization, and Italy exits the Euro". In Germany, respondents could choose between 1) "Germany and other European governments do not agree to debt mutualization, and Italy exits the Euro" and, 2) "Germany and other European governments agree to debt mutualization, and Italy remains in the Euro". These choices are crucial for the determination of the equilibrium of the game analyzed in Appendix B.

Table E.1 depicts the relative majorities in preferences in Italy and Germany and summarizes the expected equilibrium outcomes based on the game-theoretical account developed in Appendix B. The table is based on Figures E.1 and E.2. which plot the predicted probabilities for support of different outcomes in Italy and Germany, respectively. Depending on the salience of costs of the different options, the equilibrium solutions for the eurozone fluctuate between Italexit or debt mutualization.

First, if Germany does not agree to debt mutualization, we find that Italians are always more likely to support exit than remain. This gives Italy a credible threat.

Second, the response of German voters is highly contingent upon the frames they receive. If voters receive no additional information (the control group, scenario 1), or information about the costs of mutualization for Germany without information about the costs of Italexit (scenario 3), a majority of voters do not want debt mutualization and would accept Italy exiting the eurozone. Yet, as soon as German respondents take into account the costs of Italexit they consider mutualization as the preferable option (scenarios 2 and 4). Although the difference between mutualization and exit is statistically insignificant in the combined scenario, the pattern is clear: predicted support for mutualization is higher than support for Italexit when Germans are alerted to the costs of Italy leaving the eurozone.

Taken together, Table E.1 demonstrates that the equilibrium outcome depends on the kind of information processed by respondents. Note that the relative majorities for Italexit and remain based on this second dependent variable are very similar to the results in the main analysis (Figures 3 and 5). The results differ in two instances (scenario 2 in Italy; scenario 1 in Germany). In these two scenarios, majority support shifts from remain to exit.

**Table E.1**. Summary of the results of the simulated strategic interaction between Germany and Italy

| | **Scenario** | **Italy** | **Germany** | **Equilibrium** |
|---|---|---|---|---|
| **1** | Control | NE > NR | NE > MR | Italexit |
| **2** | Cost of exit | NE > NR | NE << MR | Mutualization |
| **3** | Cost of remain | NE > NR | NE >> MR | Italexit |
| **4** | Cost of exit + cost of remain | NE > NR | NE < MR | Mutualization |

Note: The results are based on predicted probabilities of support. "<<" or ">>" imply that differences are statistically significant at the 95 level. The predicted probabilities are shown in Figures E.1 and E.2.

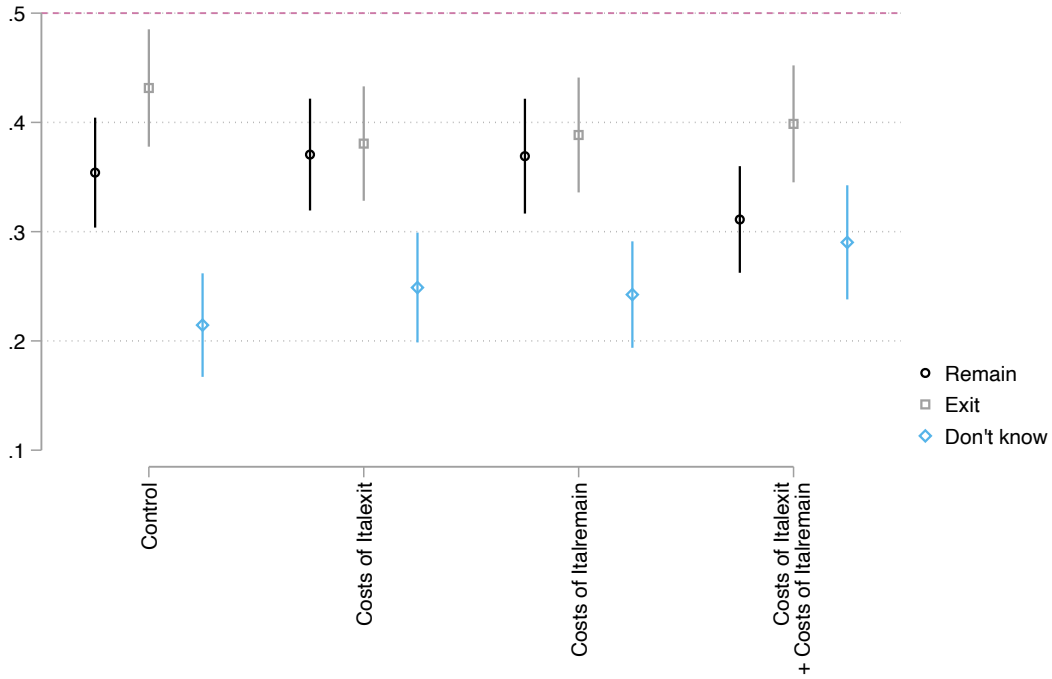


**Figure E.1**. Predicted probabilities of preferences towards the outcome of the strategic interaction in Italy

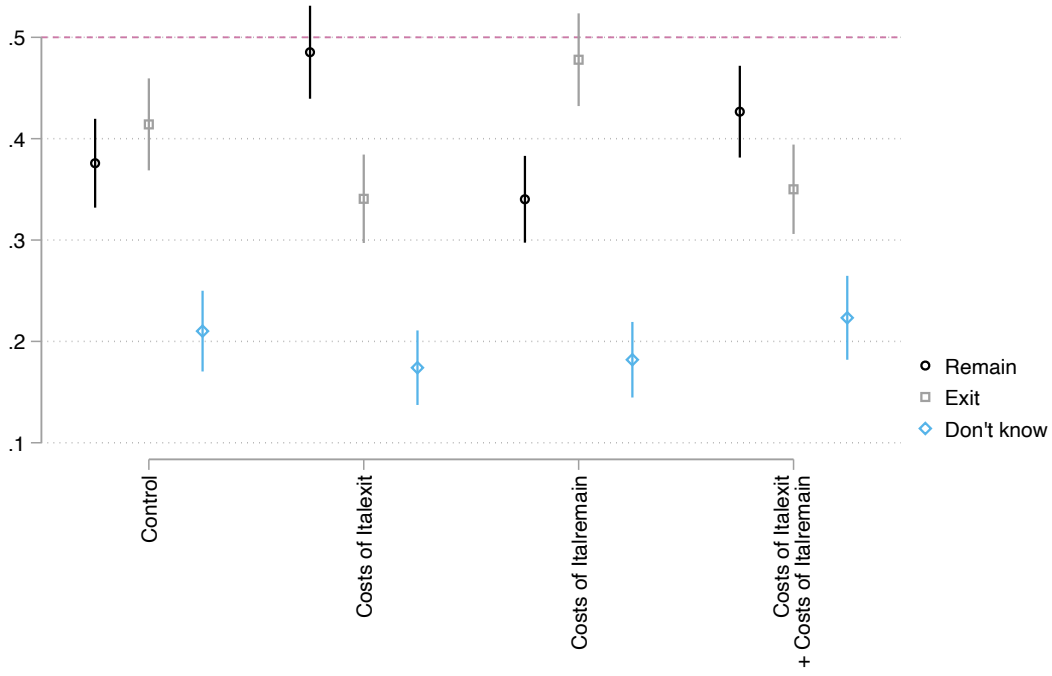


**Figure E.2**. Predicted probabilities of preferences towards the outcome of the strategic interaction in Germany

## APPENDIX F: Additional results for the COVID-19 frame

### F.1: Predicted probabilities with the COVID frame in Germany

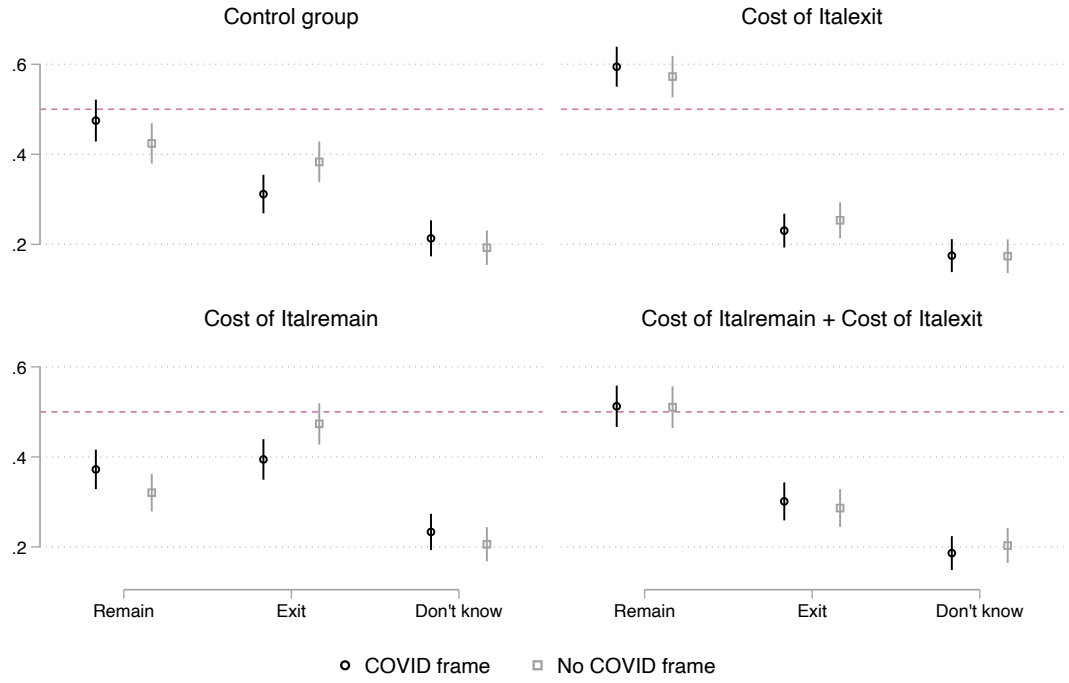


**Figure F.1**. Predicted probabilities for scenarios with the COVID-19 frame in Germany

Note: The figure shows predicted probabilities and 95 percent confidence intervals based on multinomial probit models based on the same regression models used to calculate the ATEs in Figure 6.

## F.2: Results with the COVID frame in Italy

**Table F.1**. Average treatment effects of the COVID-19 frame in Germany based on multinomial probit regressions

| | (1) |
|---|---|
| **Treatment effects** | |
| *COVID* | |
| Remain | 0.051 |
| | (1.539) |
| Exit | -0.071* |
| | (-2.250) |
| Don't know | 0.021 |
| | (0.736) |
| *COVID + Costs of It*alexit | |
| Remain | 0.170*** |
| | (5.294) |
| Exit | -0.153*** |
| | (-5.088) |
| Don't know | -0.018 |
| | (-0.651) |
| *COVID + Costs of Italremain* | |
| Remain | -0.052 |
| | (-1.627) |
| Exit | 0.011 |
| | (0.344) |
| Don't know | 0.041 |
| | (1.441) |
| *COVID + costs of Italexit + costs of Italremain* | |
| Remain | 0.088** |
| | (2.695) |
| Exit | -0.082** |
| | (-2.596) |
| Don't know | -0.006 |
| | (-0.226) |
| Observations | 2830 |

t statistics in parentheses, survey weights included
* p<0.05 ** p<0.01 *** p<0.001

We also included a COVID-19 frame in Italy. The frame read as follows:

> *The corona crisis has forced the Italian government to significantly increase public expenditures, both to reinforce health care infrastructure at a time of stress and to contain the consequences of the recession. This has led to a large increase in the public deficit as a share of GDP and a downgrade of Italian bonds by rating agencies. As a consequence, now [basic scenario follows …]*

To test the effect of the COVID-frame in Italy we recruited an additional 2092 respondents. We had no prior expectations about the direct effect of this frame but we hypothesized that the combination between the COVID-19 frame and the cost of remain frame would reduce preferences for remain and increase preferences for exit. Our reasoning was as follows: to the extent that voters understand that Italy needs to increase its public deficit in order to cushion the consequences of the corona crisis, the imposition of austerity should decrease their support for remain and increase their support for exit.

The results shown in Figure F.2 and Table F.2 corroborate this hypothesis. When the COVID-19 frame is paired with the austerity frame, support for Italexit is significantly higher (+17 percent) and support for Italremain significantly lower (-13 percent) than in the control group. Surprisingly, when administered on its own, the COVID frame increases support for remain by 9.68 percentage points. A possible explanation may be that when highlighting the national health emergency due to COVID-19, respondents are less likely to blame the euro for Italy's economic ills.

In general, the effect of the COVID frame tends to be lower when it is combined with the frames that emphasize material considerations. Post-estimation Wald tests show that when the COVID frame is combined with other frames, its effects are statistically insignificant, with one exception: in combination with the costs of Italexit and costs of Italremain frames, the COVID frame has a significant negative effect on the likelihood to support exit (+8 percent). Even in this case, however, exit from the euro is supported by a relative majority of Italians (43 percent), as shown in Figure F.2. Together with evidence from the previous wave, which shows a strong effect of the austerity frame on support for Italexit, this pattern of results makes us confident that the response of Italian voters is primarily driven by consideration of the costs of remaining in the eurozone.

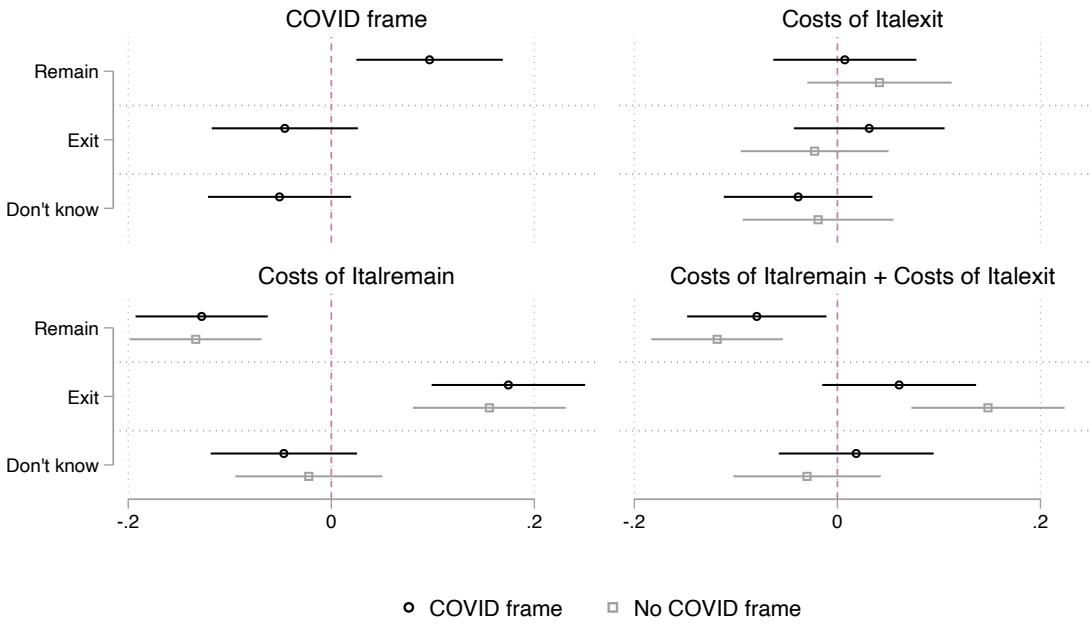


**Figure F.2**. Average treatment effects of the COVID-19 frame in Italy

Note: The figure shows the average treatment effects and 95 percent confidence intervals based on multinomial probit models. All treatment effects are calculated with reference to the control group which only received the basic scenario and survey weights are applied. The full regression table with the results for the COVID-frame is shown below (Table F.2).

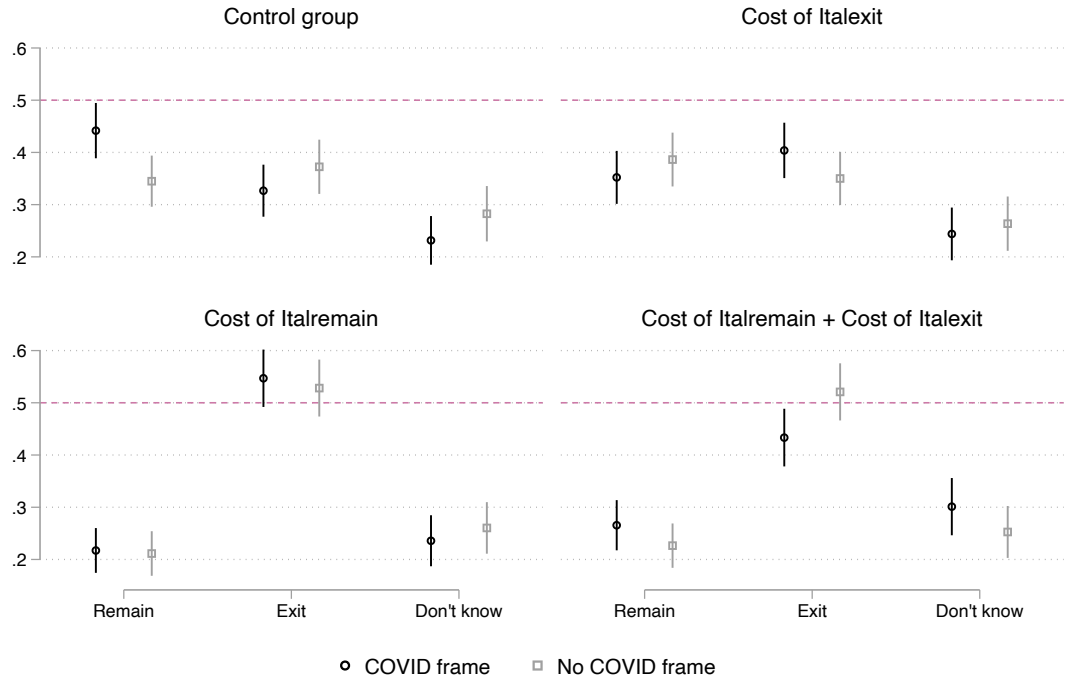


**Figure F.3**. Predicted probabilities for scenarios with the COVID-19 frame in Italy

Note: The figure shows predicted probabilities and 95 percent confidence intervals based on multinomial probit models based on the same regression models used to calculate ATEs in Figure F.1.

**Table F.4**. Average treatment effect of the COVID-19 frame in Italy based on multinomial probit regressions

| | (1) |
|---|---|
| ***Treatment effects*** | |
| *COVID* | |
| Remain | 0.097** |
| | (2.631) |
| Exit | -0.046 |
| | (-1.247) |
| Don't know | -0.051 |
| | (-1.418) |
| *COVID + Costs of Italexit* | |
| Remain | 0.007 |
| | (0.203) |
| Exit | 0.031 |
| | (0.828) |
| Don't know | -0.039 |
| | (-1.035) |
| *COVID + Costs of Italremain* | |
| Remain | -0.128*** |
| | (-3.845) |
| Exit | 0.174*** |
| | (4.525) |
| Don't know | -0.047 |
| | (-1.272) |
| *COVID + costs of Italexit + costs of Italremain* | |
| Remain | -0.079* |
| | (-2.269) |
| Exit | 0.061 |
| | (1.574) |
| Don't know | 0.019 |
| | (0.477) |
| Observations | 2626 |

t statistics in parentheses; survey weights included

* p<0.05 ** p<0.01 *** p<0.001

**Table F.5**. Average treatment effect of the costs of Italremain frame in Italy in 2019 and 2020

| | (1) |
|---|---|
| ***Treatment effects*** | |
| *Outcome = Remain* | |
| Costs of Italremain = 1 | -0.190*** |
| | (-5.629) |
| Year = 2020 | -0.153*** |
| | (-4.601) |
| Costs of Italremain = 1 * Year = 2020 | 0.042 |
| | (0.851) |
| *Outcome = Exit* | |
| Costs of Italremain = 1 | 0.148*** |
| | (3.978) |
| Year = 2020 | 0.060 |
| | (1.571) |
| Costs of Italremain = 1 * Year = 2020 | 0.010 |
| | (0.181) |
| *Outcome = Don't know* | |
| Costs of Italremain = 1 | 0.042 |
| | (1.245) |
| Year = 2020 | 0.093** |
| | (2.604) |
| Costs of Italremain = 1 * Year = 2020 | -0.051 |
| | (-1.170) |
| Observations | 2463 |

t statistics in parentheses; only control and costs of Italremain treatment groups included; survey weights included

* p<0.05 ** p<0.01 *** p<0.001

## APPENDIX G: Additional information about the newspaper analysis

We examine newspapers to study whether the main mechanism from the experimental part – a threat of a breakup of the euro leads to more favorable preferences towards debt mutualization in Germany – resonates with real-world events. To be clear our intent in this section is not to argue that public opinion was the main explanatory factor accounting for the establishment of Europe's pandemic recovery fund NextGenEU. More narrowly the section illustrates that the threat of a "new Brexit" was indeed perceived to be a real possibility by German politicians. German politicians used this threat to justify the shift in their positions, from staunch opposition towards debt mutualization to support for it. The section thus mostly serves illustrative purposes, suggesting that citizens' perceptions of strategic interdependencies are important to consider when evaluating the extent to which politicians are constrained by public opinion.

As we highlight in the conclusion, this section does not mean to present an argument that fully explains how Europe's pandemic recovery fund came about. A favorable public opinion in key northern countries is arguably a necessary condition for reform of the economic architecture of the eurozone, but in all likelihood, it is not a sufficient condition. Reform still has to overcome a large set of veto points, both in individual European countries and within European institutions. We thus use the section to make a more circumscribed argument that public opinion was not an obstacle to debt mutualization in Europe in 2020 because politicians became aware of the sensitivity of people's preferences to the importance of economic interdependencies within the eurozone.

To write this section, we first created a corpus of newspapers articles in Germany and Italy. To this end, we used a keyword search in Factiva and LexisNexis. We searched for relevant articles published in the main newspapers in Germany and Italy from the beginning of February until the end of September 2020. Table G.1 shows the full lists of newspapers covered as well as the keywords that we used in each country. The list of newspapers mostly included quality newspapers, but for example, in Germany, we also included the tabloid newspaper *Die Bild* due to its importance in public discourse. We excluded other media (e.g., TV, radio) because we assumed that the political discourse in each country can be accurately represented by newspaper coverage and because the additional marginal costs of including such media did not seem to be proportionate to the costs of such analysis.

**Table G.1** List of newspapers and keywords by country

| | **Germany** | **Italy** |
|---|---|---|
| **List of newspapers** | Frankfurter Allgemeine Zeitung, Süddeutsche Zeitung, Die Bild, Handelsblatt, Die Welt, Der Spiegel, Die Zeit | La Repubblica, Corriere della Sera, La Stampa, Il Sole 24 Ore, Il Giornale, Libero Quotidiano, Il Fatto Quotidiano |
| **List of keywords** | ("Eurobonds" AND "Italien") OR ("Coronabonds" AND "Italien") OR ("Italien" & "Euro") OR "Italexit" ("Austr*" AND "Euro" AND "Italien") OR ("ESM & Italien") OR ("Merkel-Macron-Plan" "Italien") OR ("Wiederaufbau*" "Italien") | ("Conte" AND "Italia farà da sola") OR ("Conte" AND "faremo da soli") OR "faremo da soli" OR "Coronabonds" OR "Eurobonds" OR "Uscita dall'euro" OR "euroscetticismo" |

## References

Berinsky, A. J., Margolis, M. F., & Sances, M. W. 2014. "Separating the shirkers from the workers? Making sure respondents pay attention on self-administered surveys." *American Journal of Political Science*, *58*(3), 739-753