



RESEARCH ARTICLE

# Is the grass greener on the other side? Benchmarking Covid-19 vaccine procurement against the British experience

Ann-Kathrin Reinl<sup>1</sup> , Alexia Katsanidou<sup>2,3</sup>  and Steffen Pötzschke<sup>4</sup> 

<sup>1</sup>Department of Public Governance and Management, Ghent University, Ghent, Belgium, <sup>2</sup>Institute for Sociology and Social Psychology Faculty of Management, Economics and Social Sciences University of Cologne, Cologne, Germany, <sup>3</sup>Department Survey Data Curation, GESIS – Leibniz Institute for the Social Sciences, Cologne, Germany and <sup>4</sup>Department Survey Design and Methodology, GESIS – Leibniz Institute for the Social Sciences, Mannheim, Germany

**Corresponding author:** Alexia Katsanidou; Email: [alexia.katsanidou@gesis.org](mailto:alexia.katsanidou@gesis.org)

(Received 11 November 2022; revised 06 April 2023; accepted 16 May 2023; first published online 21 July 2023)

## Abstract

The Covid-19 pandemic placed responsibility on the European Union (EU) to effectively mitigate this common challenge. An important aspect of the common fight against the virus was the collective procurement of vaccines. The initially slow process of vaccine delivery may have caused overall frustration within societies and may also have had a profound effect on people's assessment of their country's EU membership. This paper examines this assumption via unique panel data collected in Germany in three waves between November 2020 and August 2021. We show that citizens evaluated their country's EU membership negatively especially when the EU's progress on vaccinations was in its early stages. In addition, public assessment was particularly negative when vaccination progress was compared to the situation in the United Kingdom (UK). Overall, our findings point to volatile levels of EU support depending on respondents' perceptions of the success of the UK outside the EU.

**Keywords:** Brexit; benchmark theory; Covid-19; Germany; vaccination

## Introduction

The numerous European crises of the past 15 years have increased the pressures on and critiques surrounding the European Union (EU) and EU governance. A common political course during these crises has by no means been self-evident, but countries have tended to choose collective problem-solving approaches over national solo efforts. Following the pattern set during the European sovereign debt crisis and perhaps less so by the so-called 'migration crisis', EU member states opted for collaboration when it came to the Covid-19 pandemic. As the EU has no jurisdiction in the field of health policy, its initial influence in this recent crisis was rather limited. The EU's role was restricted to raising public awareness about the pandemic and subsequently to collectively negotiating purchasing agreements for vaccines under development by various pharmaceutical companies (European Commission, 2022).

The joint vaccine procurement was intended to strengthen the EU's bargaining powers and thus to provide more affordable doses for all EU member countries on a 'fair share' basis. This decision was taken after the evaluation of previous experience with vaccine procurement during the swine flu epidemic (Phillips, 2009). Vaccine procurement, however, turned out to be rather slow. While other countries such as Israel or the United Kingdom (UK) were already vaccinating

large parts of their populations in early 2021, progress in EU countries stalled due to supply bottlenecks. In some cases, the manufacturing companies did not deliver the number of vaccine doses that had initially been contractually promised (Jack, 2021). By March 2021, over 46% of the UK's population had already received at least one jab (UK Health Security Agency, 2022), whereas the EU average at that time was only 6.6%.<sup>1</sup> This paper therefore examines the extent to which this pronounced difference had an impact on public support for the EU within the community.

EU 'Benchmark theory' (de Vries, 2018) states that citizens base their assessment of the EU on whether their country would fare comparatively better or worse outside the Union. Nowadays one can best draw a picture of such an alternative state of affairs of being outside the EU by looking at a recently departed EU member state: the UK. The precedent of Brexit offers a revealing benchmark for all remaining member states. The British officially left the EU at the end of January 2020 after a referendum on membership (June 2016) and have endeavoured to act independently throughout the Covid-19 crisis. Considering the situation in spring 2021 and the slow vaccination progress in the EU at that time, it is reasonable to assume that EU citizens might have become more dissatisfied with their country's membership in the Union, especially when comparing vaccination progress to the roll-out in their former fellow member state, the UK. Consequently, we suggest that not only has public assessment of EU membership changed over the course of the pandemic, but also that a comparison with the UK's response to the crisis might have gained political relevance at the time.

To test this assumption, we collected unique panel survey data in Germany, as an example of a country that, due to its economic strength, could very well have independently carried out negotiations with vaccine suppliers (as was the case for the UK). Our panel survey covers three time points from November 2020 to August 2021, therefore allowing us to trace public EU support during different phases of the pandemic. Moreover, by integrating a survey experiment in the second panel wave fielded in March/April 2021, we are able to directly test for a benchmarking against the situation in the UK.

Our findings show that assessment of EU membership by the German public indeed changed over time and was particularly negative in March/April 2021, the time of slow vaccination progress in the EU. Moreover, our survey experiment shows that confrontation with faster vaccination progress in the UK contributed to a significantly more negative EU assessment. When vaccination progress in the EU and the UK was compared, respondents rated EU membership significantly worse than when no such additional priming took place. Following from that, our findings allow us to draw conclusions about the volatility of public support for the EU, which could indeed dip depending on the current and future performance of the (now non-EU) UK.

Our paper contributes to the current state of research in two ways. First, we further advance EU benchmarking theory and show that a comparison to the current situation in the UK – that is, an alternative scenario of a country that has left the EU – still seems to be an important yardstick for EU evaluation in the rest of the community even years after the so-called 'Brexit'. Second, using a combination of panel and experimental data, we show that such a benchmarking is not only observable but also causally related to the EU situation in March/April 2021 and the UK's vaccination success at that time.

## Benchmarking Brexit

The UK joined the EU in 1973 and following a much-debated referendum it left the EU on 31st January 2020. Brexit, as it was called, was a field of negotiations for the EU and the UK, and the time between the Brexit referendum and the UK formally departing the EU saw a period of political instability and uncertainty (Baines et al., 2020; Dunlop et al., 2020; McConnell and

<sup>1</sup>The data are taken from <https://vaccinetracker.ecdc.europa.eu/public/extensions/COVID-19/vaccine-tracker.html#uptake-tab> (accessed 22.09.2022).

Tormey, 2020). Ever since the public vote for Britain to leave the EU, there has been a growing body of academic work on evaluating Brexit. First, studies on Brexit evaluations within Britain were published (for instance Grynberg et al., 2020; Hobolt et al., 2021; Vasilopoulou and Talving, 2019). Second, case studies on voting preferences in other EU states have been released (for instance Delis et al., 2020). Third, there has been research examining public preferences for the actual line in Brexit negotiations and post-withdrawal relations with the UK (Jurado et al., 2021; Walter, 2020). Fourth, and pursuing a somewhat different line of argument, researchers comparatively studied EU citizens' preferences for following the UK's example in leaving the community. Gastinger (2021), for instance, calculated an 'EU Exit Index' measuring the likelihood of the remaining EU countries to leave the community.

In 2018, de Vries for the first time applied the so-called 'benchmark theory' to citizens' assessment of EU membership. In general terms, benchmark theory asserts that people compare the current state of EU membership to potential alternative scenarios. If the alternative state to EU membership – the status quo- is appealing, willingness to leave the EU should increase. For this, the assessment of national governments/politics is often used as a comparison against the EU level. De Vries (2018) summarizes this in a simple equation on the EU differential:

$$\text{Evaluations}_{\text{status quo}} - \text{Evaluations}_{\text{alternative state}}$$

However, since such an alternative state of being on its own and leaving the EU is difficult to foresee – due to a lack of adequate information – one might refer to other cases with similar stories. In other words, and with an eye on the British decision to leave, people might draw on the experiences of a parting country as a counterfactual for assessing the costs and benefits of their country's own EU membership. The British example provides information about potential political and economic costs coming along with departing the community. A comparison with another country that has never belonged to the EU – such as Switzerland – would be far less suitable here, because the social, political, and economic entanglements with the EU (and also the non-existent costs of leaving) are completely different (de Vries 2017; 2018).

Such a Brexit benchmarking was evaluated immediately after the referendum took place in October 2016, by means of a survey experiment (de Vries 2017), and was also reviewed at some later point. For the following years, Walter (2021) and Reinl and Evans (2021) show that support for leaving the EU indeed dropped in the remaining EU states in the aftermath of the Brexit referendum and against the backdrop of prolonged Brexit negotiations.

All in all, it can therefore be concluded that the UK's experience of departure, with its protracted negotiations and uncertain future outcomes, had a negative impact on public willingness to leave the community in other EU countries. The fear of a subsequent Brexit-flavoured domino effect seems to have been banished, at least for the time being. What previous research also shows, however, is that support for remaining part of the EU is by no means stable across time (Reinl and Evans, 2021). Data collected in the aftermath of the 2019 European Parliament elections additionally shows that priming citizens about potentially positive Brexit implications via an integrated survey experiment lowered public support for their own country's EU membership (Hobolt et al., 2022). Consequently, depending on the given context, the assessment of one's own country's EU membership can swing in one direction or the other, conditional upon the situation in the UK. Public mood outside the UK seems to be volatile and not easy to pin down.

Every changing context offers a new opportunity to contrast the political performance of the UK with that of the EU. This is especially true when both regions are confronted with one and the same challenge. For this reason, a natural next research step is to identify real conditions that allow us to test the effect of the newly gained independence in policy making in the UK on support for EU membership in the member states. Our paper aims to contribute towards filling this gap using the case of corona vaccinations. The Covid-19 pandemic offers a fresh opportunity for the population of EU member states to evaluate the EU as well as its crisis management capacities, and

this time to compare it directly with a country that has turned its back on the community. *Did divergent experiences arising in the EU and UK in times of the pandemic serve as a new opportunity to turn the British exit experience into an international success story?* The following section further addresses the question posed and pays particular attention to the regions' varying vaccination strategies.

### **New crisis, new occasion for Brexit benchmarking?**

When the Covid-19 pandemic hit, the EU faced an unexpectedly acute cross-border threat to public health that ideally had to be tackled in a coordinated manner among the member states (Paccès and Weimer, 2020). Health policy coordination was, however, not the strong point of the EU as by design it had no jurisdiction and thus few competences on the matter (Brooks and Geyer, 2020). As a consequence, cooperation was sometimes more and sometimes less successful.

On the one hand, cooperation on civil protection was unsuccessful as the Civil Protection Mechanism failed to facilitate efficient cooperation and coordination among member states, leaving each country basically isolated in developing Covid-19 mitigation strategies. The initially uncoordinated adoption of lockdowns and a governing mentality of national protectionism when it came to medical supplies, together with the reintroduction of internal border controls and the suspension of freedom of movement by 17 member states, did not reflect well on the Union (Wolff and Ladi, 2020). On the other hand, it did not take long for the EU to adapt to the new threat and to demonstrate a shift in its economic and health policies (Schmidt, 2020). As the economic cost of lockdowns became ever more apparent, the EU made a fundamental break with its debt policies and opened the way for an EU-level debt presented in the proposal of the EU Commission in May 2020 (Deutsche Welle, 2020) and adopted on 14 December 2020, named the Next Generation Fund, resulting in an agreement for €390 billion in grants and €360 billion in loans to be disbursed (Ladi and Tsarouhas, 2020). In addition, there was successful provision of timely information by the European Centre for Disease Prevention and Control as well as closer cooperation on information exchange among member states.

About the same time, in July 2020, with an eye on vaccination procurement, the EU's first approach was chaotic here, too. The experience of the swine flu outbreak in 2009 showed that an uncoordinated response to a health emergency would have adverse impacts. As an example, this lack of coordination resulted in the hoarding of swine flu vaccines in the UK (Sturcke and Bowcott, 2010), a lack of vaccines in eastern European countries and an unequal pricing of vaccines in different states. Many countries ended up with unused vaccines that were then redistributed across the EU via an ad hoc voluntary system (Reuters, 2010). Ten years later, the learning process was again far from ideal. When the Covid-19 pandemic hit, the EU had not yet established a mechanism with centralized purchasing power for vaccines and coordinated capacity but was instead forced to do everything on the fly (de Ruijter, 2021). In practical terms that meant losing precious time during an unfolding pandemic, putting in place new legislation just to organize joint procurement and distribution. There was broad political willingness for this, but even a crisis response cannot escape the EU's bureaucratic bottlenecks and lengthy negotiation processes (Senninger, 2021). Several other reasons lay behind the slow vaccination procurement in those early days. First, the EU wasted precious time with negotiations that aimed above all at securing a low price for vaccines. These low prices were achieved but at the cost of delays in vaccinating people. Contracts with the EU were concluded much later than those of other countries (for example, three months later than the UK's agreement with AstraZeneca), which deprived the companies of more time for production preparation. Moreover, the low prices, which could be seen as a success, had some negative side effects as well. They created an incentive for companies to deliver first to other buyers that paid more, leaving the EU member states without protection for longer. Second, the European Medicines Agency (EMA) took longer to test and

evaluate the vaccines than the British Medicines and Healthcare Products Regulatory Agency (MHRA), which had sped up the process by streamlining it to reduce the time for delivery of the results of clinical trials. Third, AstraZeneca was off target in its deliveries of vaccines to the EU. Its Belgian factory faced production problems and its British factory was bound by the signed contract with the British government to cater first for the British order. Finally, the EU countries used various vaccine administration mechanisms. While Britain's NHS had access to a centralized mechanism that allowed for a quick and uncomplicated vaccination campaign, in the EU not all countries had this advantage.

A comparably slow vaccination process in the EU in the first part of 2021 was seen as the direct result of the slow pace of its vaccine procurement. Compared to countries acting individually such as the USA, Israel and the UK, the EU showed low rates of coverage. By early March 2021<sup>2</sup> the UK had 46% of its population vaccinated with at least one dose, while within the EU the countries with the highest coverage rates were Finland with only 9% and Estonia with 7% of their population. By 1 June 2021, the EU had still not caught up with the UK, with Finland – still the country with the highest coverage – reaching 45%, compared to the UK's continent-leading 58%. This situation continued until mid-July 2021, when some EU countries were starting to catch up in their vaccination coverage. By the end of 2021, many EU countries had overtaken the UK. However, for this early period of vaccination progress the UK could boast an undeniable policy success, especially when the policies there were contrasted with the policy decisions taken in its former EU partner countries. British Prime Minister Boris Johnson used the vaccine success to make a point about the benefits of Brexit. He repositioned Britain on the world stage by suggesting that the vaccine was part of 'the vast dispersal of British ideas, and British values, puffed around the world like the seeds of some giant pollinating tree' (Johnson, 2021). Hence, the British government connected the discourse around the vaccine campaign with the narrative of Brexit to vindicate its policy choices and the plan leading to them. The British success in science (the *Oxford vaccine* as it was called in the media) and health (the vaccination campaign) was portrayed as only possible because of regaining control from a bureaucratic supranational power and being able to take full advantage of political, economic and scientific conditions across the world (Caliendo, 2022). This discursive strategy did not go unnoticed – neither inside nor outside the island.

The issue was used widely as a success story by the British government and as picked up by national and international media as 'Boris Johnson's Vaccine Miracle' (Knight, 2021). Public Opinion gave a so-called 'vaccine bounce' (English, 2021) to prime minister Johnson and the conservative party in the UK (Savage, 2021) that had an impact on British domestic politics and the British local election campaign. This put citizens in EU countries and, especially in Germany, in a position to wonder why 'chaotic' leaders such as Boris Johnson have seemingly achieved a better result in vaccine matters (Posener, 2021).

Against the background of these different political and discursive strategies in the fight against Covid-19, the questions now arising are (1) *how the EU population evaluated the performance of the community over the period of the pandemic*, and (2) *whether possibly negative evaluations could be related to a benchmarking against the British situation*.

We know from past studies on public EU support that evaluations are particularly negative when the community is confronted with a crisis situation. This was the case during the EU sovereign debt crisis (Schäfer and Gross, 2020) as well as during the years of heightened migration pressure (Stockemer et al., 2020).

Consequently, it can be assumed that the assessment of EU membership was not constant but fluctuating during the Covid-19 pandemic. EU membership evaluations could have shown correlations with the perceived effectiveness of EU-wide crisis management. We assume that EU citizens viewed their country's EU membership more positively at the end of 2020, after the

<sup>2</sup>Data on vaccination come from <https://ourworldindata.org/covid-vaccinations> and triangulated also using this source <https://vaccinetracker.ecdc.europa.eu/public/extensions/COVID-19/vaccine-tracker.html#uptake-tab>.

EU-wide agreement on common crisis measures (Next Generation EU), than they did in the spring of the following year, when the ordered vaccines did not arrive on time and other parts of the world seemed to be vaccinating faster. EU membership should have been rated particularly negatively when EU-wide crisis management revealed problems leading to slow vaccination progress in spring 2021. By summer 2021, this picture might have improved again as vaccination progressed.

Moreover, the assessment of EU membership should have been particularly negative in spring 2021, especially in view of a more effective crisis management by a country outside the community. Here, a comparison with the former EU member state, the UK, could be particularly relevant. Previous studies have already shown that EU membership is viewed more negatively when positive post-Brexit experiences of the British are reported (Hobolt et al., 2021). During the Covid-19 pandemic, the UK's vaccination progress in particular could make EU membership look less attractive in some people's eyes. In other words, we expect the following factors to be considered in people's EU membership assessment in early spring 2021 following de Vries' (2018) EU differential calculation:

$$\text{Evaluations}_{EU \text{ vaccine progress}} - \text{Evaluations}_{UK \text{ vaccine progress}}$$

This leads us to formulate our research hypothesis:

**Hypothesis:** The assessment of EU membership was more negative in spring 2021, especially when individuals were reminded of the UK's vaccination progress at that time.

The ensuing section empirically tests the formulated assumption.

### The case of Germany

Germany is not only the most populated country in the EU but also has arguably the strongest economy. Thus, it would certainly have been possible for the German government to act on its own with regard to vaccine procurement and to negotiate independently with pharmaceutical companies (especially as one of the most successful firms at this initial stage was based in Germany). Building upon this economic power argument, people in Germany might have assumed that their country could have done just well without the EU and that vaccination progress probably would have been on a more similar scale to the UK. This is also in line with de Vries' (2018: 55) insight that the EU differential is 'more likely to be negative in countries with low unemployment and high quality of governance'.

We thus expect that our formulated research hypothesis on Brexit benchmarking should resonate especially for the German case in early spring 2021. If this is, however, not the case and respondents did not benchmark the EU against the British experience here, it is unlikely that any other EU country has done so during this time.

As a result, the study of Germany offers a sound basis for analysing our original research hypothesis. It should, however, be evaluated in future studies whether our findings are generalizable above the German case. Although we are quite confident about that – as previous studies on Brexit benchmarking have shown that it takes place across the board (Reinl and Evans 2021) – the effects for economically weaker countries, for example, could be less pronounced.

### Data and operationalization

#### Data

This paper builds on data collected by the SAFE-19 project (Katsanidou et al. 2021). The mitigation efforts taken by the German government in early 2020 and throughout the pandemic to cope with Covid-19 are unprecedented in their scope and impact on citizens' freedom as well

as on economic activities. The success of these measures depends largely on citizens' solidarity towards each other and their willingness to accept restrictions on their usual ways of life for the common good. The project researched the relation between these two aspects and their development over time, taking into consideration the roles played by political institutions and evolving policies.

To this end, a self-administered three-wave online panel survey was conducted. Data collection took place using the Respondi Access panel.<sup>3</sup> The target population consisted of individuals between the ages of 18 and 69 residing in Germany at the time of the first wave. The questionnaires were prepared in German language only. During the respondent recruitment, quotas were applied to achieve a sample that mirrored the composition of Germany's resident population in terms of age, gender and education level (university entrance qualification vs. lower levels of education) distribution. Notwithstanding these efforts, it must be stressed that the project used a non-probability-based sample.

The data collection of wave 1 took place in late November and early December 2020, wave 2 was fielded from late March to early April 2021, and wave 3 from late July to early August of the same year. The initial sample of wave 1 consisted of 2,250 individuals. In this study, we focus on a subset of respondents who participated in the first and second wave. We are especially interested in attitudinal changes between these two waves as these might be related to the vaccination progress during this time and to perceived advantages the UK might have gained, from the respondents' point of view, by leaving the EU. We have excluded all observations with missing values on the dependent and independent variables from our regression model. By doing so, we arrive at an analytical sample of  $n = 971$ . 78% of the participants of this subsample also participated in the study's last wave.

### **Priming experiment**

Assessment of EU membership serves as our main dependent variable. More specifically, respondents were asked whether Germany's membership in the Union is a good thing, neither good nor bad, or a bad thing. This ordinal question was included in all three waves. However, to ascertain whether the UK's quicker vaccination progress – and its presumed connection with Brexit – might impact respondents' assessment of Germany's EU membership, we conducted a so-called 'priming' experiment in wave 2. More specifically, we split the sample into two groups, whereby respondents were randomly assigned to the control ( $n = 476$ ) or treatment ( $n = 495$ ) group. While the former group received the question in the same format as in the first wave, the latter was presented with the following Brexit-specific stimulus preceding the question:

In recent weeks, many countries have begun to vaccinate their populations against the coronavirus. Since the UK is no longer part of the EU, the country has been able to negotiate independently with pharmaceutical companies, while Germany is bound by EU decisions. For this reason, the UK was also able to acquire more rapidly a larger quantity of the vaccine than Germany, and able to vaccinate a larger proportion of its population to date.

How do you assess Germany's membership in the EU against this background?

The priming text thus primarily discusses the positive situation in the UK, without particularly criticizing EU policy at that time. Moreover, this priming presents a very one-sided story telling. It provides the respondents with information that clearly echo the rhetoric used by then Prime Minister, Boris Johnson. It should be noted that such a unidimensional priming on the respondents would be difficult to achieve outside an

<sup>3</sup>For further information on the Respondi Access Panel, see <https://www.respondi.com/EN/access-panel>.

experimental setting. The experiment thus helps us to do exactly that: to observe the effect of a strong priming, which emphasizes the UK and the vaccination progress there in a particularly benevolent way, under isolated conditions. Thereby, we can test whether such biased information could potentially be dangerous for the stability of the EU community – if the right circumstances prevail.

In addition, we deliberately decided not to ask respondents about their voting decision in a potential EU membership referendum after receiving the priming, as has been done in previous studies on Brexit benchmarking (see de Vries 2017; Reinl and Evans 2021; Walter 2021). The reason for this is that such a referendum was not under discussion at the time of the survey. Moreover, attitudes towards EU membership might also be more volatile compared to (potential) electoral decisions. Thus, we are more confident to track over-time changes through our operationalization compared to alternative ones. A study by Hobolt and co-authors from 2022 shows that the two operationalizations of EU membership evaluation – attitudinal membership support and vote choice – are similarly suitable for the research purpose of this paper.

Next, explain how we intend to use this question for the purpose of our research.

### ***Analysis strategy***

Answering our research question and testing the formulated hypothesis requires a stepwise analysis strategy. Before we address the question of to what extent EU citizens compared the performance of the community with the situation in the UK and drew their lessons from it, we first turn to the chronological development of EU assessment. To do so, we look at over-time trends from November 2020 to August 2021. We also consider the period after EU vaccination progress has caught up (August 2021) in this analysis step to examine whether a potential negative evaluation of EU membership in March 2021 was long- or short-lived. This carries crucial relevance for the permanent stability of the community.

We then investigate the extent to which any change in trends could be attributed to the more advanced vaccination situation in the UK in March/April 2021. Here, we consider the effects of our priming experiment and compare the groups (treatment vs. control group) with each other as well as over time. Finally, we perform an ordered regression analysis to investigate the determinants of respondents' EU assessment. In addition to the effect of the conducted experiment, we also account for the preferred (non) EU-wide distribution mechanism of the vaccine and other explanatory approaches known from the literature.

### ***Independent variables***

Our regression model includes a range of self-reported attitudes that have previously been used in comparable analyses as independent variables. These cover election preferences for the German parliament, general trust in the federal government and the institutions of the EU, as well as identification with Europe. We also include measures of attitudes directly related to the pandemic, namely individuals' trust in the handling of Covid-19 by the federal government and the EU and their preference for different vaccination distribution mechanisms. Finally, we include a number of socio-demographic variables, namely education, gender, age, marital status, and household income. While information on the age of respondents was provided by the field agency, all other variables are based on survey data collected during the project (see Table A1).

### **Results**

The Sankey plot in Figure 1 depicts the shift in evaluations of Germany's EU membership by respondents from the control group who participated and provided valid answers to the



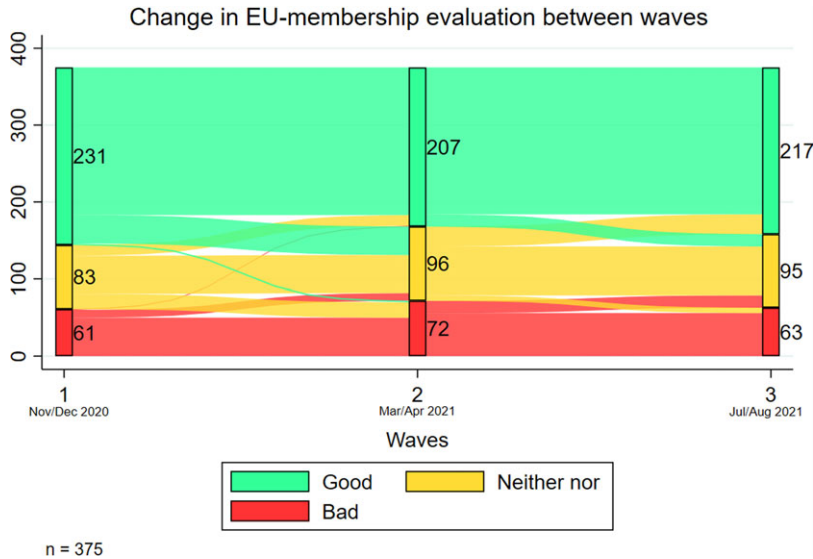


Figure 1. Shift in assessment of Germany’s EU membership (control group only).

corresponding question in all three survey waves ( $n = 375$ )<sup>4</sup>. Hence, the graph does not include any of the respondents who received the Brexit-specific priming in wave 2 in order to map the least biased over-time comparison possible.

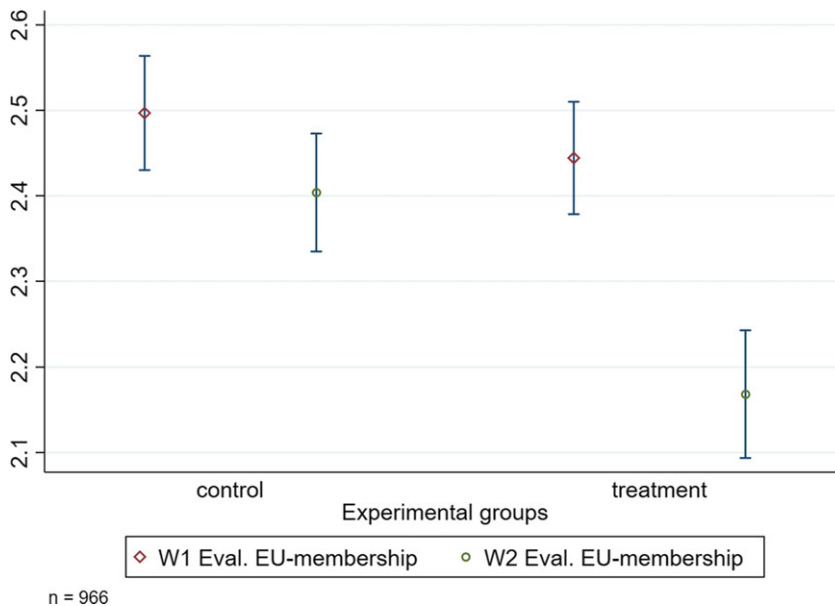
What the graph shows is that the distribution of respondents across the two extreme answer categories does not follow a linear trend over time. The number of respondents positively assessing Germany’s EU membership drops from wave 1 to wave 2, while the opposite holds true for the absolute number of those who judge EU membership negatively. During the period between these two measuring points, vaccination campaigns began in Germany and other EU countries but were outpaced by similar efforts in the UK. Interestingly, a reverse development of the mentioned distributions can be observed from wave 2 to wave 3, with an increase in respondents holding a positive view and a decrease in the number of those who assess EU membership negatively.

Consequently, we indeed observe a more negative assessment of EU membership at the time when vaccination progress in the community was lagging. We also notice, however, that this trend appears to be temporary and that it recovered thereafter. Such a rather limited time period can be interpreted as a sign of the community’s steadfastness. It should be verified, however, whether the noticeable (even if only temporary) decline in support was due to national or EU evaluations or whether a scenario of living outside the EU was viewed as possibly more appealing for some respondents. This latter scenario could conceivably become a serious risk for the future of the Union.

In addition, the number of people per category is quite small regarding the ‘switchers’, which means that we can identify a trend here, but we cannot say whether this decline from wave 1 to wave 2 was significant. We will address this and other questions in the next analysis step.

Turning now to the results of our priming experiment, we are interested in whether this perceived decline in EU popularity (illustrated in Figure 1) could be further amplified once we inform respondents specifically that the UK had already vaccinated a higher proportion of people at the time of the survey (wave 2). Figure 2 compares the treatment and control groups of the experiment: against each other and across the survey waves.

<sup>4</sup>Table A2 in the Appendix presents the graph for all respondents of the control group answering the membership question in each of the three waves. The pattern found resembles the over-time trend portrayed in Figure 1.



**Figure 2.** Evaluation of Germany's EU membership (mean value) by experimental group.  
 Note: 1 = a bad thing, 2 = neither good nor bad, 3 = a good thing. W1= wave 1; W2= wave 2.

As previously described, the priming experiment was only conducted in survey wave 2, that is, in Mar/Apr 2021. The labels of control and treatment groups in wave 1 thus refer to the categorization of respondents according to the experiment conducted later. Our panel data thus allow us to compare the attitudes of both groups – treatment and not – before (wave 1) and after the experiment (wave 2).

For both groups, we see a more negative evaluation of EU membership in spring 2021 (w2) compared to the end of the previous year (w1). What is striking, however, is that this difference is much more noticeable and statistically significant in the treatment group. While the difference between the waves is 0.10 for the control group, it has a value of 0.27 for respondents who were presented with the priming text.

Inferring from this, our hypothesis appears to be supported by the data. The evaluation of EU membership becomes even more negative as soon as respondents are reminded of the successful vaccination progress in the UK when compared with the EU's speed. In other words, we find a negative benchmarking, whereby respondents compare the situation in the EU with the UK and link this to their community support.

Since a slight – albeit not significant – decline in support for EU membership can also be observed in the control group, the priming may have also worked well because an already favourable breeding ground was present in the society at the time the experiment took place.

In the last analysis step, we perform an ordered regression analysis. The results in Table 1 compare three different models: M1 shows the effects of the experimental assignment (control group as base) and the socio-demographic variables age, gender, income, marital status, and education. M2 adds the 'Sunday question' to this model, that is, which party the person would vote for if there was a federal election on the coming Sunday. M3 additionally tests for the effect of the preferred vaccine distribution (for the distribution of preferences, see Figure A1 in the Appendix).

It turns out that the effect of the experiment persists even when we test it alongside other established explanatory mechanisms. Moreover, we see that men are more likely to evaluate the EU positively and EU sceptics are more inclined to vote for the AfD compared to the CDU/CSU.

**Table 1.** Ordered logistic regression of EU membership evaluation (coefficients)

	(1)	(2)	(3)
Variables	M1	M2	M3
Treatment group	-0.568***	-0.499***	-0.573***
<b>Socio-demographic variables</b>			
Education (ref. primary education or lower secondary)			
Upper secondary education	0.203	-0.022	-0.063
Post-secondary non-tertiary education	0.863**	0.507	0.469
Short tertiary education	0.684*	0.442	0.446
Bachelor level	0.671*	0.467	0.416
Master or higher	1.096***	0.536	0.505
Female	-0.061	-0.532***	-0.458**
Age	-0.016**	-0.015*	-0.011
Married	-0.370*	-0.245	-0.215
Household income	0.107**	0.068	0.063
<b>Election preference (ref. CDU/CSU)</b>			
SPD		0.319	0.334
AfD		-1.171***	-1.162***
FDP		-0.101	-0.052
Die Linke		0.535*	0.450
Bündnis 90/Die Grünen		0.518*	0.466*
Other party		0.071	0.013
<b>Institutional trust</b>			
General trust government		-0.130	-0.139
General trust EU institutions		0.448***	0.431***
Covid-19 trust government		0.099	0.097
Covid-19 trust EU institutions		0.312***	0.284***
Europe identification		0.302***	0.270***
<b>Preferred vaccine distribution mechanism (ref. EU consensus)</b>			
Infected people			-0.240
Financial support for vaccine development			-0.719*
Different mechanism			-0.327
Non-EU based mechanism			-1.204***
/cut1	-2.156***	0.850	0.022
/cut2	-0.917*	2.820***	2.084***
Observations	971	971	971
Pseudo R <sup>2</sup>	0.0455	0.296	0.319

Note: \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ ; calculations based on data from wave 2; dependent variable: evaluation of EU membership (1: a bad thing; 2: neither good nor bad; 3: a good thing).

Community membership is assessed positively by those who trust the EU, feel a sense of belonging to Europe and also rate EU actions during COVID favourably. In addition, it appears that those who view the EU negatively in Spring 2021 are more likely to be those respondents who favour national vaccine procurement over a common approach.

In summary, we find that information given about vaccination progress in the UK had a major impact on our respondents' evaluations of the EU. This is in line with other experimental findings on the effect of the UK's supposed gaining of sovereignty on public support for the EU (Hobolt et al. 2022). Independent vaccine procurement is an indication of recently gained sovereignty, an issue quite important also for many Germans (Yordanova et al., 2020). Even less surprising is that AfD voters in particular evaluated the EU negatively in spring 2021 and critics of the EU would also be opposed to joint purchasing of the vaccine.

### Conclusion and discussion

This paper investigates public support for EU membership over the time span of half a year from November 2020 to August 2021. During this period, the EU experienced several phases of the Covid-19 pandemic. The focus of this article is the management of a joint vaccine procurement of

EU member states and the impact it had on public opinion within the community. It turns out that the EU's populace was indeed sensitive towards the success of jointly handling the pandemic on the part of the EU leadership in Brussels and the governments of the member states. Based on panel data from Germany we find over-time fluctuations in EU support. While EU approval was still relatively high at the end of 2020, it dipped in the wake of delayed vaccination progress in the community in March 2021 but recovered again with the upswing of the vaccination campaign. In addition, our analyses show that benchmarking with the situation in the UK, where vaccination was swift and a much higher proportion of the population had already been vaccinated in March, led to a more negative EU evaluation at that time. This benchmarking effect, the comparison between the EU-wide organized management and the management carried out by an independent government – in this case the UK – is clearly reflected in our data. This might also have important future implications for upcoming transnational challenges.

It must be noted, however, that in the context of this study we only had the opportunity to test our hypotheses on the case of Germany. The benchmark found with respect to the UK may have as well influenced EU approval in other countries, but for a reliable confirmation of this, other countries would need to be included in the analysis. Future studies should consider such a comparative approach.

Moreover, our experimental priming just compares to the situation in the UK at the time of the survey. The UK, due to its special position as a former EU member state which was the only one to leave the community so far, offers a special opportunity to benchmark the EU performance at that time (see also de Vries 2017; 2018). We, however, cannot say with certainty that our results would have been completely different if we had compared the EU performance with that of other countries, such as Israel or the United States. Similarly, if we had only reported on EU policy failures without mentioning the UK, the assessment of EU membership could have as well been negative. Future studies should include alternative scenarios – such as comparisons to other non-EU countries or a negative vignette without the UK – as robustness checks in their experimental designs.

Since the sovereign debt crisis in the early 2010s, the EU has gained increasing expertise and responsibility in crisis management. People started to update their expectations towards and evaluations of the EU in every crisis situation. The experiences arising during the Covid-19 pandemic show us that these performance evaluations are not always fair but reflect rather the new role the EU has taken in centralized crisis management.

On the one hand, before the outbreak of the pandemic, the EU had little to no experience with this type of public health challenge. Never before had the Union needed to manage a pandemic on this scale and political processes were not yet sophisticated enough to address all its aspects. It usually takes time to develop crisis instruments and specific policies like the ones that were urgently needed during the Covid-19 pandemic. In contrast, a single state, like the UK, has mechanisms in place that allow decision-makers to take and implement public health-related decisions, like enacting policies and independently negotiating deals with (pharmaceutical) companies. Following from this, people are comparing two different situations, the proverbial apples and oranges, when benchmarking the EU's to the UK's performance during times of Covid-19 vaccine procurement. They tend to shift blame onto the EU in times of crisis, whereas there was no agreement reached on shifts of health competences towards the EU before the onset of the disease. This narrative of the EU being responsible for delays in vaccine procurement neither helps us understand the processes underlying these delays, nor does it help us effectively identify the phenomenon of long-term support for the EU system.

On the other hand, our results are in line with previous experimental work on concerns regarding loss of sovereignty (Yordanova et al., 2020), because the EU vaccine procurement mechanism was new and, despite the good intentions behind it, nothing else than an ad hoc process of sovereignty loss. This perceived unfairness could provide an important take-away. EU citizens expect the EU to act as a supranational crisis manager, to safeguard their interests

irrespective of the nature of any particular crisis. For this reason, it is important for the EU and its member states to allow the European Commission and other relevant EU institutions the flexibility to act on their behalf and the expertise needed to deal with any crisis.

Looking at the other side of the benchmarking scenario, it was extremely important for the UK during the early stages of the pandemic to demonstrate its comparative advantage due to Brexit. The country is still torn since the Brexit decision and a weak performance during the pandemic could have been costly for the government and Prime Minister at the time, Boris Johnson.

The future will bring new challenges that also call for joint efforts across the EU community. The current war in Ukraine and the accompanying energy question are just one example of this. Therefore, precautions should be taken now. Pro-EU politicians should only then move competences to the EU-level if they have the means to be efficient and react swiftly to future challenges and have more tools at hand to cope with them. Countries with more weight on the international stage may be able to act more efficiently than the EU as a whole if this transfer is not done properly, and thus cause further anti-EU sentiments in its member states. Southern and eastern EU members with less weight in the international arena may find themselves at a disadvantage if the EU does not serve as a shield and guarantor for them in crises to come. This will be a tough battle against the Eurosceptic camp, but it is also a necessary step for convincing the populace of an even more closely united Europe in the future.

**Data availability statement.** The survey data used has already been published and can be accessed free of charge: <https://doi.org/10.7802/2325>.

**Acknowledgements.** We would like to thank Julia Reker for the excellent assistance to this project.

**Funding.** The work was financially supported by the Research Foundation – Flanders (FWO) (Grand number 1248723N) and by the German Federal Ministry of Education and Research (BMBF) (Grand number 01KI20511A).

**Competing interests.** None.

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Appendix

Table A1. List of variables

Variable	Question text	Values	Percent	Mean	Wave(s) of data collection	Notes
Assessment of EU membership	Generally speaking, do you think that Germany's membership in the European Union is.?	1 - A bad thing 2 - Neither good nor bad 3 - A good thing	See Table A2		W1, W2, W3	Original item recoded (reversed order)
Gender	What is your gender?	0 - Male 1 - Female	58 42		W1	
Education	What is your highest educational degree?	1 - Primary education & lower secondary education 2 - Upper secondary education 3 - Post-secondary non-tertiary education 4 - Short cycle tertiary education 5 - Bachelor level education and equivalent 6 - Master or doctoral level education and equivalent	6 50 11 9 8 15		W1	Original items recoded to ISCED 2011; combined ISCED categories 1 and 2 as well as 7 and 8 respectively
Marital status	Which category best describes your current marital status?	0 - Not married 1 - Married	49 51		W1	Original battery coded in a dichotomous variable
Household income	What is your household's total average monthly net income?	1 - <900 € 2 - 900-1299 € 3 - 1300-1699 € 4 - 1700-2299 € 5 - 2300-3199 € 6 - 3200-3999 € 7 - 4000-4999 € 8 - 5000-5999 € 9 - 6000-9999 € 10 - 10000€ and more	9 9 9 14 20 18 12 5 3 1		W1	
Age				47.8	W1	Respondent's age at the time of the survey was provided by Respondi
Election preference	If Federal elections were held next Sunday, which party would you vote for?	1 - CDU/CSU 2 - SPD 3 - AfD 4 - FDP 5 - Die LINKE 6 - Bündnis 90/ Die Grünen 7 - Another party	28 11 13 7 11 21 9		W1	
General institutional trust	How much do you trust the following institutions, persons or groups of people in general? (4) Federal government (6) Institutions of the European Union	1 - Not at all ... 7 - Absolutely			W1	Only items (4) and (6) were used in this study.

(Continued)

**Table A1.** (Continued)

Variable	Question text	Values	Percent	Mean	Wave(s) of data collection	Notes
Institutional trust regarding Covid-19	How much do you trust the following institutions, persons or groups of persons regarding the handling of the coronavirus? (5) Federal government (8) European Commission	1 – Not at all ... 7 – Absolutely		4.23.8	W2	Only items (5) and (8) were used in this study.
Identification with the European Union	To what extent do you agree with the following statements? (4) I see myself as a European.	1- Not at all ... 7- Absolutely		5.0	W1	Only item (4) was used in this study.
Vaccine distribution mechanism	[W1] In June/ [W2] In 2020, the member states of the European Union agreed to work together on the procurement of a vaccine against the coronavirus. This is meant to ensure a rapid and equitable supply of the vaccine to all people in the EU. The amount of vaccine doses a country receives will be based on its population size. What do you think about this mechanism to distribute the vaccine among European Union member states?	1 – Taking the EU countries' population size as baseline is the best solution. 2 – Taking the number of infected people per country as baseline would be best. 3 – Taking the countries' financial contribution to the development of the vaccine as baseline would be best. 4 – A different mechanism to distribute the vaccine would be best. 5 – An EU-wide distribution mechanism is not a good solution. Each country should try to supply its own population with a vaccine independently.	See Figure A1		W2	

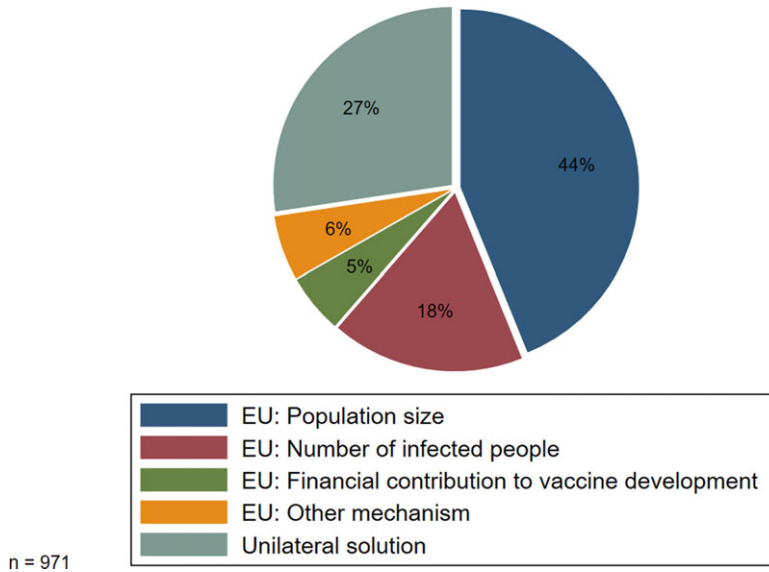
Note: All questions were presented in German. Table A1 shows their translations into English. Percentages might sum up to more than 100% due to rounding.

**Table A2.** Evaluation of EU-membership by wave (in %); control group only

	Wave 1	Wave 2	Wave 3
Germany's EU membership is ...			
... a good thing.	62	51	55
... neither good nor bad.	23	26	26
... a bad thing	15	23	19
<i>N</i>	966	971	751



Preferred mechanism of vaccine distribution



**Figure A1.** Preferred mechanism of vaccine distribution.  
Note: Information taken from wave 2 of the survey.