

Minding the Gaps: Solidaristic Transfers and Burden-Sharing in the European Union and Its Member States' Pandemic Response

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Abstract

The paper offers a hitherto-lacking comprehensive appraisal of solidaristic transfers by European Union Member States (EUMS) during the first year of the COVID-19 pandemic. These transfers include bilateral assistance, collective burden-sharing on the EU level and even external EU aid. The article uses data on inter-EUMS solidarity actions collected by the European Solidarity Tracker (EST), a widely referenced dataset on pandemic-related actions of solidarity. It cleans these data to address its deficiencies, including by filtering out symbolic and tokenistic actions, to focus on instances of truly meaningful assistance between EUMS. The EST is complemented by two further sets of data: an overview of EU-level measures, as examples of institutionalized and institutionally enabled forms of solidarity; and, given the global connectedness of the EU, data on pandemic assistance to developing countries. Based on this broad understanding of solidaristic transfers, the EU's response is found to have been significant but insufficient overall to fill the gaps in pandemic response. The gaps identified have inevitably fed into the pandemic, contributing to permissive conditions for its resurgence. EU-level measures mattered, but practical manifestations of bilateral solidarity between EUMS have been haphazard. Furthermore, although the EU increased its external health and other development aid considerably during 2020, this by no means made for a well-allocated or adequately resourced pandemic response globally.

Keywords: burden-sharing; European Union; international health aid; pandemic; solidarity measures

Introduction

The COVID-19 pandemic unleashed nationalist reflexes worldwide as countries restricted travel and scrambled to get hold of scarce equipment and (later) vaccines. Recent analysis by Forman and Mossialos (2021) traces how coordination failed at several points between EU Member States (EUMS) and EU institutions, especially in the early phase of pandemic response. Given that a readiness to cooperate in coordinating measures to protect human life is a basic element of solidarity, this constituted a major overall failure of solidaristic conduct.

Paradoxically, there have also been manifestations of solidarity through solidaristic transfers of resources, including the provision of medical supplies, the dispatching of medical teams and the offering of hospital capacities, along with multilateral cooperation to foster economic recovery and make vaccines available globally. Such solidarity has especially been emphasized by the EU, an organization predicated on the idea of solidaristic redistribution between EUMS. Throughout 2020 and 2021, EUMS have offered and delivered meaningful assistance to others bilaterally and created joint response and support schemes on the EU level.

The aim of this article is to offer a hitherto-lacking comprehensive assessment of solidaristic transfers of resources by EUMS, including not just individual solidarity actions but also collective burden-sharing, in the first year of the COVID-19 pandemic. As part of this, the article addresses both the questions of how such an assessment should be made and what it should include, along with what was achieved through the various forms of assistance provided. Why were there shortfalls if, seemingly, much was done in terms of a collective response?

The novelties and findings of this analysis can inform discussions of the larger questions of what solidarity and burden-sharing should entail, and not only in the context of pandemic response. The study warns of the need for a ‘mind the gap’ approach to assessing the value of solidarity and burden-sharing, that is, one that does not lose sight of what is needed amidst all the discussion of what is provided.

I. Timeframe, Methods and Structure

The year 2020 has seen the most acute phase of the crisis, even if it was not the most severe in terms of total overall mortality. The world faced at the time a new and initially little-known threat, whose emergence questioned fundamental assumptions about the resilience and adaptivity of societies. At the end of 2020, global vaccine roll-out began, and the issue of vaccine diplomacy came to dominate discussions of solidarity.

Considering insights from the literature on solidarity and burden-sharing, the article points to two logics that may apply in comprehensively assessing the EU and EUMS response: a ‘weakest link’ and (as a novelty) a ‘mind the gap’ approach. The former implies that any country’s insufficient efforts can undermine others’ achievements in responding to the pandemic. The latter is based on the level of needs and calls for ensuring that the overall supply of contributions be sufficient to meet these needs. We argue that the relative significance of these two approaches depends on how the goals of pandemic response are defined.

To assess the response by EUMS, the article uses an existing, widely referenced dataset of pandemic-related actions of solidarity between EUMS, the European Solidarity Tracker (EST). It critically assesses EST data, pointing out how it inflates the count of inter-EUMS solidarity actions along with its simultaneous failure to capture important aspects of EU solidarity. EST data on EUMS actions is therefore complemented by an overview of EU-level joint actions, along with data on extra-EU solidarity in the form of Official Development Assistance (ODA) to developing countries. We use statistical analysis to determine whether ODA was increased and allocated as the situation may have demanded, with resources provided to those countries prospectively least prepared to take on the challenge of the pandemic.

We find that intra- and extra-EU solidarity efforts have fallen short not only of what would have been needed for the elimination of the pandemic, but even for its effective mitigation. Most bilateral solidarity actions covered by the EST have been tokenistic actions or statements. Overall, EU-level joint action was far more impactful—especially economic recovery support and vaccine procurement. As for the external dimension of solidarity and pandemic response, while there is evidence of extra-EU solidarity in terms of increased health aid to developing countries, much of this was a re-labelling of already-pledged resources. Allocation weakly prioritized countries with the prospectively

greatest needs or the weakest pandemic preparedness. The EU seems to have favoured aid to its immediate neighbourhood over the global elimination of the pandemic. These findings show that while solidarity was present in the first year of the pandemic, perceptions of it have been inflated.

The article is structured as follows. The next section discusses the concepts of solidarity and burden-sharing. This is followed by a discussion of EST, and the presentation of findings from our cleaned and complemented dataset. The subsequent two sections discuss EU-level burden sharing and solidarity actions beyond the EU, respectively. The penultimate section reflects on how the findings relate to weakest-link and mind-the-gap aggregation. The final section offers concluding remarks.

II. Conceptualizing Solidarity and Burden-Sharing in International Relations and in the EU

Solidarity is understood in much of the available literature to concern the totality of a collective, rather than just some of its members. It is defined as a 'commonality of interests and goals' (Pinto, Cabral-Cardoso, and Werther 2011, 377); as 'standing up together and acting in common' (Dawson et al. 2020, 128); as 'common action to uphold the complex of social relationships and values that is needed to realize useful standards of decency and justice' (Harmon 2006, 218); or as 'relatedness toward the achievement of mutual interests and goals [...] between people who share common interests and perceive the advantages of pursuing them collectively' (Goffee and Jones 1998, 134). The interests concerned have to be recognized as being shared interests, and there needs to be shared perception of the advantages of acting together to address them.

Claus Offe (2004, 35) points to the exercising of solidarity by an actor as demonstrating 'neither pure affection nor sole self-concerned rationality'. It can rest on the simultaneous 'recognition of need in others and ... self-interest in the face of a joint threat of harm' (Dawson et al. 2020, 128). Based on this, it may be expedient to situate manifestations of solidarity along a spectrum from purely other-regarding to evenly other- and self-regarding.

Self-interest and a sense of community may be smoothly reconcilable based on expectations of diffuse (nondirect) reciprocity. In Keohane's (1986, 4) words, in diffuse reciprocity, 'the definition of equivalence is less precise [than in direct reciprocity], one's partners may be viewed as a group rather than as particular actors, and the sequence of events [making reciprocation complete] is less narrowly bounded'. Such reciprocity may not necessarily flourish against a backdrop of 'differentiated social structures' (Bourgeois and Friedkin 2001, 246), where there is significant social distance among the actors, for example, in the form of major differences of culture and welfare. Cultural differences may weaken the sense of a need to identify with others, while differences of welfare may question in the have-nots how much solidarity there is towards them and how much they owe in return. This has implications for a society of states—including EUMS—as much as it does for a society of individuals.

A central problem of solidarity lies in the 'inequality of moral concern for those who do belong to a community and those who do not' (Derpmann 2009, 305). The sentiment of feeling 'full or whole' together with significant others, as the Latin term *solidus* would suggest (Reichlin 2011, 366), may be based on shared opposition to an outgroup

(Taylor 2015, 128). Solidarity and cosmopolitanism can thus conflict (Derpmann 2009, 304), raising the question of to whom, or how far, solidarity may be extended.

Durkheim (1964 [1893], 63–64) noted a key distinction between the ‘mechanic’ solidarity of traditional communities and the ‘organic’ solidarity of modern societies. The two adjectives should perhaps be switched, as the natural or organic solidarity of traditional communities is contrasted thereby with the dependence of modern society on institutional mechanisms holding it together. This point pertains to the EU, where a kind of mechanistic solidarity is at work in efforts by various actors to cultivate a sense of pan-Europeanness along with ‘European values’ (Derpmann 2009, 309).

It could be compatible with a notion of solidarity for it to have implications beyond the EU. Identification with the EU, Europeanness and Europe itself rests on a ‘multiplication of the horizons of solidarity’ (Kaufmann 2004, 67), extending its scope to fellow nation-state citizens, EU citizens and the rest of humanity potentially all at once. Allowing for multiple horizons of solidarity, or ‘multiscalar’ solidarity (Wallaschek 2020, 75), means that neither instances of bilateral EUMS assistance to select EUMS partners, nor assistance beyond EUMS is incompatible with the sense of solidarity expressed in community-level action in the EU.

In the context of pandemic response, this has significance. Derpmann’s (2009, 307) criteria of ‘ethical desirability’ and ‘practical conceivability’ are identical in this context. Solidarity in pandemic response is other- and self-regarding at once. A pandemic cannot be sustainably mitigated, let alone eliminated, without collective action and burden-sharing with universal effect. This should work against the expectation that ‘in times of crises, in-group interests are generally expected to outrank more universal forms of solidarity’ (Heermann, Koos and Leuffen 2023, 1).¹ A popular realization of the need for working together and a corresponding sense of belonging together—the ‘affective element’ of solidarity (Gould 2007, 156)—is favourable for collective action, but the absence of the affective element should not preclude cooperation even if it self-evidently impedes it.

Collective EU actions, including actions to help others beyond the EU, may be a *more* important component of pandemic-related solidarity than instances of EUMS helping each other. Thus, a definition of solidarity for the purposes of this article is that it is a readiness to act, alone or jointly with others, including third parties, for another actor’s immediate benefit, with the understanding that this is also, indirectly, for the common good and the good of oneself.

Beyond bilateral transfers, solidaristic transfers also encompass multilateral burden-sharing among EUMS, that is, collective arrangements for the sharing of costs by the countries concerned to achieve common goals and produce common goods through joint efforts. There are institutional mechanisms in place to ensure just this in the EU, and these exist due to solidarity having decisively informed decision-making in the past. The EU is no mere ‘receiver of solidarity’ from EUMS, as it is sometimes considered (Wallaschek 2021, 4). It should rather be seen as a platform (and to some extent even an agent) of institutionalized burden-sharing. The recurring costs of ‘platform maintenance’ are thus both underlying and constitutive of EUMS burden-sharing.²

¹This should also work against the effect of recipient characteristics (as perceived by donors of assistance), on donors’ willingness to aid (a point relevant to Ignácz and Langenkamp 2021, 150).

²This point also concerns burden-sharing within other frameworks, such as the North Atlantic Treaty Organization (NATO) or the United Nations (UN).

Meanwhile, even in the extensively institutionalized context of the European Union, there are elements of burden-sharing arrangements that may need to be negotiated by willing partners on an *ad hoc* basis, possibly without full formalization (Wilkins 2006, 1133); this may be enabled or at least facilitated by the institutional context. Contributions by countries to joint endeavours within the latter type of arrangements are shaped by multiple variables beyond formally set rules. These include, *inter alia*, the relative size of the countries acting together, the level of domestic—legislative and popular—support available for contributing to collective action, and the relative costs and benefits of contributing (along with perceptions of these, correct or incorrect). *Relative size* is often in inverse correlation with the size of a country's contribution (Olson and Zeckhauser 1966, 9; Ringsmose 2009, 73–74). Free-riding or cheap-riding by relatively small countries happens partly due to the consideration that their individual contributions cannot be decisive. The outsourcing of individually cost-prohibitive undertakings to larger partners that are willing to shoulder the burdens of this is (selfishly) rational (Kimball 2010, 407–410). The *relative costs and benefits* of individual coalition members may vary widely as collective goods are often jointly-produced rather than pure public goods (Hartley and Sandler 1999, 876–881; see also Cooper and Zycher 1989, 12–18)³; for example, a coalition member may be more directly interested in acting against a common threat than others, having what Bennett, Lepage, and Unger (1994, 45–48) call a 'threat-balancing' motive.⁴

Whether a country happens to over- or under-contribute is often a contentious question due to the ambiguity of what constitutes an objective measure of a country's resources and capabilities on the input side, and its performance on the output side. *Compensation*, for the basic disproportionality of contributions, may occur on the part of relatively small members of a coalition where and when their contribution is of marginally greater value to partners (Marton and Hynek 2013), as well as in complex, multi-dimensional cooperation requiring contributions of an essentially different kind from participants for them to attain a common good (Bensahel 2006).

The impact of these variables was largely neutralized in the institutional cooperation on pandemic response that took place within the EU, but they may have mattered in shaping the readiness for individual EUMS solidarity actions.

Aggregation, that is, the appropriate method of measuring the overall value of a collective effort may be seen as partly being a function of the nature of the jointly produced good in question (Dorussen, Kirchner, and Sperling 2009, 789–795). 'Summation' is a simple count of all contributions. Given that all contributions may not equally matter in some contexts, the 'best-shot' (or biggest) contribution(s) may be decisive of the success of a collective effort. In yet other contexts, such as that of pandemic response, the long-term value of cooperation may be dependent on the 'weakest links'—on the smallest

³The interaction of the variables discussed here (relative size, domestic support, executive autonomy and relative costs and benefits) is often interpreted in 'integrated models of burden-sharing'; for instance, in Auerswald (2004, 643) or Ashraf (2011, 75).

⁴Asymmetrical costs and benefits have derived from pandemic-related actions. For example, the prominent participation of France in the EU's Humanitarian Air Bridge operation to the Central African Republic may be explained partly with reference to France's postcolonial ties. Another peculiar example of the interplay between individual and collective benefits is how some surplus medical items were eventually re-labelled as the 'EU medical reserve'—mobilized as part of the EU's Civil Protection Mechanism in response to the war in Ukraine. For instance, Hungary bought over 16,000 medical ventilators in Spring 2020, most of which were not needed. These were eventually added to the EU reserves.

contributions being great enough to avoid undermining others' efforts. In addition to the above, this article proposes and deploys a 'mind-the-gap' approach to aggregation as one that is highly relevant in the context of pandemic response. The success of a collective effort—its adequacy and sufficiency—may depend on whether the overall supply of contributions meets demand, with regards to an objectively discerned level of need, leaving no gaps.

Discussions of burden-sharing often ignore the key issues of whether there are either critically weak links or gaps undermining the success of the collective effort, in favour of discussions of what constitutes equitable burden-sharing.

III. European Solidarity Tracker Data: A Reassessment

Official statements concerning the EU response offered a positive assessment in the wake of the first pandemic wave. '[D]ealing with the consequences of the crisis at home, member states have come to each other's aid, bringing help where it was needed most', stated the European Council (2022). 'Europe has become the world's beating heart of solidarity ... we have seen every piece of equipment go in every direction across Europe', concluded European Commission President Ursula von der Leyen (von der Leyen 2020).

A possible way to address these claims in quantitative terms is to refer to a widely known resource on the subject, the European Solidarity Tracker dataset, the work of the European Council on Foreign Relations (ECFR) and its associate researchers, who describe it as 'an interactive data visualization tool presenting instances of pan-European solidarity' (Busse et al. 2020). Evident from ECFR's statements is an actively pro-EU stance and an interest in highlighting that the instances of solidarity observed stood 'in contrast to claims [in the context of the pandemic] that the European project has failed ... [and rather showcase] a European Union that stands together' (Busse et al. 2020).

Nonetheless, it is also noted by ECFR's researchers that 'actors at all levels – in Brussels, national capitals, countries, and regions – could have reacted more quickly and more comprehensively', and that 'not every measure sold under the label 'solidarity' should be considered positive' (Loss and Puglierin 2020). ECFR publications interpreting EST data with regards to specific countries (Hungary and Italy; in: Végh 2020; Coratella 2020) raised similar objections.

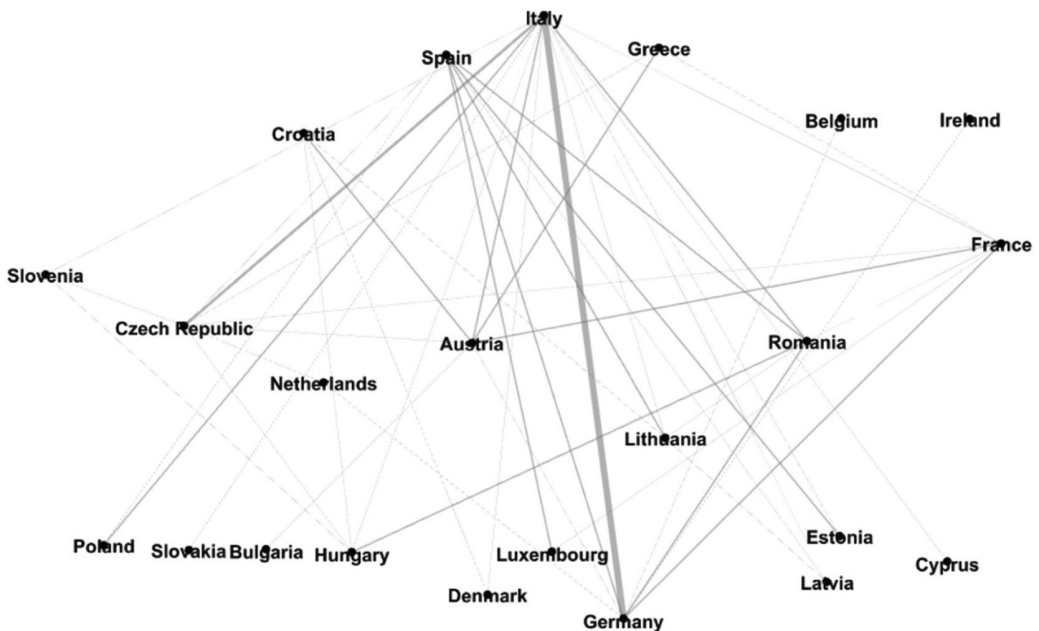
To assess inter-EUMS solidarity, EST data (EST-D, 2020), available for the period from 4 March to 30 September 2020, needs to be re-assessed, cleaned and re-coded, as it contains numerous entries of questionable significance, inflating the overall count of actions of solidarity. *Insignificant* entries, concerning tokenistic action, are problematic, as giving very little or merely declaring support to another party may be essentially the opposite of solidarity. Entries concerning the actions of actors other than states also need to be filtered out, as do *invalid* entries, concerning actions whose motive was not solidarity. The dataset has therefore been cleaned and re-coded based on these considerations. It has also been supplemented with data on additional meaningful instances of inter-EUMS solidaristic transfers to cover the period from 4 March up to 20 December 2020 (see explanation of the reasons for the inclusion/exclusion of particular items in Marton and Szent-Iványi 2024).

This leaves 82 entries to consider (with four supplemental entries added). The thus-remaining entries include two cases where aid was offered, but the offer was

declined by the would-be recipient, with the number of relevant entries thus down to 80. A further-cleaned dataset, with 14 migration-related—and questionably pandemic-related—actions left out (as indicated in: Marton and Szent-Iványi 2024; leaving 66 entries) shows Germany in first place in terms of the number of countries assisted (assistance to eight countries, on 16 occasions), whereas Austria (donor to six recipients, on nine occasions) takes second place followed by Czechia (five recipients, six occasions). On the recipient side, Italy stands out as the country having received assistance from 12 countries, with Spain in second place. The position of Greece in the original dataset is affected by burden-sharing measures related to refugees—counting *only* instances of assistance of direct medical relevance, it was the recipient of help from three donor countries, on four occasions. Six countries (Austria, the Czech Republic, France, Lithuania, Romania and Slovenia) have given as well as received assistance.

Figure 1 shows relations between the countries of the dataset in undirected form, with countries vertically arranged in layers to reflect donor/recipient status. Having the highest number of outbound links seems to confirm Germany's central/leading role within the EU. With only 23 EUMS appearing in the network in Figure 1 (17 with outbound links, 13 with inbound links), the resulting image of European solidarity stands in contrast with von der Leyen's statement that assistance was provided in 'every direction across Europe' (Von der Leyen 2020). It is interesting to observe, at the same time, the prominence of Central-Eastern European EUMS, which may be explained to some extent as

Figure 1: Visualization of inter-EUMS assistance. The thickness of each link corresponds to the number of instances of assistance in the given dyad. Recipient countries are at the top; assisting countries at the bottom; countries having received as well as given assistance in the middle. *Source:* authors.



compensation from them relative to their larger benefits from EU cooperation, as hypothesized above.

As to types of assistance provided, out of the instances covered in the cleaned and further-filtered EST dataset (leaving out migration-related items), 48 out of 66 (72.72%) involved the delivery of medical supplies (masks, ventilators, disinfectants, etc.), 8 out of 66 (12.12%) the transfer of patients between countries, 5 out of 66 (7.57%) financial support, 5 out of 66 (7.57%) the transfer of medical personnel between countries; 1 out of 66 (1.51%) the transfer of test samples for testing; whereas 4 out of 66 instances of assistance (6.06%) concerned medical supplies provided accompanying migration-related humanitarian support.⁵

These are meaningful, relevant and valid instances of solidaristic transfers. EST data on inter-EUMS solidarity, even once cleaned, remains insufficient, nonetheless. Most importantly, it is a count of actions of unequal significance, and it does not yet include EU-level measures. EST does present a parallel list of items for an overview of ‘EU actions’; however, besides many of these being mere declarations of solidarity, multiple items in the list of EUMS actions constitute the individual transactions following from single decisions on the making available of funding and the setting up of relevant mechanisms on the EU level, once again inflating a count of actions where summation is not the logic of aggregation best reflecting the quality and quantity of what is supplied. Additionally, EST data provides little to no coverage of EU solidarity beyond the EU—a necessity in the context of pandemic response.⁶

IV. Institutional-Level Solidarity and Burden-Sharing Within the EU

Even as a ‘complex, federal system’, the EU introduced some significant measures to mitigate the impact of the pandemic (Rhodes 2021), ‘failing forward’, with the emphasis on ‘forward’ rather than on ‘failing’ (Dimitrakopoulos and Lalis 2022). Based on the Treaties of the EU and the general principles of subsidiarity and proportionality, however, its own room for manoeuvre remained limited in the field of the protection and promotion of health. On the eve of the pandemic, the EU only had a ‘supporting competence’ vis-à-vis EUMS in health (Brucker 2020, 5), although there was a strong push to change this in the aftermath of the first pandemic waves, including by creating a Health and Emergency Response Authority, EU medical reserves for humanitarian operations and a European Health Data Space (Ágh 2022; Brady and Kuiper 2022), and by moving ahead with the Accelerating Clinical Trials (ACT EU) initiative in January 2022. Measures to aid economic recovery were, nonetheless, synergistic with the goals of pandemic response. In this area, the EU had considerable room for manoeuvre, and has taken steps to preempt an ‘anticipated crisis’ (Truchlewski, Schelkle, and Ganderson 2021, 1360–1372).

One of the earliest measures was a redirection of EU funds in April 2020, including EUR37 billion of cohesion funding, and the early release of EUR3.1 billion from the

⁵ Assistance to Greece recorded by EST included the redistribution of hundreds of unaccompanied minors; a tokenistic measure in the context of a history of sub-optimal EUMS cooperation in sharing the burdens of refugee protection, criticized long in advance of the so-called ‘migration crisis’ of 2015 (see Thielemann 2005).

⁶ Remarkably, there is reference to the EU Commission’s regulation making exports of medical Personal Protective Equipment (PPE) dependent on authorization, which constituted enforcement of an *exclusionary* intra-EU solidarity, in favour of supplying EUMS with preference *over* countries outside the EU (15 March 2020).

2020 EU budget for damage mitigation and recovery. Over the course of April and May, a larger-scale mobilization of funding ensued, to support economic recovery in EUMS, offering preferential loans. The European Stability Mechanism (an intergovernmental organization of the Eurozone economies) established a credit line worth EUR240 billion (around 2% of total EU GDP) in the framework of its Pandemic Crisis Support (PCS) initiative, offering (up to the end of 2022) financing on highly concessional terms for EUMS (ESM 2024). No EUMS applied for the facility, but it worked to reassure financial markets. The European Investment Bank's European Guarantee Fund made available EUR24.4 billion in loans to 'help national providers and local lenders to scale up SME [Small and Medium Enterprises] support'; a smaller part of these resources could also be offered to larger enterprises as well as public-sector and health-related entities. Financing of EUR23.5 billion was approved, mobilizing an estimated EUR186.8 billion in capital (EIB 2024). The European Commission's Support to mitigate Unemployment Risks in an Emergency (SURE) offered funding of up to EUR98.4 billion (fully disbursed), with the EUMS putting up the guarantee for this fund based on a Gross National Income key, to support 'short-time work schemes and similar measures'. In the meantime, Recovery Assistance for Cohesion and the Territories of Europe (REACT-EU) was launched, offering EUR55 billion in additional funding for cohesion policy, through the 2014–2020 European Regional Development Fund (ERDF), the European Social Fund (ESF) and the European Fund for Aid to the Most Deprived (FEAD). This was made possible by a revision of the EU's 2014–2020 Multiannual Financial Framework (KPMG 2020), and contributed to the rebound of EU economic growth in 2021 (even if the longer-term effects are complex; Kammer 2021).

These arrangements were instances of institutionalized and institutionally enabled burden-sharing, for which the EU and the Eurozone economies often rely on GNI-proportionate contributions. In the case of cohesion-policy programmes, the EU budget's own resources create a more complex (and murkier) picture as to the nature of burden-sharing, given that customs and Value Added Tax revenues are involved.⁷ Additional steps by the EU included a temporary relaxation of EU regulations on state subsidies, to give EUMS more room for manoeuvre in mitigating the impact of the pandemic.

Perhaps the most important and memorable aspect of the EU response to emerge in the immediate wake of the Spring 2020 pandemic wave has been the EU Vaccines Strategy, whereby EU citizens could experience direct and vital benefits of EUMS' joint action through the contracted provision of vaccines against COVID-19. The EU signed Advance Purchase Agreements for the future supply of vaccines, starting with AstraZeneca and Sanofi-GlaxoSmithKline in August 2020. Exploratory talks soon began on further

⁷The inherent burden-sharing arrangement has historically evolved with the changing sources of budgetary revenues. The European Communities, per the Treaty of Rome (1957), were financed combining calculations of 'contributive capacity' with 'expected benefits' derived from a country's relative weight in community decision-making (Hens, Pastijn, and Struys 1992, 249). This system later transformed into one based on 'own resources'. It is worth noting that, although there is much discourse about 'net contributor' and 'net recipient' countries in the EU, customs duties are paid upon entry into EU territory in a country that is not necessarily the destination for the given goods. Sharing customs revenues is, therefore, no pure EUMS contribution. Moreover, the EU's existence provides for various 'regional goods' that are often overlooked in cost–benefit calculations, such as considerable bloc weight in the world economy, improving the EU's bargaining position in trade talks, as well as its autonomy from transnational economic actors as a regulator of economic life. It is difficult to quantify the value of this for individual EUMS, but it may be generally greater for smaller EUMS.

agreements with other developer-manufacturers. This outcome was by no means preordained. EUMS failed to come together in the aftermath of the 2009 H1N1 pandemic in favour of mandatory joint vaccines procurement (de Ruijter 2021), and it took the willingness and efforts of four larger EUMS—Germany, France, the Netherlands and Italy—to organize an Inclusive Vaccine Alliance in the beginning of June 2020 (Furlong 2020), which eventually became inclusive of all EUMS.

From a burden-sharing perspective, it is also noteworthy that 21 out of 30 NATO countries are EU members, and 21 out of 27 EU countries are NATO members. The overlap in membership guarantees that at least some of the common or jointly produced goods arising in the framework of EU and NATO cooperation are shared by an EU/NATO community as such. Notably, NATO's Euro-Atlantic Disaster Response Coordination Centre (EDRCC) was also mobilized for the purposes of pandemic response in the EU.

V. EU Burden-Sharing in Providing Assistance Beyond the EU

There were significant actions reaching *beyond* the European Union. For example, the European Commission as well as some of the EUMS have committed to collaborate with others in the framework of the Access to COVID Tools (ACT) Accelerator initiative, an important component of which was COVAX, the programme for the global provision, including to low- and middle-income countries, of coronavirus vaccines, supported by the Global Alliance for Vaccines and Immunization (GAVI).

An 'EU Humanitarian Air Bridge' was established; French, Portuguese, and other aircraft delivered humanitarian and medical supplies to countries such as the Central African Republic, Chad, São Tomé and Príncipe, Haiti, Peru, Iran and Iraq, among others (in coordination with the UN's abovementioned global humanitarian response). By mid-September 2020, as many as 67 of these EU-financed flights delivered 1150 tons of supplies and 1700 medical and humanitarian staff to various destinations, and evacuated EU citizens from the countries concerned (EU Humanitarian Air Bridge 2020).

The EU established the 'Team Europe' approach in 2020 to coordinate, under an EU brand, all international aid efforts of the EU, the European financial institutions (the European Investment Bank and the European Bank for Reconstruction and Development) and the EUMS, aimed at fighting the pandemic. EU resources have been allocated to provide additional support to the World Health Organization as well as the United Nations Global Humanitarian Response Plan, along with direct funding to humanitarian NGOs and the Red Cross/Red Crescent movement.

Much assistance to non-EU countries was provided through the re-labelling and/or re-direction of existing resources, for example, channelling EUR3.8 billion in foreseen funds for the Western Balkans and EUR3.25 billion to African countries (European Commission 2020). Overall, total EU aid from the Commission and the EUMS increased by only 8.6% in 2020 compared to the 2018–2019 average. Aid specifically focused on health-related interventions increased by 90.9% from USD1.84 billion to USD3.5 billion. This increase was highly uneven among EUMS. While almost all Member States (with the exceptions of Austria, Finland and Luxembourg) increased their aid spending on healthcare in partner countries, some did this more substantially than others: Denmark saw an increase of 415%; Germany 154%. Smaller, mostly Central European donors

saw increases, too, for example, Hungary at 480%, Slovenia at 300% and Romania at 3220% (albeit from minuscule levels).⁸

Not all of this aid was directed at COVID-19 response, as the category of health aid may capture support for other, non-pandemic-related health spending in partner countries, and, conversely, there may be spending linked to the pandemic in other sectors. Data on aid specifically targeted at COVID-19 is only available for some EUMS through the International Aid Transparency Initiative (IATI).⁹ This dataset includes project-level data for aid spending by the EU institutions, Germany, Denmark, France, the Netherlands and Sweden.¹⁰ A search for all projects in 2020 with a focus on COVID-19 support and recovery shows that the EU and the five EUMS spent €4.9 billion under this topic bilaterally. This does not include funds channelled through multilateral organizations.¹¹

IATI data, while not covering the entire EU, allows examining the allocation of COVID-19 support among recipient countries. Lower GDP per capita can make partner countries more vulnerable to the impacts of the pandemic. It would therefore seem to warrant more assistance to combat its challenges effectively, based on a mind-the-gap logic. Note that this is in *anticipation* of gaps in the capacity to respond, as the analysis here is interested in understanding whether such anticipation was a factor in decision-making with a view to an ongoing pandemic's *prospective* harms. Arguing in a normative sense, this anticipation should have remained strong well into the pandemic, as it was known by then that the (quantitatively and qualitatively) uneven global data coverage led to an underestimation of the actual COVID disease burden in many places, for example in African countries (Watson et al. 2020; Mwananyanda et al. 2021).

The correlation between the natural logs of per capita GDP and per capita COVID-19 aid from the EU and the five EUMS is weakly negative ($r = -0.24$, see Figure 2), implying that this relationship holds. It becomes slightly stronger (-0.3) if two extreme outliers, Mauritius and Montenegro are removed. The correlation is weak mostly because of the EU's neighbours, that is, the Western Balkans and post-Soviet countries, which are relatively rich and have received, on average, significant amounts of support.

Another way to assess how the EU allocated COVID-19 assistance is based on the pandemic response preparedness of partner countries. To proxy this, we used Johns Hopkins University's 2020 Global Health Security Index (GHSI 2019) and have compared this with the natural log of per capita COVID-19 aid from the EU and the five EUMS. The results are practically the same as in the case of GDP per capita, with a weak negative correlation ($r = -0.25$).

In summary, while the EU did increase assistance to developing countries during the pandemic's first year, much of the funding for health interventions was redirected from other purposes. Furthermore, there seems to have been a bias in allocation towards the EU's neighbours, as opposed to poorer countries which stood, prospectively, to face greater difficulties in coping with the pandemic.

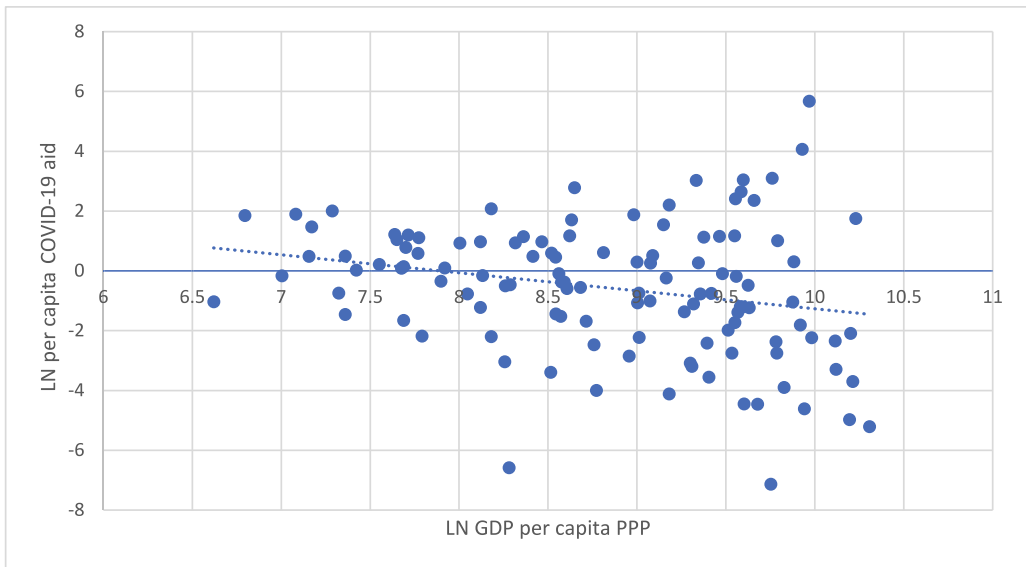
⁸Calculations of the authors based on OECD (2022). The data are available in repository (Marton and Szent-Iványi 2024).

⁹At <http://d-portal.org/ctrack.html#view=search>.

¹⁰These five EUMS accounted for 75.2% of all EU aid in 2020. Detailed IATI data on their aid projects is available in repository (Marton and Szent-Iványi 2024).

¹¹The data used in the statistical analysis that follows is available in repository ('Data 2' file).

Figure 2: Relationship between per capita COVID-19 aid from the EU (the EU institutions and Germany, Denmark, France, the Netherlands and Sweden) and GDP per capita (PPP). *Source:* authors, based on IATI and World Bank data. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]



VI. Assessing the Overall Value of EUMS and EU Burden-Sharing

The goals set by decision-makers may make a difference both as to how the dominant assessment of the overall performance shapes up, and as to the appropriate way to aggregate it in the first place. The goal dependency of the criteria of adequacy and sufficiency in solidaristic transfers and burden sharing follows from the consideration that if mitigation, rather than elimination, is regarded as having been the basic aim of pandemic response, more moderate expectations follow from it, and failure will seem smaller in retrospect.

A weakest link logic implies that, as long as transmission continues in any one country, the chance of a relapse into continued global spread remains a possibility, defeating the goal of elimination. Countries that were either unable to control the spread of infections through effective measures or consciously opted for sub-optimal measures, with other priorities in mind, especially in the wake of Spring 2020, constituted ‘weakest’ and ‘laxest’ links, respectively. This is in relative terms. With a view to the multi-year mass-casualty pandemic that has come to unfold, there are, arguably, only ‘weak’ and ‘weaker’ links to speak of, and global pandemic response has suffered from this. In the context of this article, however, with its focus on solidaristic transfers, weakest links are to be identified not in terms of a lack of solidaristic conduct in doing their part of pandemic response in their own territory, wherein they often failed significantly, but more narrowly depending on whether a lack of solidaristic transfers to others may have undermined common efforts. While there were EUMS that did not provide aid individually through solidaristic

transfers of resources to other EUMS, or only provided transfers of lesser significance, all were party to the EU-level measures, contributing to them according to their share of contribution to the EU budget, helping to sustain a spirit of burden-sharing even as there were disagreements (such as around the issue of 'Coronabonds').

Another logic, proposed above, is the 'mind-the-gap' logic of aggregation, which focuses on the level of needs (as far as these can be assessed), and seeks to measure to what extent the overall supply of contributions meets this demand. Even if all countries' contributions are proportionate to their respective ability-to-pay, the total supply of contributions may remain inadequate. A coalition leader might use its leverage to secure a match between supply and demand, including by making an outsized contribution (Fang and Ramsay 2007), but such a leader has not emerged in the period studied here in the global effort to tackle the coronavirus pandemic.¹² Within the EU, to some extent, Germany played a leading role, as evidenced by its lead in individual solidarity actions and in organizing the Inclusive Vaccine Alliance (see Figure 1).

The mind-the-gap approach can flag key problems as evidence of inadequacy and insufficiency in the response to the pandemic. These are the context-specific assessment indicators of key gaps in the response as such. Patients with delayed access to intensive care or to vital treatments and medications more broadly, the need to rely on Intensive Care Unit surge capacities, insufficient medical staff to provide the best of care to patients, having to triage access to particular interventions, along with insufficient testing (indicated by test positivity rates of 5% and above), are all indicators of key gaps that arose in various locations, time and again, questioning how much a reasonable degree of mitigation was a goal governments consistently worked towards. One review found that 'utilization of acute care bed capacity by patients with COVID-19 did not exceed 38.3% in any studied country' in Europe during the first pandemic wave, but this does not mean that all patients were given the best of care in a timely manner (Berger et al. 2022). The challenges involved could have been better addressed in an all-inclusive effort of EUMS—for instance, by the transfer of more patients, medical staff and equipment and samples for testing. A key precondition to better addressing them would have been acknowledging these shortfalls as key gaps in the first place.

Meanwhile, common measures to foster economic recovery have had a major effect across the EU by 2021, somewhat helping to sustain public support for health measures aimed at contact reduction, contributing to mitigation. Internationally, the EU's response seems to have been driven by considerations of managing the pandemic close to home, rather than by the intention to contribute to meeting demand globally, once again pointing to a goal of mitigation rather than elimination.

Conclusions

This article argued that individual EUMS solidarity actions and collective EUMS burden-sharing arrangements—including through EU institutions and in assistance to countries beyond the EU—all need to be reviewed as part of a comprehensive assessment of solidaristic transfers by EUMS related to pandemic response.

¹²Once the Biden Administration entered office in the United States, the United States eventually emerged as such a lead country, by reverting to its traditional role in health diplomacy.

Having re-assessed actions listed in the EST dataset on inter-EUMS solidarity, the article also took stock of EU-wide and external solidarity actions and burden-sharing. The latter had more substantial impact on the pandemic than the items listed by EST, even if the observed impact still left shortfalls to be acknowledged in mitigating the pandemic's harm to human health—no matter if only mitigation is regarded as having been the goal of pandemic response.

To the extent that EU countries—or any other country in the world—experienced major shortages ('gaps') at any point in the course of the pandemic in the means and resources needed for pandemic response, as well as with a view to countries adopting too little in the way of effective disease control and prevention measures (as 'weakest or laxest links'), collective burden-sharing and solidaristic transfers by EUMS, altogether, may be deemed inadequate.

The goals set by decision-makers make a difference to the assessment of the overall performance gap emerging from the failure to provide sufficient assistance. The goal of elimination dictates a far broader spectrum of means and measures to be utilized, both nationally and on the EU level, requiring relentless all-involving solidarity action as long as transmission of SARS-CoV-2 continues. By contrast, setting mitigation as the aim only demands reactive actions of solidarity in times of acute crisis, by a critical mass of countries—an intermittent solidarity of the willing.

Some implications of the 'elimination vs. mitigation' framework are troubling. Consider the examples of border closures and vaccine aid. If elimination is seen as the appropriate framework, consistently and strictly enacted border closures may be interpreted as measures of solidarity as long as they aid in decisively cutting the chains of transmission. This approach renders disease prevention paramount, from which the need to remedy inequalities in global vaccine access also follows. If only mitigation is the aim—let alone if barely mitigated mass transmission is permitted to take place—border closures cannot be expected to reduce the spread of disease, and they will, particularly in the inter-EUMS context, be seen as the opposite of solidarity. Prioritizing domestic vaccine roll-out over supplying vaccines to other countries, regardless of where an acute emergency exists, will be acceptable according to this paradigm.

Perhaps the greatest failure of inter-EUMS solidarity has been the prepandemic refusal to give more competences to the EU in the field of public health in general, and pandemic response in particular. The institutionalization of burden-sharing can provide the framework for effective coordination in addressing gaps and to eliminate the problem of lax links. It has been key to the impact of economic recovery support, too. De Ruijter (2021) posits that the pre-pandemic lack of the institutionalization of public health cooperation was due to 'health [being] a classical welfare state issue, and to centralize powers in this area in the EU, would diminish the power of the Member States in an area where national elections can be lost or won'. Such staunch intergovernmentalism constituted, in effect, EUMS retaining the right to make individual decisions on when, how, and to what extent they wish to practice solidarity with other EUMS—or in other words to choose between what Spandler et al. (2023) call 'scripts' of sovereignty, in a solidarity-demanding environment.

The lack of a prior commitment to cooperate contributed to the overall lack of a readiness to coordinate measures for maximum effect and the consequent absence of truly solidaristic conduct. As such, it is deeply disappointing. If solidaristic conduct is not the

default choice in pandemic response, even though it is exactly what is both ethically desirable and practically necessary in this context, then the conditionally permitted solidarity in its place is likely to always fall short of what a truly adequate response requires. Why countries, at times, express solidarity, while at other times they do not, should be an intriguing question for future research.

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