Transcending Two Percent: Toward a Prioritarian Model of NATO Burden-Sharing

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Abstract

This article argues that NATO's current burden-sharing regime, which I term the proportional model of NATO burden-sharing and which obligates each NATO member to allocate at least 2 percent of its GDP to defence, is deeply flawed from a purely ethical standpoint. This is because the proportional model omits from its approach to distributing the burdens of collective defence two morally relevant ally-level characteristics: namely, individual level of economic development and individual level of external threat. The model therefore treats unfairly both those allies characterised by especially low levels of economic development and those allies characterised by especially high levels of external threat, relative in each case to the alliance-wide average. The article argues that the proportional model should be replaced by that I term the prioritarian model of NATO burden-sharing, which is grounded in the normative theory of prioritarianism from the distributive justice literature. The prioritarian model would morally improve upon the proportional model by incorporating the aforementioned two ally-level characteristics (level of economic development and level of external threat) into its burden-sharing system in the form of two action-guiding prescriptions. The prioritarian model is therefore the fairer of the two models and consequently should be adopted by NATO.

Keywords: NATO, burden-sharing, distributive justice, prioritarianism

Introduction

Throughout the long history of NATO, intra-alliance debates among allies concerning the issue of burden-sharing have been a virtual constant (Kim & Sandler 2020; Thies 2003).[1] This trend has not abated in recent years: almost from the moment of his 2017 inauguration, U.S. president Donald Trump criticised what he alleged were the inadequate financial contributions and 'free-riding' of European NATO members on U.S. military power and protection. Trump even threatened to forgo defending these members in the event of an attack and to leave the alliance altogether if non-U.S. NATO allies continued to (as Trump saw it) shirk their fair share of alliance burdens (Crowley 2020; Herszenhorn & Bayer 2018). Indeed, the controversy within NATO over the question of fairly shared burdens reached such a caustic level during Trump's presidency that in 2019 French president Emmanuel Macron declared that 'what we are currently experiencing is the brain death of NATO' (The Economist 2019). However, in the wake of Russia's invasion of Ukraine in February 2022, which sparked the first large-scale interstate ground warfare in Europe since World War II, NATO has enjoyed a markedly enhanced degree of cohesion and agreement among its members concerning the necessity of increased ally-level military spending and, specifically, of meeting the alliance's official objective of every ally spending at least two percent of gross domestic product (GDP) on defence. Especially noteworthy is the fact that Germany, despite its long postwar history of antimilitarism and its ingrained opposition to increasing its defence budget to reflect the size and global importance of its economy, publicly committed to this 'two--percent objective' while declaring that it would also create a 100 billion euro fund for upgrading its long-neglected armed forces (Hutt 2022).

Burden-sharing, then, is likely to remain a major topic of discussion and debate for both NATO members and NATO observers in the foreseeable future. This empirical observation, however, inevitably raises the normative question of the *desirability* of NATO's two-percent objective, which I will refer to throughout this article as the 'proportional model' of NATO burden-sharing. This normative question of the desirability of the proportional model can be seen as taking two forms: a *prudential* and an *ethical* form. The prudential desirability of the proportional burden-sharing model concerns the question of whether or not the model is likely to be superior to other burden-sharing models in terms of maximising the common deterrence and defence capacity of NATO vis-à-vis its adversaries.

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1   I follow Cimbala and Forster in defining burden-sharing as 'the distribution of costs and risks among members of a group in the process of accomplishing a common goal' (2010: 1). In this case, the 'group' is NATO, while the 'costs and risks' are those related to the provision of allied deterrence and defence.

The prudential question is thus a matter of evaluating the *military* impact of the proportional model on the *capabilities* of the alliance.[2] By contrast, the ethical desirability of the proportional model of burden-sharing concerns the question of whether or not the model is likely to be superior to other burden-sharing models in terms of how fairly the model distributes the individual costs of institutionalised military cooperation among the thirty-two NATO members. The ethical question, then, is a matter of evaluating the *moral* impact of the proportional model on the *equity* of the alliance.

While addressing both questions is indispensable for undertaking a comprehensive normative assessment of an alliance burden-sharing regime, I focus in this article on the second question: i.e., on the model's ethical desirability. That is, I remain agnostic as to whether or not the proportional model would come closer (in the event that all allies reached the two-percent objective) to maximising the deterrence and defence capacity of the alliance than would an alternative model. Having thus bracketed the first question, I argue that the proportional model is unfair in terms of how it distributes the costs of military cooperation among NATO allies due to significant disparities in levels of economic development and external threat that obtain among these allies. Because of this ethical failure of the proportional model to fairly distribute alliance burdens, I propose an alternative burden-sharing model that, I argue, would ultimately prove more equitable if adopted by NATO because it would treat more fairly those allies plagued by a lower level of economic development and/or a higher level of external threat. I call this model the 'prioritarian model' because it is grounded in the distributive justice theory of prioritarianism from the normative political theory literature. The prioritarian model, I maintain, would do a better job of fairly distributing collective defence burdens than the proportional model does. I thus conclude that NATO should strongly consider adopting the prioritarian model in the near-term future.

The article's normative approach to the issue of NATO burden-sharing and its concomitant engagement with the distributive justice literature represent an important innovation in the context of contemporary alliance scholarship. While there is a sizable literature on NATO burden-sharing in both International Relations (IR) and defence economics,[3] this literature is almost entirely positive (i.e., descriptive or explanatory) in nature and, as a consequence, largely

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2   It bears noting that some scholars, particularly in the realist tradition, understand prudence as being not a normative alternative to the ethical approach, but rather an ethical theory in itself. See Coll (1991); Korab-Karpowicz (2018).

3   For an overview of this literature, see Kim and Sandler (2020). For a pivotal study that exemplifies the dominant political economy approach in the literature, see Hartley and Sandler (1999). For a positivist and quantitatively driven critique of the literature, see Becker (2017). For a post-positivist critique, see Zyla (2018).

ignores the normative question of what type of burden-sharing model should be adopted as a function of that model's ability to distribute the costs of collective defence more fairly than the alternatives.[4] In this way, the article fills an important normative – or, more specifically, ethical – gap in the literature on NATO burden-sharing. It does so while simultaneously introducing positive alliance scholars to the large and rich literature on distributive justice within normative political theory, where questions of fairness in the society-wide allocation of burdens and benefits are central.

The article proceeds as follows. In the first section, I provide a basic description of NATO's current burden-sharing regime, which I term the proportional model. In the second section, I then critique the model by arguing that it is fails to incorporate the crucial fact that, within NATO, there exists broad cross-alliance variation in two morally relevant ally-level characteristics: (1) individual level of economic development and (2) individual level of external threat. More specifically, I argue that the proportional model is unfair to both those allies suffering especially low levels of economic development and those allies suffering especially high levels of external threat. I conclude that the proportional model is therefore morally problematic and that NATO should consider replacing it with a more equitable model. In the third section, I present an alternative to the proportional model, which I term the prioritarian model of NATO burden-sharing. In describing the prioritarian model, I draw on the normative political theory of prioritarianism from the distributive justice literature in the service of arguing that the prioritarian model is ethically superior to the proportional model because the former model would be fairer than is the latter model to NATO allies exhibiting the lowest levels of economic development and the highest levels of external threat. In the fourth section, finally, I defend the prioritarian model against several hypothetical concerns about it. A brief final section concludes.

The proportional model of NATO burden-sharing

Although it existed in a more informal or implicit form for decades, NATO's current burden-sharing regime was first formally articulated and enshrined in the form of an alliance-wide agreement at the 2014 Wales Summit. This Defense Investment Pledge (DIP), as it was then officially called, was endorsed by all allied Heads of State and Government and is considered binding on member states (Becker 2021; NATO 2022b). At the core of the DIP is a pair of normative metrics that function both as action-guiding prescriptions to which individual allies must adhere and as evaluative criteria with which ally-level burden-shares can be assessed.[5]

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4   For the few scholarly exceptions, see Kunertova (2017); McGerty *et al*. (2022); and Zyla (2018). For exceptions by policy analysts, see Major (2015); Mölling (2014).

5   The DIP also contains a set of 'output' metrics, such as sustainability and deployability, that complement these two 'input' metrics (Becker & Malesky 2017; McGerty *et al*.

The first metric, which is the more fundamental and much better known of the two, is the *two-percent objective*. The two-percent objective commits each ally to spending, at a minimum, two percent of its GDP on military defence. It therefore concerns only aggregate, or 'top-line', defence spending: i.e., *what* the members spend. The second metric is the *twenty-percent objective*, which commits each ally to allocating at least twenty percent of its defence expenditure to equipment: that is, to the acquisition of new military equipment and/or the modernisation of military equipment currently in use (NATO 2022b). This is opposed to the other three NATO-designated categories of defence spending: i.e., infrastructure, operations and maintenance (O & M), and personnel, which since 2014 have been viewed as less strategically valuable to the alliance's long-term vision of collective defence (Becker 2017).[6] It therefore concerns disaggregated defence spending: i.e., *how* the members spend. For example, a hypothetical Ally X may dedicate 1.8 percent of its GDP to top-line defence expenditure, while dedicating 22 percent of this expenditure to the acquisition of new equipment and/or the modernisation of equipment currently in use. The remaining 78 percent of its defence expenditure would then be allocated to some combination of the categories of infrastructure, O & M, and personnel. Ally X would hence fail to satisfy the two-percent objective but succeed in satisfying the twenty-percent objective. According to NATO's current burden-sharing regime, then, this hypothetical ally would be assessed as only partially fulfilling its burden-sharing obligations to the alliance and would, as a result, be deemed as treating its allies unfairly. Notably, in 2022, according to the alliance's own published data, nine out of the twenty-nine official allies that maintain militaries satisfied the two-percent objective, while twenty-four of these allies satisfied the twenty-percent objective (NATO 2022a).[7]

Both of these input metrics are of great practical importance for understanding the contemporary state of NATO burden-sharing. Nonetheless, for the sake of simplicity, clarity, and practical relevance, I will focus exclusively throughout this article on the more important and much more widely discussed two-percent objective. It is this two-percent objective that I will refer to from this point on as the 'proportional burden-sharing model'. This model can be stated as follows:

2022). I omit these metrics because they have received little attention from analysts and scholars, because very little data on them is publicly available, and because they take the fairness of the input metrics for granted and instead assess the concrete outcomes (i.e., military outputs) thereof.

6　This prioritisation of equipment did obtain during NATO's 'out of area' period (2000–2012). See Becker and Malesky (2017).

7　Iceland does not maintain a military and so is incapable of satisfying either objective.

> *Proportional Burden-Sharing Model (Specific Version)*: every NATO ally is obligated to allocate a proportion of its GDP to defence expenditure that is equal to or greater than two percent.

We can also restate the model as a generic version of itself, in which specific quantitative percentages are initially absent but can then be added in, removed, or altered according to the preferences of the allies at any given juncture:

> *Proportional Burden-Sharing Model (Generic Version)*: every NATO ally is obligated to allocate exactly the same proportion of its GDP to defence expenditure.

Having provided this overall description of the proportional model as well as a concise statement of its 'specific' and 'generic' versions, the article is now in a position to begin its critique of the model's shortcomings. Before doing so, however, it is important to acknowledge at the outset that the model does indisputably possess some qualities that are, at least ostensibly, positive and favourable. For one, the model is simple and straightforward in postulating a single fixed percentage as the normative standard of all allied burden-sharing. The built-in parsimony, clarity, and precision of this simple quantitative standard could in theory permit the allies to cooperate more readily and coordinate more effectively by minimising ambiguity and uncertainty, and so also controversy and debate, about what each ally should and will rightfully contribute to collective defence. For another, the proportional model can be considered, if only in a narrow and highly formal sense, strictly egalitarian in its approach to distributing the burdens of institutionalised military collaboration. Hence, according to the model, every ally is obligated to spend exactly the same percentage of its GDP on defence and the same percentage of its defence budget on equipment (NATO 2022b). This 'thin' egalitarianism may seem attractive to those allies, and also to those analysts and scholars, who believe that every NATO member must contribute 'equally' to collective defence in order for the alliance's burden-sharing regime to qualify as fair. Yet these ostensibly favourable qualities of the proportional model are significantly outweighed by the unfairness with which the model treats two specific categories of NATO ally due to the model's particular approach to distributing alliance burdens.

A critique of the proportional burden-sharing model

The first category of NATO ally that the proportional model treats unfairly is those allies that are characterised by *lower levels of economic development*. I conceptualise the individual level of economic development of a NATO ally as sim-

ply its current GDP per capita, or the current ratio of an ally's GDP to its total population.[8] An ally's level of economic development is, then, essentially the average income of the sum of all its citizens and permanent residents. Empirically, a substantial degree of variation in individual levels of economic development, conceptualised as such, currently exists (and, historically, has always existed) among the members of NATO. This variation runs from one extreme of very highly developed allies (e.g., Luxembourg and Norway), through an upper-middle range of highly-to-moderately developed allies (e.g., Italy and Spain) and a lower-middle range of moderately-to-minimally developed allies (e.g., Turkey and Romania), to the opposite extreme of minimally developed allies (e.g., North Macedonia and Albania). There are many other possible ways, of course, of presenting the broad inter-ally variation in economic development that exists within NATO, but this four-level hierarchy expresses the basic point clearly enough, I believe. It is also worth filling in this hierarchy with a few simple statistics: in 2021, the highest GDP per capita was $136,700 (Luxembourg), while the lowest was $6,370 (Albania). This amounts to a statistical range of $130,330 (International Monetary Fund 2021).[9] And even if one drops Luxembourg's unusually high GDP per capita, which was somewhat of an outlier, the next highest income was that of Norway at a still extraordinarily high $89,090. This yields a statistical range of $82,720. Finally, the median GDP per capita, which in this case (with Luxembourg right-skewing the distribution a bit) seems more informative than the mean, was roughly $27,000 (International Monetary Fund 2021).

These broad differences in GDP per capita among the NATO members are morally relevant to the question of alliance burden-sharing. A NATO ally's level of economic development directly and significantly affects the overall level of human well-being and quality of life that obtain within the domestic society of that ally. The inhabitants of more economically developed allied states will, on average, be healthier, safer, better educated, wealthier, happier, and longer-lived than those of less economically developed allied states. In this way, a NATO member's level of economic development makes a meaningful moral difference to the lives of the very people – that is, the very individual citizens – whose welfare and security the alliance is, at the most basic level, designed to preserve and protect. More specifically, an ally's level of economic development directly and significantly affects its ability to contribute both financially and (since military assets not only cost money but also tend to be expensive relative to alternative public goods like healthcare, education, and poverty reduction) militarily to the

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8   There are obviously other ways of conceptualising an ally's level of economic development, but I use GDP per capita due to its simplicity and popularity as a proxy for the latter.

9   To keep things simple, I leave aside more precise but complex measures of variation such as variance and standard deviation.

central objective of the alliance: deterrence and defence. Because all individual allied governments use some system of national taxation as the primary means of funding these public goods, allied citizens ultimately bear most of the burden of contributing to this objective. But the income and assets of the average citizen of a less economically developed member will be lower and fewer, and so have a higher marginal value, than those of the average citizen of a more economically developed member. It is thus, all else equal, more financially onerous for the former citizen to contribute to the alliance's goal of deterrence and defence than it is for the latter citizen to do so, assuming that the defence budget comprises the same share of GDP in both countries. Finally, the government of a less developed ally will also suffer a greater opportunity cost – in the form of forgoing public spending that is chiefly designed to increase the economic development of its citizens through the provision of alternative public goods, such as those just mentioned above, that are suited to this purpose – than will the government of a more developed ally in allocating the same share of its GDP to defence. This is because development-enhancing social spending would have yielded greater marginal benefits for the citizens of a less developed ally than it would have yielded for the citizens of a more developed ally. In this way, less developed allies have more to lose in relative (i.e., GDP-adjusted) terms from a burden-sharing system like the proportional model than do more developed allies, leaving the former allies even more disadvantaged than they were at the outset.

The second category of NATO ally that the proportional model treats unfairly is those allies that are characterised by *higher levels of external threat*. I conceptualise the individual level of external threat of a NATO ally as a combination of: (1) the geographical proximity of the ally's territory to the territory of Russia, which according to NATO's 2022 Strategic Concept constitutes the primary adversary of the alliance and 'the most significant and direct threat to Allies' security and to peace and stability in the Euro-Atlantic area' (NATO 2022c: 4); and (2) the average degree of discord that exists in the ally's diplomatic relations with Russia.[10] Empirically, just as is the case with relative level of economic development, there is significant variation among the thirty-two NATO members with regards to relative level of external threat.[11] At the extreme end of a plausible spectrum of external threat, there are allies such as the Baltic states (Estonia, Latvia, and

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10 Although I focus on NATO, there are many ways for external threat in the general alliance context to be conceptualised and operationalised. For an influential conceptualisation, see Walt (1987). For an attempt at more precise operationalisation, see Johnson (2017). Notably, both studies explore external threat solely as an explanation of alliance formation and not as a normative critique of a certain form of alliance burden-sharing.

11 In describing this intra-alliance variation in level of external threat vis-à-vis Russia, I draw on the work of Hugo Meijer and Stephen G. Brooks (2021) on the 'strategic cacophony' currently evident within NATO.

Lithuania) and Poland. Each of these states shares a border with Russia and is a former Soviet Bloc member that was militarily and politically dominated by Moscow during the Cold War and, to varying degrees, annexed or colonised by it in earlier historical periods. In recent years, these states have maintained very poor diplomatic relations with the latter, characterised by a high degree of mistrust, suspicion, disagreement, and criticism (Meijer & Brooks 2021).

Toward the middle of this spectrum, there are allies such as the Czech Republic, Romania, Slovakia, and Norway. These states are all geographically close to Russia, with Norway sharing a 198-kilometer-long land border with the latter. The first three states, meanwhile, were all members of the Eastern Bloc and fall within what Moscow considers to be its natural sphere of influence. All of these states in the 'middle range' of individual external threat have in recent years maintained relatively cool diplomatic relations with Moscow. Nonetheless, these diplomatic relations have been more stable and constructive overall than those of the group of highly threatened allies mentioned earlier (Meijer & Brooks 2021).

Other allies are still further along on the spectrum and have in recent years (and especially since Russia's 2022 invasion of Ukraine) maintained very poor diplomatic relations with Moscow while nonetheless being geographically distant from its borders. These allies include, most notably, the United Kingdom and the United States. Conversely, Hungary is a geographically proximate former Eastern Bloc member that, under Prime Minister Viktor Orbán, has maintained consistently good diplomatic relations with Moscow. Finally, there are those allies that fall at the opposite end of this external threat spectrum: i.e., those states that are geographically distant from Moscow and that have also traditionally had favourable diplomatic relations with it due to an overall lack of conflicting interests and different spheres of operation and influence: e.g., Spain, Greece, Portugal, Italy, Bulgaria, and Ireland (Meijer & Brooks 2021).

These considerable differences in the individual level of external threat that exist among the NATO members are, like differences in levels of economic development, morally relevant to the question of alliance burden-sharing. As in the case of economic development, a NATO member's level of external threat directly and significantly affects the overall level of human well-being and quality of life that obtain within the domestic society of that member. There is both an objective and a subjective component of this impact on an ally's citizenry. Objectively, allied citizens living under a high degree of external threat vis-à-vis a hostile and proximate adversary are, *ipso facto*, in an actual state of heightened insecurity and enhanced endangerment whether or not they are aware of this fact. They are probabilistically more likely to suffer measurable harm via an armed attack than are the citizens of an ally confronting a less serious external

threat. Subjectively, allied citizens living under a high degree of external threat vis-à-vis a hostile and proximate adversary, and who are aware of this fact, are compelled to suffer the fear, anxiety, and uncertainty that, as a matter of ordinary human psychology, generally accompany of this knowledge. Here, then, the harm in question is not a function of catastrophic probabilities, but rather of insidious certainties: i.e., the inevitable sense of disquiet and creeping panic that emerges in the face of a constantly looming armed attack. Furthermore, when a NATO ally is beset by an especially high level of external threat, the government of that ally is typically compelled to allocate a higher proportion of its national budget to defence spending than it would otherwise be inclined to allocate. This means that the government will be forced, due to the so-called 'guns versus butter' dilemma that is intrinsic to public policy (Powell 1993), to transfer funds from other forms of welfare-improving public spending like healthcare, education, and poverty reduction, for the express purpose of ensuring the state's fundamental security needs and perhaps even, in the most extreme case of external threat, its near-term survival. The result is another source of systematic downward pressure on the basic living standards and socioeconomic security of citizens, for whom every bullet or tank purchased to prevent external attack is a dollar that, under a less threatening external environment, might have been spent on resources for the proven betterment of human life. In this way, the guns versus butter dilemma and the government's consequent need to allocate a finite sum of its financial resources to either military planning or social policy tends, in the most externally threatened states, to be rigged from the start in favour of the 'guns' side of this tradeoff.

The key conclusion that follows from the foregoing set of arguments is that a NATO ally's level of economic development and its level of external threat together help to determine how truly burdensome the burdens of collective defence actually are for that ally and, more specifically, for that ally's citizens. And if there happens to be substantial variation in level of economic development and of external threat among the allies – as there does indeed happen to be among current NATO members – then the resultant differences in burdensomeness will be proportionally substantial. Yet if the burden-sharing system that is adopted by NATO fails to acknowledge and incorporate this inter-ally variation in burdensomeness that is in turn generated by inter-ally variation in economic development and external threat, and instead treats all allies as if they are at approximately the same level of economic development and external threat (and thus as suffering approximately the same level of burdensomeness), then that system must be characterised as *unfair*. It follows that the proportional model, being precisely such a system, is treating unfairly (at the very least) that group of least economically developed allies that includes North Macedonia and Alba-

nia and that group of most externally threatened allies that includes the Baltic states and Poland. In addition, the model may also be treating unfairly those allies whose level of economic development is (though not the lowest) still appreciably below the NATO average or whose level of external threat is (though not the highest) still appreciably above the NATO average.[12] If this is right, then the possibility needs to be explored of designing an alternative burden-sharing regime that is able to address and ameliorate this ethical failure of the proportional burden-sharing model. This is precisely the goal of the next section, to which I now turn.

Toward a prioritarian model of NATO burden-sharing

In this third section, I propose and defend an alternative to the proportional model of NATO burden-sharing. In order to accomplish this task, however, I must first briefly discuss the theoretical foundation of my proposed model. This foundation comes in the form of the distributive justice theory of prioritarianism. Serna Olsaretti defines the underlying concept of distributive justice in terms of the essential normative question of 'how we should arrange our social and economic institutions so as to distribute fairly the benefits and burdens of social cooperation' (2018: 1). Prioritarianism, meanwhile, was originally formulated by the philosopher Derek Parfit (1991) largely in response to what Parfit viewed as the inherent weaknesses of another theory of distributive justice: namely, egalitarianism.

At its core, prioritarianism makes one all-important and highly distinctive claim about how best to, as Olsaretti puts it, 'distribute fairly the benefits and

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12 This conclusion is not invalidated by the potential claim that a less economically developed or more externally threatened ally might be, on account of its past statements or actions, at least partially responsible for its low level of economic development or high level of external threat. Even if such a claim were technically accurate, it would at most only indicate that the ally is being treated somewhat less unfairly by the proportional model than it would otherwise be treated if such partial responsibility did not obtain. Practically speaking, however, it would be both odd and extraordinarily difficult for the ethical evaluation of an existing burden-sharing regime to preoccupy itself with the complex and controversial task of determining (a) how individually responsible each ally has historically been for its current economic circumstances and security environment and (b) what share of the burden of collective defence it should shoulder as a function of that responsibility. That this is true can be seen empirically in the fact that national taxation systems throughout the world are virtually never designed so as to comprehensively reflect, or even to partially incorporate, the purported responsibility of individual taxpayers for the fact that their taxable income happens to fall within a particular tax-rate bracket. A central reason such information is not incorporated into taxations systems is, of course, because the information itself is extremely hard, if not theoretically impossible, to acquire given widespread, deep--seated, and above all reasonable disagreement surrounding questions of personal responsibility. Much the same difficulty applies when one moves from the context of state taxation systems to that of alliance burden-sharing regimes.

burdens of social cooperation' (2018: 1). This aforementioned claim can be seen as cleanly separating prioritarianism from the competing theory of egalitarianism as well as from other theories of distributive justice. The central prioritarian claim is, to quote Parfit's succinct formulation, that 'benefiting people matters more the worse off these people are' (1991: 19). Put differently, the elimination of a burden or the provision of a benefit is, morally speaking, more valuable the worse off beforehand is the subject from whom the burden would be eliminated or to whom the benefit would be provided. According to this formulation, then, prioritarianism conceives of the value of benefits or the disvalue of burdens *absolutely*, and not *relatively* (Parfit 1991). The theory states that what one should care most about is not, as an egalitarian theorist would argue, how well off a subject is relative to another subject, but rather how well off a subject is compared to how well off she herself could or should be (Holtug 2006; Porter 2012). The more worse off this subject initially is, the greater the moral weight that should be assigned to reducing that subject's burdens or increasing that subject's benefits because of the greater intrinsic value of such a reduction and not because of any concomitant increase in equality.

Therefore, given the opportunity to reduce the burdens or increase the benefits of one of two subjects who *ex ante* possess unequal welfare between them, prioritarianism advocates reducing the burdens or increasing the benefits of the worse off of these two subjects. And when there are many subjects to whom burdens or benefits can be distributed in different ways, prioritarianism advocates distributing these burdens or benefits across the full group of subjects as a function of how poorly off each subject is relative to the group average. In this manner, the more worse off a subject is relative to that average, the lower the burden or higher the benefit that subject will be allocated (Holtug 2006; Porter 2012).

Thus in practice a prioritarian distributive system will in some cases resemble the structure of a typical progressive taxation system, with a variable 'burden rate' that is indexed to the subject's level of income or overall ability to pay, so that the former quantity is positively correlated with the latter quantity. Crucially, however, a prioritarian approach to distributing social goods need not take this practical form of a progressive system of burden allocation (i.e., of taxation in most real-world cases). Indeed, as will be seen below, the prioritarian system that I propose is not progressive in the relevant sense of indexing burden obligations, via a fixed scale of increasing percentages (i.e., tax rates), directly to burden-bearing capacity (i.e., income level or ability to pay).

Having introduced the crux of prioritarianism as a distributive justice theory, let us now consider the theory in the context of burden-sharing among NATO allies. The question here is: how might prioritarianism be used to construct a normative model of alliance burden-sharing that improves upon the

proportional burden-sharing model by ameliorating the moral shortcomings of the latter? To begin to answer this question, first recall that the proportional model's main ethical problem stems from its failure to incorporate two morally relevant factors about the NATO alliance: (1) the individual level of economic development of each NATO ally and (2) the individual level of external threat of each NATO ally. This failure renders the proportional model unfair to those allies that fall below the average alliance-wide level of economic development and/or external threat and especially unfair to those allies that are among the least economically developed and/or most externally threatened within the alliance. It is my contention that prioritarianism furnishes us with a promising solution to this dual moral defect of the proportional model. Prioritarianism does so because, as a substantive theory of distributive justice, it comes equipped with a fungible system for distributing the burdens or benefits of different forms of social cooperation.

Thus one can consider NATO to be the relevant 'institution' of 'social cooperation' that is to be arranged (Olsaretti 2018: 1). One can, in turn, consider ally-level defence expenditure obligations as the relevant 'burdens' that are to be distributed.[13] If, then, NATO is the entity that is to be arranged and defence expenditure obligations the entity that is to be distributed, then prioritarianism is the system according to whose prescriptive rules these two entities are to be arranged and distributed, respectively. One can then introduce into this picture the two morally relevant factors stated above: i.e., (1) and (2).[14] The key prioritarian logic here goes like this: because both less economically developed allies and more externally threatened allies are *ipso facto* already worse off – that is, are *already more burdened in ways that are relevant to collective defence* – beforehand than are their more developed and less threatened peers, the first two groups of allies would experience a greater increase in welfare from a given reduction of their collective defence burdens than would their allied peers (from an identical reduction). A given reduction in the individual burdens of the first two groups of allies is thus more morally valuable than is an equal reduction (at an identical decrement) in the individual burdens of their allied peers. It follows that a genu-

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13 I bracket the concept of 'burden' because collective defence has, following the seminal publication of Olson and Zeckhauser (1966), generally if not universally been considered a public good from which all allies benefit roughly equally.

14 I focus on these two factors because their moral relevance seems to me especially significant as far as the question of fair burden-sharing is concerned. This focus should not, however, be taken to imply that other ally-level factors, such as for example country size or pure (divorced from external threat) geography, are necessarily unimportant for deciding on an equitable distribution of burdens. In formulating a burden-sharing model, as in formulating any normative or explanatory model, there is an analytical tradeoff between parsimony and comprehensiveness. My sense is that the morally relevant factors chosen here represent an acceptable balance between these two desirable but inversely related qualities.

inely equitable regime of NATO burden-sharing will be one whose distributive prescriptions are firmly grounded in the foregoing prioritarian observations. In Parfit's phrasing, 'we should not give equal weight to equal benefits, whoever receives them. Benefits to the worse off should be given more weight' (1991: 20).

We can now begin to appreciate the extent to which the distributive approach of the prioritarian model will differ from that of the proportional model. Moreover, it can be appreciated that this difference between the respective distributive approaches of the two models exists because of a deeper and more fundamental difference that exists between the respective moral assumptions of the models. The proportional model assumes, at least implicitly, either that cross-alliance variation in level of economic development and external threat are morally irrelevant *tout court* or else that cross-alliance variation in these characteristics may be morally relevant to some questions of alliance management but not to the question of what constitutes fair burden-sharing. The prioritarian model rejects both assumptions. It assumes that, due to the moral relevance of cross--alliance variation in economic development and external threat to the question of what constitutes fair burden sharing, these two characteristics should be at the centre of any burden-sharing regime that is designed to apply to NATO in its present state. Note that this assumption does not entail that economic development and external threat are necessarily the only morally relevant factors that merit consideration in designing NATO's burden-sharing regime. Rather, the core assumption of the prioritarian model entails only that economic development and external threat are, on account of their central moral relevance to the question of what constitutes fair burden-sharing, afforded a correspondingly central place in any NATO burden-sharing regime that is being designed amid the alliance's current degree of cross-alliance variation in economic development and external threat. In short, the question of whether or not cross-alliance variation in economic development and external threat matter, morally speaking, for answering the separate question of how to fairly distribute collective defence burdens is what distinguishes the models from one another on the most fundamental level of burden-sharing ethics.

Having established all of this, and by building on the generic version of the proportional burden-sharing model posited in the previous section, something like the following set of three propositions can now be inferred as a first pass at a prioritarian burden-sharing model:

> *Prioritarian Burden-Sharing Model*:
> (a) every NATO ally is obligated to allocate exactly the same proportion of its GDP to defence expenditure; however,

(b) those allies whose level of economic development is significantly above the alliance-wide average are obligated to assist those allies whose level of economic development is significantly below that average;[15] equally,

(c) those allies whose level of external threat is significantly below the alliance-wide average are obligated to assist those allies whose level of external threat is significantly above that average.

Let us examine these three propositions that, taken together, constitute the prioritarian model more closely in order to better grasp how the model both builds on and improves upon the proportional model and how it is grounded in prioritarian distributive justice theory. Proposition (a), it will be immediately noticed, is simply a word-for-word restatement of the generic version of the proportional model. This nesting of the proportional model at the very heart of the prioritarian model shows that, as emphasised earlier, the prioritarian model does not seek to comprehensively do away with the content of the model that it nonetheless ultimately seeks to replace. Thus proposition (a) does not substitute a new percentage-of-GDP defence expenditure objective for the proportional model's two-percent objective. More specifically, it does not replace the two-percent objective with a progressive or ranked system of burden obligations according to which the proportion of an ally's GDP that it must spend on defence is determined by its level of economic development and/or its level of external threat, resulting in more (less) developed and/or less (more) threatened allies being 'taxed' at higher (lower) rates for the public good of collective defence. Such a 'direct' approach to creating a prioritarian system of burden--allocation would in all likelihood prove extremely complicated, inevitably contentious, and hence practically unfeasible to implement. It would also have the perverse and dangerous effect of institutionally incentivising lower defence spending among more externally threatened NATO members. Instead of completely rejecting the proportional model and its fixed two-percent objective in this way, the prioritarian model seeks to use the former model as a ready-made and largely reasonable prescriptive foundation on which a morally more defensible model can be erected. It thereby leverages one of the abovementioned strengths of the proportional model – specifically, its functional simplicity in the sense of the parsimony, clarity, and precision that characterise its underlying distributive approach – in the service of creating a demonstrably more

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15 'Average' is used here in a very loose sense, as referring to whichever measure of central tendency is most appropriate for measuring an ally-level characteristic. As mentioned earlier, in the case of level of economic development conceptualised as GDP per capita, this will likely be the median.

equitable system of arranging and assigning burden-shares among allies who happen to be very differently situated in terms of individual levels of economic development and/or external threat.

The parameters of this new and more equitable system are made clearer in the content of propositions (b) and (c), which also showcase the model's prioritarian theoretical foundations. The basic prioritarian idea implicitly at work in both prescriptions has already been described above: it is that NATO members who are *already more burdened from the start* due to a lower level of economic development and/or higher level of external threat will, by virtue of this fact, experience a greater boost in individual welfare from a given reduction in their respective alliance burdens than will NATO members who are not antecedently burdened to the same extent. Reducing the burdens of the *ex ante* more burdened allies will therefore be more morally valuable *ex post* than will reducing the burdens of the *ex ante* less burdened allies. For example, NATO member Canada is one of the wealthiest and most economically developed states in the world, let alone within the alliance, with a GDP per capita that is more than double that of Poland. Canada is also, arguably, one of the least externally threatened states in the world, let alone within NATO, with its only land border shared with a fellow NATO member (the United States) and considered so militarily secure that it has long remained militarily undefended (on both sides). Poland, on the other hand, is one of the most externally threatened states within NATO, with a border shared not only with the alliance's principle adversary and Poland's former de facto ruler, Russia, but also with Russia's closest military ally, Belarus.[16] In light of these substantial differences in levels of economic development and external threat that exist between Canada and Poland, and in line with Parfit's formulation of prioritarianism, propositions (b) and (c) would refuse to give equal moral weight to reducing the burdens of two allies that are already very differently burdened (in terms of economic development and/or external threat) *before* the distributive process has begun and that are thus not equally well off in the fact of a process that (at least under the proportional model) is likely to render them either *still more* well off (in Canada's case) or *still more* worse off (in Poland's case). Instead, the two propositions treat (empirically) unlike cases (normatively) unalike, so to speak. As already indicated, the propositions do this *not* by mandating, in the mold of a progressive taxation scheme, that every ally spend a different percentage of its GDP on defence as a function of its level of economic development and/or external threat. Instead, they do so by a more indirect means: namely, an obligation on the part of the most economically developed and least

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16   Belarus and Russia, besides being close politically via the personal ties between their leaders, are both members of the Collective Security Treaty Organization, a multilateral defence pact that can be seen as a Russian-led version of NATO in the Post--Soviet Space.

externally threatened allies to *assist* the least economically developed and most externally threatened allies, respectively.

This idea of obligatory inter-ally assistance, which comprises the prescriptive centrepiece of the prioritarian model, is the element of propositions (b) and (c) that most requires explanation. What exactly is meant by the propositions' claim that allies whose economic development level is significantly above the alliance-wide average are obligated to assist allies whose economic development level is significantly below that average, while allies whose external threat level is significantly below the alliance-wide average are obligated to assist allies whose external threat level is significantly above that average? To begin with, by 'obligated to assist', what is meant is that those members whose economic development level is especially high relative to the alliance-wide average have a *pro tanto* duty to incorporate into their annual defence budget a grant of financial assistance directed at those members whose economic development level is especially low relative to that average. The same prescription applies, *mutatis mutandis*, to those members whose external threat level is especially low relative to the alliance-wide average vis-à-vis those members whose external threat level is especially high relative to that average. Members that, meanwhile, enjoy both significantly higher-than-average levels of economic development and significantly lower-than-average levels of economic threat have a *pro tanto* duty to incorporate into their defence budgets *one* grant of financial assistance aimed at allies with significantly low-than-average levels of economic development and another such grant aimed at allies with significantly higher-than-average levels of external threat. By 'significant', what is meant is that the assisting ally should be among the most economically developed and least externally threatened members, while the assisted ally should be among the least economically developed and most externally threatened members. It should be noted that what exactly can be said to qualify, in a precise quantitative sense, as 'significant' is ultimately for the allies themselves to discuss, debate, and decide. Of course, this determination will itself require an agreed-upon metric or formula for measuring economic development and external threat. Recall that I conceptualise the first of these as an ally's GDP per capita and the second as a combination of the geographical proximity of the ally's territory to the territory of Russia and the average degree of discord in the ally's diplomatic relations with Russia. While GDP per capita and geographical proximity are measurable as is, ally-level degree of diplomatic discord with Russia would need to be operationalised in a manner that is acceptable to all allies before measurement and assessment would be possible. Since it is not my aim in this article to translate the prioritarian model into a readily usable formula for the practical assessment of ally-level characteristics, however, and since the validity of the argument that I do offer does not depend

on the creation of such a formula, I leave this matter either for a future scholarly study or, better still, for the direct deliberation and implementation of the allies themselves.

It is my contention that these three propositions, taken together as the prioritarian burden-sharing model, would if adopted by NATO do much to help ameliorate the earlier-mentioned moral shortcomings and inherent unfairness of the alliance's current proportional model. It follows from this contention that NATO, if it values fairness in collective defence burden-sharing as much as it claims to do, should transition away from the proportional model toward adopting the prioritarian model as soon as it is practically feasible to do so. To flesh out this proposal, it will be helpful at this point to consider a brief illustration of how the prioritarian model could be expected to function in practice, returning to the example of Canada and Poland.

In the case of these two allies, the prioritarian model would first evaluate the individual level of economic development and individual level of external threat of both Canada and Poland. The model would then determine that Canada's level of economic development appears to be significantly above the alliance-wide average and its level of external threat significantly below the alliance-wide average. The model would concurrently determine that Poland's level of economic development appears to be significantly below the alliance-wide average and its level of external threat significantly above the alliance-wide average. As a result of these determinations, the prioritarian model would conclude that Canada is obligated – i.e., has a *pro tanto* duty – to assist Poland with its defence expenditure burden. Crucially, the model would also determine that Canada also has the *same* duty of assistance vis-à-vis all other allies who, like Poland, exhibit levels of economic development and/or external threat that are below (for economic development) or above (for external threat) the alliance-wide average. In policy terms, this determination would entail that Canada is obligated to incorporate into its defence budget one grant of defence burden assistance directed at the former category of allies, which includes Poland, and one grant of defence burden assistance directed at the latter category of allies, which also includes Poland. Other allies in the former category would include those that are even less economically developed than Poland, such as Montenegro, North Macedonia, and Albania. Other allies in the latter category would (perhaps) include those that are equally as externally threatened as Poland, such as Latvia and Lithuania. At the same time, the United States would fall into the same category as Canada as an ally possessing a high level of economic development and low level of external threat. As such, the United States would be required to bear the same 'double obligation' of financially assisting both categories of overburdened allies. Meanwhile, a highly developed but moderately threatened ally like (arguably)

Sweden and a moderately developed but highly threatened ally like (arguably) Estonia would be obligated to assist only one of the two categories of overburdened allies (it should be obvious which). Finally, due to their inverse economic and security circumstances, a few allies may end up *both* assisting *and* being assisted by other members: arguably, for example, significantly more developed and significantly more threatened Finland. By the same token, a few allies may end up *neither* assisting *nor* being assisted by other members: arguably, for example, moderately developed and moderately threatened Slovenia.

Potential concerns about the prioritarian burden-sharing model

Now that it has been made clear how the prioritarian model might operate in practice, and before concluding the article, it is necessary to address some potential concerns about the prescriptive content of the model as it has been stated and explicated above. These valid concerns need to be addressed in order to prevent misunderstandings and to clear up misconceptions regarding the moral assumptions and practical implications of the model.

A first concern is that allies with very high levels of economic development and/or very low levels of external threat should have a duty of assistance toward allies with very low levels of economic development and/or very high levels of external threat only if the former set of allies is morally responsible for the economic and/or security situation of the latter set. This concern is misguided, however, because it confuses a duty of assistance with a duty of compensation. The latter, in order to be justified, would indeed seem to require that the most developed and less threatened allies were morally responsible for the situation of the least developed and most threatened allies. A duty of assistance, by contrast, clearly does not require this: wealthy and middle-class taxpayers that fund programs of poverty alleviation and subsidised healthcare for underprivileged persons are not necessarily assumed to be responsible for the plight of the latter persons any more than are wealthy countries that issue development aid to poor countries necessarily assumed to be responsible for the plight of the latter countries in any direct sense. The duty of assistance that implicitly underlies these institutionalised resource transfers from the better-off to the worse-off only requires us to appreciably value fairness in how those resources might in the future be distributed, not to unambiguously recognise responsibility for how they have in the past been distributed.

A second concern is that the prioritarian model would in practice prove too controversial to the would-be assisting allies for them to agree to incorporate the prescribed defence assistance grants into their defence budgets. Furthermore, even if the model's implementation were to be accepted by the assisting allies, that implementation would be likely to reduce the deterrence and defence

capacity of NATO compared to the capacity with which the proportional model endows it.

The first prong of this more practical concern is overstated: it is not at all obvious that the NATO allies could not come to an agreement on implementing the prioritarian model. In particular, it is not obvious that the most developed and least threatened allies would not be willing to assist the least developed and most threatened allies with their defence expenditure obligations. Indeed, NATO is, after all, a military alliance, so that if the former group of allies is willing to consent to and ratify a legally binding commitment that obligates them to military defend the latter group in response to an actual attack, it is hard to believe that the former group could not also be persuaded to militarily assist the latter group in preparation for defending against a prospective attack. The *a fortiriori* nature of this point should be clear: militarily defending an attacked ally would be much more costly on both a financial and (especially) human scale than would providing an annual grant of defence burden assistance to that same ally, and if the former can be accepted as a normative duty, the latter can as well. What is more, this grant of assistance could actually end up indirectly mitigating the costliness (for the assisting ally) of defending the assisted ally against attack in the future, since the assisted ally will, by virtue of the military assistance itself, be in a position to better contribute to its own self-defence.

The second prong of the concern – that the prioritarian model would reduce the deterrence and defence capacity of NATO relative to the proportional model – is *prima facie* reasonable but also ultimately mistaken. While I have already indicated in the Introduction that I will not consider the question of the prudential (i.e., deterrence and defence-related) desirability of one model over the other, I will just reiterate here that the prioritarian model does not dispense with the prescriptive content of the proportional model. Rather, the prioritarian model retains, in the form of its proposition (a), the generic version of the proportional model. The prioritarian model simply builds (and, I argue, improves) upon its predecessor by redistributing the total cross-alliance costs of achieving, on the part of all thirty-two allies, the proportional model's identical defence expenditure objective. In the specific version of the proportional model, this defence expenditure objective is, of course, the two-percent objective. The prioritarian model is thus equally as capable of incorporating this specific objective as is the prudential model. And since this two-percent objective *just is* the specific version of the prudential model, it follows that the prioritarian model is unlikely to cause a meaningful decline in the deterrence and defence capacity of the alliance relative to the baseline of the proportional model. The prioritarian model would, at a minimum, merely render that baseline markedly fairer. And at a maximum, it is not even unreasonable to believe that the prioritarian could actually help

to *enhance* the military performance of the alliance. This would be the case if the prioritarian model's cultivation of an equitable distribution of burdens ended up increasing the degree of gratitude, trust, respect, and cohesion between (on the one hand) the group of less developed and more threatened allies and (on the other hand) the group of more developed and less threatened allies, while creating an overall sense of collective solidarity, shared understanding, and common purpose between these differently situated groups of allies and, ultimately, among the individual allies themselves. If an alliance characterised by greater gratitude, trust, respect, solidarity, and cohesion among its members is also likely to be, *ceteris paribus*, a more militarily effective alliance, then we are warranted in thinking that the prioritarian model, far from reducing NATO's performance as an institution of deterrence and defence, may in fact result in a boost to that performance. Although the main argument of the article does not strictly depend on it, this would make the prioritarian model not only an attractive *normative* option for the NATO alliance, but also an attractive *policy* option for the latter.

A final concern is that the prioritarian model fails to address the phenomenon (alluded to in the Introduction) of free-riding by non-U.S. NATO members on the U.S. military power and protection. On account of this free-riding, it is the United State that actually has the strongest claim to being assisted with its defence expenditure burdens. Hence the prioritarian model is unfair to the United States. This concern is correct that the prioritarian model does not address (alleged) free-riding by non-U.S. allies on the U.S. military capabilities. The model declines to do so for two reasons.

First, the views of observers like Trump notwithstanding, it remains controversial whether the United States is actually being treated unfairly simply due to the fact that the defence spending of most NATO allies has historically fallen short of the two-percent objective, while U.S. defence spending has historically fallen above that objective (Kim and Sandler 2020). This is because the United States is a *global* power with a corresponding set of *global* security interests and commitments, including a number of other, non-NATO military alliances. In light of this global hegemony, the United States allocates its defence resources accordingly: that is, in a strategically diffuse and diverse manner across the entire international system (Plümper & Neumayer 2015). Non-U.S. NATO members, by contrast, are either regional powers (like Poland and Spain in their respective regions) or limited expeditionary powers (like France in the Maghreb and Sahel). Most of the defence spending of such non-U.S. allies, including of the limited expeditionary powers, is going to be aimed at 'local' – e.g., North Atlantic, or Eastern European, or Western Mediterranean – security needs that fall within the geographical scope of application of NATO's founding treaty. The implication is that U.S. defence spending, taken in isolation, is a misleading indicator

of the *de facto* alliance burden borne by the United States, since that defence spending is not aimed only at defending actual NATO territory (as is the defence spending of most non-U.S. allies).

Second, even if were an accurate indicator, it is far from certain that there has in fact been persistent free-riding by non-U.S. allies after the first two decades of the Cold War, and particularly following the 1966 introduction of the alliance's new strategic doctrine of Flexible Response (Kim & Sandler 2020). In reality, it seems that free-riding has been, at most, sporadic throughout this period, and generally more the exception than the rule. The prioritarian model, then, would not be treating the United States – the wealthiest country in world history and one of the least externally threatened of any historical great power – unfairly in requiring it to assist its least economically developed and most externally threatened allies to meet their defence expenditure obligations. Such a requirement is, after all, for the collective good of the alliance as a whole; an alliance that, it bears remembering, the United States has relied upon for well over seven decades both as an indispensable instrument for realising its national interests on the European continent and as the multilateral foundation of its longstanding commitment to transatlantic security.

Conclusion

This article has argued that what I have called the proportional model of NATO burden-sharing, which obligates each NATO member to allocate at least 2 percent of its GDP to defence expenditure, is from a purely ethical standpoint seriously flawed. This is because the proportional model omits from its approach to distributing the burdens of collective defence two morally relevant ally-level characteristics: namely, individual level of economic development and individual level of external threat. The model therefore treats unfairly both those allies characterised by especially low levels of economic development and those allies characterised by especially high levels of external threat, relative in each case to the alliance-wide average.

The article has gone on to propose that the proportional model be replaced by that I have called the prioritarian model of NATO burden-sharing, which is grounded in the normative theory of prioritarianism from the distributive justice literature. The prioritarian model would improve upon the proportional model by incorporating the aforementioned two ally-level characteristics – level of economic development and level of external threat – into its burden-sharing system in the form of a pair of action-guiding prescriptions. Due to the deliberately limited and predominantly theoretical aims of the article, I have remained agnostic as to how these prescriptions, and the prioritarian model as a whole, could or should be translated into concrete NATO policy in the form of a novel burden-sharing regime.

Notwithstanding this reluctance to wade into complex matters of practical implementation, it follows emphatically if implicitly from the article's arguments and conclusions that NATO, in the form in which it presently exists, has a demonstrable moral obligation to shift its burden-sharing system from the current proportional model to some version of the prioritarian model as soon as it is reasonably feasible to do so and, preferably, in the near-term future. This implication should be taken seriously and in good faith by the alliance and, in particular, by those among its members that enjoy especially high levels of economic development and especially low levels of external threat. It is these members that are failing to contribute their fair share to the project of multilateral collective defence and thereby failing those among their allies that suffer especially low levels of economic development and especially high levels of external threat. Clearly this institutionalised inequity is not a promising strategy for the cultivation and sustainment of robust inter-ally cooperation and solidarity at a time in which large-scale armed conflict has returned to the European continent and an overwhelming majority of allies are being compelled to increase their defence spending while simultaneously dealing with an unprecedented energy crisis and the omnipresent threat of food supply shortages. In such ominous and volatile times, ally-level financial burdens inevitably become weightier, but so too do the moral obligations of those best able to bear these burdens. NATO's future capacity to help restore peace to the region may very well begin with a genuine organisational readiness to embrace a fairer version of itself.

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