### 1AC

#### The standard is maximizing expected well-being.

#### 1] Only pleasure and pain are intrinsically valuable – all other frameworks collapse.

Moen 16 [Ole Martin Moen, Research Fellow in Philosophy at University of Oslo “An Argument for Hedonism” Journal of Value Inquiry (Springer), 50 (2) 2016: 267–281] TDI

Let us start by observing, empirically, that a widely shared judgment about intrinsic value and disvalue is that **pleasure is intrinsically valuable and pain is intrinsically disvaluable**. On virtually any proposed list of intrinsic values and disvalues (we will look at some of them below), pleasure is included among the intrinsic values and pain among the intrinsic disvalues. This inclusion makes intuitive sense, moreover, for **there is something undeniably good about the way pleasure feels and something undeniably bad about the way pain feels**, and neither the goodness of pleasure nor the badness of pain seems to be exhausted by the further effects that these experiences might have. “Pleasure” and “pain” are here understood inclusively, as encompassing anything hedonically positive and anything hedonically negative.2 **The special value statuses of pleasure and pain are manifested in how we treat these experiences in our everyday reasoning about values.** If you tell me that you are heading for the convenience store, I might ask: “What for?” This is a reasonable question, for when you go to the convenience store you usually do so, not merely for the sake of going to the convenience store, but for the sake of achieving something further that you deem to be valuable. You might answer, for example: “To buy soda.” This answer makes sense, for soda is a nice thing and you can get it at the convenience store. I might further inquire, however: “What is buying the soda good for?” This further question can also be a reasonable one, for it need not be obvious why you want the soda. You might answer: “Well, I want it for the pleasure of drinking it.” If I then proceed by asking “But what is the pleasure of drinking the soda good for?” the discussion is likely to reach an awkward end. The reason is that the **pleasure is not good for anything further**; it is simply that for which going to the convenience store and buying the soda is good.3 As Aristotle observes: “We never ask [a man] what his end is in being pleased, because we assume that pleasure is choice worthy in itself.”4 Presumably, a similar story can be told in the case of pains, for if someone says “This is painful!” we never respond by asking: “And why is that a problem?” We take for granted that if something is painful, we have a sufficient explanation of why it is bad. If we are onto something in our everyday reasoning about values, it seems that **pleasure and pain are both places where we reach the end of the line in matters of value.**

#### 2] Extinction first --- moral uncertainty.

**Bostrom 12** [(Nick Bostrom, Faculty of Philosophy & Oxford Martin School University of Oxford) “Existential Risk Prevention as Global Priority.” Global Policy, 2012] TDI

#### These reflections on moral uncertainty suggest an alternative, complementary way of looking at existential risk; they also suggest a new way of thinking about the ideal of sustainability. Let me elaborate. Our present understanding of axiology might well be confused. We may not now know — at least not in concrete detail — what outcomes would count as a big win for humanity; we might not even yet be able to imagine the best ends of our journey. If we are indeed profoundly uncertain about our ultimate aims, then we should recognize that there is a great option value in preserving — and ideally improving — our ability to recognize value and to steer the future accordingly. Ensuring that there will be a future version of humanity with great powers and a propensity to use them wisely is plausibly the best way available to us to increase the probability that the future will contain a lot of value. To do this, we must prevent any existential catastrophe.

#### 3] Actor specificity:

#### A] Governments must aggregate since every policy benefit some and harms others, which also means side constraints freeze action. B] States lack wills or intentions since policies are collective actions. C] Actor-specificity comes first since different agents have different ethical standings.

### Plan

#### Plan: The member nations of the World Trade Organization ought to reduce intellectual property protections for medicines related to the prevention, containment, and treatment of COVID-19.

#### Enforcement is done through waiving TRIPS protections and modifying relevant domestic law to ensure patent protections are reduced---spec is delineated in the card.

Jones et al. 21, Mike Jones, J.D., cum laude, Brooklyn Law School, 2014. Sean McConnell, University of Pittsburgh School of Law, J.D., 2002. Lauren Giambalvo, University of Georgia School of Law, J.D., magna cum laude, Order of the Coif, 2019; Georgia Law Review. Emily Harmon, Villanova University Charles Widger School of Law, J.D., 2020. Ipwatchdog, August 9, 2021. “What is a ‘Patent Waiver’ Anyway? Zooming Out on the TRIPS COVID IP Waiver Debate” <https://www.ipwatchdog.com/2021/08/09/patent-waiver-anyway-zooming-trips-covid-ipwaiver-debate/id=136381/> brett

Scientists, engineers, and everyday people have developed solutions for testing, preventing, and treating the COVID-19 disease. Ordinarily, we wouldn’t think twice about granting patents on these inventions. But, today, when COVID-19 is spreading all over the world and killing millions of people, some world leaders are questioning whether we should be granting the exclusionary rights of patent protection on inventions that help respond to the pandemic. Included in that group is the Biden-Harris Administration, which, in May, announced their support of an “IP waiver” on COVID 19 vaccines.

Patent Waiver

The “patent waiver” is a proposal to waive certain provisions of the Trade-Related Aspects of Intellectual Property (TRIPS) Agreement for three years. The TRIPS Agreement requires certain member countries (“Members”), including the United States, to have certain minimum intellectual property protections. While this proposal is often referred to as a “patent waiver,” the proposal would also waive sections associated with copyright, industrial designs, and undisclosed information.

The proposal seeks to waive Part II, Section 5 Patents of the TRIPS Agreement and the associated enforcement sections only with respect to “health products and technologies including diagnostics, therapeutics, vaccines, medical devices, personal protective equipment, their materials or components, and their methods and means of manufacture for the prevention, treatment or containment of COVID-19” for a period of three years. Article 27 of Section 5 requires that certain Members issue patents to inventions that “are new, involve an inventive step and are capable of industrial application.” However, Members have the option to refuse to grant patents to certain categories of inventions, including, “diagnostic, therapeutic and surgical methods for the treatment of humans or animals.” Article 28 explains that an owner of a patent can prevent others from “making, using, offering for sale, selling, or importing” (“infringing”) the patented inventions. Finally, Part III of the TRIPS Agreement explains the potential consequences of infringing a patent. Among other things, the infringer can be liable for money damages and the judicial authority of the Member may order injunctions.

Therefore, as the TRIPS Agreement currently stands, each Member must have patent laws that give patents to inventions that meet certain requirements, and each must provide avenues for patent holders to enforce its patent rights. As applied to the current situation, Members are required to grant patents to qualifying inventions related to “the prevention, containment and treatment of COVID-19” (with exceptions for pharmaceuticals if the Member does not allow pharmaceutical patents). Infringers could be liable for money damages and the judicial authority of the Member may order injunctions.

If provisions in Part II, Section 5 and the associated enforcement sections are waived, Members would no longer be required to issue patents or provide avenues for patent holders to enforce patent rights. The proposal does not, however, require Members to waive their own domestic patent rights. In other words, the proposal to waive certain provisions of the TRIPS Agreement, the “patent waiver,” does not directly waive any patent protections. Rather, the patent waiver grants to Members permission to waive their own domestic patent protections.

Patent laws are geographically limited; they only protect an invention in the country that issued the patent. For example, one cannot make, use, offer to sell, sell, or import an invention protected only by a U.S. patent in the U.S; however, one may do those things in another country where corresponding patent protection does not exist. Therefore, in order to waive patent protections worldwide, each Member subject the TRIPS Agreement’s requirement to have certain minimum intellectual property protection would have to waive its own domestic patent protections.

The United States patent laws are codified in Title 35 to the U.S. Code. It provides that inventors may obtain patents for their new and useful inventions and infringers are liable for making, using, offering to sell, selling, or importing into the U.S. patented inventions without the patent holders consent. Because the power to enact patent laws lies with Congress, Congress would likely have to waive these laws. If Congress chooses not to waive the U.S.’s patent laws, patent holders will continue to be able to enforce their U.S. patent rights in the U.S.

#### The plan solves – reducing IP for medicine is consistent with democratic ideals, builds revolutionary movement against neoliberalism, and provides reparations to Global South

[Thomas **Hanna**, 9-21-20**20**, "Democratizing knowledge: Transforming intellectual property and research and development," Democracy Collaborative, [https://democracycollaborative.org/learn/publication/democratizing-knowledge-transforming-intellectual-property-and-research-and //](https://democracycollaborative.org/learn/publication/democratizing-knowledge-transforming-intellectual-property-and-research-and%20//) JB]

* Link turns cap Ks and setcol, read unhighlighted part
* R&D – research and development
* Specs patents

**As countries grapple with** the devastating **challenges of COVID-19** and **we**, hopefully, **move closer towards** the **development of a vaccine, the injustices and insufficiencies of the current approach to IP and R&D are becoming increasingly apparent. It is imperative that we quickly move away from the current system that prioritizes corporate profits sourced from monopoly rights to one that values and centers public health, social equality, and ecological sustainability**.

**The design**, implementation, and governance **of our IP and R&D systems are critically important**. However, the incredible rise of the intangible economy has dramatically altered these systems and our wider economic landscape. **Rather than stimulating and supporting the innovation needed to power the 21st-century digital economy**, the enclosure of **ownership of creations of the mind has been capitalized on to generate vast profits and considerably increase the power and control of a small group of large corporations and their owners. This** has **resulted in** a series of adverse **consequences, from** languishing **innovation to exacerbating racial, economic, gender, and geographic inequality**, to reducing competition, to abusive corporate practices related to workers’ rights, tax justice, and consumer protections. In sum, **it is becoming** increasingly **clear** to observers from **across the political spectrum that the current approach to IP and R&D is not fit for purpose.**

**Given** their inherently **political nature** and central role **in the economic system**, were **our IP and R&D systems to be transformed, they could be harnessed for the common good and to build an equitable, democratic, and environmentally sustainable future for all. Extending principles of democratic ownership is key to this transformation**. From the creation of a public knowledge commons, to substantially increasing public R&D funding, to embedding global solidarity and reparations, to challenging corporate power, to bolstering workers’ rights,

#### Critics of the IP waiver are wrong- it’s the most effective way to combat covid inequality, alternatives fail

Erfani et al, 21

(Parsa Erfani, Fogarty global health scholar1 2, Agnes Binagwaho, vice chancellor2, Mohamed Juldeh Jalloh, vice president3, Muhammad Yunus, chair4, Paul Farmer, professor57, Vanessa Kerry, associate professor810 Harvard Medical School, Boston, USA 2University of Global Health Equity, Rwanda 3Sierra Leone 4Yunus Centre, Bangladesh 5Global Health and Social Medicine, Harvard Medical School, Boston, USA 6Division of Global Health Equity, Brigham and Women’s Hospital, USA 7Partners In Health, USA 8Seed Global Health, USA 9Program in Global Public Policy and Social Change, Harvard Medical School, Boston, USA 10Division of Pulmonary and Critical Care Medicine, Massachusetts General Hospital, USA Intellectual property waiver for covid-19 vaccines will advance global health equity BMJ 2021; 374 doi: https://doi.org/10.1136/bmj.n1837 (Published 03 August 2021) Cite this as: BMJ 2021;374:n1837 https://www.bmj.com/content/374/bmj.n1837.full) The barrier to adequate vaccine supply today is not lack of vaccine options, nor even theoretical production capacity; the problem is the intellectual property (IP) protection governing production and access to vaccines—and ultimately, the political and moral will to waive these protections in a time of global crisis. Without such liberty, there will not be enough vaccine fast enough to prevent the spread of variants, the avoidable deaths, and the continued choking of low and middle income countries (LMICs) through poor health. Beyond donor based models of global vaccine equity As covid-19 became a pandemic, global efforts emerged to help ensure vaccines would be delivered across the globe to the highest risk populations. One of the first was Covax, a risk sharing mechanism in which countries, tiered by means, contribute to collectively source and equitably distribute vaccines globally. The effort, however laudable in intent, has been undercut by vaccine scarcity and underfunding. Covax aims to vaccinate 20% of the population in 92 low and middle income countries by the end of 2021. At the end of April, however, it had shipped only one fifth of its projected estimates and lacked critical resources for distribution.3 LMICs are wary about participating in well worn dynamics of global health aid. Instead, they are mobilising to overcome the fundamental paucity of available vaccines by challenging established global IP rules. At issue is the 1995 Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement, which established minimum protection standards for IP—including patents, industrial designs, trade secrets, and copyright—that all 164 members of the World Trade Organization (WTO) must respect.5 Subsequent rulings (such as the Doha declaration) have strived to clarify safeguards on patents, including compulsory licensing, which allows governments to license patents to a third party without consent (table 1).6 Today, these rules provide strong IP protection for vaccine technologies and affect the quantity and location of vaccine production and availability. Table 1 Licensing of intellectual property View popupView inline In October 2020, South Africa and India submitted a proposal to the WTO to temporarily waive certain provisions of the TRIPS agreement for covid-19 health products and technologies. The waiver would prevent companies that hold the IP for covid-19 vaccines from blocking vaccine production elsewhere on the grounds of IP and allow countries to produce covid-19 medical goods locally and import or export them expeditiously (table 1). Although the proposed IP waiver is supported by over 100 countries, WTO has not reached a consensus on the proposal because of opposition and filibustering by several high income countries, including the UK, Germany, and Japan.7 Waiver opponents argue that the limited capacity of LMICs to produce complex covid-19 vaccines safely is the true barrier to global production, not IP. They suggest that the TRIPS waiver would penalise drug companies, stifle biomedical innovation, and deter future investments in research and development—in sum, that it would reduce returns on investment and dismantle an IP system that provided the goods needed to end the pandemic. Others are concerned that an IP waiver would fuel supply chain bottlenecks for raw materials and undermine ongoing production. Moreover, policy makers argue that a waiver is unnecessary as company driven voluntary licensing—in which companies decide when and how to license their technologies—and existing TRIPS flexibilities (such as country determined compulsory licensing) should suffice in establishing production in LMICs (table 1). They suggest that waiving IP for covid-19 vaccines would provide no meaningful progress, but the data do not support this. What effect would a waiver have? Contrary to detractors’ concerns about the possible effect of a temporary TRIPS waiver, global health analyses suggest that it will be vital to equitable and effective action against covid-19. LMIC’s manufacturing capabilities have been underestimated, even though several LMICs have the scientific and manufacturing capacity to produce complex covid-19 vaccines. India, Egypt, and Thailand are already manufacturing viral vector or mRNA-based covid-19 vaccines,8910 and vaccine production lines could be established within months in some other LMICs,11 offering substantial benefit in a pandemic that will last years.11 Companies in India and China have already developed complex pneumococcal and hepatitis B recombinant vaccines, challenging existing vaccine monopolies.12 The World Health Organization launched an mRNA technology transfer hub in April 2021 to provide the logistical, training, and know-how support needed for manufacturers in LMICs to repurpose or expand existing manufacturing capacity to produce covid-19 vaccines and to help navigate accessing IP rights for the technology.13 Twenty five respondents from LMICs expressed interest, and South Africa was selected as the first hub, with plans to start producing the vaccine through the Biovac Institute in the coming months.14 Removing IP barriers through the waiver will facilitate these efforts, more rapidly enable future hubs, engage a greater number of manufacturers, and ultimately yield more doses faster. Moreover, as the waiver facilitates vaccine production, demand for raw materials and active ingredients will increase. Coupled with pre-emptive planning to anticipate and expand raw material production, the waiver—which encompasses the IP of all covid-19 vaccine-related technology— can offer a path to overcome bottlenecks and expand production of necessary vaccine materials. Current licensing mechanisms inadequate Voluntary licences have not and will not keep pace with public health demand. Since companies determine the terms of voluntary licences, they are often granted to LMICs that can afford them, leaving out poorer regions.10 For example, in South Asia, AstraZeneca has voluntarily licensed its vaccine to the Serum Institute of India, even though the region has multiple capable vaccine manufacturers.9 Many covid-19 vaccine developers have not taken steps towards licensing their technologies, simply because there is limited financial incentive to do so.11 To date, none have shared IP protected vaccine information with the WHO Covid-19 Technology Access Pool (C-TAP) established last year.15 Relying on the moral compass of companies that answer to shareholders to voluntarily license their technologies will have limited effect on vaccine equity. Their market is driven by profit margins, not public health. Compulsory licensing by LMICs will also be insufficient in rapidly expanding vaccine production, as each patent licence must be negotiated separately by each country and for each product based on its own merit. From 1995 to 2016, 108 compulsory licences were attempted and only 53 were approved.6 The case-by-case approach is slow and not suitable for a global crisis that requires swift action. In addition, TRIPS requires compulsory licences to be used predominantly for domestic supply, limiting exports of the licensed goods to nearby low income countries without production capacity.5 Although a “special” compulsory licence system was agreed in the Doha declaration to allow for expeditious exportation and importation (formalised as the article 31bis amendment to TRIPS in 2017), the provision is limited by cumbersome logistical procedures and has been rarely used.16 Governments may also be hesitant to pursue compulsory licences as high income countries have previously bullied them for doing so. Since India first used compulsory licensing for sorafenib tosylate in 2012 (reducing the cancer drug’s price by 97%), the US has consistently pressured the country not to use further compulsory licences.17 During this pandemic, Gilead sued the Russian government for issuing a compulsory licence for remdesivir.18 Furthermore, while compulsory licences are primarily for patents, covid-19 vaccines often have other types of IP, including trade secrets, that are integral for production.19 The emergency TRIPS waiver removes all IP as a barrier to starting production (not just patents) and negates the prolonged time, inconsistency, frequent failure, and political pressure that accompany voluntary licensing and compulsory licensing efforts. It also provides an expeditious path for new suppliers to import and export vaccines to countries in need without bureaucratic limitations. Finally, there is no compelling evidence that the proposed TRIPS waiver would dismantle the IP system and its innovation incentives. The waiver is restricted to covid-19 related goods and is time limited, helping to protect future innovation. It would, however, reduce profit margins on current covid-19 vaccines. With substantial earnings in the first quarter of 2021, many drug companies have already recouped their research and development costs for covid-19 vaccines.20 However, they have not been the sole investors in vaccine development, and they should not be the only ones to profit. Most vaccines received a substantial portion of their direct funding from governments and not-for-profit organisations—and for some, such as Moderna and Novavax, nearly all.21 Decades of publicly funded research have laid the groundwork for current innovations in the background technologies used for vaccines.22 Given that companies were granted upfront risk protection for covid-19 vaccine research and development, a waiver that advances global public health but reduces vaccine profits in a global crisis is reasonable. Knowledge transfer An IP waiver for covid-19 vaccines is integral to boosting vaccine supply, breaking vaccine monopolies, and making vaccines more affordable in LMICs. It is, however, only a first, but necessary, step. Originator companies must transfer vaccine technology and share know-how with C-TAP, transfer hubs, or individual manufacturers to help suppliers begin production.23 In addition, governments must leverage domestic law, private sector incentives, and contract terms with pharmaceutical companies to compel companies to cooperate with such transfers.24 If necessary, governments can require technology transfers in exchange for continuing enterprise in a country or avoiding penalties. Politicians and leaders are at a critical juncture: they will either take the necessary steps to make vaccine technology available to scale production, stimulate global collaboration, and create a path to equity or they will protect a hierarchical system based on an economic bottom line. The former will not only build a vaccination trajectory that puts equal value on the lives of the rich and the poor, but will also help stem the pandemic’s relentless momentum and quell the emergence of variants. We are in the middle of one of the largest vaccination efforts in human history. We cannot rely on companies to thread the needle of corporate social and moral responsibility with shareholder and stock value returns nor expect impacted governments to endure lengthy bureaucratic licensing processes in this time of crisis. It will be a legacy of apathy and unnecessary death. As the human impact of the proposed IP waiver becomes clear, consensus behind it is growing. Countries that previously opposed the waiver—such as the US and Brazil—now support written text based negotiations.7 Opposing countries must stop blocking the waiver, engage in transparent text negotiations, and commit to reaching consensus swiftly. The longer states stall, the more people die needlessly. Covid-19 has repeatedly shown that people without access to resources such as strong health systems, health workers, medicines, and vaccines will preferentially fall ill and die. For too long, this cycle has been “other people’s” problem. It is not. It is our problem.

#### Squo medical innovation causes inequality which the aff corrects.

Parthasarathy 20 – Shobita Parthasarathy is Professor of Public Policy and Director of the Science, Technology, and Public Policy Program at University of Michigan. (“Innovation Policy, Structural Inequality, and COVID-19,” 2020, pg. 105-107) julian

(1) Minimal Funding for Health Disparities Research. The US approach to research funding has left us unprepared for and unable to manage the disproportionate health impacts of the virus among people of color, especially Black communities. The NIH, the world’s largest public funder of biomedical research, devotes little money to this subject. One analysis found that it spends 500 times more on genetics research as on structural racism and its impacts on health (Krieger 2005). This is not surprising in a system where scientists drive funding priorities, and where investigators from historically disadvantaged minority groups struggle to receive funding. The needs and concerns of disadvantaged minorities may seem less important or urgent to most scientists (Shavers et al. 2005). But this scarcity has left us without the evidence to understand why communities of color are disproportionately suffering and dying from COVID-19, or what steps to take to address this imbalance.

2) Uncoordinated Research and Development Creates Uneven Access to Diagnostic Testing. Absent the “rigid controls” that Bush dismissed, the US innovation system is highly decentralized and market-driven. So, diagnostic testing for SARS-CoV-2 (the virus that causes COVID-19) has been essentially impossible to coordinate. Traditionally, the Centers for Disease Control and Prevention and public laboratories funded by state and local governments lead infectious disease surveillance, but they have limited capacity (Crawford et al. 2010). The COVID-19 pandemic created demand that far outstripped what these laboratories could provide, but there was no systematic way to expand capacity. A variety of laboratories, including at universities, stepped up, but it remains difficult to connect supply and demand (Maxmen 2020). Different electronic records platforms cannot communicate. Some hospitals have exclusive partnerships with big commercial laboratories. And, even as testing has become more available, white and higher income communities gain access more easily (McMinn et al. 2020).

By contrast, South Korea has been widely praised for its SAR-CoV-2 testing strategy (Thompson 2020). Three weeks after the Chinese government shared the virus’s genome sequence on January 12, the South Korean government approved multiple diagnostic tests developed by its biotechnology sector (The Government of the Republic of Korea 2020). The country’s National Health Insurance Corporation purchased and distributed them. Ultimately, testing was plentiful and widespread, and the government implemented a companion contact-tracing program that minimized the number of COVID-19 cases and deaths.

Certainly, South Korea has learned from its experiences with previous coronaviruses, and benefits from a nationally coordinated healthcare system. But the rapid and straightforward development and distribution of diagnostic testing is also the result of a different approach to innovation policy than what the United States has taken up. Since the 1960s, South Korea’s government has played a major role in shaping research and development including in the industrial sector, by building capacity and setting priorities (Yim and Kim 2005). Government and industry have close professional ties and a sense of shared goals. In the years before COVID-19, for example, the South Korean government funded multiple companies developing viral diagnostic testing (The Government of the Republic of Korea 2020). With these relationships, technologies, and coordination with the healthcare system established, the government was able to immediately ask the private sector to develop SARS-CoV-2 tests. Three of the first five companies to receive emergency regulatory approval had received government funding for their diagnostics research. This proactive capacity building ensured that there was no need to ration testing, and therefore no inequality in access.

(3) Patent Policies Limit Access to Essential Technologies. While patents provide an incentive to innovate, the exclusive rights of commercialization they carry can make the most valuable technologies the most expensive. There is growing concern that COVID-19 treatments and vaccines will be priced out of reach for many, despite their importance for public health and economic recovery. Consider the case of remdesivir, a promising COVID-19 treatment developed with the help of US government and university scientists but which biotechnology company Gilead Sciences has patented and commercialized (Ardizzone 2020). Gilead has a long history of charging high prices for its patented drugs, including hepatitis C drug Sovaldi which costs $84,000 for a 12-week course of treatment (Senior 2014). The company must now balance pressure from its investors against its interpretation of civic duty as it determines pricing for this promising COVID-19 drug.

#### The plan creates a new goldilocks patent law that exempts pandemics

Lindsey, JD Harvard, 21

Takes out innovtion DA –

(Brink, <https://www.brookings.edu/blog/up-front/2021/06/03/why-intellectual-property-and-pandemics-dont-mix/>, 6-3) Recut Lex AKu

Waiving patent protections is certainly no panacea. What is needed most urgently is a massive drive of technology transfer, capacity expansion, and supply line coordination to bring vaccine supply in line with global demand. Dispensing with patents in no way obviates the need for governments to fund and oversee this effort. Although focusing on these immediate constraints is vital, we cannot confine our attention to the short term. First of all, the COVID-19 pandemic is far from over. Although Americans can now see the light at the end of the tunnel thanks to the rapid rollout of vaccines, most of the world isn’t so lucky. The virus is currently raging in India and throughout South America, overwhelming health care systems and inflicting suffering and loss on a horrific scale. And consider the fact that Australia, which has been successful in suppressing the virus, recently announced it was sticking to plans to keep its borders closed until mid-2022. Criticisms of the TRIPS waiver that focus only on the next few months are therefore short-sighted: this pandemic could well drag on long enough for elimination of patent restrictions to enable new vaccine producers to make a positive difference. Furthermore, and probably even more important, this is almost certainly not the last pandemic we will face. Urbanization, the spread of factory-farming methods, and globalization all combine to increase the odds that a new virus will make the jump from animals to humans and then spread rapidly around the world. Prior to the current pandemic, the 21st century already saw outbreaks of SARS, H1N1, MERS, and Ebola. Everything we do and learn in the current crisis should be viewed from the perspective of getting ready for next time. THE NATURE OF THE PATENT BARGAIN When we take the longer view, we can see a fundamental mismatch between the policy design of intellectual property protection and the policy requirements of effective pandemic response. Although patent law, properly restrained, constitutes one important element of a well-designed national innovation system, the way it goes about encouraging technological progress is singularly ill-suited to the emergency conditions of a pandemic or other public health crisis. Securing a TRIPS waiver for COVID-19 vaccines and treatments would thus establish a salutary precedent that, in emergencies of this kind, governments should employ other, more direct means to incentivize the development of new drugs. Here is the basic bargain offered by patent law: encourage the creation of useful new ideas for the long run by slowing the diffusion of useful new ideas in the short run. The second half of the bargain, the half that imposes costs on society, comes from the temporary exclusive rights, or monopoly privileges, that a patent holder enjoys. Under U.S. patent law, for a period of 20 years nobody else can manufacture or sell the patented product without the permission of the patent holder. This allows the patent holder to block competitors from the market, or extract licensing fees before allowing them to enter, and consequently charge above-market prices to its customers. Patent rights thus slow the diffusion of a new invention by restricting output and raising prices. The imposition of these short-run costs, however, can bring net long-term benefits by sharpening the incentives to invent new products. In the absence of patent protection, the prospect of easy imitation by later market entrants can deter would-be innovators from incurring the up-front fixed costs of research and development. But with a guaranteed period of market exclusivity, inventors can proceed with greater confidence that they will be able to recoup their investment. For the tradeoff between costs and benefits to come out positive on net, patent law must strike the right balance. Exclusive rights should be valuable enough to encourage greater innovation, but not so easily granted or extensive in scope or term that this encouragement is outweighed by output restrictions on the patented product and discouragement of downstream innovations dependent on access to the patented technology. Unfortunately, the U.S. patent system at present is out of balance. Over the past few decades, the expansion of patentability to include software and business methods as well as a general relaxation of patenting requirements have led to wildly excessive growth in these temporary monopolies: the number of patents granted annually has skyrocketed roughly fivefold since the early 1980s. One unfortunate result has been the rise of “non-practicing entities,” better known as patent trolls: firms that make nothing themselves but buy up patent portfolios and monetize them through aggressive litigation. As a result, a law that is supposed to encourage innovation has turned into a legal minefield for many would-be innovators. In the pharmaceutical industry, firms have abused the law by piling up patents for trivial, therapeutically irrelevant “innovations” that allow them to extend their monopolies and keep raising prices long beyond the statutorily contemplated 20 years. Patent law is creating these unintended consequences because policymakers have been caught in an ideological fog that conflates “intellectual property” with actual property rights over physical objects. Enveloped in that fog, they regard any attempts to put limits on patent monopolies as attacks on private property and view ongoing expansions of patent privileges as necessary to keep innovation from grinding to a halt. In fact, patent law is a tool of regulatory policy with the usual tradeoffs between costs and benefits; like all tools, it can be misused, and as with all tools there are some jobs for which other tools are better suited. A well-designed patent system, in which benefits are maximized and costs kept to a minimum, is just one of various policy options that governments can employ to stimulate technological advance—including tax credits for R&D, prizes for targeted inventions, and direct government support. PUBLIC HEALTH EMERGENCIES AND DIRECT GOVERNMENT SUPPORT For pandemics and other public health emergencies, patents’ mix of costs and benefits is misaligned with what is needed for an effective policy response. The basic patent bargain, even when well struck, is to pay for more innovation down the road with slower diffusion of innovation today. In the context of a pandemic, that bargain is a bad one and should be rejected entirely. Here the imperative is to accelerate the diffusion of vaccines and other treatments, not slow it down. Giving drug companies the power to hold things up by blocking competitors and raising prices pushes in the completely wrong direction.

### Adv – South Africa

#### COVID is pummeling South Africa’s fragile economy and fueling the worst rioting since 1994.

Steinhauser and Parkinson 7/19 [(Gabriele Steinhauser writes about politics and economics in southern Africa and beyond and helps manage The Wall Street Journal's reporters on the continent. Joe Parkinson is the Wall Street Journal’s Africa Bureau Chief, leading a team of correspondents chronicling business, policy and geopolitical trends across the continent. “Third Covid Wave Upends Fragile South Africa, a Warning for Developing World,” The Wall Street Journal, July 19, 2021. <https://www.wsj.com/articles/covid-pandemic-south-africa-riots-a-warning-for-developing-world-11626711622>] TDI

Wave after wave of coronavirus is **pummeling South Africa’s fragile economy** and its largely unvaccinated population, creating a spiral of death, lockdowns and anger that has **fueled the country’s worst rioting** since the collapse of white minority rule in 1994. At least 215 people died in the violence across South Africa’s two most populous provinces, and more than 3,400 have been arrested. While the looting had quieted by Monday, the situation remains tense in parts of the country. Saaberie Chishty paramedic Farah Williams said that after weeks of back-to-back calls from patients, the phones went quiet last week during the riots. The violence was initially sparked by the arrest of former President Jacob Zuma earlier this month, and has exacerbated a power struggle within the African National Congress, South Africa’s ruling party since Nelson Mandela’s election as the country’s first Black president 27 years ago. President Cyril Ramaphosa has said the unrest was an attempted **insurrection against South Africa’s democracy** and intended to sabotage its economy. The political protest quickly devolved, becoming an outlet for the frustrations of an impoverished majority long **shut out of the country’s economy**. South Africa is struggling to emerge from a **record contraction of 7%** last year. Each surge of Covid-19 and the subsequent lockdowns are **putting more pressure on the divided nation**, where **43% of workers were without a job** at the end of March. “We were sitting on a dormant volcano here, where **all of us might perish** if it erupts,” said Xolani Dube, a political analyst with the Xubera Institute for Research and Development, a nonpartisan think tank in the southeastern city of Durban. “**Now the volcano has erupted**.” The human and economic dislocation in South Africa, where just 2.8% of people have been fully vaccinated against Covid-19, shows how difficult it will be for many **emerging economies to recover from the pandemic.** The violence in South Africa—as well as in countries including Colombia and Sudan—offers a stark example of how diminishing incomes and the rising cost of food are adding to more than a year of pandemic suffering, **exacerbating political instability.** The World Bank estimates that more than 160 million people will have been pushed into poverty as a result of Covid by the end of 2021, widening the gap between the world’s richest and poorest nations. The pandemic has **led 41 million people to the brink of famine**, according to the World Food Program.

#### Great power war

Yeisley 11 [(USAF Lieutenant Colonel Mark O. Yeisley, assistant professor of international relations at the School of Advanced Air and Space Studies, Maxwell AFB, Alabama. MA Colorado State, PhD in international relations from Duke University) “Bipolarity, Proxy Wars, and the Rise of China,” Strategic Studies Quarterly, Winter 2011, https://www.jstor.org/stable/26270538?seq=1#metadata\_info\_tab\_contents] TDI

Bipolarity, Nuclear Weapons, and Sino-US Proxy Conflict in Africa It is likely China will achieve economic and then military parity with the United States in the next two decades. China currently possesses 240 nuclear warheads and 135 ballistic missiles capable of reaching the United States or its allies; that number of nuclear warheads is estimated to double by the mid 2020s.43 As during the Cold War, a bipolar system in which war between the United States and China is too costly will lead to policy decisions that seek conflict resolution elsewhere.44 But why would China’s rising necessarily lead to geostrategic competition with the United States, and where would this most likely occur? Unlike the Cold War, access to strategic resources rather than ideology would lie at the heart of future US-Sino competition, and the new “great game” will most likely be played in Africa. Despite Communist Party control of its government, China is not interested in spreading its version of communism and is much more pragmatic in its objectives—securing resources to meet the needs of its citizens and improve their standard of living.45 Some estimates show that China will overtake the United States to become the world’s largest economy by 2015, and rising powers usually take the necessary steps to “ensure markets, materials, and transportation routes.”46 China is the leading global consumer of aluminum, copper, lead, nickel, zinc, tin, and iron ore, and its metal needs now represent more than 25 percent of the world’s total.47 In contrast, from 1970 to 1995, US consumption of all materials, including metals, accounted for one-third of the global total despite representing only 5 percent of the world’s population.48 China is the largest energy consumer, according to the International Energy Agency, surpassing the United States in consumption of oil, coal, and natural gas in 2009.49 As the two largest consumers of both global energy and materials, the United States and China must seek foreign policy prescriptions to fulfill future resource needs. While the United States can alleviate some of its energy needs via bio- or coal-based fuels, hydrogen, or natural gas alternatives, China currently lacks the technological know-how to do so and remains tied to a mainly nonrenewable energy resource base. Since the majority of these needs are nonrenewable, competition of necessity will be zero-sum and will be conducted via all instruments of power.50 Africa is home to a wealth of mineral and energy resources, much of which still remains largely unexploited. Seven African states possess huge endowments of oil, and four of these have equally substantial amounts of natural gas.51 Africa also enjoys large deposits of bauxite (used to make aluminum), copper, lead, nickel, zinc, and iron ore, all of which are imported and highly desired by China. Recent activity serves to prove that China seeks greater access to natural resources in Africa by avidly promoting Chinese development in a large number of African nations. South Africa, the continent’s largest economy, has recently allowed China to help develop its vast mineral wealth; it is China’s number one African source of manganese, iron, and copper.52 Chinese involvement in Africa is not wholly extractive; the continent provides a booming export market for China’s goods and a forum to augment its soft power in the region by offering alternatives to the political and economic baggage that accompanies US foreign aid.53 Of primary interest is open access to Africa’s significant deposits of oil and other energy resources. For example, China has 4,000 military personnel in Sudan to protect its interests in energy and mineral investments there; it also owns 40 percent of the Greater Nile Oil Production Company.54 Estimates indicate that within the next few decades China will obtain 40 percent of its oil and gas supplies from Africa.55 Trade and investment in Africa have also been on the rise; trade has grown more than 10 percent annually in the past decade. Between 2002 and 2004, African exports to China doubled, ranking it third behind the United States and France in trade with the continent. Chinese investment is also growing; more than 700 Chinese business operations across Africa total over $1 billion. Aid and direct economic assistance are increasing as well, and China has forgiven the debt of some 31 African nations.56 Africa is thus a vital foreign interest for the Chinese and must be for the United States; access to its mineral and petroleum wealth is crucial to the survival of each.57 Although the US and Chinese economies are tightly interconnected, the nonrenewable nature of these assets means competition will remain a zero-sum game. Nearly all African states have been independent entities for less than 50 years; consolidating robust domestic state institutions and stable governments remains problematic.58 Studies have shown that weak governments are often prime targets for civil conflicts that prove costly to control.59 Many African nations possess both strategic resources and weak regimes, making them vulnerable to internal conflict and thus valuable candidates for assistance from China or the United States to help settle their domestic grievances. With access to African resources of vital strategic interest to each side, competition could likely occur by proxy via diplomatic, economic, or military assistance to one (or both) of the parties involved. Realist claims that focusing on third-world issues is misplaced are thus fallacious; war in a future US-China bipolar system remains as costly as it was during the Cold War. Because of the fragile nature of many African regimes, domestic grievances are more prone to result in conflict; US and Chinese strategic interests will dictate an intrusive foreign policy to be both prudent and vital. US-Sino proxy conflicts over control of African resources will likely become necessary if these great powers are to sustain their national security postures, especially in terms of strategic defense.60

### Adv—India

#### India is in crisis – their infrastructure cannot solve for covid without increased vaccination rates. Modi has been inffective, killing credibility and increasing covid

New York Times, 9/17, What to Know About India’s Coronavirus Crisis, https://www.nytimes.com/article/india-coronavirus-cases-deaths.html,

A deadly second wave of [coronavirus](https://www.nytimes.com/2021/08/17/world/asia/india-covid-19.html) infections is devastating [India](https://www.nytimes.com/2021/08/17/world/asia/india-covid-19.html), leaving millions of people infected and putting stress on the country’s already overtaxed health care system. Officially, by late May, about 27 million infections had been confirmed and more than 300,000 people were dead, but experts said the [actual figures were most likely much higher](https://www.nytimes.com/interactive/2021/05/25/world/asia/india-covid-death-estimates.html). At one point, India had been responsible for more than half of the world’s daily [Covid-19](https://www.nytimes.com/2021/08/31/business/economy/india-economy-covid.html) cases and set a record-breaking pace of about 400,000 a day.The official numbers show signs of easing. The major cities of Delhi and Mumbai, hit hard at the beginning of the second wave, have reported sharp drops in new infections and deaths. [On May 31, Delhi lifted restrictions on manufacturing and construction](https://www.nytimes.com/2021/05/31/world/asia/india-covid.html), critical drivers of an economy that has been battered by the pandemic. But life in the capital city is not expected to return to normal immediately. Schools and most businesses are still closed.Still, the virus is likely spreading through [the rest of the country](https://www.nytimes.com/2021/05/11/world/asia/covid-india-ganges-oxygen.html), and only a tiny portion of the population [has been fully vaccinated](https://www.nytimes.com/2021/05/06/world/asia/india-covid-vaccines.html). For the most up-to-date figures, The New York Times [is tracking the latest case counts here.](https://www.nytimes.com/interactive/2020/world/asia/india-coronavirus-cases.html) Some in India blame a new variant.Months ago, India appeared to be weathering the pandemic. After a harsh initial lockdown, the country did not see an explosion in new cases and deaths comparable to those in other countries.But after the early restrictions were lifted, many Indians stopped taking precautions. Large gatherings, [including political rallies and religious festivals](https://www.nytimes.com/2021/04/09/world/asia/india-covid-vaccine-variant.html?action=click&module=RelatedLinks&pgtype=Article), resumed and drew millions of people. Beginning this spring, the country recorded an exponential jump in cases and deaths.By April, some vaccinated individuals, including 37 doctors at one New Delhi hospital, were found to have contracted the virus, leaving many to wonder if a more contagious variant was behind the second wave.Many in India already assume that the [variant, B.1.617](https://www.nytimes.com/2021/05/14/world/uk-covid-india.html), is responsible for the severity of the second wave. The variant is sometimes called “the double mutant,” though the name is a misnomer because it has many more mutations than two. It garnered the name because one version contains two genetic mutations found in other difficult-to-control variants.Researchers outside of India say the limited data so far suggests instead that the variant called B.1.1.7, which [has affected Britain and the United States](https://www.nytimes.com/2021/04/07/us/politics/coronavirus-variants-cdc.html), is more likely to blame.The World Health Organization has called B.1.617.2 [“a variant of concern”](https://www.nytimes.com/2021/05/10/world/asia/india-covid-virus-variant.html) and said preliminary studies suggested an increased rate of transmission. That research, however, is limited and has not yet been peer reviewed, and scientists caution that other factors could explain the viciousness of the outbreak.Whatever the outcome, the variant is [now spreading in Britain](https://www.nytimes.com/2021/05/24/world/europe/india-uk-variant-vaccine-coronavirus.html), Nepal and other places. Scientists say that the vaccines currently available appear to be effective against it.Critics cite the Modi government’s policies for worsening the crisis.At the center of the India’s crisis is Prime Minister Narendra Modi, who early this year declared victory over the virus.Mr. Modi’s Covid-19 task force did not meet for months. His health minister assured the public in March that India had reached [the pandemic’s “endgame.”](https://pib.gov.in/PressReleasePage.aspx?PRID=1703017) As infections rose, Mr. Modi allowed large gatherings to help his governing Bharatiya Janata Party and burnish its Hindu nationalist credentials. His government approved a Hindu festival with millions of worshipers. He campaigned in state elections without a mask at rallies of thousands of maskless supporters. Critics say his administration was determined to cast an image of India as back on track and open for business despite lingering risks. At one point, officials dismissed warnings by scientists that India’s population remained vulnerable and had not achieved “herd immunity” as some in his administration were suggesting.In an editorial, The Lancet, a medical journal, [wrote](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01052-7/fulltext) that Mr. Modi “seemed more intent on [removing criticism” on social media](https://www.nytimes.com/2021/04/25/business/india-covid19-twitter-facebook.html) than “trying to control the pandemic.” The Indian Medical Association has called for a “complete, well-planned, pre-announced” lockdown.The growing distress across the country has tarnished Mr. Modi’s aura of political invulnerability, which he won by steamrolling the opposition and by leveraging his personal charisma to become India’s most powerful politician in decades. Opposition leaders are on the attack, and his central hold on power has increasingly made him the target of scathing criticism online. In early May, in the first local elections since the start of the second wave, Mr. Modi’s B.J.P. was unable to secure a much-sought-after victory[in West Bengal](https://www.nytimes.com/2021/05/02/world/asia/india-west-bengal-elections-modi.html?searchResultPosition=1), one of India’s most populous states. The B.J.P. won more seats in the local legislature than it did in the last election, but was unable to seize control from the opposition All India Trinamool Congress, an indication of displeasure at Mr. Modi’s handling of the Covid crisis. Government Responsibility[Prime Minister Modi’s](https://www.nytimes.com/2021/05/01/world/asia/india-covid19-modi.html?action=click&module=RelatedLinks&pgtype=Article) critics say that overconfidence and missteps have tarnished his image of invincibility. A shortage of oxygen and hospital beds leaves patients scrambling.Overwhelmed by new cases, Indian hospitals cannot cope with the demand, and patients in many cities have been abandoned to die. Clinics across the country have reported an acute shortage of hospital beds, medicines, protective equipment and oxygen. The Indian government [says that it has enough liquid oxygen](https://indianexpress.com/article/india/coronavirus-second-wave-oxygen-crisis-more-than-supply-lack-of-tankers-and-plant-location-key-challenges-7291716/) to meet medical needs and that it is rapidly expanding its supply. But production facilities are concentrated in eastern India, far from the worst outbreaks in Delhi and in the western state of Maharashtra, and it can take several days for supplies to reach there by road.Families of the sick are filling social media with pleas for oxygen as supplies run low at hospitals or because they are trying to administer care at home. Fraudsters and black marketeers [have emerged](https://www.nytimes.com/2021/05/16/world/asia/india-covid19-black-market.html). Oxygen and beds have become increasingly available in Delhi as new infections have dropped. Still, dire needs remain in other parts of the country.India makes vaccines for the world, but few Indians have been inoculated. India is one of the world’s leading vaccine manufacturers, but it has struggled to inoculate its citizens. New inoculations have fallen as supplies have tightened, leading to temporary closures of vaccination centers in Delhi and some other places. Only about 3 percent of the population has been fully vaccinated. Now, the country’s pain may be felt around the world, especially in poorer countries. India had planned to ship out millions of doses. But given its stark vaccination shortfall, [exports have essentially been shut down](https://www.nytimes.com/2021/03/25/world/asia/india-covid-vaccine-astrazeneca.html), leaving other nations with far fewer doses than they had expected.

#### That causes Indo-Pak conflict escalation.

Somos 20 [Christy Somos is a CTVNews.ca Writer) “COVID-19 has escalated armed conflict in India, Pakistan, Iraq, Libya and the Philippines, study finds,” CTV News, December 17, 2020. <https://www.ctvnews.ca/world/covid-19-has-escalated-armed-conflict-in-india-pakistan-iraq-libya-and-the-philippines-study-finds-1.5236738>] TDI

INDIA India saw a rise in armed conflict during the study period, with violent clashes in the Kashmir region between Kashmiri separatists facing off against the Indian military, as well as **conflicts between Pakistan and India.** “So what mostly drove the increase in conflict intensity…were basically due to two factors,” Ide said. “The first being that there is some evidence that Pakistan sponsors or supports these insurgents in Kashmir, to encourage them to increase their attacks [on Indian forces] because they **perceived them to be weak and struggling with the pandemic**.” The second factor, Ide explained, was that while Indian government enacted a “pretty comprehensive lockdown in Kashmir, and sealing it way from international media attention…**launched more intense counter-insurgency efforts** and…crack[ed] down on any pro-Pakistani sympathy expressions.” IRAQ Iraq had an increase in armed conflict, but Ide noted that the overall intensity did not change that much – a “very slight upward trend” in scale that was not linear. What did increase were attacks by ISIS in April, May, and June. “The Iraqi government was really in trouble,” he said. “They had enormous economic loss, they had to go head-to-head and use troops and funds to combat the pandemic – the international coalition supporting the government partially withdrew troops or stopped their activities.” “The Iraqi government was really in a position of weakness.” Ide said the Islamic State exploited the pandemic and the thin resources at hand to the government to expand territorial control, conquer new areas and to stage more attacks. LIBYA The civil war in Libya between the Government of National Accord’s (GNA) forces and the Libyan National Army escalated during the study period, after a ceasefire brokered in January was broken, Ide said. “As soon as international attention shifted to the pandemic…they really escalated the conflict, tried to make gains while hoping the other side is weakened because of the pandemic, hoping to score an easy military victory” Ide said. “It didn’t happen.” The UN Security Council noted in a May report that the pandemic was bolstering the 15-month conflict, citing the history of more than 850 broken ceasefire agreements and “a tide of civilian deaths” on top of a worsening outbreak. PAKISTAN The ongoing conflict with **India saw a rise in armed conflict in Pakistan** during the study period – which were unrelated to the pandemic, but also a rise in Taliban-affiliated groups and anti-government sentiments due to pandemic restrictions, Ide said. “There were a lot of anti-government grievances,” Ide said. “There were restrictions on religious gatherings, which religious groups did not like, and there were some negative **economic impacts which affected the local people**.” Ide said those two factors could have been exploited by the Taliban in a quest to recruit more followers. Later in the study period, a swath Pakistani government officials were struck with COVID-19, **leaving the country with a leadership crisis**, which saw an increase of attacks by Taliban groups in May.

#### Economic struggles encourage risk-taking and escalates disputes.

**Howell 13** (Patrick Howell – University of Georgia. “Economic Crises and the Initiation of Militarized Disputes,” <https://getd.libs.uga.edu/pdfs/howell_patrick_d_201305_ma.pdf>)

The findings are clear: economic crises are an important trigger for shifts in a state’s rate of dispute initiation. By using a large sample of states over a period of 185 years, this conclusion then can also be taken as generalizable to the entire population of states in the international system. In addition to providing support for issue crossover and the influence economic troubles can play on foreign policy decisions, the findings here also support the methodological rationale for using economic crises as explicit, observable events, instead of as trends in other variables (e.g. GDP growth). Of course, this is not to say that all work on this topic is final. There exist a number of areas where this research agenda can be improved upon and/or extended to in order to provide a more holistic account of where and how economic crises exactly apply political pressure on leaders. First, the study of diversionary war exists in both quantitative tests and in more fine toothed examinations of actual cases (Levy and Vakili 1992; Fravel 2010). Exploring the internal processes within states in such a fashion can also produce a deeper understanding of the exact causal mechanisms through which prospect theory operates. Aggregation and levels of analysis become a basic concern with applying prospect theory outside of the laboratory and to states and governments. After all, “prospect theory is developed as a theory of individual decision making, the question is whether it is applicable to collective decision making” (Vis 2011, 337). Here a unitary actor assumption is made from the outset, but it is also possible that the observed effect is driven instead by individual decision-makers themselves (for example, Fuhrmann and Early 2008, who keep the level of analysis only on President Bush). A deeper case study of a few select cases with an eye towards process might reveal whether the increase in conflict initiation is due to a single policy entrepreneur or leader, or if it is the result of collective behavior (as perhaps even aides, legislators, and bureaucrats seek to compensate for the detrimental effects that accompany an economic crisis separately or in concert). Examination of specific cases might also provide a more accurate picture for policymakers of the strategy that can accompany an economic crisis and inducement of diversionary tendencies in another state. Smith (Smith 1998) hypothesizes diversionary actions as a strategic game, and finds that potential target states should then adopt a policy of strategic avoidance – disengaging from any scenario that might make them a target from a diversionary conflict initiated by an opposing state in dire straits. This question of strategic avoidance occurs most often in the study of the United States (Fordham 2005; Meernik 2005), with evidence that other states avoid and/or initiate fewer disputes with the United States when the American economy is performing poorly. The empirical test here using a proportionbased dependent variable might already be capturing some degree of a strategic avoidance effect, in that some of the variation in the proportion of initiation could be because the rate of other states initiating disputes on the crisis-stricken state is decreasing. If strategic avoidance is occurring, it actually increases the strength of aspects of the diversionary war literature (in that other states are actually behaving according to expectations of diversionary actions), but much more work and nuance would be needed to separate where then the logic in strategic avoiders is originating. The final implication of the findings to be discussed here is the role of institutions in this analysis. As stated above, the institutional controls that were included in the estimation demonstrated null effects on the overall rate of militarized dispute initiation. This finding is interesting considering the enshrined role that institutions and regime types tend to play within scholarly work on diversionary war. Similar to the mixed results of GDP indicators, mixed and contradictory results can be found throughout the body of work on diversionary war: some find that the diversionary effects exist mainly in democratic settings (Gelpi 1997; Davies 2002; Brul´e and Williams 2009), while others find that diversionary effects occur in autocratic settings (Miller 1999; Lai and Slater 2005; Pickering and Kisangani 2010). One method of reconciling the conflicting conclusions of whether democratic or autocratic leaders are more likely to engage in diversionary behavior is in direct tests comparing the two regime types. Typically, these comparisons have either found the two regime types differ in the targets that are selected by each (Bueno De Mesquita and Siverson 1995), or have found some fault with the way that the regime types themselves are defined, due to differing incentives for differing subtypes of regimes (Pickering and Kisangani 2005). In order to examine the difference between democracies and autocracies, I split the sample from Model 2 into either of the regime types, using a score of 6 in the Polity2 measure as a cut-point. Splitting the sample has the effect of interacting regime type with all independent variables, giving regime specific effects not only for economic crises, but also all control variables.1 The results of this regime split can be found in Table 2. As can be seen here, the effect of economic crises is positive and significant in both institutional settings. Comparing the coefficients for economic crisis in Table 2 with those of the original Model 2, the likely explanation for why the institutional variables in the original model did not have an impact on crisis initiation is because all democracies and autocracies possess relatively similar incentives for increasing crisis initiation following economic crises, so any variation across institutions was only averaged out. However, the results presented in Table 2 also provide support for a difference existing in the process of how diversionary conflict might occur in either regime type, due to the differences in control variable significance. This lends some credence to the separation of democracies and autocracies for study of diversionary war, but provides no evidence that the effect should only exist in one or the other. The similarity in the main independent variable of economic crises, though, furthers the assertion that the effect of economic crises increasing dispute initiation can be viewed as a general behavior of all states in the international system. Conclusions Altogether, there can be said to be a robust, positive relationship between the occurrence of economic crises and the rate of dispute initiation by states. This effect is especially strong and demonstrable when time ordering is preserved by examining how crises in the previous year affect states in their current year. These findings can also be said to have a relatively high degree of substantive import as well. As Figure 1 showed, the occurrence of each subsequent economic crisis increases the chances of a state initiating disputes by almost 3%. The nearly 20 percentage point increase in dispute initiation across the range of the lagged economic crisis variable also represents a substantial impact, especially considering the rare event nature of militarized disputes to begin with. This generalizable finding can have far-reaching impact to both the study of diversionary war in academia, as well as directly for policymakers. In academe settings, there is good evidence to support the use of acute economic crises over those variables based on the slowershifting trends of GDP or public opinion measurements. Economic crises act as an explicit trigger that can mark a leader’s shift into a losses frame and engage in riskier behavior consistent with both prospect theory and diversionary war hypotheses. Meanwhile, applying this observed effect to the real world would seem to indicate that if a state goes through an economic crisis, other states should have increased wariness in their dealings with the crisis-stricken state and/or be more prepared for the possibility of a new dispute emerging in the wake of such an event.

#### Goes nuclear!

Toon et al. 19 — Owen B. Toon, Laboratory for Atmospheric and Space Physics, Department of Atmospheric and Oceanic Sciences, University of Colorado, Boulder; Charles G. Bardeen, Atmospheric Chemistry Observations and Modeling Laboratory, National Center for Atmospheric Research; Alan Robock, Department of Environmental Sciences, Rutgers University; Lili Xia, Department of Environmental Sciences, Rutgers University; Hans Kristensen, Federation of American Scientists; Matthew McKinzie, Natural Resources Defense Council; R. J. Peterson, Department of Physics, University of Colorado, Boulder; Cheryl S. Harrison, School of Earth, Environmental, and Marine Sciences, University of Texas Rio Grande Valley, Institute of Arctic and Alpine Research, University of Colorado, Boulder; Nicole S. Lovenduski, Department of Atmospheric and Oceanic Sciences, Institute of Arctic and Alpine Research, University of Colorado, Boulder; and Richard P. Turco, Department of Atmospheric and Oceanic Sciences, University of California, Los Angeles; October 2 ("Rapidly expanding nuclear arsenals in Pakistan and India portend regional and global catastrophe", Science Advances, volume 5, number 10, https://advances.sciencemag.org/content/5/10/eaay5478, accessed 12-1-2019) TDI

To help evaluate the consequences of a nuclear conflict between India and Pakistan, table S1 provides a specific scenario for a war assumed to take place in 2025. Although this scenario has Pakistan first launching nuclear weapons, we do not mean to imply that they are more likely to do this than India. Because large numbers of weapons are assumed to be used by both sides, we would expect our results to be similar no matter how the war started. Moreover, we would expect the global outcomes projected here to apply equally well—with relevant recalibration for weapon sizes and targets and related smoke emissions—to any nuclear conflict between nuclear-armed states that involves a corresponding total yield detonated essentially in urban areas. Many scenarios of an India-Pakistan conflict in 2025 are possible, ranging from no nuclear weapons deployed to as many as 500 nuclear weapons—many with yields above 100 kt—detonated. We chose the scenario outlined in table S1 as plausible following advice from a number of military and policy experts. In addition, the information presented in this paper and the Supplementary Materials can be used as a basis to compute the results for other scenarios. The main determinants of casualties and climate effects are the number of weapons used, the yield of the weapons, and the targets for the weapons, each of which is unknown in advance. The discussion in the following paragraphs exemplifies scenario factors that have been widely considered in the literature concerning conflicts between India and Pakistan, which might be varied in alternative scenarios including the role of the number of potential targets in choosing the sizes of arsenals; the characteristics, such as failure rates, of available weapons and delivery systems; the events that might lead to an escalating nuclear conflict; resolution of the Kashmir problem that might lessen the likelihood of a dangerous confrontation; the importance of urban targets in contributing to fatalities and climate effects owing to high population densities and fuel loadings; the difficulty of preventing a conflict from going nuclear because of the destabilizing effects of tactical nuclear weapons on both sides; the importance of Indian concerns about China in making it difficult for Pakistan and India to reduce their nuclear stockpiles; and the possible role of the disproportionate sizes of the countries, militaries, and populations of India and Pakistan in motivating the initial use of nuclear weapons. In the scenario outlined in table S1, we assumed that each country would have 250 nuclear weapons in 2025 (5, 9). We also adopted a highly simplified scenario in which only urban targets are considered, and these are attacked using airbursts. Many military or strategic targets in rural areas are likely to be attacked as well, but these would involve smaller populations and lower fuel loading, which would not add significantly to the near-term fatalities or smoke emissions. Therefore, we do not specifically track them in our scenario. Likewise, some targets, such as buried military facilities, might attract ground bursts, which would produce significant radioactive fallout and many additional fatalities—effects that are not explicitly considered in this work. India has one of the largest conventional militaries in the world, with about 1.4 million active duty personnel. India has not deployed tactical nuclear weapons. Indian nuclear strategy requires that a significant number of high-yield bombs be held back in case China joins a war on the side of Pakistan (10). Because Pakistan is a small country with only about 60 cities with more than 100,000 people, India would not need all of its 250 weapons to destroy Pakistan’s cities. We assume that India will keep 100 nuclear weapons in its arsenal to deter China from entering the war. Chinese involvement would greatly amplify the destruction discussed below. As China expands its presence in Pakistan as part of the China-Pakistan Economic Corridor, which is an element of China’s broader “Belt and Road Initiative,” the odds of a Pakistani-Indian war spreading to China would appear to be increasing. Of India’s 150 weapons that can be used against Pakistan, we assume that about 15% will fail. In this case, failure is primarily due to the weapons not being delivered or failing to explode. Most urban targets in Pakistan are so large that precise targeting is not needed to hit them. Therefore, our scenario suggests 125 weapons actually exploding. We further assume that there are 25 targets in Pakistan that are isolated military bases or industrial facilities located in regions with low populations and little combustible material. We do not include these in computing fatalities or environmental damage. Therefore, we assume that India has 100 strategic nuclear weapons to use on urban countervalue targets or military counterforce targets that are located within urban areas, such as military bases, industrial facilities, oil refineries, nuclear weapons facilities, and airports. Pakistan also has one of the largest militaries in the world, with about half as many active duty personnel as India has. We assume that, in 2025, Pakistan will have 50 tactical weapons with yields of 5 kt to be used against an invading Indian army. We assume that 20% of these will fail or be overrun by the Indian Army. Many of these tactical weapons might be used in sparsely populated areas with little flammable material. Accordingly, we only consider the remaining 200 strategic weapons when computing fatalities or smoke created from fires. Of these 200 strategic weapons, we assume that 15% will fail to be delivered to the target but that the remaining 170 will be detonated over their targets. We further assume that 20 of these explosions will be over isolated military, nuclear, or industrial areas. The balance, 150 weapons, will thus be used against India’s urban countervalue targets and military counterforce targets located within urban areas. The yields of modern Indian and Pakistani weapons are unknown and not easily constrained. India detonated a ~40-kt yield weapon in 1998, which, they claimed, was a two-stage bomb. Kanwal (10) suggests that this design could produce 200-kt yields. Pakistan claimed that its weapons tested in 1998 used boosted fission. Possibly, these could also produce yields of 200 kt. Given the lack of reliable information about yield, we will explore the consequences of using strategic weapons with yields of 15, 50, and 100 kt. Our scenario, as outlined in table S1, begins with a terrorist attack on the Indian government, similar to the one that occurred on 13 December 2001, but with massive fatalities among members of India’s government. As happened in January 2002, we assume that India and Pakistan mobilize their troops within a few weeks of the terrorist attack. Indian troops would likely be dispersed along the border and in Kashmir. Skirmishes would break out, resulting in deaths on both sides. Similar skirmishes happened in 2002 and now occur with regularity, most recently with a conflict in the Kashmir region beginning with a terrorist event on 14 February 2019. In the 2002 confrontation, the United States, Russia, and other countries intervened, eventually convincing India and Pakistan to end the confrontation, which had continued into the summer of 2002 until Pakistan agreed to control terrorist groups within its borders. A crisis simulation exercise in Sri Lanka during 2013 organized by the U.S. Naval Postgraduate School and involving retired senior military and civilian analysts from India and Pakistan found that “a limited war in South Asia will escalate rapidly into a full war with a high potential for nuclear exchange” (12). In our scenario, with the Indian government having been severely damaged, the Indian Army brings a number of tanks to the border and crosses into Pakistan and also crosses the Line of Control in Kashmir. On day 1 of the nuclear conflict, Pakistan uses 10 tactical atomic bombs with 5-kt yield inside its own borders with low air bursts against the Indian tanks (table S1). The conflict continues on day 2 when Pakistan uses another 15 tactical weapons with 5-kt yield on the battlefield, whereas India detonates two air bursts against the Pakistani garrison in Bahawalpur and deploys 18 other weapons to attack Pakistani airfields and nuclear weapons depots, partially degrading Pakistani retaliatory capabilities. Nevertheless, on day 3, Pakistan responds with a barrage of nuclear ballistic and cruise missiles on garrisons, weapon depots, naval bases, and airfields in 30 locations in Indian cities (30 air bursts with 15- to 100-kt yield each) plus another 15 tactical bursts with 5-kt yield. India also uses 10 strategic weapons against Pakistani military bases on day 3. Because of panic, anger, miscommunication, and protocols, escalation cannot be stopped now. On days 4 to 7, cities in India are hit with 120 strategic weapons, and those in Pakistan are struck with 70 air bursts with 15- to 100-kt yield. In total, Pakistan’s urban areas are hit with 100 nuclear weapons using airbursts, and India’s urban areas are hit with 150 nuclear weapons using airbursts. In addition, Pakistan has used 40 tactical nuclear weapons successfully and 20 strategic weapons successfully on targets not in urban areas, whereas India has used 25 strategic weapons successfully on targets not in urban areas. In previous simulations (13, 14), all of the smoke produced during the nuclear exchange (as described below) was initially distributed uniformly over a broad area of India and Pakistan in January 1. Here, the smoke is injected above individual targeted urban regions (at the grid scale of the climate model) on the day of the detonations. Hence, the smoke injection varies in location and time in accordance with the evolution of the specific war scenario (e.g., as illustrated in fig. S1 for the scenario with 50-kt weapons). Further, in the present climate simulations, the smoke injection is assumed to start on 15 May and extend over the duration of the exchange (e.g., 6 days for the case in fig. S1). We did not evaluate the sensitivity of the results to the time of year the war begins. In (14), it was found that a war initiated on 1 January or 15 May made little difference to the ultimate climatic effects. On the other hand, a war occurring in Northern Hemisphere summer might lead to enhanced impacts initially, as implied by earlier nuclear winter studies.

### Adv – Vaccine Inequality

#### Squo vaccination rates will drag out the pandemic – increases likelihood of the development of deadly mutations.

Swan 2/8 [Gallogly-Swan, Katie. “The False Scarcity of Vaccine Trade Tensions.” *Social Europe*, 8 Feb. 2021, socialeurope.eu/the-false-scarcity-of-vaccine-trade-tensions.]//Lex AKu

At the current rate of vaccination, it will take [seven years](https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/?sref=wgSUpWLp) for enough of the world to be vaccinated to prevent further transmission. Seven years is a long time for the virus to mutate and build resistance to currently viable vaccinations—a risk [recently highlighted](https://www.nature.com/articles/d41586-021-00121-z) by the emergence of new strains. With the looming risk of reinfection with a more deadly or contagious version of the virus, it is paramount that every tool at our disposal is oriented to producing enough vaccines to eradicate it swiftly everywhere. Artificial rationing is what is driving vaccine nationalism, yet the EU again blocked the waiver at the Trade Related Intellectual Property Rights Council meeting at the WTO last Thursday, claiming that private patents were needed to encourage innovation. As [others have pointed out](https://socialeurope.eu/designing-vaccines-for-people-not-profits), however, much of the industry’s innovation has been predicated on decades of public support for research and development. Indeed, governments around the world have [invested](https://www.businesswire.com/news/home/20210110005098/en) €88.3 billion in Covid-19 vaccine development so far. For citizens of countries with the fiscal space to support such investments, this amounts to paying for the vaccine three times: when their government supported vaccine development, when it bought stocks and when it funds the [COVAX](https://www.who.int/initiatives/act-accelerator/covax) facility intended to secure vaccines for poorer countries pushed out of the race. While the EU and other wealthy regions have borne the brunt of the public-health challenge, with the vast majority of cases and deaths, a [recent study](https://www.nytimes.com/2021/01/23/business/coronavirus-vaccines-global-economy.html?referringSource=articleShare) has found that failing to vaccinate people in low-income countries will have the worst economic impact on wealthy economies. **Unleash production** A waiver on intellectual property would see a drastic decrease in the cost of vaccination for all governments, with more regional production unleashed across the world. This is not simply a case of high-income countries versus low-income but of [patent monopolies](https://socialeurope.eu/challenging-patents-key-to-make-covid-19-vaccine-work-for-all), propped up by a few WTO members, versus the safety of everyone. The EU and others blocking the waiver have chosen to back these pharmaceutical-company monopolies over their own public health and any hope of a rapid, global vaccination programme. The same companies shunned the voluntary Covid-19 Technology Access Pool launched by the WHO early in the pandemic—the head of Pfizer calling the initiative ‘[nonsense](https://www.ft.com/content/b964cfb2-5f2e-4cb7-b9ad-535481495eaa)’—while making [billions in profit](https://www.ft.com/content/0f1ab138-401d-40ff-824f-f6879704f10e) from Covid-19 vaccines. Keeping the patents of Covid-19 vaccines secret offers no demonstrable public benefit to the global pandemic effort. Instead, it is leading to chauvinistic policy choices which erode co-operation and trust and prolong the pandemic for everyone.

**IP protections are the vital internal link to reduce vaccine inequality. Empirics disprove all pro patent arguments**

**Kumar, PhD, 7-12**-21

(Rajeesh, Associate Fellow Manohar Parrikar Institute for Defence Studies and Analysis, https://www.idsa.in/issuebrief/wto-trips-waiver-covid-vaccine-rkumar-120721)

In October 2020, India and South Africa had submitted a proposal to the World Trade Organization (WTO), suggesting a waiver of certain provisions of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement for the “prevention, containment and treatment of COVID-19”. The proposal seeks the waiver of “the implementation, application, and enforcement of sections 1, 4, 5 and 7 of part II of the TRIPS agreement”, which are stipulations referring to copyright, industrial design, patents, and undisclosed information (trade secrets).1 The proponents of the proposal argue that a waiver will **enable timely and equitable access** to affordable health products and technologies, including vaccines. Though many member countries had supported and co-sponsored the proposal, a small but influential group of countries, mainly Australia, Canada, the European Union (EU), Japan, the United Kingdom (UK) and the United States (US), opposed it. They argued that existing exceptions under the TRIPS Agreement are sufficient to address the concerns mentioned in the proposal. This resulted in sidelining of the waiver proposal for months. However, on 5 May 2021, the Joseph Biden administration announced its support for waiving intellectual property protections for COVID-19 vaccines.2 It was a significant step towards breaking the seven-month gridlock, and led to many more countries modifying their position on the waiver proposal. On 25 May 2021, the co-sponsors of the waiver proposal submitted a revised proposal that specified the scope of the waiver as applying to “health products and technologies” and also added a section on the proposed duration of the waiver, i.e., three years.3 At present, more than 100 countries, including the US and China support this proposal. The principal opponent of the waiver is the EU and in June 2021, it submitted an alternative proposal to the TRIPS Council, which requested to keep TRIPS’ provisions intact and focused on compulsory licensing and removing vaccine export restrictions to address the concerns raised by India and South Africa.4 The EU proposal also stated that the TRIPS Agreement does not prevent countries from taking measures to protect public health.5 At the meeting of the TRIPS Council on 8–9 June 2021, the member states agreed to text-based negotiations focusing on two proposals tabled by members. The members also decided to hold a series of meetings till the end of July 2021 to take stock of the text-based negotiations. However, the latest developments show that the waiver discussions hit a hurdle due to a split between the developed and developing countries over the negotiation text. This brief discusses how TRIPS becomes a barrier to the equitable access of COVID-19 vaccines. It also examines how a waiver will help India in its fight against COVID-19 at home and abroad. TRIPS and its Exceptions TRIPS, a comprehensive multilateral agreement on Intellectual Property (IP), was an outcome of the Uruguay Round (1986–94) of negotiations of the General Agreement on Tariffs and Trade (GATT). The Agreement came into force on 1 January 1995 and offers a minimum standard of protection for Intellectual Property Rights (IPR).6 In WTO, IPR are divided into two main categories. First, copyright and related rights (Articles 9 to 14, Part II of the TRIPS Agreement). Second, industrial property that includes trademarks, geographical indications, industrial designs, patents, integrated circuit layout designs, and undisclosed information (Articles 15 to 38, Part II of the TRIPS Agreement).7 Article IX.3 and IX.4 of the Marrakesh Agreement Establishing the WTO deals with TRIPS waivers. Article IX.3 says that in “exceptional circumstances” the Ministerial Conference may waive off an obligation imposed on WTO member countries.8 Such a decision requires the support of three-fourths of the WTO membership. According to Article IX.4, any waiver granted for more than one year will be reviewed by the Ministerial Conference. Based on the annual review, the Conference may extend, modify, or terminate the waiver. The TRIPS Agreement provides some flexibility primarily in the form of compulsory licensing and research exceptions through Articles 30 and 31. While Article 30 permits WTO members to make limited exceptions to patent rights, Article 31 provides a detailed exception, provided certain conditions are met. Compulsory licensing is the process of granting a license by a government to use a patent without the patent holder's consent. Article 31 permits granting compulsory license under circumstances such as “national emergencies”, “other circumstances of extreme urgency”, “public noncommercial use”, or against “anti-competitive” practices.9 In addition to these original waivers, the Declaration on the TRIPS Agreement and Public Health, adopted at the 2001 Doha Ministerial Meeting, also recognises some exceptions, for instance, in situations of a public health emergency, member countries have the freedom to determine the grounds upon which compulsory licenses are granted. Similarly, under Article 66.1, the least developed countries (LDCs) are given waivers for implementing TRIPS on pharmaceuticals till 1 January 2033. COVID-19 and TRIPS Waiver Two significant factors rekindled the debate on TRIPS waiver for essential medical products—first, vaccine inequity, and second, the insufficiency of existing waiver provisions in fighting the COVID-19 pandemic. COVID-19 is an **exceptional circumstance**, and **equitable global access** to the vaccine is necessary to **bring the pandemic under control**. However, the world is witnessing quite the reverse, i.e., **vaccine nationalism**. Vaccine nationalism is “my nation first” approach to securing and stockpiling vaccines before making them available in other countries. A TRIPS waiver would be instrumental in addressing the **growing inequality in the production**, distribution, and pricing of the COVID-19 vaccines. Vaccine Inequity According to Duke Global Health Innovation Center, which monitors COVID-19 vaccine purchases, rich nations representing just 14 per cent of the world population have bought up to 53 per cent of the most promising vaccines so far. As of 4 July 2021, the high-income countries (HICs) purchased more than half (6.16 billion) vaccine doses sold globally. At the same time, the low-income countries (LICs) received only 0.3 per cent of the vaccines produced. The low and middle-income countries (LMICs), which account for 81 per cent of the global adult population, purchased 33 per cent, and COVAX (COVID-19 Vaccines Global Access) has received 13 per cent.10 Many HICs bought enough doses to vaccinate their populations several times over. For instance, Canada procured 10.45 doses per person, while the UK, EU and the US procured 8.18, 6.89, and 4.60 doses per inhabitant, respectively.11 Source:“Tracking COVID-19 Vaccine Purchases Across the Globe”, Duke Global Health Innovation Center, Updated 9 July 2021. Consequently, there is a significant disparity between HICs and LICs in vaccine administration as well. As of 8 July 2021, 3.32 billion vaccine doses had been administered globally.12 Nonetheless, **only one per cent** of people in LICs have been given at least one dose. While in HICs almost one in four people have received the vaccine, in LICs, it is one in more than 500. The World Health Organization (WHO) notes that about 90 per cent of African countries will miss the September target to vaccinate at least 10 per cent of their populations as a third wave looms on the continent.13 South Africa, the most affected African country, for instance, has vaccinated less than two per cent of its population of about 59 million. This is in contrast with the US where almost 47.5 per cent of the population of more than 330 million has been fully vaccinated. In Sub-Saharan Africa, vaccine rollout remains the slowest in the world. According to the International Monetary Fund (IMF), at current rates, by the end of 2021, a massive global inequity will continue to exist, with Africa still experiencing meagre vaccination rates while other parts of the world move much closer to complete vaccination.14 This vaccine inequity is not only morally indefensible but also **clinically counter-productive**. If this situation prevails, LICs could be waiting until 2025 for vaccinating half of their people. Allowing most of the world’s population to go unvaccinated will also **spawn new virus mutations, more contagious viruses** leading to a steep rise in COVID-19 cases. Such a scenario could cause **twice as many deaths** as against distributing them globally, on a priority basis. Preventing this humanitarian catastrophe requires **removing all barriers** to the production and distribution of vaccines. TRIPS is one such barrier that prevents vaccine production in LMICs and hence its equitable distribution. TRIPS: Barrier to Equitable Health Care Access The opponents of the waiver proposal argue that IPR are not a significant barrier to equitable access to health care, and existing TRIPS flexibilities are sufficient to address the COVID-19 pandemic. **However, history suggests the contrary.** For instance, when South Africa passed the Medicines and Related Substances Act of 1997 to address the HIV/AIDS public health crisis, nearly 40 of world’s largest and influential pharma companies took the South African government to court over the violation of TRIPS. The Act, which invoked the compulsory licensing provision, allowed South Africa to produce affordable generic drugs.15 The Big Pharma also lobbied developed countries, particularly the US, to put bilateral trade sanctions against South Africa.16 Similarly, when Indian company Cipla decided to provide generic antiretrovirals (ARVs) to the African market at a lower cost, Big Pharma retaliated through patent litigations in Indian and international trade courts and branded Indian drug companies as thieves.17 Another instance was when Swiss company Roche initiated patent infringement proceedings against Cipla’s decision to launch a generic version of cancer drug, “erlotinib”. Though the Delhi High Court initially dismissed Roche's appeal by citing “public interest” and “affordability of medicines,” the continued to pressure the generic pharma companies over IPR. 18 Likewise, Pfizer’s aggressive patenting strategy prevented South Korea in developing pneumonia vaccines for children.19 A recent document by Médecins Sans Frontières (MSF), or Doctors Without Borders, highlights various instances of how **IP hinders manufacturing and supply of diagnostics,** medical equipment, treatments and vaccines during the COVID-19 pandemic. For instance, during the peak of the COVID-19 first wave in Europe, Roche rejected a request from the Netherlands to release the recipe of key chemical reagents needed to increase the production of diagnostic kits. Another example was patent holders threatening producers of 3D printing ventilators with patent infringement lawsuits in Italy.20 The MSF also found that patents pose a severe threat to access to affordable versions of newer vaccines.21 Source:“COVID-19 Vaccine R&D Investments”, Global Health Centre, Graduate Institute, Geneva, Updated 9 July 2021. The opponents of the TRIPS waiver also argue that **IP is the incentive for innovation** and if it is undermined, future innovation will suffer. However, most of the COVID-19 medical innovations, particularly vaccines, are developed with **public financing assistance**. Governments spent billions of dollars for COVID-19 vaccine research. Notably, out of $6.1 billion in investment tracked up to July 2021**, 98.12** per cent was public funding.22 The US and Germany are the largest investors in vaccine R&D with $2.2 billion and $1.5 billion funding. Source:“COVID-19 Vaccine R&D Investments”, Global Health Centre, Graduate Institute, Geneva, Updated 9 July 2021. Private companies received 94.6 per cent of this funding; Moderna received the highest $956.3 million and Janssen $910.6 million. Moreover, governments also invested $50.9 billion for advance purchase agreements (APAs) as an incentive for vaccine development. A recent IMF working paper also notes that **public research institutions** were a key driver of the COVID-19 R&D effort—accounting for 70 per cent of all COVID-19 clinical trials globally.23 The argument is that vaccines are developed with the support of substantial public financing, hence there is a public right to the scientific achievements. Moreover, private companies reaped billions in profits from COVID-19 vaccines. Source: Katharina Buchholz, “COVID-19 Vaccines Lift Pharma Company Profits”, Statista, 17 May 2021. One could argue that since the US, Germany and other HICs are spending money, their citizens are entitled to get vaccines first, hence vaccine nationalism is morally defensible. Nonetheless**, it is not the case**. The TRIPS Agreement includes several provisions which mandates promotion of technology transfer from developed countries to LDCs. For instance, Article 7 states that "the protection and enforcement of IP rights should contribute to the promotion of technological innovation and the transfer and dissemination of technology, to the mutual advantage of producers and users of technical knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations."24 Similarly, Article 66.2 also mandates the developed countries to transfer technologies to LDCs to enable them to create a sound and viable technological base. The LMICs opened their markets and amended domestic patent laws favouring developing countries’ products against this promise of technology transfer. Another argument against the proposed TRIPS waiver is that a waiver would not increase the manufacturing of COVID-19 vaccines. Indeed, one of the significant factors contributing to vaccine inequity is the lack of manufacturing capacity in the global south. Further, a TRIPS waiver will not automatically translate into improved manufacturing capacity. **However, a waiver would be the first but essential step to increase manufacturing capacity worldwid**e. For instance, to export COVID-19 vaccine-related products, countries need to ensure that there are no IP restrictions at both ends – exporting and importing. The market for vaccine materials includes consumables, single-use reactors bags, filters, culture media, and vaccine ingredients. Export blockages on raw materials, equipment and finished products harm the overall output of the vaccine supply chain. If there is no TRIPS restriction, more governments and companies will invest in repurposing their facilities. Similarly, the arguments such as that no other manufacturers can carry out the complex manufacturing process of COVID-19 vaccines and generic manufacturing as that **would jeopardise quality**, have also been **proven wrong in the past**. For instance, in the early 1990s, when Indian company Shantha Biotechnics approached a Western firm for a technology transfer of Hepatitis B vaccine, the firm responded that “India cannot afford such high technology vaccines… And even if you can afford to buy the technology, your scientists cannot understand recombinant technology in the least.”25 Later, Shantha Biotechnics developed its own vaccine at $1 per dose, and the UNICEF (United Nations Children’s Emergency Fund) mass inoculation programme uses this vaccine against Hepatitis B. In 2009, Shantha sold over 120 million doses of vaccines globally. India also produces high-quality generic drugs for HIV/AIDS and cancer treatment and markets them across the globe. Now, a couple of Indian companies are in the last stage of producing mRNA (Messenger RNA) vaccines.26 Similarly, Bangladesh and Indonesia claimed that they could manufacture millions of COVID-19 vaccine doses a year if pharmaceutical companies share the know-how.27 Recently, Vietnam also said that the country could satisfy COVID-19 vaccine production requirements once it obtains vaccine patents.28 Countries like the United Arab Emirates (UAE), Turkey, Cuba, Brazil, Argentina and South Korea have the capacity to produce high-quality vaccines but lack technologies and know-how. However, Africa, Egypt, Morocco, Senegal, South Africa and Tunisia have limited manufacturing capacities, which could also produce COVID-19 vaccines after repurposing. Moreover, COVID-19 vaccine IPR runs across the entire value chain – vaccine development, production, use, etc. A mere patent waiver may not be enough to address the issues related to its production and distribution. What is more important here is to share the technical know-how and information such as trade secrets. Therefore, the existing TRIPS flexibilities, such as compulsory and voluntary licensing, are insufficient to address this crisis. Further, compulsory licensing and the domestic legal procedures it requires is cumbersome and not expedient in a public health crisis like the COVID-19 pandemic.

#### Vaccine inequality threatens the whole world.

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(Jenni, <https://www.newsweek.com/who-warns-world-blind-understanding-covid-spread-hurting-ability-end-pandemic-1614722>)

A lack of testing for COVID-19 in parts of the world is preventing countries from having a clear picture of how the virus is spreading and therefore hurting the world's chances at **fighting the virus and ending the pandemic**, according to the World Health Organization. **Health inequities** throughout the world have plagued the global response to COVID-19 from the outset and WHO has pushed higher income countries to help lower income countries in the interest of ending the pandemic. Along with restricted access to vaccines, lower income countries have struggled to have sufficient testing, meaning the virus is likely going undetected in certain areas, further enabling its ability to spread. Low testing rates is "leaving the world blind to understanding where the disease is and how it's changing," Dr. Tedros Adhanom Ghebreyesus, director general of the WHO said on Friday during a press briefing. Without improving global testing rates, Ghebreyesus said the world can't "fight the disease" or mitigate the risk it poses to people around the globe. who blind covid spread cases On Friday, the World Health Organization warned the world is "blind" to how COVID-19 is spreading because of a lack of testing in certain places. WHO Director-General Tedros Adhanom Ghebreyesus attends a daily press briefing on the new coronavirus dubbed COVID-19, at the WHO headquaters on March 2, 2020, in Geneva. FABRICE COFFRINI//AFP/GETTY IMAGES NEWSWEEK NEWSLETTER SIGN-UP > One of Ghebreyesus' biggest frustrations with the pandemic response is the failure to **evenly distribute the vaccine** around the world. In some countries, like the United States and other higher-income nations, significant portions of the population have been vaccinated. While those large vaccinated populations help reduce the spread of the virus in some areas, other countries, especially those in Africa, haven't been able to vaccinate even 10 percent of their population. This puts the entire world at risk because when the virus is able to spread throughout communities it **has the ability to mutate**, thereby increasing the possibility that a mutation could **evade the vaccines**. It's a scenario public health officials have been warning about for months and Ghebreyesus said on Friday that "hard won **gains are in jeopardy**" or have already been lost because the virus has been able to spread. Nearly 30 countries have high or rising oxygen needs and the shortage of life-saving oxygen could lead to increased deaths. More than 196 million cases of COVID-19 have been reported around the world, according to a Johns Hopkins University tracker, and more than 4.2 million people have died. Ghebreyesus suspected the number of cases would top 200 million within the next two weeks and warned that health systems in many countries **are being overwhelmed.** Preventing hospitals from exceeding capacity was a massive concern when the pandemic first broke out and a year later, parts of the U.S. are having their health systems strained as the more transmissible Delta variant spreads. On Thursday, Arkansas Governor Asa Hutchinson declared a public health emergency that allows the state to bring in health care workers from outside Arkansas and makes it easier for retired health care workers and medical students to become licensed. The goal is to help alleviate stress on health care systems and Hutchinson said they've had people waiting in ambulances because there wasn't an open spot in a hospital. That strain will only become more exacerbated if a mutation occurs that evades the vaccine, as inoculations have proven effective at helping to keep people out of the hospital. Ghebreyesus warned that more variants will emerge if global access to vaccines and testing doesn't improve. "The pandemic will end when the world chooses to end it. It is in our hands. We have all the tools we need. We can prevent this disease. We can test for it and we can treat it," Ghebreyesus said.

#### Boosting manufacturing capacity is critical to a timely response to COVID AND ensures preparedness for future pandemics.

Jecker & Atuire 21, Dr Nancy S Jecker, Department of Bioethics & Humanities, University of Washington School of Medicine. Department of Philosophy, University of Johannesburg, Auckland Park, Gauteng, South Africa. Caesar A Atuire, Department of Philosophy and Classics, University of Ghana, Accra, Accra, Ghana. All Souls College, University of Oxford, Oxford, Oxfordshire, UK. Journal of Medical Ethics 2021;47:595-598. “What’s yours is ours: waiving intellectual property protections for COVID-19 vaccines.” <https://jme.bmj.com/content/47/9/595> brett

Since consequentialist justifications treat the value of IP as purely instrumental, they are also vulnerable to counterarguments showing that a sought-after goal is not the sole or most important end. During the COVID-19 pandemic, we submit that the vaccinating the world is an overriding goal. With existing IP protections intact, the world has fallen well short of this goal. Current forecasts show that at the current pace, there will not be enough vaccines to cover the world’s population until 2023 or 2024.15 IP protections further frustrate the goal of universal access to vaccines by limiting who can manufacturer them. The WHO reports that 80% of global sales for COVID-19 vaccines come from five large multinational corporations.16 Increasing the number of manufacturers globally would not only increase supply, but reduce prices, making vaccines more affordable to LMICs. It would stabilise supply, minimising disruptions of the kind that occurred when India halted vaccine exports amidst a surge of COVID-19 cases.

It might be objected that waiving IP protections will not increase supply, because it takes years to establish manufacturing capacity. However, since the pandemic began, we have learnt it takes less time. Repurposing facilities and vetting them for safety and quality can often happen in 6 or 7 months, about half the time previously thought.17 Since COVID-19 will not be the last pandemic humanity faces, expanding manufacturing capacity is also necessary preparation for future pandemics. Nkengasong, Director of the African Centres for Disease Control and Prevention, put the point bluntly, ‘Can a continent of 1.2 billion people—projected to be 2.4 billion in 30 years, where one in four people in the world will be African—continue to import 99% of its vaccine?’18

#### Mutations and future pandemics escalates security threats that cause extinction – cooperation thesis is wrong.

* Miscalc Incapacitated commanders
* Social political order collapse
* First strike to take advantage of weaker nations

Recna 21 [Research Center for Nuclear Weapon Abolition; Nagasaki, Japan; “Pandemic Futures and Nuclear Weapon Risks: The Nagasaki 75th Anniversary pandemic-nuclear nexus scenarios final report,” Journal for Peace and Nuclear Disarmament; 5/28/21; <https://www.tandfonline.com/doi/full/10.1080/25751654.2021.1890867>] Justin

The Challenge: Multiple Existential Threats The relationship between pandemics and war is as long as human history. Past pandemics have set the scene for wars by weakening societies, undermining resilience, and exacerbating civil and inter-state conflict. Other disease outbreaks have erupted during wars, in part due to the appalling public health and battlefield conditions resulting from war, in turn sowing the seeds for new conflicts. In the post-Cold War era, pandemics have spread with unprecedented speed due to increased mobility created by globalization, especially between urbanized areas. Although there are positive signs that scientific advances and rapid innovation can help us manage pandemics, it is likely that deadly infectious viruses will be a challenge for years to come. The COVID-19 is the most demonic pandemic threat in modern history. It has erupted at a juncture of other existential global threats, most importantly, accelerating climate change and resurgent nuclear threat-making. The most important issue, therefore, is how the coronavirus (and future pandemics) will increase or decrease the risks associated with these twin threats, climate change effects, and the next use of nuclear weapons in war.5 Today, the nine nuclear weapons arsenals not only can annihilate hundreds of cities, but also cause nuclear winter and mass starvation of a billion or more people, if not the entire human species. Concurrently, climate change is enveloping the planet with more frequent and intense storms, accelerating sea level rise, and advancing rapid ecological change, expressed in unprecedented forest fires across the world. Already stretched to a breaking point in many countries, the current pandemic may overcome resilience to the point of near or actual collapse of social, economic, and political order. In this extraordinary moment, it is timely to reflect on the existence and possible uses of weapons of mass destruction under pandemic conditions – most importantly, nuclear weapons, but also chemical and biological weapons. Moments of extreme crisis and vulnerability can prompt aggressive and counterintuitive actions that in turn may destabilize already precariously balanced threat systems, underpinned by conventional and nuclear weapons, as well as the threat of weaponized chemical and biological technologies. Consequently, the risk of the use of weapons of mass destruction (WMD), especially nuclear weapons, increases at such times, possibly sharply. The COVID-19 pandemic is clearly driving massive, rapid, and unpredictable changes that will redefine every aspect of the human condition, including WMD – just as the world wars of the first half of the 20th century led to a revolution in international affairs and entirely new ways of organizing societies, economies, and international relations, in part based on nuclear weapons and their threatened use. In a world reshaped by pandemics, nuclear weapons – as well as correlated non-nuclear WMD, nuclear alliances, “deterrence” doctrines, operational and declaratory policies, nuclear extended deterrence, organizational practices, and the **existential risks** posed by retaining these capabilities – are all up for redefinition. A pandemic has potential to destabilize a nuclear-prone conflict by incapacitating the supreme nuclear commander or commanders who have to issue nuclear strike orders, creating uncertainty as to who is in charge, how to handle nuclear mistakes (such as errors, accidents, technological failures, and entanglement with conventional operations gone awry), and opening a brief opportunity for a first strike at a time when the COVID-infected state may not be able to retaliate efficiently – or at all – due to leadership confusion. In some nuclear-laden conflicts, a state might use a pandemic as a cover for political or military provocations in the belief that the adversary is distracted and partly disabled by the pandemic, increasing the risk of war in a nuclear-prone conflict. At the same time, a pandemic may lead nuclear armed states to increase the isolation and sanctions against a nuclear adversary, making it even harder to stop the spread of the disease, in turn creating a pandemic reservoir and transmission risk back to the nuclear armed state or its allies. In principle, the common threat of the pandemic might induce nuclear-armed states to reduce the tension in a nuclear-prone conflict and thereby the risk of nuclear war. It may cause nuclear adversaries or their umbrella states to seek to resolve conflicts in a cooperative and collaborative manner by creating habits of communication, engagement, and mutual learning that come into play in the nuclear-military sphere. For example, militaries may cooperate to control pandemic transmission, including by working together against criminal-terrorist non-state actors that are trafficking people or by joining forces to ensure that a new pathogen is not developed as a bioweapon. To date, however, the COVID-19 pandemic has increased the isolation of some nuclear-armed states and provided a textbook case of the failure of states to cooperate to overcome the pandemic. Borders have slammed shut, trade shut down, and budgets blown out, creating enormous pressure to focus on immediate domestic priorities. Foreign policies have become markedly more nationalistic. Dependence on nuclear weapons may increase as states seek to buttress a global re-spatialization6 of all dimensions of human interaction at all levels to manage pandemics. The effect of nuclear threats on leaders may make it less likely – or even impossible – to achieve the kind of concert at a global level needed to respond to and administer an effective vaccine, making it harder and even impossible to revert to pre-pandemic international relations. The result is that some states may proliferate their own nuclear weapons, further reinforcing the spiral of conflicts contained by nuclear threat, with cascading effects on the risk of nuclear war.