# Vaccine 1AC

### 1AC – Framing

#### 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.

### 1AC – Plan

#### Plan – The member nations of the World Trade Organization ought to reduce intellectual property protections for COVID-19 medicines.

#### Rich countries are blocking a WTO patent-waiver proposal necessary to boost global production of COVID vaccines.

Meredith 21. [(Sam Meredith is a Correspondent at CNBC in London, covering international politics, energy and business news) “Rich countries are refusing to waive the rights on Covid vaccines as global cases hit record levels,” CNBC, April 22, 2021. <https://www.cnbc.com/2021/04/22/covid-rich-countries-are-refusing-to-waive-ip-rights-on-vaccines.html>] TDI

LONDON — The U.S., Canada and U.K. are among some of the high-income countries actively **blocking a patent-waiver proposal** designed to **boost the global production of Covid-19 vaccines.** It comes as coronavirus cases worldwide surge to their highest level so far and the World Health Organization has repeatedly admonished a “**shocking imbalance” in the distribution of vaccines amid the pandemic.** Members of the World Trade Organization will meet virtually in Geneva, Switzerland on Thursday to hold informal talks on whether to temporarily waive intellectual property and patent rights on Covid vaccines and treatments. The landmark proposal, which was jointly submitted by India and South Africa in October, has been backed by more than 100 mostly developing countries. It aims to facilitate the manufacture of treatments locally and boost the global vaccination campaign. Six months on, the proposal continues to be **stonewalled by a small number of governments** — including the U.S., EU, U.K., Switzerland, Japan, Norway, Canada, Australia and Brazil. “In this Covid-19 pandemic, we are once again **faced with issues of scarcity**, which can be addressed through diversification of manufacturing and supply capacity and ensuring the **temporary waiver of relevant intellectual property**,” Dr. Maria Guevara, international medical secretary at Medecins Sans Frontieres, said in a statement on Wednesday. “It is about saving lives at the end, not protecting systems.” The **urgency and importance of waiving certain intellectual property rights amid the pandemic have been underscored** by the WHO, health experts, civil society groups, trade unions, former world leaders, international medical charities, Nobel laureates and human rights organizations. Why does it matter? The waiver, if adopted at the General Council, the WTO’s highest-level decision-making body, could **help countries around the world overcome legal barriers** preventing them from producing their own Covid vaccines and treatments. Advocates of the proposal have conceded the waiver is not a “silver bullet,” but argue that **removing barriers** toward the development, production and approval of vaccines is **vital in the fight to prevent, treat and contain the coronavirus.**

#### The pandemic is raging through developing economies and inflicting loss on a horrific scale and prolongs economic hardships – timeframe is fast.

Lindsey 21. [(Brink Lindsey) “Why intellectual property and pandemics don’t mix,” Brookings Institution, June 3, 2021. <https://www.brookings.edu/blog/up-front/2021/06/03/why-intellectual-property-and-pandemics-dont-mix/>] TDI

\*\*cut part about economic hardships

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.**

#### 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.

### 1AC – WTO Credibility

#### Advantage 1 is WTO Credibility.

#### The new head of the WTO is on track to push for reform and an increased role but is hindered now due to lack of vaccine agreement.

Baschuk 4-27. [(Bryce Baschuk is a Bloomberg Reporter) ["WTO Chief Pursues a ‘Hectic’ Agenda to Fix World Trade’s Referee," Bloomberg, April 27, 2021. https://www.bloomberg.com/news/articles/2021-04-27/wto-chief-pursues-a-hectic-agenda-to-fix-world-trade-s-referee](file:///Users/adenbarton/Downloads/%22WTO%20Chief%20Pursues%20a%20‘Hectic’%20Agenda%20to%20Fix%20World%20Trade’s%20Referee,%22%20Bloomberg,%20April%2027,%202021.%20https:/www.bloomberg.com/news/articles/2021-04-27/wto-chief-pursues-a-hectic-agenda-to-fix-world-trade-s-referee)] TDI

The head of the World Trade Organization **raised an alarm about the credibility of the multilateral trading system**, urging leaders to act fast to bolster the global economy with steps like fairer vaccine distribution and cooperate to resolve longer-term problems like overfishing. During her first two months, WTO Director-General Ngozi Okonjo-Iweala has met with trade ministers around the globe to communicate a message that **the WTO is important, it needs to be reformed and it needs to deliver results.** So far, she says the reception from world leaders has been positive, but quickly translating that goodwill into substantive outcomes during a global pandemic is just as daunting as she anticipated. “The word I would use to describe it is absolutely hectic,” Okonjo-Iweala said in a phone interview on Tuesday when asked about her first few months in the job. “The challenges we thought were there are there and getting an agreement is not as easy because of longstanding ways of negotiating business positions.” Read More: Arcane WTO Pact Moves to Center of Vaccine Debate: Supply Lines Countries need to move past the notion that one country’s gain in international commerce is another’s loss, she said. “We need to break out of the zero-sum deadlock,” Okonjo-Iweala said. “We need to remind the countries and members that the WTO is here to deliver for people. **We can’t take 20 years to negotiate something**.” Okonjo-Iweala said **her top priority is to use trade to alleviate the pandemic** and said her recent meeting with trade ministers and vaccine manufacturers provided a positive step in the right direction. ‘More Pragmatism’ “That meeting yielded quite a lot,” she said. “I see more pragmatism on both sides.” An important component of the WTO’s trade and health agenda is a proposal from India and South Africa that seeks to temporarily waive enforcement of the WTO’s rules governing intellectual property for vaccines and other essential medical products. Read More: U.S. Trade Chief Meets Pfizer, AstraZeneca About Vaccine Supply As of this week there are fresh signals that the Biden administration, which currently opposes a waiver to the WTO agreement on Trade-Related Aspects of Intellectual Property Rights, wants vaccine manufacturers like Pfizer Inc. and AstraZeneca Plc to help ramp up U.S. pandemic assistance to the rest of the world. “There is movement,” Okonjo-Iweala said. “Are we there yet? No, but there is a little bit of change in the air among members. I think hopefully we will be able to come to some sort of a framework for the WTO ministers to bless.” “We don’t have time,” she added. “People are dying.” Okonjo-Iweala said this month’s vaccine meeting also revealed areas where the developing world can increase its capacity to produce more doses rather than waiting for rich countries to send them their excess supplies. She said various emerging markets such as India, Pakistan, Bangladesh, Senegal, Indonesia and Egypt already have some capacity to begin producing vaccines for people living in developing economies.

#### Patent waiver is necessary to revitalize WTO’s credibility as an international dispute mechanism – creates momentum for further reform.

Meyer 6-18-21. [(David Meyer is the Editor of CEO Daily and a senior writer on Fortune’s European team. Author of the digital rights primer, Control Shift: How Technology Affects You and Your Rights. “The WTO’s survival hinges on the COVID-19 vaccine patent debate, waiver advocates warn,” Fortune, June 18, 2021. <https://fortune.com/2021/06/18/wto-covid-vaccines-patents-waiver-south-africa-trips/>] TDI

The World Trade Organization knows all about crises. Former U.S. President Donald Trump threw a wrench into its core function of resolving trade disputes—a blocker that President Joe Biden has not yet removed—and there is widespread dissatisfaction over the fairness of the global trade rulebook. The 164-country organization, under the fresh leadership of Nigeria's Ngozi Okonjo-Iweala, has a lot to fix. However, **one crisis is more pressing than** the **others**: the battle over COVID-19 vaccines, and whether the protection of their patents and other intellectual property should be temporarily lifted to boost production and end the pandemic sooner rather than later. According to some of those pushing for the waiver—which was originally proposed last year by India and South Africa—**the WTO's future rests on what happens next.** "The credibility of the WTO will depend on its ability to find a meaningful outcome on this issue that truly ramps-up and diversifies production," says Xolelwa Mlumbi-Peter, South Africa's ambassador to the WTO. "Final nail in the coffin" The Geneva-based WTO isn't an organization with power, as such—it's a framework within which countries make big decisions about trade, generally by consensus. It's supposed to be the forum where disputes get settled, because all its members have signed up to the same rules. And one of its most important rulebooks is the Agreement on Trade-Related Aspects of Intellectual Property Rights, or TRIPS, which sprang to life alongside the WTO in 1995. The WTO's founding agreement allows for rules to be waived in exceptional circumstances, and indeed this has happened before: its members agreed in 2003 to waive TRIPS obligations that were blocking the importation of cheap, generic drugs into developing countries that lack manufacturing capacity. (That waiver was effectively made permanent in 2017.) Consensus is the key here. Although the failure to reach consensus on a waiver could be overcome with a 75% supermajority vote by the WTO's membership, this would be an unprecedented and seismic event. In the case of the COVID-19 vaccine IP waiver, it would mean standing up to the European Union, and Germany in particular, as well as countries such as Canada and the U.K.—the U.S. recently flipped from opposing the idea of a waiver to supporting it, as did France. **It's a dispute between countries, but the result will be on the WTO as a whole**, say waiver advocates. "If, in the face of one of humanity's greatest challenges in a century, the WTO functionally becomes an obstacle as in contrast to part of the solution, **I think it could be the final nail in the coffin"** **for the organization**, says Lori Wallach, the founder of Public Citizen's Global Trade Watch, a U.S. campaigning group that focuses on the WTO and trade agreements. "If the TRIPS waiver is successful, and people see the WTO as being part of the solution—saving lives and livelihoods—**it could create goodwill and momentum to address what are still daunting structural problems."** Those problems are legion. Reform needs Top of the list is the WTO's Appellate Body, which hears appeals in members' trade disputes. It's a pivotal part of the international trade system, but Trump—incensed at decisions taken against the U.S. —blocked appointments to its seven-strong panel as judges retired. The body became completely paralyzed at the end of 2019, when two judges' terms ended and the panel no longer had the three-judge quorum it needs to rule on appeals. Anyone who hoped the advent of the Biden administration would change matters was disappointed earlier this year when the U.S. rejected a European proposal to fill the vacancies. "The United States continues to have systemic concerns with the appellate body," it said. "As members know, the United States has raised and explained its systemic concerns for more than 16 years and across multiple U.S. administrations." At her confirmation hearing in February, current U.S. Trade Representative Katherine Tai reiterated those concerns—she said the appellate body had "overstepped its authority and erred in interpreting WTO agreements in a number of cases, to the detriment of the United States and other WTO members," and accused it of dragging its heels in settling disputes. "Reforms are needed to ensure that the underlying causes of such problems do not resurface," Tai said. "While the U.S. [has] been engaging [with the WTO] it hasn't indicated it would move quickly on allowing appointments to the Appellate Body," says Bryan Mercurio, an economic-law professor at the Chinese University of Hong Kong, who opposes the vaccine waiver. "This is not a good sign. In terms of WTO governance, it's a much more important step than supporting negotiations on an [intellectual property] waiver." It's not just the U.S. that wants to see reform at the WTO. In a major policy document published in February, the EU said negotiations had failed to modernize the organization's rules, the dispute-resolution system was broken, the monitoring of countries' trade policies was ineffective, and—crucially—"the trade relationship between the U.S. and China, two of the three largest WTO members, is currently largely managed outside WTO disciplines." China is one of the key problems here. It became a WTO member in 2001 but, although this entailed significant liberalization of the Chinese economy, it did not become a full market economy. As the European Commission put it in February: "The level at which China has opened its markets does not correspond to its weight in the global economy, and the state continues to exert a decisive influence on China's economic environment with consequent competitive distortions that cannot be sufficiently addressed by current WTO rules." "China is operating from what it sees as a position of strength, so it will not be bullied into agreeing to changes which it sees as not in its interests," says Mercurio. China is at loggerheads with the U.S., the EU and others over numerous trade-related issues. Its rivals don't like its policy of demanding that Chinese citizens' data is stored on Chinese soil, nor do they approve of how foreign investors often have to partner with Chinese firms to access the country's market, in a way that leads to the transfer of technological knowhow. They also oppose China's industrial subsidies. Mercurio thinks China may agree to reforms on some of these issues, particularly regarding subsidies, but "only if it is offered something in return." All these problems won't go away if the WTO manages to come up with a TRIPS waiver for COVID-19 vaccines and medical supplies, Wallach concedes. "**But**," she adds, "**the will and the good faith to tackle these challenges is increased enormously if the WTO has the experience of being part of the solution, not just an obstacle."** Wallach points to a statement released earlier this month by Asia Pacific Economic Cooperation (APEC) trade ministers, which called for urgent discussions on the waiver. "The WTO must demonstrate that global trade rules can help address the human catastrophe of the COVID-19 pandemic and facilitate the recovery," the statement read in its section about WTO reform. Okonjo-Iweala's role The WTO's new director general, whose route to the top was unblocked in early 2021 with the demise of the Trump administration, is certainly keen to fix the problems that contributed to the early departure of her predecessor, Brazil's Robert Azevedo. "We must act now to get all our ambassadors to the table to negotiate a text" on the issue of an IP waiver for COVID vaccines, Ngozi Okonjo-Iweala, director general of the World Trade Organization, has said. Dursun Aydemir—Anadolu/Bloomberg/Getty Images Earlier this week, when the U.S. and EU agreed a five-year ceasefire in a long-running dispute over Boeing and Airbus aircraft subsidies, Okonjo-Iweala tweeted: "With political will, we can solve even the most intractable problems." However, Mercurio is skeptical about her stewardship having much of an effect on the WTO's reform process. "Upon taking [over she] stated it was time for delegations to speak to each other and not simply past each other, but at the recent General Counsel meeting delegations simply read prepared statements in what some have described as the worst meeting ever," he says. "On the other hand, Ngozi is very much someone who will actively seek solutions to problems, and in this way different to her predecessor. If the role of mediator is welcomed, she could have an impact not in starting discussions but in getting deals over the finish line."

#### No alt causes – how the WTO acts now with Covid will shape its role in the international economy for decades to come.

Evenett and Baldwin 20**.** [(Simon J. Evenett is Professor of International Trade and Economic Development at the University of St. Gallen, Switzerland, and Co-Director of the CEPR Programme in International Trade and Regional Economics. Richard E. Baldwin is a professor of international economics at the Graduate Institute of International and Development Studies in Geneva. “Revitalising multilateral trade cooperation: Why? Why Now? And How?” November 10, 2020. <https://voxeu.org/content/revitalising-multilateralism-pragmatic-ideas-new-wto-director-general>] TDI

Purposeful, pragmatic steps towards noble goals Archbishop Desmond Tutu, that tireless campaigner against Apartheid, once remarked that “there is only one way to eat an elephant: one bite at a time”. **After a decade of drift and backsliding**, the task of revitalising multilateral trade cooperation may seem daunting. It may seem even more so after the disruption of the COVID-19 pandemic and the attendant slump in world trade. **Yet, in the same emergency lies the seeds of revival** – **especially, if trade diplomats can demonstrate the relevance of the WTO to national governments fighting this pandemic** – **ideally through an accord that eases the cross-border shipment of needed medical goods and medicines**. Step by pragmatic step, the **WTO can regain its centrality in the world trading system**. **Ultimately, the pandemic affords the opportunity to reframe discussions on multilateral trade cooperation away from the stalemate, frustration of recent years between governments**, and the Uruguay Round mindset that ran into diminishing returns years ago. Rather, discussions between governments need to draw lessons from the second global economic shock in 15 years so as to rebuild a system of global trade arrangements capable of better tackling systemic crises and, more importantly, better able to contribute to the growing number of first-order challenges facing societies in the 21st century. Doing so will require revisiting the very purpose of the WTO.

#### Action now over Covid creates goodwill to establish global trade as a norm and preserve the relevance of the trading system post-Covid.

González 20**.** [(Anabel Gonzalez is a nonresident senior fellow at the Peterson Institute and former Minister of Foreign Trade of Costa Rica “Revitalising multilateral trade cooperation: Why? Why Now? And How?” November 10, 2020. <https://voxeu.org/content/revitalising-multilateralism-pragmatic-ideas-new-wto-director-general>] TDI

EXTRAORDINARY TIMES DEMAND EXTRAORDINARY ACTION As of 2 November 2020, there are 46.9 million COVID-19 cases across all regions, with the number of deaths exceeding 1.2 million, and rising.2 The economic and social impacts of the pandemic and its containment measures are not less daunting. Global growth is estimated at -4.9 in 2020, with over 95% of countries projected to have negative per capita income growth (IMF 2020). Trade volumes are expected to decrease by between 13% and 32% from last year,3 while foreign direct investment flows could plunge by up to 40% (UNCTAD 2020). Is it estimated that the equivalent of 555 million jobs have been lost in the first half of this year (ILO 2020), which in turn could push up to 100 million more people into extreme poverty and would almost double the number of persons suffering from acute hunger (FAO 2020). While there is some evidence that goods trade may be rebounding and that the worst-case trade scenario projected in April could be averted (CPB 2020, WTO 2020a), the recovery from the deepest global recession since World War II will depend on the sustained and effective containment of the virus and the quality of government policies. The World Bank/IMF Development Committee warned that the pandemic has the potential to erase development gains for many countries (World Bank 2020a). Some consequences may also be long-lasting, such as lower investment, erosion of human capital, and a retreat from global trade and supply linkages (World Bank 2020b). It is no understatement to say these are extraordinary times. In many countries, governments are providing significant levels of fiscal support to try to stabilise their economies, sustain companies and minimise the impact on workers; in many others, limited fiscal space and informality constraint governments’ capacity to mitigate the damage. For advanced and developing economies alike, trade is a powerful, cost-effective tool to alleviate the devastating effects of COVID-19 on the health and economic fronts. And yet, protectionism is gaining an upper hand, deepening some of pre-pandemic confrontations that were already threatening the global economy. The short-term response to the virus and longer-term growth prospects depend on strong multilateral cooperation to scale back obstacles to trade and investment, increase business certainty and leverage opportunities which the pandemic has accelerated in areas like the digital economy. **It is also needed to preserve stable and coordinated international relations to avoid that heavy threats implicit in the pandemic could result in catastrophic disorders or conflicts** (Jean 2020). But it will not happen automatically. Unless governments accelerate their efforts to collaborate, growing protectionism and increased distortions to global value chains (GVCs) risk being a by-product of the virus, at the same time further exacerbating its negative implications. **This demands extraordinary action.** This chapter addresses the question of what role for trade ministers at the WTO in times of crises with a view to activating global cooperation to overcome COVID-19. In addition to the introductory section, the second section explores the need to reactivate the WTO to underpin collaboration among governments, the third section argues that trade ministers should call the shots during crisis, the fourth section suggests eight actions for ministers to rein in protectionism and mitigate further damage, the fifth section refers to the mechanics on how and when to do it, and a final section offers concluding remarks. **REACTIVATE THE WTO** Trade needs to be part of the response to COVID-19 and its upshots, and countries cannot afford the WTO, hobbled as it has been lately, to muddle through. **Moreover, as the world confronts more frequent and severe profound shocks such as financial crises, terrorism, extreme weather and pandemics** (McKinsey Global Institute 2020), **the WTO needs to step up its role during systemic crises.** **The fact that the organisation has been faltering, that there is a leadership vacuum and that distrust runs high among major traders will not make it any easier.** Exacerbated tensions related to the pandemic can only add to the feeling that WTO rules have been conceived for a very different context, increasing the risk of a loss of legitimacy (Jean 2020). **This is not about a major reset of the WTO. It is about (re)activating the organisation to serve its members as they combat the devastating impact of the pandemic and the global recession**. The WTO needs broader reform, in particular to address structural changes in the global economy. While extremely important, this discussion should not hamper the ability of the WTO to deliver at times of systemic crisis. Moreover, should the WTO – or more accurately, its members – demonstrate they can actually rise to the occasion in the context of COVID-19, **they will also contribute to increasing trust levels** **on the ability of the organisation to produce results**. The starting point is a shift in mindset: governments need to understand that international trade is not a problem in the crisis, but rather a core element of the solution (Baldwin and Evenett 2020). Take the shortages of medical supplies. There are three methods of assuring supply: stockpiling, investments in manufacturing capacity and trade. Of these options, relying on international trade is the most efficient and economic choice, provided the WTO can help assure security of this method of supply (Wolff 2020a). To be sure, many nations have taken unilateral steps to facilitate trade, especially in medical supplies and medicines. The Global Trade Alert reports that while 91 jurisdictions have adopted a total of 202 export controls on these goods since the beginning of 2020, 106 jurisdictions have executed 229 import policy reforms on these goods over the same period.4 After initial border closures, some neighbouring countries are beginning to facilitate the cross-border flow of goods. At the regional level and among subsets of countries, governments have issued different statements to keep trade lanes open and supply chains moving (see Table A1 in the Annex). After a tepid declaration from G20 leaders, trade ministers reaffirmed their determination to cooperate and coordinate to mitigate the impact of the COVID-19 pandemic on trade and investment and to lay a solid foundation for a global economic recovery. They also endorsed a set of short-term collective actions on trade regulation, trade facilitation, transparency, operation of logistics networks and support for small enterprises, and a group of longer-term actions on WTO reform, GVC resilience and investment; monitoring of implementation was left to senior officials (G20 2020). These actions are positive and reflect the political will of governments to collaborate to some extent – even if they have not fully countered the flurry of barriers and restrictions surrounding trade in critical medical gear. They are no substitute for trade cooperation at the global level, either. In the case of medical products, for example, the EU, the US and China account for almost three-quarters of world exports (WTO 2020b); cooperation initiatives that do not include these members would fall short on impact. The venue for cooperation should be global and open to all, even if not all 164 WTO members opt to engage in all initiatives. TRADE MINISTERS SHOULD CALL THE SHOTS DURING CRISES Challenges notwithstanding, governments need to act now to empower the WTO to play an active part in coordinating the response to the pandemic. The WTO is more than an organisation immersed in myriad drama on the shores of Lake Geneva; it is a solid framework for global trade cooperation. **It is in countries’ interest to preserve the relevance of the WTO;** its role can be critical in helping members help themselves. In a member-driven organisation such as the WTO, the role of the Director-General and the Secretariat is important and can and should be enhanced, for example with greater power of initiative and strengthened monitoring and analytics capabilities. The WTO dedicated page on the pandemic is a step in the right direction.5 But the ultimate responsibility to provide direction and act rests with governments. The WTO is nothing more and nothing less than the collectivity of its members (Steger 2020), a point that is frequently forgotten in the public discourse. Without strong leadership, frequent engagement and serious interest among members in addressing its challenges, the WTO itself cannot deliver results (Cutler 2020). Paraphrasing VanGrasstek (2013), the multilateral trading system receives its inspiration from economists and is shaped primarily by lawyers, but it can only operate within the limits set by politicians.

#### Post Covid WTO legitimacy and credibility necessary to prevent a downward spiral of protectionism.

Solís 20 [(Mireya Solís is director of the Center for East Asia Policy Studies, Philip Knight Chair in Japan Studies, and a senior fellow in the Foreign Policy program at Brookings. “The post COVID-19 world: Economic nationalism triumphant?” July 10, 2020. <https://www.brookings.edu/blog/order-from-chaos/2020/07/10/the-post-covid-19-world-economic-nationalism-triumphant/>] TDI

The damage caused by the worst global health crisis in a century is vast. The new coronavirus has traveled far and fast, infecting more than 8.7 million people and killing more than 460,000. One after another, economies have gone into lockdown to slow down the spread of the disease. The combined supply and demand shocks have ravaged the world economy with the most severe downturn since the Great Depression; **anticipated drops to international trade and investment flows of 30% and 40%,** respectively; and unemployment spikes in many countries. The pandemic has cost lives and livelihoods and has erased the chances of returning to the status quo ante, but it has also brought little clarity regarding what kind of international order it will usher in. Is the future one of deglobalization, decoupling, and reshoring of economic activity? **The pandemic hit an already wounded multilateral trading system**. The chances that the World Trade Organization (WTO) can deliver a multilateral round of trade negotiations to slash tariffs across the board and update the trade and investment rulebook are nil. But the WTO has also lost its central role as arbiter of trade disputes among its members. In December 2019, the Appellate Body ceased to function due to the U.S. block of new appointments, citing judicial overreach. **At a time of rising protectionism, the erosion of a rules-based mechanism to adjudicate disputes bodes ill.** **Longstanding challenges to the WTO have been exacerbated by an abdication of leadership from the great powers to ensure its survival**. China has been the godchild of globalization, leveraging its accession to the WTO to become workshop for the world and a huge domestic market coveted by foreign firms. But China lost its appetite for economic reform, reinvesting on a state capitalism model that imposes heavy costs on other nations. Unchecked subsidies and privileges awarded to its state-owned enterprises, insufficient protection of intellectual property, foreign investment restrictions, forced technology transfers, and cyber protectionism all make the Chinese government’s self-proclamation as champion of global free trade ring hollow. The Trump administration judges the WTO incapable of tackling the China challenge, but instead of creating coalitions of like-minded countries to bring about effective multilateral trade governance, it appears determined to further harm ~~cripple~~ the international organization. It has offered no blueprint to fix the dispute settlement mechanism, has abused the national security exemption to raise tariffs against allies, and is gearing up for its most fundamental assault to date on the WTO: a tariff reset through which the U.S. may unilaterally abandon its commitments on bound tariffs and apply larger duties to force other countries to open their markets. **Trade spats as other countries retaliate in kind is a more likely result.** Tariff wars and the battle for technology supremacy have come to define U.S.-China great power competition. After a grueling trade conflict, the United States and China reached a limited trade agreement in January 2020. The deal marked a pause in the tariff war and addressed some non-tariff barriers on foreign direct investment and intellectual property; but it left intact the core of Chinese industrial policy (public subsidies and state-owned enterprises) and retained U.S. duties on $360 billion worth of Chinese products. China’s massive purchase commitments ($200 billion) were quickly rendered unattainable by the severe economic downturn in China due to COVID-19. In fighting for the new economic order, setting standards on cutting-edge technologies will be at the forefront. China is using all the levers of industrial policy to gain technological primacy in areas like AI and quantum computing. Telecom and the battle over 5G offer a preview of quarrels to come. Deeply concerned with the cybersecurity risks that Chinese telecom giants like Huawei pose, the U.S. government placed the company on its Entity List, banning American exports without a license. It has since tightened the restrictions by barring foreign companies from supplying Huawei with products manufactured with American equipment and technology. National security concerns are increasingly encroaching on existing webs of economic interdependence. Wary of China’s acquisition of critical technology, countries like the United States, Australia, and Japan have tightened their screening of foreign direct investment. The pandemic has only exacerbated concerns that weakened companies in strategic sectors are at risk of foreign takeover. COVID-19’s impact on the international trading system is twofold. It has reinforced existing trends such as the deceleration and now drop in the volume of international trade, the rise of economic security as governments expand their toolkit to restrict trade and investment flows, and it has laid bare the fallout in U.S.-China relations. But the pandemic also brought new challenges that exposed the extent to which trade cooperation is in short supply. Export protectionism has risen in prominence with national restrictions on shipments of essential medical supplies and personal protective equipment. The WTO allows for such curbs for public health purposes – provided the measures are temporary and transparent. Few countries, however, have bothered to comply with their notification commitments. **The blow comes at a time when the WTO is adrift** with the decision of Director General Roberto Azevedo to step down early, opening the search for new leadership in a climate of divisiveness. Graph detailing the number of countries that imposed export restrictions on various categories of medical supplies and devices in response to the coronavirus pandemic. Are we on the eve of a renationalized world economy? That is the aspiration of several American and European public officials who fault extended global supply chains and overdependence on China for the current mishaps in tackling the pandemic. But the view that economic nationalism and reshoring of manufacturing is a fail-safe path to security and prosperity is wrong. For one, it skirts the responsibility of governments to properly stockpile essential medical supplies. Furthermore, the export curbs will be counterproductive, eliminating incentives for producers to expand capacity and increasing the cost of much needed medicines and medical devices. If the recent lockdowns have taught us anything, it is that exclusive reliance on the domestic market is too risky. Diversification of supply, redundancies in the manufacturing chain, and stockpiling programs are better alternatives. In this endeavor, global supply chains are part of the solution, not the problem. COVID-19 will not produce an exodus of foreign companies from the Chinese market. Recent surveys of American companies with operations in China show that most firms intend to stay put. A February survey of Japanese companies conducted by Tokyo Shoko Research shows that only a fraction (4%) are considering exit from China. Therefore, the Japanese government’s $2.2 billion fund to restructure supply chains should be understood as risk management, not decoupling. When international companies map out their business strategies, they must factor in heightened risks – protectionism, national security controls, and economic lockdowns. **Hence, efforts by middle powers to offer an interim arbitration mechanism at the WTO** to handle trade disputes and to commit to maintaining open supply chains in essential medical goods **are the right antidote to rising economic nationalism**. As a staunch supporter of rules-based trade and with its decision to forego export protectionism in the current crisis, Japan has much to contribute to these efforts.

#### Trade solves great power competition – regionalism causes militarized crises.

Lake 18 [(David Lake is a Professor of Social Sciences and Distinguished Professor of Political Science at the University of California, San Diego. "Economic Openness and Great Power Competition: Lessons for China and the United States,” April 30, 2018. <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3171196/>] TDI

I develop two central arguments. First, historically, great power competition has been driven primarily by exclusion or fears of exclusion from each power’s international economic zone, including its domestic market. Great powers in the past have often used their international influence to build zones in which subordinate polities – whether these be colonies or simply states within a sphere of influence – are integrated into their economies. These economic zones, in turn, are typically biased in favor of the great power’s firms and investors, with the effect of excluding (in whole or part) the economic agents of other great powers. These other great powers, in response, are then compelled to develop or expand their own exclusive economic zones. The “race” for economic privilege can quickly divide the world up into economic blocs. Like the security dilemma, great powers need not actually exclude one another from their zones; the fear of exclusion alone is enough to ignite the process of division. The race for privilege then draws great powers into over-expanding into unprofitable regions and, more important, militarized competition. Economic and military competition are thus linked, with the former usually driving the latter. The most significant military crises have, historically, been over where to draw the boundaries between economic zones and subsequent challenges to those boundaries. Economic closure and fear of closure have been consistent sources of great power conflict in the past – and possibly will be in the future. The major exception to this trend was the peaceful transfer of dominance in Latin America from Britain to the United States in the late nineteenth century. This suggests that economic closure and great power competition is not inevitable, but a choice of the great powers themselves. Second, this international competition is driven, in turn, by domestic, rent-seeking groups and their economic interests. In all countries, scarce factors of production, import competing sectors, and domestically-oriented firms have concentrated and intense preferences for market restricting policies, including tariffs and the formation of exclusive economic zones. Consumers and free trade-oriented groups have diffuse preferences for market enhancing policies, and thus tend to lose at the ballot box and in the making of national policy. This inequality in preference intensity does not mean protectionists always win; after 1934, the United States insulated itself by shifting authority to the executive and negotiating reductions through broad, multi-product international agreements.8 Yet, as the recent return to economic nationalism of the Trump administration suggests, protectionism often wins out. Rent-seeking is a central tendency, not an inevitable success. Contemporary great power relations are at a critical juncture. As China’s influence expands, the role of special economic interests in China is especially worrisome. In pursuit of stability, political support, or private gains, the government will always be tempted to create economic zones that favor its nationals. In this way, China will be no different than the majority of great powers before it. But, given the expansive role of the state in the Chinese economy, especially its backing of outward foreign investments by its state-owned enterprises (SOEs), and the close ties between business elites and its authoritarian political leaders, however, it will be even harder for China to resist biasing any future economic zone to benefit its own firms. Although China has gained greatly from economic openness, its domestic political system will be prone to rent-seeking demands by important constituents in areas of future influence. Critically, the United States is also moving toward economic closure with the election of President Trump on a platform of economic nationalism. Demands for protection against Chinese goods have been growing over time.9 The “China shock” that followed Beijing’s joining the World Trade Organization was a huge disruption to the international division of labor, U.S. comparative advantage, and especially U.S. industry.10 The Trans-Pacific Partnership, though now defunct, was “marketed” by President Barak Obama as a means of “containing” China, both economically and militarily, but was opposed by virtually all of the candidates in the 2016 presidential election for its trade-enhancing potential. President Trump has already signaled a much more hostile and protectionist stance toward China – as well as calling for the repeal of NAFTA and even questioning the utility of the European Union. Not only has he imposed tariffs on washing machines, solar panels, steel and aluminum, dangerously declaring the latter two issues of national security, he is making exceptions on these tariffs for friends and allies. 11 Implicitly targeting China, these protectionist moves by the administration risk creating preferential trading blocs not seen since the 1930s. He has also now proposed punitive tariffs on over $60 billions of imports from China into the United States.12 Acknowledging his inconsistencies on many policy issues, Trump’s economic nationalism has remained the core of his political agenda. The threat to the liberal international economy is not only that China might seek an economic bloc in the future, but that the United States itself is turning more exclusionary. For each great power to fear that the other might seek to exclude it from its economic zone is not unreasonable. If so, great power competition could break out in the twenty-first century not because of bipolarity or any inevitable tendency toward conflict, but because neither great power can control its own protectionist forces nor signal to the other that it would not exclude it from its economic zone. The British-U.S. case, again, suggests that exclusion and competition are not inevitable, but the current danger of economic closure is real and increasing. This article is synthetic in its theory and merely suggestive in its use of historical evidence. The theory aims to integrate current work on political economy and national security, not to develop a completely original take on this relationship. In turn, rather than testing the theory in any rigorous sense or delving into particular cases to show the theoretical mechanisms at work, so to speak, it surveys selected historical episodes to illustrate central tendencies. It is the recurring pattern across multiple cases that suggests why we should worry today. The remainder of this essay is divided in three primary sections. Section I briefly outlines the analytics of economic openness and great power competition. Section II focuses on historical instances of great power competition, highlighting the role of economic openness as a central cleavage in international politics. Section III examines contemporary policies in and between China and the United States. The conclusion suggests ways that the potential for conflict may be mitigated. The Open Economy Politics of Great Power Competition All states have a tendency towards protectionism at home and exclusive economic zones abroad. A tendency, though, is not an inevitability. The pursuit of protection and economic zones by domestic interests is conditioned by the political coalition in power at any given time and institutions that aggregate and bias the articulation of social groups. 13 The tendency is also influenced, however, by the actions of other countries. Protectionism can sour great power relations, but it is the desire for exclusive economic zones that drives great power competition and, given the possibility of coercion, influences grand strategy. Thus, the theory sketched here integrates insights from international political economy (see below), the literature on domestic politics and grand strategy,14 and systemic theories of international relations.15

#### Independently, WTO cred solves nuclear war – allows an off-track for nuclear weapons.

Hamann 09 [(Georgia Hamann is a J.D. Candidate, Vanderbilt University Law School, “Replacing Slingshots with Swords: Implications of the Antigua-Gambling 22.6 Panel Report for Developing Countries and the World Trading System,” 2009.] TDI

**Voluntary compliance with WTO rules** and procedures is of the utmost importance **to the international trading system**.'0 0 Given the increasingly globalized market, the coming years will see an increase in the importance of the WTO **as a cohesive force and arbiter of disputes that likely will become more frequent and injurious**. **01' The work of the WTO cannot be overstated in a nuclear-armed world,** as the body continues to promote respect and even amity among nations with opposing philosophical goals or modes of governance. 10 2 Demagogues in the Unites States may decry the rise of China as a geopolitical threat, 0 3 and extremists in Russia may play dangerous games of brinksmanship with other great powers, **but trade keeps politicians' fingers off "the button**. ' 10 4 **The WTO offers an astounding rate of compliance** for an organization with no standing army and no real power to enforce its decisions, suggesting that governments recognize the value of maintaining the international construct of the WTO. 105 **In order to promote voluntary compliance, the WTO must maintain a high level of credibility**. 106 Nations must perceive the WTO as the most reasonable option for dispute resolution or fear that the WTO wields enough influence to enforce sanctions. 10 7 The arbitrators charged with performing the substantive work of the WTO by negotiating, compromising, and issuing judgments are keenly aware of the responsibility they have to uphold the organization's credibility. 108

### 1AC – India

#### Advantage 2 is India

#### India is in crisis – the recent COVID surge is fundamentally different from that of the past.

Khullar 21 [(Dhruv Khullar is a contributing writer at The New Yorker, where he writes primarily about medicine, health care, and politics. He is also a practicing physician and an assistant professor at Weill Cornell Medical College) “India’s Crisis Marks a New Phase in the Pandemic,” The New Yorker, May 13, 2021. <https://www.newyorker.com/science/medical-dispatch/indias-crisis-marks-a-new-phase-in-the-pandemic>] TDI

Laxminarayan’s walks have changed in recent weeks. **Coronavirus deaths in India have skyrocketed**, and a **frightening atmosphere** has descended. New Delhi is roughly as dense as New York City, with some thirty thousand residents per square mile. But now Laxminarayan passes just a few scattered people; almost everyone stays inside if they can, venturing out only in **search of food, medication, or medical care**. Before the surge, mask-wearing had declined, but now everyone’s face is covered again. “You need public-health enforcement when the pandemic is invisible,” Laxminarayan told me. “Now fear is the dominant force changing people’s behavior.” Government statistics indicate that the virus is **newly infecting millions** of Indians each week, and that some twenty thousand or thirty thousand people are dying weekly. But most experts, including Laxminarayan, believe that those numbers **capture a fraction** of the true covid-19 toll. “It’s a **war zone**,” Laxminarayan said. “It’s worse than what you’re reading in the papers or seeing on TV. Whatever the numbers are, they don’t tell the full story. The human toll is **devastating**.” The current surge **differs fundamentally** from India’s experience last year. “This is truly a national wave,” Laxminarayan said. “It’s not urban. It’s not rural. It’s not north or south. It’s everywhere.” He went on, “During the first wave, the poor suffered the bulk of the health and economic toll. Now everyone is affected. I personally don’t know a single family that doesn’t have covid in it right now. I don’t mean in their extended family. I mean in their nuclear family.” In late April, after his dentist’s parents both died and after a colleague fell ill and couldn’t get oxygen, Laxminarayan decided to shift from covid research to covid relief. He and his team at C.D.D.E.P. decided to focus on India’s oxygen-supply problem, which has fundamentally limited the nation’s hospital capacity. They launched an initiative called OxygenForIndia, raising eight and a half million dollars in two weeks; with the help of corporate partners, among them Verizon Media, Logitech, and UiPath, they have secured more than two thousand oxygen concentrators—portable devices that remove nitrogen from the air to produce purified oxygen—and thirty thousand cylinders to store gaseous oxygen. By some estimates, those cylinder donations add up to more gaseous oxygen than India has received through foreign aid to date. “Right now, no one wants to leave a hospital bed they’re in,” Laxminarayan said. “It’s the only place they know perhaps they can get oxygen. We want to assure people they will have oxygen at home, so that hospital capacity is freed up for the sickest patients.” Laxminarayan thinks that bolstering critical-care capacity is a long-term proposition—“You can’t make doctors and nurses overnight”—and that India is better served today by making more efficient use of its existing infrastructure. OxygenForIndia has already started delivering oxygen to people’s homes, but the organization’s larger goal is to partner with hospitals in urban areas: Delhi, Bangalore, and Kolkata, among others. Doctors, along with algorithms, will triage patients upon presentation or as they improve before discharge. Those deemed safe to go home with supportive oxygen will be given a Q.R. code to be scanned at a nearby warehouse, where they can collect an oxygen cylinder or concentrator to keep as long as they need. (Cylinders must be refilled at the warehouse each day; concentrators can be used continuously at home.) “I’m hoping this is a scalable model that can be used by other countries when they face their big covid wave,” Laxminarayan said. “Because there’s no reason to believe they won’t.” The air around us, which contains twenty-one-per-cent oxygen, must be concentrated and purified to produce the medical-grade gas that people need when the coronavirus besieges their lungs. The most efficient way to accomplish this—the default in wealthy countries—is for factories to produce liquid oxygen, which tanker trucks then deliver to hospitals, where it can be stored in large containers and then piped into patients’ rooms. Many hospitals in poor countries, however, aren’t equipped to store liquid oxygen, and must rely on an external supply. If a hospital is in a remote location, this can be a serious logistical challenge. Another option is to install on-site plants that extract oxygen from the air. These systems, which use a technology known as pressure swing adsorption, or P.S.A., are expensive, and require maintenance. In October, the Indian government announced plans to build a hundred and sixty-two such plants around the country; thus far, thirty-three have been installed. Laxminarayan’s organization also hopes to create dozens of oxygen-generation plants at Indian hospitals. For now, many hospitals rely on simpler, decentralized technology, which comes with disadvantages: the gaseous oxygen contained in cylinders can cost ten times as much as its liquid equivalent, and oxygen concentrators are usually intended for only one or a few patients at a time. Whatever the process, it’s clear that too many Indians are going without the oxygen they need. Since this February, India’s oxygen requirements have increased fifteenfold; it now needs nearly three times as much medical-grade oxygen as it did during the height of its first wave. Some hospitals have run out of oxygen, and others are on the precipice. Hospitals won’t admit patients whom they can’t treat; many Indians therefore suffer a suffocating illness at home. The government is doing what it can: granting oxygen-transport vehicles an ambulance-like status on roads; leveraging the national railway service to move tankers around the country; enlisting the air force to transport empty containers back to factories to be refilled. On Wednesday, India’s Supreme Court ordered the federal government to present a more comprehensive plan to meet New Delhi’s oxygen needs. Meanwhile, foreign governments and international aid organizations are sending ventilators, concentrators, and cylinders. Still, each day brings fresh reports of people dying because they can’t get oxygen. (The shortage is likely to spread: globally, the deficit of medical oxygen—the gap between what’s needed and what’s being produced—has tripled in recent months, in part owing to the unmet need in India but also because of growing demand in South America and the Middle East.) Technically, Indians have access to universal health coverage: the country’s constitution guarantees everyone a “right to life,” and people can receive care at government facilities free of charge. But, over decades, low levels of public financing have led to poor quality and severe staff and supply shortages. India’s federal government spends around one per cent of G.D.P. on health care—far less than most large economies. Moreover, states share responsibility with the federal government for health-care delivery, and that has resulted in a large variation in funding and quality. Many Indians therefore opt to pay for private health care, if they can afford it, and the private sector now provides most care in India, even though commercial health insurance is available to only a fraction of the population and out-of-pocket costs can be devastating. In 2018, the central government launched a major effort aimed at insuring that low-income people could receive care at private facilities. But relatively few Indians have a regular place of care where they can receive ongoing management of their medical conditions or outpatient testing and treatment for covid-19. The coronavirus has severely strained India’s critical-care capacity, which was lacking even before the pandemic: during normal times, the country has around fifteen per cent of the critical-care specialists it needs. More generally, India has nine doctors for every ten thousand people—about half the global average, and only a third as many as the U.S. There’s also the issue of maldistribution: two-thirds of India’s population lives in rural areas, where only twenty per cent of the nation’s doctors work. (Shortages of nurses and other clinicians can be even worse.) VIDEO FROM THE NEW YORKER The Pandemic Through the Eyes of a Three-Year-Old Still, India’s physician-to-patient ratio is higher than that of Bangladesh, Nepal, or any nation in sub-Saharan Africa. Many of the globe’s myriad health-care systems share the fundamental constraints that have transformed India’s second wave into a humanitarian crisis—including an oxygen-delivery infrastructure that is unable to meet the demands of a vast viral surge. Many Indians have experienced the current surge as a surprise. But the forces driving it are fundamentally familiar. “Society opened up without restraint,” K. Srinath Reddy, the president of the Public Health Foundation of India and the former chair of cardiology at the All India Institute of Medical Sciences, told me. “It was widely perceived that the pandemic is behind us, that we are unlikely to have a second wave. We didn’t just return to 2019—we entered 2021 with an extra degree of exuberance.” Politicians encouraged people to gather at massive rallies; cricket stadiums filled with fans; malls opened to shoppers and weddings welcomed guests. The government sanctioned the Kumbh Mela, a Hindu religious festival, and millions of people made the pilgrimage to Haridwar, in the northern state of Uttarakhand, to wash in the River Ganges. The festival started on April 1st and continued for nearly three weeks before the coronavirus toll became unbearable and undeniable. Afterward, people carried the virus back to far-flung cities and villages. “The euphoria of putting the pandemic behind us was a widely prevalent emotion, and it suited everyone,” Reddy said. “Industry wanted to get back to full production. Small traders wanted to get back to business. Ordinary citizens wanted to get back to their lives.” Many countries have engaged in wishful thinking during the pandemic; all have struggled to fight the virus while avoiding economic collapse. The Indian experience speaks specifically to the problem of endurance, and raises the question of how long low- and middle-income countries can maintain pandemic protocols absent a clear time line for widespread vaccination. The U.S. and much of Europe have navigated the pandemic while looking forward to early and reliable access to vaccines; if we didn’t have a firm end date, we at least knew that an end was approaching. Under such conditions, politicians and the public can examine, debate, and accept the costs of restrictions. But that calculus is harder, perhaps impossible, without some assurance that pandemic life is temporary. ADVERTISEMENT The global vaccination effort has faltered, with poor countries receiving a fraction of the vaccines they had expected. covax, the world’s primary initiative to promote vaccine equity, had planned to deliver two billion doses in 2021; so far, it’s sent out about fifty million. Less than half of one per cent of all covid-19 vaccines have been administered in poor nations. “We’re now in this very strange situation where we’re talking about fourteen-year-olds in America getting vaccinated, while older people around the world remain vulnerable and entire countries are devastated,” Ashish Jha, the dean of Brown’s public-health school, told me. “It’s a moral issue, but it’s also an epidemiological one. We’re **placing everyone at risk when we let the virus run rampant.** It creates a huge substrate for new variants. We need to **quadruple our efforts to get the world vaccinated.** That has to be the No. 1 priority for the Biden Administration going forward.” The U.S. has committed four billion dollars to covax, which still faces a funding shortfall of tens of billions of dollars. Last week, the Biden Administration also announced its support for waiving intellectual-property protections for covid-19 vaccines. The proposed waiver—it must be approved by the World Trade Organization—has been **hailed by many public-health practitioners**; the director-general of the W.H.O., Tedros Adhanom Ghebreyesus, called Biden’s support for the proposal “a monumental moment” in the fight against the pandemic. But others have sounded a cautionary note, raising the possibility that the spectre of patent waivers will disincentivize companies from investing in vaccine and drug development in the future. “I wonder whether we want to send potential firms the message that the larger the health crisis, the less we will respect and protect your I.P.,” Craig Garthwaite, a professor at Northwestern University, tweeted, after the Biden Administration’s announcement. “That’s a great system if you think this is the last pandemic we’ll face.”

#### 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 2nd ("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.

#### Nuclear war causes extinction – mass starvation and ice age.

**Starr 15** (Steven Starr 15. “Nuclear War: An Unrecognized Mass Extinction Event Waiting To Happen.” Ratical. March 2015. <https://ratical.org/radiation/NuclearExtinction/StevenStarr022815.html>) TG

A war fought with 21st century strategic nuclear weapons would be more than just a great catastrophe in human history. If we allow it to happen, such a war would be a mass extinction event that [ends human history](https://ratical.org/radiation/NuclearExtinction/StarrNuclearWinterOct09.pdf). There is a profound difference between extinction and “an unprecedented disaster,” or even “the end of civilization,” because even after such an immense catastrophe, human life would go on. But extinction, by definition, is an event of utter finality, and a nuclear war that could cause human extinction should really be considered as the ultimate criminal act. It certainly would be the crime to end all crimes. The world’s leading climatologists now tell us that nuclear war threatens our continued existence as a species. Their studies predict that a large nuclear war, especially one fought with strategic nuclear weapons, would create a post-war environment in which for many years it would be too cold and dark to even grow food. Their findings make it clear that not only humans, but most large animals and many other forms of complex life would likely vanish forever in a nuclear darkness of our own making. The environmental consequences of nuclear war would attack the ecological support systems of life at every level. Radioactive fallout produced not only by nuclear bombs, but also by the destruction of nuclear power plants and their spent fuel pools, would poison the biosphere. Millions of tons of smoke would act to [destroy Earth’s protective ozone layer](https://www2.ucar.edu/atmosnews/just-published/3995/nuclear-war-and-ultraviolet-radiation) and block most sunlight from reaching Earth’s surface, creating Ice Age weather conditions that would last for decades. Yet the political and military leaders who control nuclear weapons strictly avoid any direct public discussion of the consequences of nuclear war. They do so by arguing that nuclear weapons are not intended to be used, but only to deter. Remarkably, the leaders of the Nuclear Weapon States have chosen to ignore the authoritative, long-standing scientific research done by the climatologists, research that predicts virtually any nuclear war, fought with even a fraction of the operational and deployed nuclear arsenals, will leave the Earth essentially uninhabitable.

#### The plan solves both scenarios and WTO IP rules are a barrier to scaled-up vaccine production.

Pandey 21 [(Ashutosh Pandey) “Rich countries block India, South Africa's bid to ban COVID vaccine patents,” DW, April 2, 2021. <https://www.dw.com/en/rich-countries-block-india-south-africas-bid-to-ban-covid-vaccine-patents/a-56460175>

The World Trade Organization (WTO) talks on a proposal by India and South Africa to temporarily suspend intellectual property (IP) rules related to COVID-19 vaccines and treatments hit a roadblock on Thursday after wealthy countries balked at the idea, Germany's dpa news agency reported. The two developing countries say the IP waiver will allow drugmakers in poor countries to start production of effective vaccines sooner. India and South Africa had approached the global trade body in October, calling on it to waive parts of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement). The suspension of rights such as patents, industrial designs, copyright and protection of undisclosed information would ensure "**timely access to affordable medical products including vaccines and medicines or to scaling-up of research, development, manufacturing and supply of medical products essential to combat COVID**-19," they said. The proposal was vehemently opposed by wealthy nations like the US and Britain as well as the European Union, who said that a ban would stifle innovation at pharmaceutical companies by robbing them of the incentive to make huge investments in research and development. This would be especially counterproductive during the current pandemic which needs the drugmakers to remain on their toes to deal with a mutating virus, they argue. The WTO talks are taking place as some wealthy countries face criticism for **cornering billions** of COVID shots — many times the size of their populations — while **leaving poor countries** struggling for supplies. **Experts say the global scramble for vaccines, or vaccine nationalism, risks prolonging the pandemic.** "We have to recognize that this virus knows no boundaries, it travels around the globe and the response to it should also be global. It should be based on international solidarity," said Ellen 't Hoen, the director of Medicines Law & Policy — a nonprofit campaigning for greater access to medicines. "Many of the large-scale vaccine manufacturers are based in developing countries. All the production capacity that **exists should be exploited**…and that does require the sharing of Not enough production capacity Supporters of the waiver, which include dozens of developing and least-developed countries and NGOs, said the WTO's IP rules were acting as a **barrier to urgent scale-up of production of vaccines** and other much needed medical equipment in poor countries.

### 1AC – South Africa

#### The third wave of the pandemic is fueling instability in South Africa.

Egwu 21 [(Patrick Egwu is a Nigerian freelance journalist currently based in Johannesburg, where he is an Open Society Foundations fellow at the University of the Witwatersrand) “South Africa’s Twin Crises Are Feeding Each Other,” Foreign Policy, July 20, 2021. <https://foreignpolicy.com/2021/07/20/south-africa-covid-19-struggles-deadly-third-wave-zuma-violence/>] TDI

South Africa is coping with two crises at once—a political storm caused by the imprisonment of former President Jacob Zuma, whose followers have caused chaos on the streets, and a deadly new wave of COVID-19 that’s hospitalizing thousands of people a day. On July 3, South Africa hit a record 26,000 cases of COVID-19, one of the **highest new daily totals** reported since the pandemic started over a year ago. The country has been battling a **deadly third wave** of the pandemic, following previous peaks during the first and second waves between April and December 2020. As of July 19, South Africa has recorded 2.3 million cases and 67,000 deaths since the pandemic started, according to the country’s Department of Health. On June 27, President Cyril Ramaphosa announced that the country would move to adjusted alert level 4 of lockdown for 14 days as the country faced a rising number of COVID-19 infections. After the end of the two-week lockdown and with a continuous spike in cases, Ramaphosa addressed the nation again on July 11 and announced an additional 14 days of restrictions. Ramaphosa was facing both the COVID-19 situation and the violence across the country by pro-Zuma supporters.. Banks and government buildings temporarily closed to avoid attacks. On July 12, Ramaphosa addressed the nation over persistent public violence and announced the deployment of soldiers to two provinces—Gauteng and KwaZulu-Natal, the hometown of Zuma, where the violence started. As of July 13, more than 70 people had been killed and about 1,200 arrested. “This violence may indeed have its roots in the pronouncements and activities of individuals with a political purpose and in expressions of frustration and anger,” Ramaphosa said, but added that no grievance or political cause could justify the violence and destruction. The violence has affected access to health services, with front-line workers unable to reach vaccination stations and pharmacies often shuttered to avoid vandalism and looting. The unemployment and visible inequalities in the country exacerbated the violence. Thousands of South Africans have **lost their jobs** following lockdown restrictions, and **there has been little government support for the economy.** The **violence created an opportunity** to explore illegal options of survival. On top of this, the brutal police enforcement of the lockdown last year has aggravated existing tensions around police brutality, **contributing to the unrest**. Ramaphosa acknowledged this in his address: “This moment has thrown into stark relief what we already knew: that the level of unemployment, poverty, and inequality in our society is **unsustainable**.” As in so many other countries, the delta variant of COVID-19 now appears to be dominant, although the government has not published separate statistics for the different variants yet. Hospitals and front-line workers in the country are **overwhelmed** with the number of patients they are receiving each day. In some provinces, such as Gauteng and KwaZulu-Natal, many hospitals are operating above capacity, with shortage of spaces and oxygen for patients. Front-line health care workers have been hit hard. As of December 2020, over 38,000 health care workers in South Africa had tested positive for the virus, with more than 390 dead, according to data cited by Ramaphosa. Dozens Killed in South Africa Protests COLM QUINN The government is responding by calling for massive recruitment of health volunteers to beef up the staff strength at public hospitals. Earlier on in the pandemic, African countries made some gains against the virus through precautionary measures such as border closures. For instance, in March 2020, South Africa was the first country on the continent to declare a state of **national disaster on the pandemic**, and stiffer restrictions were announced. But these initial **successes are gradually being lost with the new wave of infections and growing death rate.** The gradual relaxation of restrictions to save South Africa’s ailing economy, which started last June, **has worsened the situation.** The World Bank says South Africa is among the most unequal countries in the world—something the pandemic has only **inflamed**. The unemployment rate in the country stood at **33 percent** at the end of March and is highest among youth aged 15 to 24. As the third wave continues to ravage the country, just 4 million people—about **7 percent** of South Africa’s population of 60 million—have **received at least one dose of the vaccine**, according to the Department of Health.

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

Steinhauser and Parkinson 21 [(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

#### Failure to contain COVID-19 causes extinction

Guy R. **McPherson, PhD, 20** [PhD Range Science, Professor Emeritus, University of Arizona School of Natural Resources and Department of Ecology & Evolutionary Biology], “Will COVID-19 Trigger Extinction of All Life on Earth?” Eart & Envi Scie Res & Rev, Volume 3 Issue 2, 4-8-2020, <https://opastonline.com/wp-content/uploads/2020/04/will-covid-19-trigger-extinction-of-all-life-on-earth-eesrr-20-.pdf>

Small lives matter. Indeed, the “human body contains about 100 trillion cells, but only maybe one in 10 of those cells is actually — human” [1]. We are comprised of bacteria and other tiny living organisms, as well as non-living entities such as viruses. One such virus has captured the attention of the world, and with good reason. **The novel coronavirus could trigger extinction of humans, and therefore the extinction of all life on Earth**. I frequently hear and read that COVID-19 is a nefarious attempt by the so-called “elite” among us to depopulate the burgeoning human population on Earth. Other conspiracy theories abound, including COVID-19 as an attempt to further reduce human rights, promote expensive medical therapies, and otherwise enrich the wealthy at the expense of the bamboozled masses. I do not doubt the ability of the informed wealthy to fleece the ignorant masses. Nor do I doubt the ability of the informed wealthy to turn virtually any situation into an opportunity for monetary gain. A quick glance at the past two centuries provides plenty of examples. However, I doubt the monetarily wealthy among us are interested in accelerating human extinction, even for financial gain. As I explain below, **the ongoing** reduction in industrial activity **as a result of COVID-19 almost certainly leads to loss of habitat for human animals, hence putting us on the fast track to human extinction**. I doubt the knowledgeable “elite” are interested in altering the sweet deal they are experiencing with the current set of living arrangements. The aerosol masking effect, or global dimming, has been described in the peer-reviewed literature since at least 1929 [2, 3]. **Coincident with industrial activity adding to greenhouse gases that warm the planet, industrial activity simultaneously cools the planet by adding aerosols to the atmosphere. These aerosols block incoming sunlight, thereby keeping cool our pale blue dot. Reducing industrial activity by as little as 35 percent is expected to cause a global-average temperature rise of 1 degree Celsius within a few weeks**, according to research on the aerosol masking effect [4]. Such research was deemed collectively too conservative by a paper in the 17 January 2019 issue of Science [5]. As pointed out by the lead author of the latter paper on 22 January 2019 “Global efforts to improve air quality by developing cleaner fuels and burning less coal could end up harming our planet by reducing the number of aerosols in the atmosphere, and by doing so, diminishing aerosols’ cooling ability to offset global warming” [6]. The cooling effect is “nearly twice what scientists previously thought,” and the paper by Rosenfeld et al. [5] cites the conclusion by Levy et al. [4], indicating as little as 35% reduction in industrial activity drives a 1 C global-average rise in temperature, thereby suggesting that as little as a 20% reduction in industrial activity will drive a 1 C spike in temperature within a few weeks [7]. Additional, recent support for the importance of the aerosol masking effect comes from [8, 9]. Furthermore, loss of aerosols exacerbates heat waves [10]. Human extinction might have been triggered several years ago when the global-average temperature of Earth exceeded 1.5 C above the 1750 baseline. According to a comprehensive overview published by European Strategy and Policy Analysis System in April, an “increase of 1.5 degrees is the maximum the planet can tolerate; … at worst, [such a rise in temperature above the 1750 baseline will cause] the extinction of humankind altogether” [11, 12]. Earth’s global-average temperature hit 1.73 C above the 1750 baseline by April, 2018 the highest global-average temperature experienced by Homo sapiens on Earth [13, 14]. By 13 March 2020, 2 C above the 1750 baseline was crossed [11]. In other words, human extinction via the death-by-a-thousandcuts route might be locked in with no further heating of Earth. In light of the ongoing pandemic, the ongoing Mass Extinction Event, and abrupt, irreversible climate change, it is pleasantly surprising that humans still occupy Earth. The pandemic-induced reduction in industrial activity may have already reduced the aerosol masking effect sufficiently to trigger a 1 C temperature spike. The outcome is not yet obvious because the timing of the outbreak of the novel coronavirus was favorable for human habitat. Trees produced leaves in the Northern Hemisphere spring of 2020 as a result of carbohydrates stored the previous year and grain crops were harvested before the novel coronavirus emerged. Results of the recent and ongoing rise in temperature, which have already been reported in China and India, will become obvious to most humans when many more trees die. Large-scale die-off of trees likely will approximately correspond with catastrophic crop failure. This might occur by the end of this year, although I would rather it not. **Every civilization requires bread and circuses**. There is little doubt **the circuses attendant to industrial civilization will continue until the end of the planetary show for Homo sapiens. Bread, however, requires wheat. Wheat production requires a delicate balance of growing conditions that, like habitat for humans, teeters on the brink** [15]. **The path to near-term human extinction thus runs from a tiny virus underlying a pandemic through a reduction of industrial activity that overheats a planet already running a fever**. **The outbreak of COVID-19 could very well be the event that accelerates human extinction via reduction of industrial activity, hence loss of habitat for Homo sapiens. As a result of the rapid environmental change likely to follow, we are almost certain to lose all life on Earth** [16]. History is replete with examples of human hubris. We thought we were mighty, and we certainly have left our mark on Earth. **How embarrassing for the big-brained human species that a microscopic virus could pull the trigger on our extinction** [15].

AT: Nebel