## 1AC—Vaccines

**1AC – Plan**

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

**1AC – Inherency**

**Contention 1 is Inherency.**

**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.**

**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

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.**

**1AC – WTO Credibility**

**Contention 2 is WTO Credibility.**

**The new head of the WTO is on track to push for reform and an increased role in the international arena, 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.

**Specifically, 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 – Developing Economies**

**Contention 3 is Developing Economies.**

**Scenario 1 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.

**Extinction.**

**Roblin 21.** [(Sébastien Roblin holds a master’s degree in Conflict Resolution from Georgetown University and served as a university instructor for the Peace Corps in China, "If the Next India-Pakistan War Goes Nuclear, It Will Destroy the World," The National Interest, March 26, 2021. <https://nationalinterest.org/blog/reboot/if-next-india-pakistan-war-goes-nuclear-it-will-destroy-world-181134>] TDI

Here's What You Need to Remember: India and Pakistan account for over one-fifth **world’s population**, and therefore a significant **share of economic** activity. Should their **major cities** become **irradiated** ruins with their populations decimated, a **tremendous disruption** would surely result.

Between February 26 and 27 in 2019, Indian and Pakistani warplanes **launched strikes** on each other’s territory and engaged in **aerial combat** for the first time since 1971. Pakistan ominously hinted it was convening its National Command Authority, the institution which can authorize **a nuclear strike**.

The two states, which have retained an **adversarial relationship** since their founding in 1947, between them deploy **nuclear warheads** that can be delivered by land, air and sea.

However, those weapons are inferior in number and yield to the thousands of nuclear weapons possessed by Russia and the United States, which include megaton-class weapons that can wipe out a metropolis in a single blast.

Some commenters have callously suggested that means a “limited regional nuclear war” would remain an Indian and Pakistani problem. People find it difficult to assess the risk of rare but catastrophic events; after all, a full-scale nuclear war has never occurred before, though it has come close to happening.

Such assessments are not only shockingly callous but shortsighted. In fact, **several studies** have modeled the global impact of a “limited” **ten-day nuclear war** in which India and Pakistan each exchange fifty 15-kiloton nuclear bombs equivalent in yield to the Little Boy uranium bomb dropped on Hiroshima.

Their findings concluded that **spillover** would in no way be “limited,” directly impacting people **across the globe** that would struggle to locate Kashmir on a map.

And those results are merely a conservative baseline, as India and Pakistan are estimated to possess over **260 warheads**. Some likely have yields exceeding 15-kilotons, which is relatively small compared to modern strategic warheads.

**Casualties**

Recurring **terrorist attacks** by Pakistan-sponsored militant groups over the status of India’s Muslim-majority Jammu and Kashmir state have repeatedly led to threats of a **conventional** military **retaliation** by New Delhi.

Pakistan, in turn, maintains it may use **nuclear weapons** as a **first-strike weapon** to **counter-balance** India’s superior conventional forces. Triggers could involve the **destruction** of a large part of Pakistan’s military or **penetration** by Indian forces deep into Pakistani **territory**. Islamabad also claims it might authorize a strike in event of a damaging Indian **blockade** or political **destabilization** instigated by India.

India’s official policy is that it will never be first to strike with nuclear weapons—but that once any **nukes** are used against it, New Dehli will unleash an **all-out retaliation**.

The Little Boy bomb alone killed around 100,000 Japanese—between 30 to 40 percent of Hiroshima’s population—and destroyed 69 percent of the buildings in the city. But Pakistan and India host some of the most populous and **densely populated** cities on the planet, with population densities of Calcutta, Karachi and Mumbai at or exceeding 65,000 people per square mile. Thus, even low-yield bombs could cause **tremendous casualties**.

A 2014 study estimates that the **immediate effects** of the bombs—the fireball, over-pressure wave, radiation burns etc.—would kill **twenty million people**. An earlier study estimated a hundred 15-kiloton nuclear detonations could kill twenty-six million in India and eighteen million in Pakistan—and concluded that escalating to using 100-kiloton warheads, which have greater blast radius and overpressure waves that can shatter hardened structures, would multiply **death tolls four-fold**.

Moreover, these projected body counts omit the **secondary effects** of nuclear blasts. Many survivors of the initial explosion would suffer **slow**, **lingering deaths** due to **radiation exposure**. The **collapse of healthcare**, transport, sanitation, water **and** economic **infrastructure** would also claim many more lives. A nuclear blast could also trigger a **deadly firestorm**. For instance, a firestorm caused by the U.S. napalm bombing of Tokyo in March 1945 killed more people than the Fat Man bomb killed in Nagasaki.

**Refugee Outflows**

The civil war in Syria caused over 5.6 million refugees to flee abroad out of a population of 22 million prior to the conflict. Despite relative stability and prosperity of the European nations to which refugees fled, this outflow triggered political backlashes that have rocked virtually every major Western government.

Now consider likely **population movements** in event of a nuclear war between India-Pakistan, which together total over **1.5 billion people**. Nuclear bombings—or their even their mere potential—would likely cause many city-dwellers to **flee** to the countryside to lower their odds of being caught in a nuclear strike. Wealthier citizens, numbering in tens of millions, would use their resources to flee abroad.

Should bombs beginning dropping, poorer citizens many begin pouring over land borders such as those with Afghanistan and Iran for Pakistan, and Nepal and Bangladesh for India. These poor **states would struggle** to supports tens of millions of refugees. China also borders India and Pakistan—but historically Beijing has not welcomed refugees.

Some citizens may undertake risky voyages at sea on overloaded boats, setting their sights on South East Asia and the Arabian Peninsula. Thousands would surely drown. Many regional governments would turn them back, as they have refugees of conflicts in Vietnam, Cambodia and Myanmar in the past.

**Fallout**

Radioactive fallout would also be **disseminated across the globe**. The fallout from the Chernobyl explosion, for example, wounds its way westward from Ukraine into Western Europe, exposing 650,000 persons and contaminating 77,000 square miles. The long-term health effects of the exposure could last decades. India and Pakistan’s **neighbors** would be especially **exposed**, and most lack healthcare and infrastructure to deal with such a crisis.

**Nuclear Winter**

Studies in 2008 and 2014 found that of one hundred bombs that were fifteen-kilotons were used, it would blast **five million tons of** fine, **sooty particles** into the stratosphere, where they would **spread across the globe**, warping global **weather patterns** for the next twenty-five years.

The particles would **block out** light from the **sun**, causing surface temperatures to decrease an average of 2.7 degrees Fahrenheit across the globe, or 4.5 degrees in North American and Europe. **Growing seasons** would be **shortened** by ten to forty days, and certain **crops** such as Canadian wheat would simply become **unviable**. Global agricultural **yields** would **fall**, leading to rising prices and **famine**.

The particles may also **deplete** between 30 to 50 percent of the **ozone** layer, allowing more of the **sun’s radiation** to penetrate the atmosphere, causing increased **sunburns** and rates of **cancer** and killing off sensitive plant-life and marine plankton, with the spillover effect of **decimating fishing yields**.

To be clear, these are outcomes for a **“light” nuclear winter** scenario, not a full slugging match between the Russian and U.S. arsenals.

**Global Recession**

Any one of the factors above would likely suffice to cause a global **economic** recession. All of them combined would guarantee one.

India and Pakistan account for over one-fifth **world’s population**, and therefore a significant share of economic activity. Should their major cities become **irradiated ruins** with their **populations decimated**, a tremendous disruption would surely result. A **massive decrease in consumption and production** would obviously instigate a long-lasting recessionary cycle, with attendant deprivations and political destabilization slamming developed and less-developed countries alike.

Taken together, these outcomes mean even a **“limited” India-Pakistan nuclear war** would significantly affect every person on the globe, be they a school teacher in Nebraska, a factory-worker in Shaanxi province or a fisherman in Mombasa.

Unfortunately, the **recent escalation** between India and Pakistan is no fluke, but part of a **long-simmering pattern** likely to continue escalating unless New Delhi and Islamabad work together to change the nature of their relationship.

**Scenario 2 is pandemics**

#### The rate of vaccinations between the global north and south is increasing at a disproportionate rate. IP laws are barriers leaving millions unvaccinated

UN 21 [“Unequal Vaccine Distribution Self-Defeating, World Health Organization Chief Tells Economic and Social Council’s Special Ministerial Meeting,” United Nations, April 16, 2021, <https://www.un.org/press/en/2021/ecosoc7039.doc.htm>] **SC EP**

With the number of new COVID-19 cases around the world nearly doubling over the past two months — approaching the highest infection rate observed during the pandemic — the unequal distribution of vaccines is not only a moral outrage, but economically and epidemiologically self-defeating, the head of the United Nations health agency told a special ministerial meeting of the Economic and Social Council today. “Vaccine equity is the challenge of our time,” Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization (WHO), told the gathering in opening remarks.  “And we are failing.” Driving that point home, he reported that, of the 832 million vaccine doses administered, 82 per cent have gone to high- or upper‑middle-income countries, while only 0.2 per cent have been sent to their low-income counterparts.  In high‑income countries alone, 1 in 4 people have been vaccinated, a ratio that drops precipitously to 1 in 500 in poorer countries. The meeting — held in virtual format with the theme “A Vaccine for All” — brought together senior officials from the United Nations, Governments, business, the scientific community and civil society.  They explored ways to guarantee equal access to vaccines as a global public good, and strengthen the readiness of countries for their distribution. The Director-General said that rapidly spreading variants, the inconsistent application and premature easing of public health measures, fatigue with social restrictions and the dramatic inequity in vaccine coverage have all led to an alarming spike in new cases and deaths.  “This is a time for partnership, not patronage,” he emphasized. “We have the tools to end this pandemic,” he continued.  The Access to COVID-19 Tools Accelerator (ACT-Accelerator), created by WHO and its partners, as well as the COVAX Facility, can prevent mistakes of 40 years ago, when the world was slow to deploy life-saving antiretroviral drugs to poor countries during the HIV/AIDS crisis. Today, COVAX has distributed 40 million doses to 100 countries, but that is nowhere near enough, he said, stressing that WHO had expected to have distributed 100 million doses by now.  Some countries have received nothing, none have received enough, and some are not receiving second-round allocation on time, he noted.  “The problem is not getting vaccines out of COVAX,” he added.  “The problem is getting them in.” He said WHO is working with Gavi, the Vaccine Alliance, and the Coalition for Epidemic Preparedness Innovations to scale up production and supply.  A COVAX manufacturing task force has been formed, and promisingly, the African Union will form the New Partnership for African Manufacturing, he noted.  It aims to build five vaccine production hubs on the continent, starting with three mRNA facilities in Rwanda, Senegal and South Africa.  WHO is also developing regional regulatory capacity through the African Medicines Agency, he reported. Calling upon countries with enough vaccine to cover their populations “many times over” to make immediate donations to COVAX, he underlined the vital need to explore every option for boosting production.  They include voluntary licences, technology pools, flexibilities on trade-related intellectual property rights and waiving certain intellectual property provisions, and investing in local vaccine manufacturing.  WHO will continue to provide technical assistance and to add manufacturing bases across Africa, Asia and Latin America, he said. He urged all countries to carry out measures that work — surveillance, testing, contact‑tracing, supportive quarantine and compassionate care — emphasizing that never in the 75-year history of the United Nations has its role been more important.  “We cannot defeat this virus one country at a time,” he stressed.  “We can only do it with a coordinated global effort, based on the principles of solidarity, equity and sharing.” Ngozi Okonjo-Iweala, Director General of the World Trade Organization (WTO), described the vaccine disparities as “morally unconscionable”.  Addressing inequity is a task that forces the world to grapple with daunting technical, logistical, policy and political hurdles, but they can be overcome in a practical, empirically informed manner, she said.  While the impulse to conserve supply is understandable, securing personal safety is not enough, she emphasized.  “We must find a way to share.” A recent WTO vaccine equity event had some encouraging takeaways, she reported, making clear the untapped potential in developing countries to step up production, and the availability of resources to bankroll such investment.  WTO members have reduced export restrictions from 109 in nearly 90 countries, to 51 in 62 countries, she said, adding that, with pragmatic engagement, they can find ways to bridge concerns over intellectual property rights.  She went on to express hope that such efforts will lead to a framework agreement on trade and health, preferably before the twelfth WTO Ministerial Conference in December. Munir Akram (Pakistan), President of the Economic and Social Council, said that, as well as being a moral imperative, universal vaccine coverage is the only realistic way out of the pandemic.  He called for scaling up production, addressing intellectual property issues, supporting weak health systems, removing export restrictions — and importantly — funding the WHO ACT‑Accelerator and COVAX Facility.  Decisive steps towards universal access to vaccines is a prerequisite for economic recovery, he stressed. Volkan Bozkir (Turkey), President of the General Assembly, emphasized:  “No topic is as relevant or pertinent to the world today as that of vaccines,” while acknowledging:  “Our efforts have not been perfect.”  He stressed that “we must finish what we have started”, pressing Governments to recommit to the principles of human solidarity and cooperation.  The progress made to date is the result of countries working with hundreds of companies and thousands of scientists — “multilateralism at its finest” — he said. With a view to ensuring the goal of “vaccines for all”, he continued, Member States should extend resources to COVAX; invest in vaccine research, production and distribution; donate vaccines to countries in need; and tackle misinformation to ensure that everyone is educated on the benefits of inoculation.  “It is the job of the United Nations and its Member States to act on these demands,” he stressed. Throughout the day, ministers and other senior officials explored ways to bridge financing gaps, build national capacities and maximize vaccine supply and rollout, as they engaged in two panel discussions addressing the related problems. Melissa Fleming, Under-Secretary-General for Global Communications, moderated the first panel discussion, on the theme “Scaling up for Vaccine Equity”.  It featured the following panellists:  Winnie Byanyima, Executive Director, Joint United Nations Programme on HIV and AIDS (UNAIDS); Henrietta Fore, Executive Director, United Nations Children’s Fund (UNICEF); Soumya Swaminathan, Chief Scientist, World Health Organization (WHO); John Nkengasong, Director, Africa Centres for Disease Control and Prevention; Paul Farmer, Professor and Chair, Department of Global Health and Social Medicine, Harvard University Medical School; and Andrey Zarur, Founder and Chief Executive Officer, GreenLight Biosciences, Incorporated. Ms. FLEMING, opening the discussion, cited data showing that 9 out of 10 people in poor countries could miss out on vaccines.  She asked the UNAIDS Executive Director to elaborate on the concept of “people’s vaccine” and on ways in which to address vaccine inequality. Ms. BYANYIMA said rich nations are currently vaccinating their citizens at a rate of one person per second while, as of the week of 4 to 11 April, seven African countries were yet to receive a single dose.  She added that widening inequality — exacerbated by the pandemic — runs counter to the Sustainable Development Goals.  The right to health is a universal human right, she pointed out, emphasizing that it that should not be up for sale or denied due to profit concerns.  Vaccine nationalism or apartheid is self-defeating because it prolongs the crisis, economic downturn and suffering for everyone, she said, stressing that investment in regional vaccine manufacturing hubs is necessary for future global safety.  Noting that vaccine inequality translates into social and economic inequality, she said any delay in response to the current crisis equates to more loss of life and increased poverty.  She added that a global plan is needed to effectively address this issue. Responding to a question about similarities between the current crisis and the HIV/AIDS one, she reiterated that unequal access to health products, technology and services costs lives and delays overall recovery.  Recalling that treatment for HIV/AIDS initially cost between $10,000 per patient per year, she said the cost fell to $100 per patient per year as a direct result of a global movement pushing for change.  She urged the international community to learn from past crises, avoid previous mistakes and bear in mind that — beyond the moral and economic imperatives to act — “no one is safe until everyone is safe”. Ms. FORE, asked about vaccine-equity concerns and UNICEF’s role in addressing COVID-19, noted that about half the world’s vaccines have passed through the agency’s doors for the past 20 years.  Children require routine immunizations and must not be neglected while the world vaccinates against COVID‑19, she emphasized.  UNICEF moves 2 billion doses of vaccines for children annually, she said, adding that the Fund plans to move another 2 billion doses of COVID-19 vaccines if it has the supply.  To that end, countries must emphasize preparedness for their distribution by developing priorities for who will receive the vaccine first — for example, front-line workers such as doctors, nurses and teachers — and by communicating to their citizens that vaccines are the best protection against COVID-19 and its variants.  She went on to underscore the importance of sufficient manufacturing capacity for supplies that facilitate vaccine distribution, including masks, syringes and safe disposal equipment. On how to avoid vaccine nationalism, she pointed out that the number of doses administered in low-income countries stands at 0.2 per cent of the population, compared to 16.7 per cent in middle-income countries and 48.7 per cent in high-income ones.  To address that inequality, she called for the removal of import and export restrictions, increased licensing of relevant intellectual property and the loan, release or donation of vaccine supplies by those countries possessing excess supply. Ms. SWAMINATHAN, answering a query about WHO’s role in pushing for equitable access to vaccines, emphasized that agency’s importance as a normative agency that informed manufacturers of benchmarks for COVID-19 vaccines — including a minimum of 50 per cent efficacy — which regulators then used in assessing vaccine candidates.  She said that, for universal access to be successful, it requires investment in infrastructure, workforce training, transfer of technology and knowledge, a competent regulatory system and willingness to share on the part of the holders of intellectual property-rights holders. On how to address the health concerns surrounding the AstraZeneca and Johnson & Johnson vaccines, she pointed out that recent health complications are not unexpected because no drug or vaccine is 100 per cent safe and a certain percentage out of a large pool of recipients will inevitably display rare side effects.  The issue here is one of trust, not only in the vaccines, but also in the authorities disseminating information about them, she stressed.  Authorities must be open and transparent about known facts, and the calculus is ultimately about benefit versus risk.  She added that the risk for all age groups of dying from COVID-19 is far higher than that of dying from a vaccine. Dr. NKENGASONG, asked about the challenges facing vaccine rollout in Africa, recalled past health crises in which tens of millions on the continent died needlessly.  The international community “should not let history repeat itself”, he emphasized, pointing out that “nice words about solidarity” expressed at the onset of the pandemic disappeared quickly with the arrival of vaccines.  The international community cannot neglect a continent of 1.3 billion people if it is to overcome the present crisis.  Expressing surprise that “basic common sense” has not prevailed in that regard, he invoked Martin Luther King, Jr.’s, appeal to the “fierce urgency of now” in calling for a return to the spirit of cooperation that defined the early days of the present crisis to fight the coronavirus. Concerning the potential for increased vaccine manufacturing in Africa to solve the current crisis and others like it, he underscored the importance of implementing a framework for reversing the narrative that 99 per cent of vaccines in Africa are imported.  He expressed hope that, in 20 years, Africa will manufacture at least 50 per cent of the vaccines it uses.  That would be in the world’s best interest, he emphasized, calling for partnerships in technology transfer, infrastructure development and regulatory issues in support of the African vision for such manufacturing. Mr. FARMER, asked how to apply lessons learned during previous health crises, said one of the biggest failures of the response to Ebola in West Africa was low expectations and ambition on the part of imported experts, tinged with a distinctly colonial feel.  The Africa Centres for Disease Control and Prevention has carried out excellent work in recent years, he noted, underlining the importance of African-led initiatives.  He emphasized that the delay between the development and use of new tools costs lives, recalling that a vaccine proven effective against Ebola sat on shelves for a decade due to a perceived lack of demand.  The history of medicine and public health in Africa, he added, serves as a reminder that the international community must focus on equitably “irrigating clinical deserts” in order to decolonize global health and respond to COVID-19. Asked about a road map for a more equitable global health system, he said what is necessary is “not rocket science” — countries need safe spaces to deliver care, systems and support to those in need. Mr. ZARUR, asked about the role that the private sector can play in scaling up vaccine production and promoting equitable distribution, said that sector has a responsibility — rather than a role to play — to build national capacities for vaccine manufacturing so that Governments can address problems on the local level.  “If you teach someone how to make a vaccine, you vaccinate them forever,” he observed.  The private sector must create a new business model that allows for profitable universal vaccine production, potentially by allowing countries to earn the right — through the licensing of intellectual property — to manufacture their own vaccines and profit from doing so, he said. Responding to a question about potential challenges faced by developing countries, even if granted licensing and manufacturing rights, he said the biggest such challenge is one of funding.  Although the cost of implementation is miniscule compared to the damage already suffered, human nature would rather spend money on treatment than on prevention, he added.  Calling for the scaling up of education systems, he said the world needs trained operators who, bolstered by the global transfer of technology and skills, can develop the next generation of vaccines for the crises to come. IBRAHIMA KALIL KABA, Minister for Foreign Affairs of Guinea, spoke on behalf of the “Group of 77” and China, emphasizing that COVID-19 vaccines must be treated as a global public good.  Fair, timely and universal access is necessary to overcome the pandemic and recover momentum to achieve the Sustainable Development Goals, he said.  He called for increased sharing of technology and information while urging all countries to counter misinformation and vaccine hesitancy.  Pointing out that the global vaccine gap threatens collective health and well‑being, he expressed support for scaling up vaccine production under the trade-related intellectual property rights agreement. ALEXEY TSOY, Minister for Healthcare of Kazakhstan, spoke on behalf of the Group of Landlocked Developing Countries, noting that inequitable access to vaccines is deepening the divide between poor and rich countries.  He called upon relevant stakeholders to refrain from direct, unilateral deals with manufacturers and by donating vaccines to vulnerable countries.  At least 70 per cent of the world’s population must be vaccinated in order to contain the current crisis, according to expert opinion, he said, encouraging the facilitators of COVAX to increase intended procurement.  He also called upon WTO members to use the trade‑related intellectual property rights agreement to temporarily increase timely, affordable access to essential medical products. FRANK ANTHONY, Minister for Health of Guyana, spoke on behalf of the Caribbean Community (CARICOM), expressing concern regarding the devastating impact of COVID-19 on small, developing States in the form of lockdown measures, supply‑chain disruptions, sharp declines in remittances and the general decrease in travel, trade and other economic activity.  Predicting that many vulnerable countries and peoples will continue to suffer unless safe, effective vaccines are made universally available and affordable, he called for increased funding for the ACT-Accelerator and its COVAX Facility, and appealed to international financial institutions to provide low-cost financing to support the pandemic recovery efforts of all developing countries. The representative of the European Union pointed out that the bloc has spent more than €1 billion to support research on anti-COVID vaccines and therapeutics and has contributed €2.5 billion to the ACT-Accelerator’s COVAX Facility, which has exported more than 80 million doses to 42 countries.  Furthermore, “Team Europe” has mobilized a global recovery package of over €40 billion and will provide a further €100 million in humanitarian support to vaccine efforts, in coordination with the Africa Centres for Disease Control and Prevention.  He went on to emphasize that vaccination is “not a race between countries, but a race against the virus”. The representative of Tuvalu, speaking on behalf of the Pacific Islands Forum, said the pandemic has affected lives, health care, infrastructure, food security, development goals, trade, tourism, remittances and social cohesion around the globe, including in “our blue Pacific continent”.  He emphasized the need to vaccinate all Pacific peoples in order to mitigate health concerns, improve well-being and facilitate early economic recovery.  Equitable access to vaccines can be “considered a form of stimulus” for Pacific economies.  Noting that the region’s small island developing States have had limited policy space in which to respond to the crisis — particularly lacking the means for extra spending — he called for increased support for health-care infrastructure, investment and training. DON PRAMUDWINAI, Deputy Prime Minister and Minister for Foreign Affairs of Thailand, noted that more than half the 9.6 billion doses of COVID-19 vaccines secured by countries around the world are concentrated in only 10 of them.  Calling for global efforts to improve vaccine manufacturing and distribution capacities, he said Thailand will serve as a regional manufacturing hub for a viral vector-based vaccine by the second half of 2021, and plans to produce up to 200 million doses annually.  He emphasized that the international community can seize the present moment to turn crisis into opportunity by accelerating achievement of health-related Sustainable Development Goals, such as universal health coverage. Moderated by Juan Sandoval Mendiolea, Deputy Permanent Representative of Mexico to the United Nations and Vice-President of the Economic and Social Council, the panel featured presentations by Seth Berkley, Chief Executive Officer, Gavi, the Vaccine Alliance; Mamta Murthi, Vice‑President for Human Development, World Bank Group; Jorge Moreira da Silva, Director, Development Co-operation Directorate, Organisation for Economic Co-operation and Development (OECD); Miho Shirotori, Acting Director of Trade and Commodities, United Nations Conference on Trade and Development (UNCTAD); Jeremy Konyndyk, Executive Director, COVID-Task Force, United States Agency for International Development; Lucas Chancel, co-Director, World Inequality Lab and World Inequality Database, Paris School of Economics; and Chris Lockyear, Secretary-General, Médecins Sans Frontières. Mr. BERKLEY said the COVAX Facility has delivered 40 million doses to 114 economies — working with Pfizer, AstraZeneca and the Serum Institute in particular — and raised $8.3 billion towards the Advance Market Commitment.  The Facility will be able cover 2 to 3 per cent of the global population by the end of summer, he added.  However, there are supply constraints, intense competition for doses and problems with restrictions on vaccine exports, he said.  Describing the global focus on equitable allocation as a success in itself, he contrasted it with the scepticism of the message “no one is safe until everyone is safe”, a year earlier.  Observing that the emergence of variants has changed minds, he said it has also led to vaccine panic, with countries buying doses from everywhere, including through bilateral agreements, which are inefficient and “not in anybody’s self-interest”.  Governments should instead remove export and import control measures that slow the delivery of vaccines and supplies, he said.  Nor is vaccine diplomacy a health-based approach to sharing, he added, emphasizing that vaccines should be delivered through a multilateral mechanism, such as COVAX.  Equitable allocation would add $9 trillion to the global economy, he noted, warning that, without it, “we’re all going to pay the price”. Mr. CHANCEL said that meeting the demands by India, South Africa and more than 100 emerging and developing countries for the opening of intellectual property rights would allow scientists to work on tackling the COVID-19 variants, and to trade the best available vaccines.  Calling attention to the European Union’s position in WTO, he said the bloc has blocked most of the emerging world from expanding distribution since October 2020, by limiting private intellectual property rights.  That action contravenes claims by European leaders that access to vaccines should be a global public good, he said, emphasizing:  “Every researcher should have access to formulas developed in 2020,” he said, adding that every company should also have access to the trials and errors of the few pharmaceutical companies that produced the best vaccines to date.  He went on to stress that it is not an efficient approach for the richest nation on earth to keep that information to itself, calling for the “liberation” of all productive capacities on the planet.  The European Union, United States and leaders of high-income countries must meet the demands of India and South Africa as soon as possible, he said.  “This will not cost high-income‑country taxpayers money,” he said.  “This really is about expanding the size of possible solutions.” Mr. MOREIRA DA SILVA, outlining policies to support equitable access to vaccines, said the absence of a global strategy to deploy them in developing countries has caused a crisis, delaying global economic recovery.  “Current efforts are not enough” as demand outstrips supply, he emphasized.  The recent OECD report “Learning from Crisis:  Building Resilience” calls on donors to increase support as inequitable vaccine rollouts threaten to reverse hard-fought progress, he noted.  Frameworks for equitable allocation, notably through COVAX, should be supported.  “We need to make the case for additional development finance,” and at the same time, ensure that support is not diverted from other areas critical for meeting the Sustainable Development Goals, he said.  Sixteen trillion dollars is being spent on domestic recovery packages, while $22 billion is needed to fill the vaccine rollout funding gap, he said, pointing out the need for country-led solutions, the right infrastructure and a solid donation structure for deploying vaccines. Ms. MURTHI said fair equitable access is among the most urgent priorities today.  While the idea that the pandemic will not end until everyone has safe and effective vaccines is understood, countries face very different odds, she said, emphasizing the importance of access and within countries.  Noting that delays in production and strong demand in high-income nations has deprived poor countries of access, she pressed countries with excess supply to donate doses, notably through the COVAX Facility as a coordinating vehicle.  She called for transparency on the part of countries, suppliers and development partners alike, describing various problems created by the lack of clarity around how much supply has been pre‑ordered and how much is available.  She emphasized the importance of reducing both formal and informal export restrictions to encourage the flow of supplies and expand manufacturing capacity.  Turning to equity within countries, she recalled her work assessing vaccine readiness, much of which found that, while countries are ready on a small scale, most must bolster their supply chains and communicate with their populations to reduce vaccine hesitancy, she said, adding that the World Bank is stepping in to support “readiness for deployment” and equitable distribution. Ms. SHIROTORI, outlining how the global trading system can minimize intellectual property rights barriers, said a transparent and predictable framework is needed to curtail vaccine nationalism, whose proponents call for irregular trade measures, such as banning vaccines outright.  The impact of such measures disproportionately harms low-income countries, she pointed out.  Emphasizing that economic recovery depends on vaccinating large swathes of a country’s population, she cautioned that vaccine nationalism could cost the global economy $1.2 trillion a year.  WTO, for its part, provides members with a legal framework within which to discuss flexibilities in relation to trade agreements.  Noting that members are currently discussing waivers to the trade-related intellectual property rights agreement, she said “the question to ask is not if or how, but when the [trade‑related intellectual property rights] waiver will be achieved.”  The waiver is in full compliance with the 2030 Agenda, clearly outlined in Sustainable Development Goal 3, target 3.b, she pointed out, describing waivers as the first step towards realizing a vaccine for all.  From a finance perspective, she said, they boost incentives for private and public investment in infrastructure and productive capacity.  She went on to call for global and regional actions to tackle major bottlenecks faced by developing countries, including their lack of technology and capital, low capacity to uphold standards, weak institutional frameworks, small market size and poor infrastructure. Mr. LOCKYEAR, agreeing that global vaccine production and supply is struggling to meet global demand, and that the scarcity of tools and vaccines has reinforced disparities, said countries with productive capacity benefit from privileged access.  That must prompt the international community to rethink the global agenda, moving away from the focus on economic efficiency to enabling local capacity in low- and middle‑income countries, he said.  To do so, vaccine developers must share their intellectual property and transfer their know-how, giving countries the opportunity to leverage the emergence of mRNA vaccines, which require less capital investment, he added, emphasizing that mechanisms for enabling technology transfer must be transparent and open to multiple manufacturers.  He also called for reducing barriers to increasing production, saying that countries must have new options for surmounting obstacles.  “The bottom line is that we need to truly treat vaccines as a global public good in themselves,” he stressed. Mr. KONYDYK, outlining how the international community can close the financing gap, recalled that the United States, alongside Gavi, co-hosted an event for investment in the COVAX Facility, aiming to raise $2 billion in the coming months and to boost coverage from 20 per cent of Advanced Market Commitment countries to 30 per cent.  But, there is a long way to go and additional resources must be identified, he said, adding that the United States will continue to support Gavi, making additional contributions to elevate what can be achieved through COVAX.  “We also need money to be routed more strategically”, because funds are indeed available, but not necessarily being routed in the most optimal way, he said, noting that the World Bank has offered $12 billion to support vaccine purchases and that multilateral development banks should do likewise.  Describing bilateral flows as inefficient, he said the power of COVAX and multilateral banks is to consolidate money, sending a signal to companies that they do not have to forge deals with Governments.  “We see COVAX as the most important way of doing that,” he added, also underlining the need to better target gaps in the supply chain. In the ensuing interactive dialogue, ministers and senior officials outlined the many ways in which their countries are working to vaccinate their peoples and support equitable access to vaccines.  The Minister for International Development of Canada highlighted her country’s strong commitment to the ACT‑Accelerator, saying it has provided $940 million to date.  She described equitable access to diagnostics, therapeutics and vaccines as “our path to ending the pandemic”. The Minister for Health of the Russian Federation recalled that his country was the first to develop and register a COVID-19 vaccine, saying it now has three available and launched mass vaccinations in January.  Importantly, the Russian Federation is working to enhance access to the Sputnik V vaccine, producing it both domestically and abroad.  Today, it is available in 60 countries and the Government is completing a procedure to include it for use in emergency situations, he said, adding that his country has made voluntary contributions to United Nations agencies and is working bilaterally to provide personal protective equipment. The Minister for Foreign Affairs of Colombia said vaccines are being distributed throughout her country with the aim of covering 70 per cent of the population by the end of the year.  She recalled that, in February, Colombia sponsored a Security Council resolution calling for global access to vaccines. Other speakers called for urgent action on trade, with the Minister for Internal Relations and Cooperation of South Africa highlighting her country’s joint efforts with India to persuade WTO members to approve an emergency temporary waiver of some intellectual property rights rules so that medical technology transfer can be granted during the pandemic.  That would allow countries to produce vaccines originally produced by other manufacturers, she said, adding that increased production would, in turn, permit direct access to and sharing of technology while enabling procurement.  It would also lower prices and expedite distribution to everyone, everywhere.  “I hope all Member States of the United Nations will support this initiative,” placing people over profits, she said, calling also on the Economic and Social Council to encourage greater action on universal access.  “After all, ECOSOC is an activist Council whose role is to ensure action for development,” she pointed out. The Minister for Health and Family Welfare of India similarly urged WTO to suspend considerations of intellectual property rights in order to rapidly increase manufacturing.  Pointing out that his country has lived up to the “civilizational ethos of seeing the world as one family”, he said India has developed two vaccines, one indigenously, and both have been granted emergency use authority.  With 20 other candidates in the pipeline, he said, the Government has sent vaccines to 80 countries and even gifted vaccines to peacekeepers.  He went on to press countries to collaborate on genomic surveillance and exchange information to ensure that vaccine programmes for other diseases are not adversely affected.  Efforts must also be made to prevent misinformation by providing scientific facts. Several speakers called for a large-scale focus on the ACT‑Accelerator and COVAX Facility, among them, the Minister for International Development of Norway, who said the ACT-Accelerator partnership aims to send 330 million doses to 145 countries by July.  To help fill the $22.3 billion gap, Norway and South Africa have sent letters to 89 high- and middle-income countries, encouraging them to contribute their share of resources, he said, adding that equity means recovery must be non-discriminating and gender-sensitive. The Minister for Foreign Affairs of Egypt similarly advocated financial assistance for the COVAX Facility, emphasizing:  “Developing countries that lack industrial capacity must be supported to expand their production base.”  He also drew attention to the need for a provisional waiver of the trade-related intellectual property rights agreement and the importance of meeting needs in Africa. The Minister for Foreign Affairs of Brazil said that, despite short-term supply and production delays that have hampered its vaccine programme, his country has nonetheless distributed 50 million doses.  Noting that Brazil joined the ACT‑Accelerator and the COVAX Facility, as well as its call to action to promote solidarity, he urged vaccine-producing countries to facilitate exports to COVAX, and the Facility to accelerate the rollout to participating countries, giving consideration to each country’s epidemiological situation.  “Governments must come together to increase production capacity,” he emphasized. On that point, the Vice‑Minister for Foreign Affairs of China said his country has kept its word in making its vaccines available as a global public good.  Noting that they are authorized for use in 80 countries, he said China was among the first to respond to the ACT‑Accelerator and expressed regret that some high‑income countries only care only about their own interests. The Minister for Health of Armenia pointed out that her country is a self‑financing participant in the COVAX Facility and committed to global solidarity.  She denounced the deteriorating global leadership amid the “political noise” over vaccines, emphasizing that the moral imperative must be restored. Broadly agreeing, the Minister for Foreign and CARICOM Affairs of Trinidad and Tobago said the pandemic has exposed the proverbial tug of war between the “haves and the have-nots”, and laid bare the fragilities of small island developing States.  He urged WHO to convene a global summit to address inequitable access to vaccines. Mr. AKRAM (Pakistan), Council President, said in closing remarks that today’s lengthy debate indicates the enormity of the threat posed by inaction.  Acknowledging that “we know what we need to do”, he emphasized:  “Lives are more important than incentives.”  Many countries in the developing world have the means to assume production of vaccines, he said, adding that the issue is now one of political will. Also speaking were ministers and senior officials representing Nicaragua, Maldives, Venezuela, Indonesia, Peru, Costa Rica, Argentina, Ethiopia, Czech Republic, Guatemala, Philippines, Bolivia, Andorra, Cuba, Georgia, Azerbaijan, Paraguay, Switzerland, Morocco, Algeria, United States, United Kingdom, Afghanistan, Bangladesh, Serbia, Nepal, Lebanon, Kenya, Qatar, Sri Lanka, Pakistan, Mexico and Italy.  The meeting also heard from the Observer Mission of the Holy See.

#### Vaccine poverty leaves millions unvaccinated, which increases the possibility of variants. Scientifically proven.

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How Do Viruses Evolve So Quickly?

Viruses aren’t living things. They need a host to survive – like the cells in your body. Once a virus enters your body, it reproduces and spreads. The more a virus circulates in a population of people, the more it can change. All viruses change but not always at the same rate.   
“The rate of change varies from virus to [virus](https://www.unitypoint.org/article.aspx?id=d9acbfdc-46fa-4788-99a4-a35172a20190). Some change very fast, such as the influenza virus. That is why we get a new [flu vaccine every year](https://www.unitypoint.org/flu-article.aspx?id=9749acfd-b01c-47b8-b54c-72088f2d767f&Fighting+the+Flu+Begins+with+You). SARS-CoV-2, the virus that causes COVID-19, has taught us a lot. Current research suggests it changes at a slower rate than influenza,” Dr. Best says. Because viruses are always changing, it's very important to stay up-to-date on [all vaccines](https://www.unitypoint.org/coronavirus-article.aspx?id=636b819a-4698-4567-9921-1c35146221a4). What's the Difference Between Mutations, Variants and Strains? Mutation. When a virus replicates, and the end copy has differences (in DNA or RNA), those differences are mutations. Variant. When you accumulate enough mutations, you get a variant. Strain. When you can prove a variant truly has new biologic capabilities, then you can call it a strain.“With COVID-19, the changes to the virus are currently called variants. More research is needed to determine if any of the variants can be called a strain. In the spring of 2021, the World Health Organization (WHO) created a new system to name COVID-19 variants using Greek letters. This avoids the use of locations, which can be stigmatizing to a country. The CDC identifies four main variants of concern – the alpha (B.1.1.7, first detected in the UK), the beta (B.1.351, first detected in South Africa), the gamma (P.1, first detected in Brazil) and the delta (b.1.617.2, first detected in India),” Dr. Best says. The CDC says no variants of high consequence have been identified in the United States at this time.  What is the Delta Variant of COVID-19? The delta variant of COVID-19 is the newest variant of concern. It was first identified in India in December of 2020. Early research suggests delta may be more contagious than other COVID-19 variants. It is also now the dominant variant circulating in the United States and has been identified in all 50 states. “Self-reporting data from the U.K. identify cold-like symptoms, including headache, runny nose and a sore throat are more common with the delta variant than the more traditional COVID-19 symptoms of loss of smell, shortness of breath, fever and cough,” Dr. Best says. Researchers say the vaccines remain our biggest tool against warding off the COVID-19 variants, including the delta variant. If you received an [mRNA vaccine](https://www.unitypoint.org/article.aspx?id=04677766-a422-4450-9f13-10115d6cc7ca&What+You+Need+to+Know+About+mRNA+Vaccines) (Pfizer or Moderna) make sure you’ve received [both doses](https://www.unitypoint.org/article.aspx?id=4ade5b4e-cae7-42e5-ace8-e3391571499d&Why+are+Two+Doses+of+the+COVID-19+Vaccine+Important%253f), so you’re fully protected. "Delta won’t be the last variant of COVID-19 we see. That’s because every time the virus jumps to a new person, its chance of mutation increases. If the virus keeps running into vaccinated people, it hits a wall and can’t keep spreading. Decreasing the number of infections in a community is the best way to prevent new variants from developing,” Dr. Best says. Why is it Important to Focus on the Impact of the Virus’ Change? “What matters is the impact the changes have on the virus itself. So, some viruses might have a few differences – a few mutations – but there are no noticeable changes to the virus. Sometimes viruses can have mutations that give the virus an advantage, whether that’s a better attachment to cells or the ability to replicate faster. Mutations can also result in disadvantages for the virus, lowering the ability to attach to cells or taking longer to reproduce,” Dr. Best says.  
The important things for scientists to identify about changing viruses, like the virus that causes COVID-19, is how the change impacts people, if the vaccines still work and if tests can still identify the active virus. “For COVID-19, researchers are interested in the alpha, beta, delta and gamma variants, because they seem to be associated with either higher transmissibility. Scientists are keeping a close eye on the variants to determine if the vaccines, or the treatments, are less effective. At this point, current [PCR testing and rapid testing](https://www.unitypoint.org/article.aspx?id=b3451e2e-cf08-4eb8-8e85-7675be736b63&Your+Guide+to+Testing+for+Active+Coronavirus+Infection) can detect all COVID-19 variants,” Dr. Best says. What Causes Viruses to Mutate? Virus changes are associated with three things. First, sometimes a change in a virus is a pure error.“A good analogy about virus changes is that it’s like copying a manuscript and, at some point, you're going to have a typo,” Dr. Best says. Another reason a virus might change is because of pressure from select cellsin the body. “This hypothesis emerged regarding some of the COVID-19 variants. It states if a virus infects a person who doesn’t have a very strong immune system, for example, someone with cancer, then the body is not able to clear the virus very well. Then the virus can say, ‘Hey, how are you going to attack me and make changes based on that?’,” Dr. Best says. The creation of a vaccine for any new virus could also cause additional mutations. “Let’s explain this concept a little further. Any virus will keep trying to change, so it can continue to spread. With all vaccines, the more quickly people get vaccinated the better. The slower vaccination happens, the higher the chance of having mutations in the virus and the appearance of more variants. And, as we are seeing with the delta variant, the more the virus can spread in the community." In order to keep viruses in check, everyone must do their part by [getting vaccinated](https://www.unitypoint.org/covid-19-vaccine.aspx), and scientists must work together around the world to track emerging variants.

#### And, pandemics cause extinction.

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We fear it is only a matter of time before we face a deadlier and more contagious pathogen, yet the threat of a deadly pandemic remains dangerously overlooked. Pandemics now occur with greater frequency, due to factors such as climate change, urbanization, and international travel. Other factors, such as a weak World Health Organization and potentially massive cuts to funding for U.S. scientific research and foreign aid, including funding for the United Nations, stand to deepen our vulnerability. We also face the specter of novel and mutated pathogens that could spread and kill faster than diseases we have seen before. With the advent of genome-editing technologies, bioterrorists could artificially engineer new plagues, a threat that Ashton Carter, the former U.S. secretary of defense, thinks could rival nuclear weapons in deadliness. The two of us have advised the president of Guinea on stopping Ebola. In addition, we have worked on ways to contain the spread of Zika and have informally advised U.S. and international organizations on the matter. Our experiences tell us that the world is unprepared for these threats. We urgently need to change this trajectory. We can start by learning four lessons from the gaps exposed by the Ebola and Zika pandemics. Faster Vaccine Development The most effective way to stop pandemics is with vaccines. However, with Ebola there was no vaccine, and only now, years later, has one proven effective. This has been the case with Zika, too. Though there has been rapid progress in developing and getting a vaccine to market, it is not fast enough, and Zika has already spread worldwide. Many other diseases do not have vaccines, and developing them takes too long when a pandemic is already under way. We need faster pipelines, such as the one that the Coalition for Epidemic Preparedness Innovations is trying to create, to preemptively develop vaccines for diseases predicted to cause outbreaks in the near future. Poinkt-of-Care Diagnostics Even with such efforts, vaccines will not be ready for many diseases and would not even be an option for novel or artificially engineered pathogens. With no vaccine for Ebola, our next best strategy was to identify who was infected as quickly as possible and isolate them before they infected others. Because Ebola’s symptoms were identical to common illnesses like malaria, diagnosis required laboratory testing that could not be easily scaled. As a result, many patients were only tested after several days of being contagious and infecting others. Some were never tested at all, and about 40% of patients in Ebola treatment centers did not actually have Ebola. Many dangerous pathogens similarly require laboratory testing that is difficult to scale. Florida, for example, has not been able to expand testing for Zika, so pregnant women wait weeks to know if their babies might be affected. What’s needed are point-of-care diagnostics that, like pregnancy tests, can be used by frontline responders or patients themselves to detect infection right away, where they live. These tests already exist for many diseases, and the technology behind them is well-established. However, the process for their validation is slow and messy. Point-of-care diagnostics for Ebola, for example, were available but never used because of such bottlenecks. Greater Global Coordination We need stronger global coordination. The responsibility for controlling pandemics is fragmented, spread across too many players with no unifying authority. In Guinea we forged a response out of an amalgam of over 30 organizations, each of which had its own priorities. In Ebola’s aftermath, there have been calls for a mechanism for responding to pandemics similar to the advance planning and training that NATO has in place for its numerous members to respond to military threats in a quick, coordinated fashion. This is the right thinking, but we are far from seeing it happen. The errors that allowed Ebola to become a crisis replayed with Zika, and the WHO, which should anchor global action, continues to suffer from a lack of credibility. Stronger Local Health Systems International actors are essential but cannot parachute into countries and navigate local dynamics quickly enough to contain outbreaks. In Guinea it took months to establish the ground game needed to stop the pandemic, with Ebola continuing to spread in the meantime. We need to help developing countries establish health systems that can provide routine care and, when needed, coordinate with international responders to contain new outbreaks. Local health systems could be established for about half of the $3.6 billion ultimately spent on creating an Ebola response from scratch. Access to routine care is also essential for knowing when an outbreak is taking root and establishing trust. For months, Ebola spread before anyone knew it was happening, and then lingered because communities who had never had basic health care doubted the intentions of foreigners flooding into their villages. The turning point in the pandemic came when they began to trust what they were hearing about Ebola and understood what they needed to do to halt its spread: identify those exposed and safely bury the dead. With Ebola and Zika, we lacked these four things — vaccines, diagnostics, global coordination, and local health systems — which are still urgently needed. However, prevailing political headwinds in the United States, which has played a key role in combatting pandemics around the world, threaten to make things worse. The Trump administration is seeking drastic budget cuts in funding for foreign aid and scientific research. The U.S. State Department and U.S. Agency for International Development may lose over one-third of their budgets, including half of the funding the U.S. usually provides to the UN. The National Institutes of Health, which has been on the vanguard of vaccines and diagnostics research, may also face cuts. The Centers for Disease Control and Prevention, which has been at the forefront of responding to outbreaks, remains without a director, and, if the Affordable Care Act is repealed, would lose $891 million, 12% of its overall budget, provided to it for immunization programs, monitoring and responding to outbreaks, and other public health initiatives. Investing in our ability to prevent and contain pandemics through revitalized national and international institutions should be our shared goal. However, if U.S. agencies become less able to respond to pandemics, leading institutions from other nations, such as Institut Pasteur and the National Institute of Health and Medical Research in France, the Wellcome Trust and London School of Hygiene and Tropical Medicine in the UK, and nongovernmental organizations (NGOs have done instrumental research and response work in previous pandemics), would need to step in to fill the void. There is no border wall against disease. Pandemics are an existential threat on par with climate change and nuclear conflict. We are at a critical crossroads, where we must either take the steps needed to prepare for this threat or become even more vulnerable. It is only a matter of time before we are hit by a deadlier, more contagious pandemic. Will we be ready?

**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 – Framework**

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

No intent foresight: If we foresee a consequence, then it becomes part of our deliberation which makes it intrinsic to our action since we intend it to happen.

#### Biological death is the worst evil

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Contrary to those accounts, I would argue that it is death per se that is really the objective evil for us, not because it deprives us of a prospective future of overall good judged better than the alter- native of non-being. It cannot be about harm to a former person who has ceased to exist, for no person actually suffers from the sub-sequent non-participation. Rather, death in itself is an evil to us because it ontologically destroys the current existent subject — it is the ultimate in metaphysical lightening strikes.80 The evil of death is truly an ontological evil borne by the person who already exists, independently of calculations about better or worse possible lives. Such an evil need not be consciously experienced in order to be an evil for the kind of being a human person is. Death is an evil because of the change in kind it brings about, a change that is destructive of the type of entity that we essentially are. Anything, whether caused naturally or caused by human intervention (intentional or unintentional) that drastically interferes in the process of maintaining the person in existence is an objective evil for the person. What is crucially at stake here, and is dialectically supportive of the self-evidency of the basic good of human life, is that death is a radical interference with the current life process of the kind of being that we are. In consequence, death itself can be credibly thought of as a ‘primitive evil’ for all persons, regardless of the extent to which they are currently or prospectively capable of participating in a full array of the goods of life.81 In conclusion, concerning willed human actions, it is justifiable to state that any intentional rejection of human life itself cannot therefore be warranted since it is an expression of an ultimate disvalue for the subject, namely, the destruction of the present person; a radical ontological good that we cannot begin to weigh objectively against the travails of life in a rational manner. To deal with the sources of disvalue (pain, suffering, etc.) we should not seek to irrationally destroy the person, the very source and condition of all human possibility.82

#### Extinction outweighs---it’s the upmost moral evil and disavowal of the risk makes it more likely.

Burns 2017 (Elizabeth Finneron-Burns is a Teaching Fellow at the University of Warwick and an Affiliated Researcher at the Institute for Futures Studies in Stockholm, What’s wrong with human extinction?, <http://www.tandfonline.com/doi/pdf/10.1080/00455091.2016.1278150?needAccess=true>, Canadian Journal of Philosophy, 2017)

Many, though certainly not all, people might believe that it would be wrong to bring about the end of the human species, and the reasons given for this belief are various. I begin by considering four reasons that could be given against the moral permissibility of human extinction. I will argue that only those reasons that impact the people who exist at the time that the extinction or the knowledge of the upcoming extinction occurs, can explain its wrongness. I use this conclusion to then consider in which cases human extinction would be morally permissible or impermissible, arguing that there is only a small class of cases in which it would not be wrong to cause the extinction of the human race or allow it to happen. 2.1. It would prevent the existence of very many happy people One reason of human extinction might be considered to be wrong lies in the value of human life itself. The thought here might be that it is a good thing for people to exist and enjoy happy lives and extinction would deprive more people of enjoying this good. The ‘good’ in this case could be understood in at least two ways. According to the first, one might believe that you benefit a person by bringing them into existence, or at least, that it is good for that person that they come to exist. The second view might hold that if humans were to go extinct, the utility foregone by the billions (or more) of people who could have lived but will now never get that opportunity, renders allowing human extinction to take place an incidence of wrongdoing. An example of this view can be found in two quotes from an Effective Altruism blog post by Peter Singer, Nick Beckstead and Matt Wage: One very bad thing about human extinction would be that billions of people would likely die painful deaths. But in our view, this is by far not the worst thing about human extinction. The worst thing about human extinction is that there would be no future generations. Since there could be so many generations in our future, the value of all those generations together greatly exceeds the value of the current generation. (Beckstead, Singer, and Wage 2013) The authors are making two claims. The first is that there is value in human life and also something valuable about creating future people which gives us a reason to do so; furthermore, it would be a very bad thing if we did not do so. The second is that, not only would it be a bad thing for there to be no future people, but it would actually be the worst thing about extinction. Since happy human lives have value, and the number of potential people who could ever exist is far greater than the number of people who exist at any one time, even if the extinction were brought about through the painful deaths of currently existing people, the former’s loss would be greater than the latter’s. Both claims are assuming that there is an intrinsic value in the existence of potential human life. The second claim makes the further assumption that the forgone value of the potential lives that could be lived is greater than the disvalue that would be accrued by people existing at the time of the extinction through suffering from painful and/or premature deaths. The best-known author of the post, Peter Singer is a prominent utilitarian, so it is not surprising that he would lament the potential lack of future human lives per se. However, it is not just utilitarians who share this view, even if implicitly. Indeed, other philosophers also seem to imply that they share the intuition that there is just something wrong with causing or failing to prevent the extinction of the human species such that we prevent more ‘people’ from having the ‘opportunity to exist’. Stephen Gardiner (2009) and Martin O’Neill (personal correspondence), both sympathetic to contract theory, for example, also find it intuitive that we should want more generations to have the opportunity to exist, assuming that they have worth-living lives, and I find it plausible to think that many other people (philosophers and non-philosophers alike) probably share this intuition. When we talk about future lives being ‘prevented’, we are saying that a possible person or a set of possible people who could potentially have existed will now never actually come to exist. To say that it is wrong to prevent people from existing could either mean that a possible person could reasonably reject a principle that permitted us not to create them, or that the foregone value of their lives provides a reason for rejecting any principle that permits extinction. To make the first claim we would have to argue that a possible person could reasonably reject any principle that prevented their existence on the grounds that it prevented them in particular from existing. However, this is implausible for two reasons. First, we can only wrong someone who did, does or will actually exist because wronging involves failing to take a person’s interests into account. When considering the permissibility of a principle allowing us not to create Person X, we cannot take X’s interest in being created into account because X will not exist if we follow the principle. By considering the standpoint of a person in our deliberations we consider the burdens they will have to bear as a result of the principle. In this case, there is no one who will bear any burdens since if the principle is followed (that is, if we do not create X), X will not exist to bear any burdens. So, only people who do/will actually exist can bear the brunt of a principle, and therefore occupy a standpoint that is owed justification. Second, existence is not an interest at all and a possible person is not disadvantaged by not being caused to exist. Rather than being an interest, it is a necessary requirement in order to have interests. Rivka Weinberg describes it as ‘neutral’ because causing a person to exist is to create a subject who can have interests; existence is not an interest itself.3 In order to be disadvantaged, there must be some detrimental effect on your interests. However, without existence, a person does not have any interests so they cannot be disadvantaged by being kept out of existence. But, as Weinberg points out, ‘never having interests itself could not be contrary to people’s interests since without interest bearers, there can be no ‘they’ for it to be bad for’ (Weinberg 2008, 13). So, a principle that results in some possible people never becoming actual does not impose any costs on those ‘people’ because nobody is disadvantaged by not coming into existence.4 It therefore seems that it cannot be wrong to fail to bring particular people into existence. This would mean that no one acts wrongly when they fail to create another person. Writ large, it would also not be wrong if everybody decided to exercise their prerogative not to create new people and potentially, by consequence, allow human extinction. One might respond here by saying that although it may be permissible for one person to fail to create a new person, it is not permissible if everyone chooses to do so because human lives have value and allowing human extinction would be to forgo a huge amount of value in the world. This takes us to the second way of understanding the potential wrongness of preventing people from existing — the foregone value of a life provides a reason for rejecting any principle that prevents it. One possible reply to this claim turns on the fact that many philosophers acknowledge that the only, or at least the best, way to think about the value of (individual or groups of) possible people’s lives is in impersonal terms (Parfit 1984; Reiman 2007; McMahan 2009). Jeff McMahan, for example, writes ‘at the time of one’s choice there is no one who exists or will exist independently of that choice for whose sake one could be acting in causing him or her to exist … it seems therefore that any reason to cause or not to cause an individual to exist … is best considered an impersonal rather than individual-affecting reason’ (McMahan 2009, 52). Another reply along similar lines would be to appeal to the value that is lost or at least foregone when we fail to bring into existence a next (or several next) generations of people with worth-living lives. Since ex hypothesi worth-living lives have positive value, it is better to create more such lives and worse to create fewer. Human extinction by definition is the creation of no future lives and would ‘deprive’ billions of ‘people’ of the opportunity to live worth-living lives. This might reduce the amount of value in the world at the time of the extinction (by killing already existing people), but it would also prevent a much vaster amount of value in the future (by failing to create more people). Both replies depend on the impersonal value of human life. However, recall that in contractualism impersonal values are not on their own grounds for reasonably rejecting principles. Scanlon himself says that although we have a strong reason not to destroy existing human lives, this reason ‘does not flow from the thought that it is a good thing for there to be more human life rather than less’ (104). In contractualism, something cannot be wrong unless there is an impact on a person. Thus, neither the impersonal value of creating a particular person nor the impersonal value of human life writ large could on its own provide a reason for rejecting a principle permitting human extinction. It seems therefore that the fact that extinction would deprive future people of the opportunity to live worth-living lives (either by failing to create either particular future people or future people in general) cannot provide us with a reason to consider human extinction to be wrong. Although the lost value of these ‘lives’ itself cannot be the reason explaining the wrongness of extinction, it is possible the knowledge of this loss might create a personal reason for some existing people. I will consider this possibility later on in section (d). But first I move to the second reason human extinction might be wrong per se. 2.2. It would mean the loss of the only known form of intelligent life and all civilization and intellectual progress would be lost A second reason we might think it would be wrong to cause human extinction is the loss that would occur of the only (known) form of rational life and the knowledge and civilization that that form of life has created. One thought here could be that just as some might consider it wrong to destroy an individual human heritage monument like the Sphinx, it would also be wrong if the advances made by humans over the past few millennia were lost or prevented from progressing. A related argument is made by those who feel that there is something special about humans’ capacity for rationality which is valuable in itself. Since humans are the only intelligent life that we know of, it would be a loss, in itself, to the world for that to end. I admit that I struggle to fully appreciate this thought. It seems to me that Henry Sidgwick was correct in thinking that these things are only important insofar as they are important to humans (Sidgwick 1874, I.IX.4).5 If there is no form of intelligent life in the future, who would there be to lament its loss since intelligent life is the only form of life capable of appreciating intelligence? Similarly, if there is no one with the rational capacity to appreciate historic monuments and civil progress, who would there be to be negatively affected or even notice the loss?6 However, even if there is nothing special about human rationality, just as some people try to prevent the extinction of nonhuman animal species, we might think that we ought also to prevent human extinction for the sake of biodiversity. The thought in this, as well as the earlier examples, must be that it would somehow be bad for the world if there were no more humans even though there would be no one for whom it is bad. This may be so but the only way to understand this reason is impersonally. Since we are concerned with wrongness rather than badness, we must ask whether something that impacts no one’s well-being, status or claims can be wrong. As we saw earlier, in the contractualist framework reasons must be personal rather than impersonal in order to provide grounds for reasonable rejection (Scanlon 1998, 218–223). Since the loss of civilization, intelligent life or biodiversity are per se impersonal reasons, there is no standpoint from which these reasons could be used to reasonably reject a principle that permitted extinction. Therefore, causing human extinction on the grounds of the loss of civilization, rational life or biodiversity would not be wrong. 2.3. Existing people would endure physical pain and/or painful and/or premature deaths Thinking about the ways in which human extinction might come about brings to the fore two more reasons it might be wrong. It could, for example, occur if all humans (or at least the critical number needed to be unable to replenish the population, leading to eventual extinction) underwent a sterilization procedure. Or perhaps it could come about due to anthropogenic climate change or a massive asteroid hitting the Earth and wiping out the species in the same way it did the dinosaurs millions of years ago. Each of these scenarios would involve significant physical and/or non-physical harms to existing people and their interests. Physically, people might suffer premature and possibly also painful deaths, for example. It is not hard to imagine examples in which the process of extinction could cause premature death. A nuclear winter that killed everyone or even just every woman under the age of 50 is a clear example of such a case. Obviously, some types of premature death themselves cannot be reasons to reject a principle. Every person dies eventually, sometimes earlier than the standard expected lifespan due to accidents or causes like spontaneously occurring incurable cancers. A cause such as disease is not a moral agent and therefore it cannot be wrong if it unavoidably kills a person prematurely. Scanlon says that the fact that a principle would reduce a person’s well-being gives that person a reason to reject the principle: ‘components of well-being figure prominently as grounds for reasonable rejection’ (Scanlon 1998, 214). However, it is not settled yet whether premature death is a setback to well-being. Some philosophers hold that death is a harm to the person who dies, whilst others argue that it is not.7 I will argue, however, that regardless of who is correct in that debate, being caused to die prematurely can be reason to reject a principle when it fails to show respect to the person as a rational agent. Scanlon says that recognizing others as rational beings with interests involves seeing reason to preserve life and prevent death: ‘appreciating the value of human life is primarily a matter of seeing human lives as something to be respected, where this involves seeing reasons not to destroy them, reasons to protect them, and reasons to want them to go well’ (Scanlon 1998, 104). The ‘respect for life’ in this case is a respect for the person living, not respect for human life in the abstract. This means that we can sometimes fail to protect human life without acting wrongfully if we still respect the person living. Scanlon gives the example of a person who faces a life of unending and extreme pain such that she wishes to end it by committing suicide. Scanlon does not think that the suicidal person shows a lack of respect for her own life by seeking to end it because the person whose life it is has no reason to want it to go on. This is important to note because it emphasizes the fact that the respect for human life is person-affecting. It is not wrong to murder because of the impersonal disvalue of death in general, but because taking someone’s life without their permission shows disrespect to that person. This supports its inclusion as a reason in the contractualist formula, regardless of what side ends up winning the ‘is death a harm?’ debate because even if death turns out not to harm the person who died, ending their life without their consent shows disrespect to that person. A person who could reject a principle permitting another to cause his or her premature death presumably does not wish to die at that time, or in that manner. Thus, if they are killed without their consent, their interests have not been taken into account, and they have a reason to reject the principle that allowed their premature death.8 This is as true in the case of death due to extinction as it is for death due to murder. However, physical pain may also be caused to existing people without killing them, but still resulting in human extinction. Imagine, for example, surgically removing everyone’s reproductive organs in order to prevent the creation of any future people. Another example could be a nuclear bomb that did not kill anyone, but did painfully render them infertile through illness or injury. These would be cases in which physical pain (through surgery or bombs) was inflicted on existing people and the extinction came about as a result of the painful incident rather than through death. Furthermore, one could imagine a situation in which a bomb (for example) killed enough people to cause extinction, but some people remained alive, but in terrible pain from injuries. It seems uncontroversial that the infliction of physical pain could be a reason to reject a principle. Although Scanlon says that an impact on well-being is not the only reason to reject principles, it plays a significant role, and indeed, most principles are likely to be rejected due to a negative impact on a person’s well-being, physical or otherwise. It may be queried here whether it is actually the involuntariness of the pain that is grounds for reasonable rejection rather than the physical pain itself because not all pain that a person suffers is involuntary. One can imagine acts that can cause physical pain that are not rejectable — base jumping or life-saving or improving surgery, for example. On the other hand, pushing someone off a cliff or cutting him with a scalpel against his will are clearly rejectable acts. The difference between the two cases is that in the former, the person having the pain inflicted has consented to that pain or risk of pain. My view is that they cannot be separated in these cases and it is involuntary physical pain that is the grounds for reasonable rejection. Thus, the fact that a principle would allow unwanted physical harm gives a person who would be subjected to that harm a reason to reject the principle. Of course the mere fact that a principle causes involuntary physical harm or premature death is not sufficient to declare that the principle is rejectable — there might be countervailing reasons. In the case of extinction, what countervailing reasons might be offered in favour of the involuntary physical pain/ death-inducing harm? One such reason that might be offered is that humans are a harm to the natural environment and that the world might be a better place if there were no humans in it. It could be that humans might rightfully be considered an all-things-considered hindrance to the world rather than a benefit to it given the fact that we have been largely responsible for the extinction of many species, pollution and, most recently, climate change which have all negatively affected the natural environment in ways we are only just beginning to understand. Thus, the fact that human extinction would improve the natural environment (or at least prevent it from degrading further), is a countervailing reason in favour of extinction to be weighed against the reasons held by humans who would experience physical pain or premature death. However, the good of the environment as described above is by definition not a personal reason. Just like the loss of rational life and civilization, therefore, it cannot be a reason on its own when determining what is wrong and countervail the strong personal reasons to avoid pain/death that is held by the people who would suffer from it.9 Every person existing at the time of the extinction would have a reason to reject that principle on the grounds of the physical pain they are being forced to endure against their will that could not be countervailed by impersonal considerations such as the negative impact humans may have on the earth. Therefore, a principle that permitted extinction to be accomplished in a way that caused involuntary physical pain or premature death could quite clearly be rejectable by existing people with no relevant countervailing reasons. This means that human extinction that came about in this way would be wrong. There are of course also additional reasons they could reject a similar principle which I now turn to address in the next section. 2.4. Existing people could endure non-physical harms I said earlier than the fact in itself that there would not be any future people is an impersonal reason and can therefore not be a reason to reject a principle permitting extinction. However, this impersonal reason could give rise to a personal reason that is admissible. So, the final important reason people might think that human extinction would be wrong is that there could be various deleterious psychological effects that would be endured by existing people having the knowledge that there would be no future generations. There are two main sources of this trauma, both arising from the knowledge that there will be no more people. The first relates to individual people and the undesired negative effect on well-being that would be experienced by those who would have wanted to have children. Whilst this is by no means universal, it is fair to say that a good proportion of people feel a strong pull towards reproduction and having their lineage continue in some way. Samuel Scheffler describes the pull towards reproduction as a ‘desire for a personalized relationship with the future’ (Scheffler 2012, 31). Reproducing is a widely held desire and the joys of parenthood are ones that many people wish to experience. For these people knowing that they would not have descendants (or that their descendants will endure painful and/or premature deaths) could create a sense of despair and pointlessness of life. Furthermore, the inability to reproduce and have your own children because of a principle/policy that prevents you (either through bans or physical interventions) would be a significant infringement of what we consider to be a basic right to control what happens to your body. For these reasons, knowing that you will have no descendants could cause significant psychological traumas or harms even if there were no associated physical harm. The second is a more general, higher level sense of hopelessness or despair that there will be no more humans and that your projects will end with you. Even those who did not feel a strong desire to procreate themselves might feel a sense of hopelessness that any projects or goals they have for the future would not be fulfilled. Many of the projects and goals we work towards during our lifetime are also at least partly future-oriented. Why bother continuing the search for a cure for cancer if either it will not be found within humans’ lifetime, and/or there will be no future people to benefit from it once it is found? Similar projects and goals that might lose their meaning when confronted with extinction include politics, artistic pursuits and even the type of philosophical work with which this paper is concerned. Even more extreme, through the words of the character Theo Faron, P.D. James says in his novel The Children of Men that ‘without the hope of posterity for our race if not for ourselves, without the assurance that we being dead yet live, all pleasures of the mind and senses sometimes seem to me no more than pathetic and crumbling defences shored up against our ruins’ (James 2006, 9). Even if James’ claim is a bit hyperbolic and all pleasures would not actually be lost, I agree with Scheffler in finding it not implausible that the knowledge that extinction was coming and that there would be no more people would have at least a general depressive effect on people’s motivation and confidence in the value of and joy in their activities (Scheffler 2012, 43). Both sources of psychological harm are personal reasons to reject a principle that permitted human extinction. Existing people could therefore reasonably reject the principle for either of these reasons. Psychological pain and the inability to pursue your personal projects, goals, and aims, are all acceptable reasons for rejecting principles in the contractualist framework. So too are infringements of rights and entitlements that we accept as important for people’s lives. These psychological reasons, then, are also valid reasons to reject principles that permitted or required human extinction.

#### That is the only egalitarian metric---anything else collapses cooperation on collective action crises and makes extinction inevitable

Khan 18 (Risalat, activist and entrepreneur from Bangladesh passionate about addressing climate change, biodiversity loss, and other existential challenges. He was featured by The Guardian as one of the “young climate campaigners to watch” (2015). As a campaigner with the global civic movement Avaaz (2014-17), Risalat was part of a small core team that spearheaded the largest climate marches in history with a turnout of over 800,000 across 2,000 cities. After fighting for the Paris Agreement, Risalat led a campaign joined by over a million people to stop the Rampal coal plant in Bangladesh to protect the Sundarbans World Heritage forest, and elicited criticism of the plant from Crédit Agricolé through targeted advocacy. Currently, Risalat is pursuing an MPA in Environmental Science and Policy at Columbia University as a SIPA Environmental Fellow, “5 reasons why we need to start talking about existential risks,” https://www.weforum.org/agenda/2018/01/5-reasons-start-talking-existential-risks-extinction-moriori/)

Infinite future possibilities I find the story of the Moriori profound. It teaches me two lessons. Firstly, that human culture is far from immutable. That we can struggle against our baser instincts. That we can master them and rise to unprecedented challenges. Secondly, that even this does not make us masters of our own destiny. We can make visionary choices, but the future can still surprise us. This is a humbling realization. Because faced with an uncertain future, the only wise thing we can do is prepare for possibilities. Standing at the launch pad of the Fourth Industrial Revolution, the possibilities seem endless. They range from an era of abundance to the end of humanity, and everything in between. How do we navigate such a wide and divergent spectrum? I am an optimist. From my bubble of privilege, life feels like a rollercoaster ride full of ever more impressive wonders, even as I try to fight the many social injustices that still blight us. However, the accelerating pace of change amid uncertainty elicits one fundamental observation. Among the infinite future possibilities, only one outcome is truly irreversible: extinction. Concerns about extinction are often dismissed as apocalyptic alarmism. Sometimes, they are. But repeating that mankind is still here after 70 years of existential warning about nuclear warfare is a straw man argument. The fact that a 1000-year flood has not happened does not negate its possibility. And there have been far too many nuclear near-misses to rest easy. As the World Economic Forum’s Annual Meeting in Davos discusses how to create a shared future in a fractured world, here are five reasons why the possibility of existential risks should raise the stakes of conversation: 1. Extinction is the rule, not the exception More than 99.9% of all the species that ever existed are gone. Deep time is unfathomable to the human brain. But if one cares to take a tour of the billions of years of life’s history, we find a litany of forgotten species. And we have only discovered a mere fraction of the extinct species that once roamed the planet. In the speck of time since the first humans evolved, more than 99.9% of all the distinct human cultures that have ever existed are extinct. Each hunter-gatherer tribe had its own mythologies, traditions and norms. They wiped each other out, or coalesced into larger formations following the agricultural revolution. However, as major civilizations emerged, even those that reached incredible heights, such as the Egyptians and the Romans, eventually collapsed. It is only in the very recent past that we became a truly global civilization. Our interconnectedness continues to grow rapidly. “Stand or fall, we are the last civilization”, as Ricken Patel, the founder of the global civic movement Avaaz, put it. 2. Environmental pressures can drive extinction More than 15,000 scientists just issued a ‘warning to humanity’. They called on us to reduce our impact on the biosphere, 25 years after their first such appeal. The warning notes that we are far outstripping the capacity of our planet in all but one measure of ozone depletion, including emissions, biodiversity, freshwater availability and more. The scientists, not a crowd known to overstate facts, conclude: “soon it will be too late to shift course away from our failing trajectory, and time is running out”. In his 2005 book Collapse, Jared Diamond charts the history of past societies. He makes the case that overpopulation and resource use beyond the carrying capacity have often been important, if not the only, drivers of collapse. Even though we are making important incremental progress in battles such as climate change, we must still achieve tremendous step changes in our response to several major environmental crises. We must do this even while the world’s population continues to grow. These pressures are bound to exert great stress on our global civilization. 3. Superintelligence: unplanned obsolescence? Imagine a monkey society that foresaw the ascendance of humans. Fearing a loss of status and power, it decided to kill the proverbial Adam and Eve. It crafted the most ingenious plan it could: starve the humans by taking away all their bananas. Foolproof plan, right? This story describes the fundamental difficulty with superintelligence. A superintelligent being may always do something entirely different from what we, with our mere mortal intelligence, can foresee. In his 2014 book Superintelligence, Swedish philosopher Nick Bostrom presents the challenge in thought-provoking detail, and advises caution. Bostrom cites a survey of industry experts that projected a 50% chance of the development of artificial superintelligence by 2050, and a 90% chance by 2075. The latter date is within the life expectancy of many alive today. Visionaries like Stephen Hawking and Elon Musk have warned of the existential risks from artificial superintelligence. Their opposite camp includes Larry Page and Mark Zuckerberg. But on an issue that concerns the future of humanity, is it really wise to ignore the guy who explained the nature of space to us and another guy who just put a reusable rocket in it? 4. Technology: known knowns and unknown unknowns Many fundamentally disruptive technologies are coming of age, from bioengineering to quantum computing, 3-D printing, robotics, nanotechnology and more. Lord Martin Rees describes potential existential challenges from some of these technologies, such as a bioengineered pandemic, in his book Our Final Century. Imagine if North Korea, feeling secure in its isolation, could release a virulent strain of Ebola, engineered to be airborne. Would it do it? Would ISIS? Projecting decades forward, we will likely develop capabilities that are unthinkable even now. The unknown unknowns of our technological path are profoundly humbling. 5. 'The Trump Factor' Despite our scientific ingenuity, we are still a confused and confusing species. Think back to two years ago, and how you thought the world worked then. Has that not been upended by the election of Donald Trump as US President, and everything that has happened since? The mix of billions of messy humans will forever be unpredictable. When the combustible forces described above are added to this melee, we find ourselves on a tightrope. What choices must we now make now to create a shared future, in which we are not at perpetual risk of destroying ourselves? Common enemy to common cause Throughout history, we have rallied against the ‘other’. Tribes have overpowered tribes, empires have conquered rivals. Even today, our fiercest displays of unity typically happen at wartime.

#### Err affirmative, because of innate cognitive biases

GPP 17 (Global Priorities Project, Future of Humanity Institute at the University of Oxford, Ministry for Foreign Affairs of Finland, “Existential Risk: Diplomacy and Governance,” Global Priorities Project, 2017, <https://www.fhi.ox.ac.uk/wp-content/uploads/Existential-Risks-2017-01-23.pdf>,

1.3.1. Why existential risks are likely to be underinvested in There are several reasons why existential risk reduction is likely to be underinvested in. Firstly, it is a global public good. Economic theory predicts that such goods tend to be underprovided. The benefits of existential risk reduction are widely and indivisibly dispersed around the globe from the countries responsible for taking action. Consequently, a country which reduces existential risk gains only a small portion of the benefits but bears the full brunt of the costs. Countries thus have strong incentives to free ride, receiving the benefits of risk reduction without contributing. As a result, too few do what is in the common interest. Secondly, as already suggested above, existential risk reduction is an intergenerational public good: most of the benefits are enjoyed by future generations who have no say in the political process. For these goods, the problem is temporal free riding: the current generation enjoys the benefits of inaction while future generations bear the costs. Thirdly, many existential risks, such as machine superintelligence, engineered pandemics, and solar geoengineering, pose an unprecedented and uncertain future threat. Consequently, it is hard to develop a satisfactory governance regime for them: there are few existing governance instruments which can be applied to these risks, and it is unclear what shape new instruments should take. In this way, our position with regard to these emerging risks is comparable to the one we faced when nuclear weapons first became available. Cognitive biases also lead people to underestimate existential risks. Since there have not been any catastrophes of this magnitude, these risks are not salient to politicians and the public.72 This is an example of the misapplication of the availability heuristic, a mental shortcut which assumes that something is important only if it can be readily recalled. Another cognitive bias affecting perceptions of existential risk is scope neglect. In a seminal 1992 study, three groups were asked how much they would be willing to pay to save 2,000, 20,000 or 200,000 birds from drowning in uncovered oil ponds. The groups answered $80, $78, and $88, respectively.73 In this case, the size of the benefits had little effect on the scale of the preferred response. People become numbed to the effect of saving lives when the numbers get too large. 74 Scope neglect is a particularly acute problem for existential risk because the numbers at stake are so large. Due to scope neglect, decision-makers are prone to treat existential risks in a similar way to problems which are less severe by many orders of magnitude. A wide range of other cognitive biases are likely to affect the evaluation of existential risks.75