### Core

#### The Council for TRIPs should vote to reduce intellectual property protections for [PLAN], amending TRIPs to mandate the [PLAN]

#### The United States should:

#### --Publicly rescind support for the WTO waiver

#### -- Veto this motion and refuse to comply

#### The remaining member nations should initiate proceedings against the United States through the World Trade Organization, Dispute Settlement Body, which ought to find against the United States. The United States ought to comply with this ruling.

#### The counterplan has the United States oppose the plan but get overruled by the other nations. After the WTO DSB finds against them, they will comply---that solves the case but avoids politics because the US initially opposed the waiver and was forced into it.

#### Counterplan competes ---

#### 1] The plan has the “member nations” act individually, while the counterplan is the WTO through the Council and eventually the DSB. That’s distinct, since member nations are not international bodies.

**Collins Dictionary n.d.** “member nations” RJP, DebateDrills https://www.collinsdictionary.com/us/dictionary/english/member-nations

member nations

The [United](https://www.collinsdictionary.com/us/dictionary/english/unite) [Nations](https://www.collinsdictionary.com/us/dictionary/english/nation) is an [international](https://www.collinsdictionary.com/us/dictionary/english/international) organization [comprised](https://www.collinsdictionary.com/us/dictionary/english/comprise) of about 180 member nations.

Sociology (1995)

At the Nato [summit](https://www.collinsdictionary.com/us/dictionary/english/summit), he called on all the member nations to [pledge](https://www.collinsdictionary.com/us/dictionary/english/pledge) to [spend](https://www.collinsdictionary.com/us/dictionary/english/spend) at least 2% of their [national](https://www.collinsdictionary.com/us/dictionary/english/national) [income](https://www.collinsdictionary.com/us/dictionary/english/income) on [defence](https://www.collinsdictionary.com/us/dictionary/english/defence" \o "Definition of defence).

Times, Sunday Times (2015)

The [beneficiaries](https://www.collinsdictionary.com/us/dictionary/english/beneficiary) will not be [limited](https://www.collinsdictionary.com/us/dictionary/english/limit) to EU member nations, but [worldwide](https://www.collinsdictionary.com/us/dictionary/english/worldwide).

Times, Sunday Times (2012)

Definition of 'nation'

nation

(neɪʃən)[Explore 'nation' in the dictionary](https://www.collinsdictionary.com/us/dictionary/english/nation)

COUNTABLE NOUN

A nation is an individual country considered together with its social and political structures.

#### 2] Normal means---it’s countries requesting a waiver, which the counterplan does not do.

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In a sign of their increasing frustration with global efforts to ensure that all people everywhere will have access to COVID-19 vaccines, several developing countries have asked other members of the World Trade Organization (WTO) to join them in a sweeping waiver of the intellectual property (IP) rights relating to those vaccines. Their waiver request raises anew the recurring debate within the WTO over the right balance between the protection of IP rights and access in poorer countries to urgently needed medicines. But the last thing the WTO needs is another debate over perceived trade obstacles to public health.

#### 3] Counterplan is neither certain nor immediate---the US reduction hinges on the outcome of DSB. That makes the counterplan competitive.

#### “Resolved” is definite and immediate

Collins 3 Collins English Dictionary – Complete and Unabridged © HarperCollins Publishers 1991, 1994, 1998, 2000, 2003

http://www.thefreedictionary.com/resolved

resolved [rɪˈzɒlvd] adj

fixed in purpose or intention; determined

#### The plan would require US companies to disclose information and waive IP protections---the counterplan has the US resist to avoid political backlash, but that violates WTO disclosure requirements.

Jorge Contreras 21. Presidential Scholar and Professor of Law at the University of Utah with an adjunct appointment in the Department of Human Genetics, JD @ Harvard, “US Support for a WTO Waiver of COVID-19 Intellectual Property – What Does it Mean?” Bill of Health Harvard Law, May 7, 2021, <https://blog.petrieflom.law.harvard.edu/2021/05/07/wto-waiver-intellectual-property-covid/>, RJP, DebateDrills

The proposed WTO IP waiver is significant because it includes trade secrets. Thus, under the waiver’s original language, a country that wished to suspend trade secret protection for COVID-19 technology could do so without violating the TRIPS Agreement. Such a country could also, presumably, mandate that foreign companies operating in the country disclose their proprietary manufacturing, storage, and testing information to local producers under a compulsory license.

The details of this disclosure requirement, and any compensation payable to the originator of the information, would need to be worked out in whatever waiver is eventually adopted by the WTO, but the prospect for a mandatory trade secret transfer — something that would be unprecedented in the international arena — is worth watching carefully. [As reported by Intellectual Asset Management on May 4, 2021](https://www.iam-media.com/coronavirus/brazilian-senate-passes-compulsory-covid-19-know-how-licensing-bill), the Brazilian Congress is currently considering legislation that would nullify the patents of any company that fails to disclose know-how and data related to a compulsory COVID-19 patent license. It will also be interesting to see whether the United States stands behind such a requirement, which goes far beyond the compulsory licensing of patents.

Will the U.S. require companies to share their know-how with others?

As noted above, under the waiver, a country could impose a trade secret disclosure requirement on companies operating within its jurisdiction. But that requirement would have little effect on U.S. vaccine producers who do not, themselves, have material operations overseas. Only the U.S. government could require a U.S.-based company to disclose its trade secrets. Would the U.S. impose such a requirement? This is not known, but I think it’s unlikely. It is one thing for the U.S. to agree not to challenge other countries’ compulsory licensing regimes as violations of TRIPS, but a very different thing for the U.S. to issue a compulsory licensing order of its own, particularly in the area of trade secrets, where it would be met with significant internal opposition.

### 1NC Impact – China

#### That gets litigated through the DSB, which we fiat finding against the United States. The DSB is underutilized currently but using it for major dispute settlement shores it up---that’s key to combat Chinese IP violations.

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Quite rightly, President Donald Trump and his Administration are targeting the transgressions of China against US intellectual property rights in their unfolding trade strategy. But why not use the WTO rules that offer a real remedy for the United States without resorting to illegal unilateral action outside the WTO?  
  
Seventeen years after China joined the WTO, China still falls considerably short of fulfilling its WTO obligations to protect intellectual property. About 70 percent of the software in use in China, valued at nearly $8.7 billion, is pirated. The annual cost to the US economy worldwide from pirated software, counterfeit goods, and the theft of trade secrets could be as high as $600 billion, with China at the top of the IP infringement list. China is the source of 87 percent of the counterfeit goods seized upon entry into the United States.  
  
One possible response by the United States is the one the Trump Administration seems to be taking: slapping billions of dollars of tariffs on imports of more than 100 Chinese products through unilateral trade action. Given its protectionist predilections, taking this approach is surely tempting to the Trump Administration. Doing so will, however, harm American workers, businesses, and consumers, and contribute to further turmoil in the global economy.

The results will likely include retaliation by China against the goods and services of American companies and workers; lawful economic sanctions imposed by China on American exports to China after the US lost to China in WTO cases; the hidden tax of higher prices for American consumers; less competitiveness in the US market and in other markets for American companies that depend on Chinese imports as intermediate goods in production; and doubtless still more American and global economic landmines from the downward spiral of tit-for-tat in international trade confrontations.  
  
These tariffs are not only self-defeating and counter-productive; they are also illegal under international law. Where an international dispute falls within the scope of coverage of the WTO treaty, taking unilateral action without first going to WTO dispute settlement for a legal ruling on whether there is a WTO violation is, in and of itself, a violation of the treaty. The WTO treaty establishes mandatory jurisdiction for the WTO dispute settlement system for all treaty-related disputes between and among WTO Members. The WTO Appellate Body has explained, “Article 23.1 of the (WTO Dispute Settlement Understanding) imposes a general obligation to redress a violation of obligations or other nullification or impairment of benefits under the covered agreements only by recourse to the rules and procedures of the DSU, and not through unilateral action.”  
  
Thus, the United States is not permitted by the international rules to which it has long since agreed to be the judge and the jury in its own case. Imposing tariffs on Chinese products without first obtaining a WTO ruling that Chinese actions are inconsistent with China’s WTO obligations is a clear violation by the United States of its WTO obligations to China – as WTO jurists will doubtless rule when China responds to the tariffs by challenging the tariffs in the WTO.  
  
Such a legal loss by the United States, with all its unforeseeable economic and geopolitical consequences, can be avoided while still confronting Chinese IP violations effectively. Before resorting to unilateral action outside the WTO and in violation of international law, the United States should take a closer look at the substantial rights it enjoys under the WTO treaty for protecting US intellectual property against abuse.  
  
Potential remedies in the WTO exist and should not be ignored. These remedies can be enforced through the pressure of WTO economic sanctions. WTO rules do not yet cover all the irritants that must be addressed in US-China trade relations. Even so, instead of just concluding that there are no adequate remedies under WTO rules to help stop IP infringement, the United States should first try to use the remedies in rules we have already negotiated that bind China along with all other WTO Members.  
  
A number of these rules have not yet been tested against China or any other country – which is not proof they will not work. Generally, when tried for the first time, WTO rules have been found to work, and, generally, when China has been found to be acting inconsistently with its WTO obligations, it has complied with WTO rulings. The actual extent of Chinese compliance with WTO judgments can be questioned; in some instances it is seen by some as only “paper compliance.” But whether any one WTO rule can in fact be enforced cannot be known if no WTO Member bothers to try to enforce it.  
  
The WTO rules in the WTO Agreement on the Trade-related Aspects of Intellectual Property Rights – the so-called TRIPS Agreement – are unique among WTO rules because they impose affirmative obligations. Yet, this affirmative aspect of WTO intellectual property rules has been largely unexplored in WTO dispute settlement. In particular, WTO Members have so far refrained from challenging other WTO Members for failing to enforce intellectual property rights.  
  
On enforcement, Article 41.1 of the TRIPS Agreement imposes an affirmative obligation on all WTO Members: “Members shall ensure that enforcement procedures… are available under their law so as to permit effective action against any act of infringement of intellectual property rights covered by this Agreement, including expeditious remedies to prevent infringements and remedies which constitute a deterrent to further infringements. These procedures shall be applied in such a manner as to avoid the creation of barriers to legitimate trade and to provide for safeguards against their abuse.”  
  
Note that this “shall” be done by all WTO Members; it is mandatory for compliance with their WTO obligations. And yet what does this obligation mean by requiring that effective actions against infringements must be “available”? Is this obligation fulfilled by having sound laws on the books, as is generally the case with China? Or must those laws also be enforced effectively in practice, which is often not the case with China?  
  
The Appellate Body has said that “making something *available* means making it ‘obtainable,’ putting it ‘within one’s reach’ and ‘at one’s disposal’ in a way that has sufficient form or efficacy.” Thus, simply having a law on the books is not enough. That law must have real force in the real world of commerce. This ruling by the Appellate Body related to the use of the word “available” in Article 42 of the TRIPS Agreement and to a legal claim seeking fair and equitable access to civil judicial procedures. Yet the same reasoning applies equally to the enforcement of substantive rights under Article 41.  
  
In the past, the United States has challenged certain parts of the overall Chinese legal system for intellectual property protection – and successfully – in WTO dispute settlement. Despite its overall concerns about enforcement by China of US intellectual property rights, the United States has not, however, challenged the Chinese system as a whole in the WTO. Instead of indulging in the illegality of unilateral tariffs outside the legal framework of the WTO, the Trump Administration should initiate a comprehensive legal challenge in the WTO, not merely, as before, to the bits and pieces of particular Chinese IP enforcement, but rather *to the entirety of the Chinese IP enforcement system*.  
  
To be sure, a systemic challenge by the United States to the application of all China’s inadequate measures relating to intellectual property protection would put the WTO dispute settlement system to a test. It would, what’s more, put both China and the United States to the test of their commitment to the WTO and, especially, to a rules-based world trading system.  
  
As Trump’s trade lawyers will hasten to say, a systemic IP case against China in the WTO would also involve a perhaps unprecedented amount of fact-gathering. It would necessitate an outpouring of voluminous legal pleadings. It would, furthermore, force the WTO Members and the WTO jurists to face some fundamental questions about the rules-based trading system. Yet it could also provide the basis for fashioning a legal remedy that would in the end be mutually acceptable to both countries, and could therefore help prevent commercial conflict and reduce a significant obstacle to mutually beneficial US-China relations.

#### China is engaging in rampant IP theft---shoring up WTO dispute resolution will determine the trajectory of Chinese theft.

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Unquestionably, pervasive intellectual property violations are a threat to millions of U.S. jobs in critical innovative U.S. industries. The U.S. International Trade Administration has estimated that U.S. IP-intensive industries doing business in China have lost about $48 billion in sales, royalties, and license fees to various forms of encroachment on their intellectual property rights. These U.S. firms have spent $4.8 billion to address possible Chinese IP infringements. An improvement in intellectual property protection and enforcement in China to levels comparable to those in the United States would likely translate into 923,000 new jobs in the United States.[15](https://www.cato.org/policy-analysis/disciplining-chinas-trade-practices-wto-how-wto-complaints-can-help-make-china-more#endnote-015) And these most recent numbers are from 2011—before the recent intensification of China’s mercantilist industrial strategy.

After 17 years in the WTO, China still falls far short of fulfilling its WTO obligations to protect copyrights, trademarks, patents, and other intellectual property rights. Millions of Chinese live on the illegal gains of widespread counterfeiting of U.S. and other foreign products. The Chinese, for example, are “addicted to bootleg software.”[16](https://www.cato.org/policy-analysis/disciplining-chinas-trade-practices-wto-how-wto-complaints-can-help-make-china-more#endnote-016) According to the Business Software Alliance, about 70 percent of the software used in China, valued at nearly $8.7 billion, is pirated.[17](https://www.cato.org/policy-analysis/disciplining-chinas-trade-practices-wto-how-wto-complaints-can-help-make-china-more#endnote-017) The annual cost to the U.S. economy worldwide from pirated software, counterfeit goods, and the theft of trade secrets “could be as high as $600 billion.”[18](https://www.cato.org/policy-analysis/disciplining-chinas-trade-practices-wto-how-wto-complaints-can-help-make-china-more#endnote-018) China “remains the world’s principal IP infringer,” accounting, for example, for 87 percent of the counterfeit goods seized upon entry into the United States.[19](https://www.cato.org/policy-analysis/disciplining-chinas-trade-practices-wto-how-wto-complaints-can-help-make-china-more#endnote-019)

Before taking unilateral action outside the WTO in response to widespread Chinese IP infringements, the United States should take a closer look at the substantial rights it enjoys under the WTO’s TRIPS Agreement for protecting U.S. intellectual property against theft and other abuses, in particular those obligations related to the domestic enforcement of these protections. Potential remedies in the WTO exist and should not be ignored, and these remedies can be enforced through the pressure of WTO economic sanctions.

A more specific obligation related to intellectual property is that American companies have, in effect, been forced to turn over their technology to Chinese partners—in some cases by revealing their trade secrets—in exchange for being allowed to do business in China and have access to the booming Chinese market. Here, Article 39 of the TRIPS Agreement, which establishes a WTO obligation for the “Protection of Undisclosed Information,”[20](https://www.cato.org/policy-analysis/disciplining-chinas-trade-practices-wto-how-wto-complaints-can-help-make-china-more#endnote-020) can help. The United States was among the leaders in advocating the inclusion of Article 39 in the TRIPS Agreement, but the United States has, to date, not initiated an action in WTO dispute settlement claiming a Chinese violation of this WTO obligation.

Beyond intellectual property, there have been long-standing though somewhat vague allegations from U.S. industry groups that China forces foreign companies who wish to operate in China to make investments through joint ventures, and to then transfer their technology to their Chinese partners. As they describe it, transferring technology to Chinese companies is often a condition for the ability to make an investment there. Specific details of these arrangements are difficult to uncover. The companies involved may be reluctant to complain because they fear having their investment permission revoked by the Chinese government. All the same, in response to the USTR’s request for comments under Section 301 regarding China’s trade practices, a wide range of organizations have identified forced technology transfer as a concern. There is a specific provision of China’s WTO Accession Protocol that addresses the issue of forced technology transfer. The United States should invoke it as the basis of a WTO complaint.

Finally, one of the most frequently raised concerns about Chinese trade practices is the Chinese government’s provision of subsidies to both state-owned enterprises and private companies. These subsidies are offered through a variety of programs, including the Made in China 2025 initiative and its specific implementing measures. Fortunately, the WTO has extensive and detailed rules on subsidies that can be used to challenge China’s behavior. WTO Members have brought several complaints against Chinese subsidies already, including an ongoing case related to agriculture subsidies (see Appendix 1), and there are additional complaints still to be brought.

#### Stopping tech stealing is key to avoid war

Timothy R. **Heath 18**. RAND Senior Defense and International Analyst, “Avoiding “Avoiding U.S.-China Competition Is Futile: Why the Best Option Is to Manage Strategic Rivalry”; Asia Policy; Vol 13 No 2; April 2018, RJP, DebateDrills

This article argues that the structural drivers of U.S.-China competition are too deep to resolve through cooperative engagement and that policymakers must instead accept the reality of strategic rivalry and aim to manage it at a lower level of intensity. main argument Rising tensions between China and the U.S. have spurred fears that the two countries could end up in conflict or recreate the Cold War. To avoid these outcomes, analysts have proposed ways to defuse competition and promote cooperation. However, because these arguments do not address the structural drivers underpinning U.S.-China competition, such proposals are unlikely to end the rivalry. Conflict is not inevitable, however, and aggressive strategies that unnecessarily aggravate the sources of rivalry are likely to prove dangerously counterproductive. The best option at this point is, paradoxically, for the U.S. to accept the reality of the growing strategic rivalry and manage it at a lower level of intensity. policy implications • Maintaining a technological edge is critical for the U.S. to successfully manage the rivalry with China. Policies should be pursued to ensure that the U.S. continues to attract and nurture the best science and technology talent and retains its status as the global leader in technology. • To compete with China’s narrative about leading regional integration, the U.S. should both put forth a compelling vision for the region that encompasses widely held economic, security, and political values and continue to bolster its diplomatic and military positions in Asia. • To maintain the U.S.-China rivalry at a stable level, policymakers in both countries should prioritize measures that discourage the mobilization of popular sentiment against the other country and encourage cultural exchanges. • U.S.-China competition will likely become increasingly entwined with rivalries between China and U.S. allies and partners such as Japan and India. U.S. policymakers will need to take into account the independent dynamics of those separate rivalries when managing relations with China. The United States and China find themselves increasingly enmeshed in a strategic rivalry, the basic nature of which remains poorly understood in the United States. To be sure, disagreements between the two countries have gained widespread attention. Disputes involving Chinese confrontations with U.S. allies and partners such as Japan, the Philippines, and Taiwan have frequently grabbed the headlines. At other times, disagreements over Chinese trade practices and U.S. military activities in the South China Sea have occasioned discord. All these sources of conflict are genuine, but they mask the main drivers of rivalry, which are twofold. First, the United States and China are locked in a contest for primacy—most clearly in Asia and probably globally as well. The United States has been the dominant power, and China seeks to eventually supplant it. By definition, two different states cannot simultaneously share primacy at either the regional or global level. Second, economic, demographic, and military trajectories suggest that China has the potential to contend in a significant way for leadership at the global systemic level. At this level, the most decisive competition will be for technological leadership. Should China supplant the United States as the world’s premier country in terms of technology, its claim to regional and global supremacy will be difficult to deny. And once it has gained that supremacy, China will be well positioned to restructure institutional arrangements to privilege itself and disadvantage the United States. Although this competition is occurring simultaneously at both levels, observers have focused primarily on the struggle for primacy at the regional level and overlooked or downplayed the competition at the global systemic level.1 To counter China’s pursuit of regional primacy, the United States has bolstered its alliances in Asia (albeit inconsistently), expanded diplomatic outreach to China and rising powers in Southeast Asia, and revised its military posture—efforts captured by President Barack Obama’s “rebalance to Asia.” President Donald Trump may have abandoned the rebalance, but many of the related initiatives remain more or less in place.2 China’s challenge at the global systemic level, especially in the field of technology, has received less attention. Confidence in the proven U.S. ability to produce new technologies and facile assumptions about the difficulties China will face in promoting innovation in new industries have led many to dismiss the challenge posed by China. **But the contest for technological leadership is actually even more consequential than that for regional primacy.** Should China succeed in surpassing the United States as the world’s technological leader, U.S. diplomacy and military power will not suffice to hold the line either in Asia or around the globe**.** Under those conditions, countries throughout the world, including U.S. allies in Asia, will be forced to come to terms with the new leading economy. Military power projection could be far less relevant as China moves to consolidate its leading status at both the regional and global levels in such a scenario. Accordingly, although the United States cannot abandon its efforts to bolster its diplomatic and military position in Asia, the country must step up its efforts to strengthen its faltering lead in new technology development. While China clearly grasps the stakes, it is not clear that the United States does. For example, China’s government has promoted R&D into quantum computing. The investment appears to be paying off, as the country has leaped ahead of the United States in developing quantum communications.3 Similarly, the U.S. Congress has proposed to dispense with subsidies for the purchase of electric vehicles, even as China pushes ahead in its plan to become the lead producer of this technology.4 And while the U.S. government seeks to restrict immigration and discourage foreign students from attending U.S. universities (and staying after they receive their advanced training), China has revised its policies to welcome foreigners, prioritizing those with science and technology expertise. Moreover, Chinese investment in basic R&D is rapidly catching up to that of the United States.5 Studies have also noted a shrinking U.S. lead in science and technology as such investment is beginning to bear fruit.6 Similarly, the United States has lost its once-undisputed lead in the per capita number of engineers and scientists.7 Understanding the nature of the U.S.-China rivalry at the regional and global systemic levels, as well as how these two levels interact with one another, is essential if the United States is to successfully manage the challenge posed by China in a manner that avoids war. This study aims to contribute to that understanding. The article is organized into the following sections: u pp. 95–102 provide an overview of the growing rivalry between China and the United States, including a discussion of the meaning and role of strategic rivalry in interstate conflict and a comparison with the U.S.-China rivalry during the Cold War. u pp. 102–4 review the dynamics of the rivalry at the regional systemic level. u pp. 104–10 analyze the dynamics of the rivalry at the global systemic level. u pp. 110–15 examine why proposals to avoid rivalry through cooperation or aggressive competition are unlikely to succeed. u pp. 115–19 discuss the idea of strategic rivalry management and offer recommendations on ways to sustain the rivalry at a lower level of intensity the growing rivalry between the united states and china Strains between China and the United States have deepened in the past few years over a proliferating array of issues. President Trump has stepped up accusations against China of unfair trade practices and inadequate pressure on North Korea. He also provoked controversy early in his term when he floated the idea of increasing official contacts with Taiwan, which Beijing considers a renegade province.8 These disputes add to tensions that had expanded under President Obama, who moved to strengthen U.S. alliances in Asia, promote a regional trade pact, criticize Chinese behavior in the cyber and maritime domains, and shift more military assets to the Asia-Pacific as part of the rebalance to Asia strategy.9 China has in turn dismissed U.S. concerns about the construction of artificial islands in the South China Sea, intensified its criticism of U.S. security leadership in Asia, and tightened its grip on disputed maritime territories.10 The baleful state of bilateral relations has spurred plenty of finger-pointing. On the Chinese side, officials denounce the United States’ “Cold War mindset” and warn of conflict if Washington does not adjust its policies.11 A 2015 defense white paper described an “intensifying competition” between the great powers.12 Military officials and many Chinese analysts regard increasing tension between the two countries as unavoidable, although they do not regard war as likely. People’s Liberation Army (PLA) deputy chief of staff Qi Jianguo commented that “no conflict and no confrontation does not mean no struggle” between China and the United States.13 According to Chinese official media, polls in China suggest a large majority believes that the United States intends to pursue a containment policy.14 Reflecting this point of view, Niu Xinchun, a scholar at the China Institutes of Contemporary International Relations, argued that the “greatest obstacle to the further integration of emerging countries such as China into the international system comes from the United States.”15 Western officials and commentators tend to blame China for current strains. Senior U.S. leaders have criticized “assertive” Chinese behavior, while some analysts blame Xi Jinping for pushing a more confrontational set of policies.16 Other Western observers worry that a further souring of relations could lead to conflict.17 But even if war remains unlikely, the deepening tensions increase the risks of miscalculation, crises, and potential military clashes involving the world’s two largest powers. Echoing a view widely held among U.S. foreign policy experts and officials, former CIA director General Michael Hayden has warned that mishandling the U.S.-China relationship could be “catastrophic.”18 Rivalry at the Heart of the U.S.-China Relationship This widespread concern reflects a realistic appraisal of the dangers inherent in the U.S.-China relationship. But developing successful policies to manage an increasingly sensitive and complex situation requires an accurate assessment of the phenomenon of interstate rivalry that lies at the heart of that relationship. Rivalry is a concept that, while widely acknowledged, remains poorly understood. To be sure, most experts take for granted the idea that powerful nations compete for status and influence, and they acknowledge the danger posed by a rising power’s challenge to a status quo power. Yet investigation into the phenomenon of rivalry too often stops at these well-trodden findings. Less often discussed are the conclusions regarding the dynamics of rivalry that experts on conflict studies have arrived at within the past few years. Much of this scholarship draws from improvements to the analyses and data regarding interstate crisis and conflict.19 This research has generated useful and interesting insights regarding the start and conclusion of rivalries, crises, and war, although these remain largely unexplored outside academic circles. Analysts have established, for example, that rivalry is perhaps the most important driver of interstate conflict. As defined by political scientists, “rivals” are states that regard each other as “enemies,” sources of real or potential threat, and as competitors. At the root of rivalries thus lie disputes over incompatible goals and perceptions that countries possess both the ability (real or potential) and the intention to harm each other. Wars have historically tended to be fought by pairings of these states and their allies. Rivals have opposed each other in 77% of wars since 1816 and in over 90% of wars since 1945.20 Not only are rivals more likely to fight than non-rivals, but rivals also have a tendency to be recidivists because they are unable to resolve their political differences on the battlefield. Yet that does not always discourage them from trying to do so repeatedly. Rivals that cannot prevail due to parity frequently compete for advantage by building internal strength through arms racing or by leveraging external power through the strengthening of alliances and partnerships. Rivals are also prone to serial militarized crises**.** Mutual perceptions of each other as hostile enemies and the inconclusive outcome of previous militarized disputes typically fuel a pattern of recurrent crises characterized by deepening resentment, distrust, and growing willingness to risk escalation. Studies have also established that the risk of conflict increases sharply after three episodes of militarized crises.21 Rivalries do not progress in a linear direction, however. Their intensity can wax and wane in response to shocks and other important developments. Periods of relative stability can alternate with turbulent periods of tension and conflict. Similarly, cooperative activities can be interspersed with periods of acute tension and hostility. Nevertheless, the link between rivalry, crises, and interstate conflict is pervasive. Drawing from these sources, one can describe the Sino-U.S. relationship as a rivalry characterized as a competition between two major powers over incompatible goals regarding their status, leadership, and influence over a particular region—in this case principally the Asia-Pacific. The dynamics of this type of strategic rivalry differ in significant ways from the far more numerous rivalries over territory that have characterized conflict between so many countries, especially weaker and poorer ones. In contrast with rivalries over territories, strategic rivals do not necessarily share borders, although allies of one power may be engaged in a territorial dispute with the other major power. Strategic rivalries among major powers tend to be especially long-lived, with the average enduring for about 55 years.22 Strategic rivalries are incredibly complex phenomena that include overlapping and often reinforcing layers of disputes over leadership, status, and territory between the principal rivals and their allies. Such rivalries are almost always multilateral affairs that also involve allies and partners, some of which have their own rivalries with the other side. Competition in the economic, political, and military domains can serve as expressions as well as drivers of rivalry, as can sports and cultural competition. Strategic rivalries can be confined to one region, with the basic conflict reducible in some respects to which rival will occupy the top rung of the regional hierarchy. In other cases, however, a rivalry can span regional and global domains either sequentially or simultaneously. The U.S.-China rivalry, for instance, is already both a regional and, to a lesser extent, a global rivalry, but there is still considerable room for competition to expand. The complex and overlapping nature of the disputes makes strategic rivalries extremely crisis- and conflict-prone. Strategic rivalries come in a grim package deal that includes strained and hostile relations, serial crises, and in some cases wars. The comprehensive and multifaceted nature of the disputes also explains why such rivalries have proved so durable and why their wars have been so devastating. Conflict between strategic rivals has historically occasioned the most destructive wars, of which World Wars I and II are the most recent examples. The fact that experts at the time of each historic episode of systemic conflict consistently underestimated the duration or extent of war offers cold comfort to analysts today who seek to predict the trajectory of any conflict that might involve China and the United States. Comparisons of the Current Environment with the U.S.-China Rivalry during the Cold War How did the two countries arrive at this position? The most widely accepted narrative argues that China’s rapid economic growth has provided the resources with which it can press demands on long unresolved issues such as unification with Taiwan. China and the United States may have enjoyed stable relations in the 1980s when they cooperated on a limited basis against the Soviet Union, but that foundation of cooperation eroded considerably once the Soviet bloc dissolved in the early 1990s. Moreover, China’s rapid growth in economic power has given the country fresh resources to press its own demands on the United States and U.S. allies. By 2010, China’s economy had outpaced that of Japan to become the second-largest in the world.23 The persistence of long-standing sources of antagonism, such as the U.S. security partnership with Taiwan, has both reflected and aggravated a broader competition for leadership. For its own reasons, Washington has resisted Beijing’s demands, and the result has been growing fear and distrust.24 The intensifying rivalry between the rising power and the status quo leader is as old as antiquity itself. Indeed, Graham Allison coined the term “Thucydides trap” to describe such a situation, a term that he subsequently applied to the current U.S.-China situation.25 The popular narrative is not entirely incorrect, yet in some ways it remains incomplete. A closer look at history reminds us that antagonism between China and the United States is not unprecedented. In the 1950s and 1960s, the two countries engaged in an intense strategic competition for status and influence in Asia, one that occasionally burned hot, as it did when they clashed on the Korean Peninsula or more indirectly in Vietnam. This Cold War–era rivalry saw a complex network of competing alliances and partnerships, principally in Asia. The United States supported Taiwan and South Korea in bitter disputes with China and its allies, North Korea and the Soviet Union. This rivalry terminated in the 1970s primarily due to Beijing’s decision to counter a growing Soviet menace and the United States’ decision to pursue China as a potential partner for its own rivalry with the Soviet Union. But the existence of a period of intense U.S.-Chinese tension and competition provides a helpful baseline of comparison. What requires explanation is not the fact that the United States and China are engaged in a rivalry but the difference between today’s rivalry and that of the Cold War. What distinguishes the rivalry today from that of the earlier period is both the closer parity in relative power—albeit still more potential than real—between the two countries and the comprehensiveness, complexity, and systemic nature of the disputes between them. Paradoxically, these features make the current rivalry potentially far more threatening to the United States, despite the fact that so far U.S.-China relations have remained peaceful, and even though the U.S. and Chinese militaries fought each other in the Korean War. The dangerous potential of the current rivalry ultimately owes to the risk that China could rise to the position of global system leader and subordinate the United States accordingly. As has happened in previous power transitions, China as a system leader could exploit existing arrangements to its benefit and to the detriment of the outgoing leader, the United States. Due to the enormous rewards that accrue to a systemic leader and the high costs for the state that loses this position**,** struggles for global leadership have historically proved to be especially destructive. The possibility that China and the United States could find themselves in a similar struggle, while unlikely at this point, cannot be ruled out given the reality of the relative decline in U.S. power and the concomitant increase in Chinese comprehensive national power. At the most basic level, this fact may be measured superficially by the U.S. share of world GDP, which eroded from 40% in 1950 to 16% in 2014, adjusted for purchasing power parity. Over the same period, China’s share expanded from around 5% to 17%.26 An important consequence of the narrowing of the gap in comprehensive power has been an intensifying competition for leadership in the international economic and political order. In this way, the popular discussion of the Thucydides trap correctly recognizes the dangers of the U.S.-China competition. This feature contrasts sharply with the previous episode of rivalry. In the 1950s and 1960s, the asymmetry in power meant that the United States and China competed for influence and even clashed militarily in countries along China’s borders, but rarely elsewhere. As a largely rural, impoverished country, China had little stake in the system of global trade promoted by the industrialized West. Excluded from the United Nations, Maoist China also lacked the institutional ability to influence geopolitics and project power much beyond its immediate environs—and even that capability was sorely handicapped. Outside Asia, the United States faced minimal competition from China and generally regarded the Soviet Union as a more pressing threat. By contrast, the current competition features a China fully enmeshed in a political and economic order led by the United States. While generally supportive of this order, China is also seeking to revise aspects of the regional and international order that it regards as obstacles to the country’s revitalization as a great power. The main theater of this competition for influence and leadership is the Asia-Pacific, as it was in the Cold War, but U.S.-China rivalry increasingly is expanding globally. Moreover, unlike the largely military, regional, and ideological Cold War competition, the current contest is far more multifaceted and comprehensive in nature; it includes military, economic, technological, and political dimensions. The following two sections review the state of the competition at both the regional and the global systemic levels. the u.s.-china rivalry at the regional level At the regional level, U.S.-China competition spans the political, economic, and military realms. Politically, the two countries have feuded over the role of liberal values and ideals, a dispute that widened after the 1989 Tiananmen Square massacre. However, the 1996 Taiwan Strait crisis elevated the potential threat of conflict between the two countries and may therefore be regarded as the starting point of the current rivalry. Coinciding with impressive gains in China’s economic and military power following two decades of market reforms, the standoff saw Washington and Beijing deploy military assets to back up their respective positions regarding Taiwan’s right to hold a presidential election, elevating the risk of a clash. Since then, the competition for political influence and leadership has intensified. In 2011, the United States announced its rebalance to Asia, which was aimed in part at shoring up U.S. alliances, partnerships, and influence.27 Although on the surface Washington has abandoned the effort, the Trump administration has reintroduced a vision for Asia’s economic and security order premised on values favorable to U.S. interests.28 The 2017 National Security Strategy stated, for example, that the United States upholds a “free and open Indo-Pacific.”29 Beijing, by contrast, has increased its efforts to advance a vision for a regional order premised on Chinese leadership. In recent years, China has promoted major economic and geostrategic initiatives to deepen Asia’s economic integration through the Belt and Road Initiative, Asian Infrastructure Investment Bank (AIIB), and other initiatives.30 In 2017, China for the first time issued a white paper that outlined the government’s vision for Asia-Pacific security. The paper stated that China takes the advancement of regional prosperity and stability “as its own responsibility.”31 These policies build on directives issued by Xi Jinping in 2013, when he called for policies to bolster China’s attractiveness as a regional leader.32 Economically, the two countries are competing over the evolution of Asia’s economic future—a region anticipated to drive global growth in coming decades. Both countries are also competing to shape the terms of trade. President Trump may have abandoned the Trans-Pacific Partnership (TPP), but his advisers have advocated other measures to shape favorable trade terms.33 Meanwhile, China has stepped up advocacy of the Regional Comprehensive Economic Partnership, a proposed free trade agreement for the region that excludes the United States.34 China also has promoted the AIIB, while the United States and Japan continue to instead support the Asian Development Bank.35 Militarily, the growing arms race and the establishment of rival security institutions stand among the most obvious manifestations of an increasing competition in this domain. China and the United States have designed an array of military capabilities and doctrines partly aimed at each other. The PLA has developed weapons systems to counter potential U.S. intervention in any contingency along China’s periphery, which the United States has in turn sought to counter with its own innovations, such as the Joint Operational Access Concept.36 U.S. secretaries of defense Chuck Hagel and Ashton Carter outlined a “third offset” strategy to compete with China and Russia in military technology.37 To promote regional security, the United States has strengthened its military alliances and partnerships, while China has strengthened ties with Russia and argued that regional security is best protected through the Shanghai Cooperation Organisation, the Conference on Interaction and Confidence Building Measures in Asia, and other Chinese-led institutions. In 2014, Xi indirectly rebuked the United States for seeking to bolster its security leadership in the region, stating that “it is for the people of Asia to uphold the security of Asia.”38

### Innovation—COVID

#### Innovation is steady now – COVID uplifted the market just enough to keep collaboration going.

**IP 20** [Idea Pharma, 4-6-2020, "These pharmaceutical companies are the top inventors and innovators," Fortune, <https://fortune.com/2020/04/06/top-pharmaceutical-companies-innovation-invention-2020/>] //DD PT

The 2020 Pharmaceutical Invention and Innovation Indices, compiled by [IDEA Pharma](https://www.ideapharma.com/), were generated prior to the unfolding [COVID-19 pandemic](https://fortune.com/tag/coronavirus/) and do not relate to what any pharmaceutical or biotech company is doing in relation to that particular challenge. There is a huge amount of work going into the existential threat posed by this virus, something that we have seen before. Perhaps the AIDS crisis represents the closest analogue—an industry that rallied quickly and produced treatments which sustain lives today. However, we all want to know more, at a period of uncertainty. The difference between putting out an idea, or bringing forth a viable product, is the difference between invention and innovation: Put simply, some companies are better at one than the other. As in the Parable of the Talents, the question most pertinent to the question of “productivity” in the [pharmaceutical industry](https://fortune.com/tag/pharmaceuticals/) is not “How much do you have?” but “If you gave the same product to two different companies, which would do the best with it?” That was the simple question first asked 10 years ago, with the Pharmaceutical Innovation Index—a ranking of which companies have been best at adding value to their pipelines over the past five years. It fits a classical definition of innovation as a measure of return on invention—separating the idea from its execution. $770 billion COMBINED GLOBAL REVENUE FOR THE TOP 30 PHARMACEUTICAL COMPANIES IN 2019 At a time when innovation is needed more than ever, this lesson is critical. The history taught to us in tales of Henry Ford, Thomas Edison, Steve Jobs, and Elon Musk tends to celebrate their ideas, whereas it is their execution, their organizations, that brought inventions to their audience: famously, the 99% perspiration instead of the 1% inspiration. If we put too much faith in inventions to self-determine their own fate, we lose sight of the role that great companies, and their people, play in bringing them, literally, to life. It is a surprise to many (especially within the industry) that good new drugs can be halted, or lost, in development by the inability of companies to guide them toward their patient destiny via the thousand small decisions, hurdles, and barriers that stand between an idea and its value. With so much excitement surrounding the addition of a promising candidate to a bulging development portfolio, it is an important reminder that companies differ widely in their ability to realize its talent. From tens of thousands of programs in the industry, we gain only 40 to 50 new drugs per year, and only 10 to 15 of those will deliver a return on its own investment. When we realize that, we see an engine like a ’70s Detroit V-8, guzzling fuel but with little effect on progress. Of 2019 revenues across the top 30 companies, the average return from products launched in the past five years was just 12%. (Some household names derived no significant revenue from “new” products.) When we wonder why drug pricing is such an issue, the natural focus falls upon on annual rises on old drugs. Unfortunately, some companies have no choice—they have no new products to rely upon. $4.5 billion AVERAGE COST OF LAUNCHING A NEW DRUG However, we don’t want to lose that twinkle: A pipeline full of novelty and meaningful opportunity is what we all want from a pharmaceutical company—potential answers to life’s most important questions. So, after 10 years of focusing on innovation exclusively, the Pharmaceutical Innovation Index gains a forward-looking statement—the Pharmaceutical Invention Index. The 2020 Index sees biotech mixing it up with the industry’s giants. As with the emergence of more fuel-efficient cars during the oil crisis, we’re seeing new players. With the dominance of rare and orphan disease approvals, more companies are finding they don’t need the traditional sales forces and development pathways. We also see that the industry is looking healthy globally, but Europe—with the exception of the U.K. and Switzerland—is dropping away as a player. —IDEA Pharma Highlighted companies Roche Innovation Index rank: 1 Invention Index rank: 10 Number of employees: 97,735 2019 revenue: $63.638 billion Headquarters: Basel, Switzerland [Roche](https://fortune.com/2020/03/13/coronavirus-test-roche-covid-19/) has jumped seven spots from 2019 to finish first, the first time the Swiss company has done so. The company benefited from multiple clinical data wins, a pair of novel FDA approvals, and many path-leading immuno-oncology firsts by its PD-L1, Tecentriq. AbbVie Innovation Index rank: 2 Invention Index rank: 7 Number of employees: 30,000 2019 revenue: $32.75 billion Headquarters: North Chicago, Ill., U.S. Runner-up on this year’s Innovation Index (and seventh overall on the Invention ranking) is [AbbVie](https://fortune.com/company/abbvie). A model of consistency, [AbbVie](https://fortune.com/longform/abbvie-humira-drug-costs-innovation/) has held the second position two years in a row. Novartis Innovation Index rank: 3 Invention Index rank: 4 Number of employees: 103,914 2019 revenue: $51.9 billion Headquarters: Basel, Switzerland Novartis had a historic year in terms of regulatory approvals notching an unprecedented five novel drugs, helping catapult the company from ninth on the Innovation Index in 2019 to third in 2020. Notably, the company also sustained its Invention ranking—finishing fourth overall in back-to-back years, suggesting a promising future. Vertex Innovation Index rank: 3 Invention Index rank: 9 Number of employees: 3,000 2019 revenue: $4.164 billion Headquarters: Boston, Mass., U.S. With the help of the FDA approval of potential blockbuster cystic fibrosis (CF) drug Trikafta, Vertex burst onto the Innovation scale in 2019, as the best-performing biotech by far. Eli Lilly Innovation Index rank: 5 Invention Index rank: 3 Number of employees: 33,625 2019 revenue: $22.32 billion Headquarters: Indianapolis, Ind., U.S. After experiencing a jump from No. 13 in 2018 to third on the 2019 Innovation scale, [Eli Lilly](https://fortune.com/company/eli-lilly) has settled into the fifth spot on this year’s Index. Despite the two-spot drop, Lilly’s Invention scale ranking of third for 2020 implies that the company isn’t going anywhere anytime soon. AstraZeneca Innovation Index rank: 6 Invention Index rank: 1 Number of employees: 61,100 2019 revenue: $24.384 billion Headquarters: Cambridge, U.K. After dipping from first in 2018 to No. 12 in 2019 on the Innovation scale, AstraZeneca is back in the top 10. With no new drug or BLA approvals coming in 2019, the vast majority of AstraZeneca’s success came from positive clinical data, and progression in the pipeline, which in turn landed the company in first place on the Invention scale. 1,200 NUMBER OF DRUGS IN DEVELOPMENT IN OVER 1,900 CLINICAL STUDIES AMONG THE TOP 30 PHARMACEUTICAL COMPANIES Alexion Innovation Index rank: 7 Invention Index rank: 24 Number of employees: 2,525 2019 revenue: $4.991 billion Headquarters: Boston, Mass., U.S. Leading the charge on the Innovation front for Alexion is the blockbuster drug Soliris, and the emergence of its successor, Ultomiris.

#### IP protections are key to ensuring both the innovation of future drugs and stopping mutations of the COVID-19 pandemic.

**Ezell 21** [Stephen Ezell, 3-9-2021, "TRIPS Waiver on COVID-19 IP Rights Wouldn’t Help Vaccine Access; It Would Just Harm Innovation," No Publication, <https://itif.org/publications/2021/03/09/trips-waiver-covid-19-ip-rights-wouldnt-help-vaccine-access>] //DD PT

In the face of a COVID-19 pandemic that has caused [2.6 million fatalities](https://news.google.com/covid19/map?hl=en-US&mid=%2Fm%2F02j71&gl=US&ceid=US%3Aen) worldwide, life-sciences companies have raced to bring forward a wide range of life-saving innovations, including novel diagnostic tests like Lumira DX’s that can detect the virus within minutes; therapeutics such as Gilead’s remdesivir; and highly effective vaccines such as those from Moderna, Pfizer, and Johnson & Johnson. In fact, over 600 novel COVID-19 treatments are [under development](https://www.fda.gov/drugs/coronavirus-covid-19-drugs/coronavirus-treatment-acceleration-program-ctap), including 130 vaccines in global clinical trials and 176 in pre-clinical trials. Yet, amidst this unprecedented pace of innovation, some 90 developing nations, led by India and South Africa, have petitioned the World Trade Organization’s Trade-Related Aspects of Intellectual Property Rights (TRIPS) Council calling for a [waiver](https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/IP/C/W669.pdf&Open=True) to suspend all intellectual property rights (IPR) associated with COVID-19 innovations, again asserting the false narrative that IP rights inhibit access to medicines. The waiver petition itself suggests the various fallacies underlying the request. First, the waiver (initially submitted on October 2, 2020) acknowledges that, “To date, there is no vaccine or medicine to effectively prevent or treat COVID-19.” This admission immediately confirms that intellectual property rights are not and have never been the challenge in the COVID-19 pandemic. Rather, the challenge initially was the very lack of intellectual property; we had to, and did, discover and invent the scientific and technical knowledge necessary to understand the operation of the virus and how to defeat it with novel vaccines and therapeutics. Much of this involved new-to-the world technologies, such as novel mRNA-based vaccines. Far from being an inhibitor of this process, the robust intellectual property regimes in place in many nations contributed to a body of biomedical knowledge and technologies that provided a crucial platform for the innovation of COVID-19 solutions. Second, the [waiver](https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/IP/C/W669.pdf&Open=True) petition vaguely references “several reports about intellectual property rights hindering or potentially hindering timely provisioning of affordable medical products to the patients.” The [first](https://www.bloomberg.com/news/articles/2020-03-20/world-war-ii-style-production-may-carry-legal-risks-for-patriots) of two cited instances pertained to Labrador Diagnostic LLC, a patent-licensing firm which—although it did file a suit against a French firm, bioMerieux SA, developing coronavirus tests, in order to ensure that its IP was not infringed—has actually committed to offering its patents royalty-free to any company developing coronavirus tests. The second instance referenced Kentucky Governor Andy Beshear’s [call](https://www.courier-journal.com/story/news/2020/04/03/beshear-calls-3-m-release-patent-n-95-respirator-amid-pandemic/5112729002/) for 3M to release a patent on N95 respirators. But that was it; on those two incredibly thin reeds, with nary any serious evidence whatsoever that IP rights were inhibiting access to COVID-19 treatments—let alone the fact that no COVID-19 vaccines existed at the time—the petitioners took the radical step to call for a suspension of all IPR rights pertinent to COVID-19 technologies throughout the duration of the pandemic. And while petitioners made this call on the alleged grounds of ensuring sufficient access to needed vaccines and therapeutics, their call for the suspension of every facet of IP rights on every conceivable COVID-19 related technology—even such as for copyrights and industrial designs—betrays the reality that the petitioners’ core goal isn’t really about access, but about undermining the global intellectual property rights system. To be sure, the developed world needs to be fully committed to ensuring that the world’s citizens receive the COVID-19 vaccines and therapeutics they need. But this can be accomplished through structures such as licensing and product development partnerships, without requiring an abrogation of intellectual property rights. For instance, in February 2021, the Biden administration announced it would [contribute](https://www.npr.org/2021/02/18/969145224/biden-to-announce-4-billion-for-global-covid-19-vaccine-effort) up to $4 billion to COVAX, a vaccine alliance seeking to distribute COVID-19 vaccines to 92 low- and middle-income countries. COVAX aims to deliver at least 2 billion vaccine doses by the end of 2021, covering at least 20 percent of the most vulnerable citizens in poor- and middle-income countries. Innovative life-sciences companies have entered into a number of licensing agreements to facilitate dramatically expanded manufacturing of COVID-19 vaccines and therapeutics. For instance, Gilead Sciences has licensed its therapeutic remdesivir royalty-free to [nine generic drug manufacturers](https://www.gilead.com/purpose/advancing-global-health/covid-19/voluntary-licensing-agreements-for-remdesivir), in Egypt, India, and Pakistan. AstraZeneca reached a licensing and technology transfer agreement enabling [India’s Serum Institute](https://www.astrazeneca.com/media-centre/articles/2020/astrazeneca-takes-next-steps-towards-broad-and-equitable-access-to-oxford-universitys-potential-covid-19-vaccine.html) to manufacture one billion vaccine doses for low- and middle-income countries. The Serum Institute has further [entered into manufacturing licenses](https://geneva-network.com/research/why-intellectual-property-rights-matter-for-covid-19/) with a number of developers of yet to be approved COVID-19 vaccines, as have several other Indian vaccine manufacturers. Johnson and Johnson has announced plans to allocate up to [500 million vaccine doses](https://www.jnj.com/latest-news/johnson-johnson-signs-communique-on-expanded-global-access-for-covid-19-vaccines) to lower-income countries, with delivery starting by mid-2021. Companies like Johnson & Johnson are making the vast majority of these vaccine doses available on a not-for-profit basis. Thus, the fundamental problem isn’t high prices due to IP rights; it’s dramatically scaling up manufacturing capacity. It takes [60 to 110 days](https://www.cbsnews.com/news/covid-vaccine-johnson-and-johnson-factory/) to produce one batch of COVID-19 vaccine. When Serum Institute CEO Adam Poonawalla [was asked](https://www.theguardian.com/global-development/2021/feb/14/we-took-a-huge-risk-the-indian-firm-making-more-covid-jabs-than-anyone) if vaccine rollout was slowed because vaccine patentholders were licensing too few manufacturers to make them, he responded, “No. There are enough manufacturers, it just takes time to scale up. And by the way, I have been blown away by the cooperation between the public and private sectors in the last year, in developing these vaccines.” Poonawalla actually cited the lack of global regulatory harmonization as a far greater cause of delays in the vaccine rollout. Even Médecins Sans Frontières’ Rose Scourze acknowledged (in a January 20, 2021 BBC interview) that suspending patent rights “wouldn’t produce millions of more vaccines.” Instead of forcing the disclosure of IP, policymakers should encourage the use of voluntary licensing agreements to expand production of the needed COVID-19 vaccines and therapeutics. One reason this critically matters is to ensure consistency and safety in the production of these treatments. The mRNA-based vaccines developed by Moderna and Pfizer are [incredibly complex biologic products](https://itif.org/publications/2021/01/28/covid-19-vaccines-are-even-bigger-story-you-think) that require specialized experience, expertise, and equipment to manufacture. For example, mRNA vaccines require a complicated technique known as “bioprocess” that requires specialty bioreactors to first manufacture DNA that codes for the desired mRNA sequence, and then uses a second bioprocess to create billions of identical mRNA segments. These are then wrapped in a nanolipid wrapper using yet another very specialized fluidics and mixing process, and for which there are only three facilities in the world that can execute the step of creating the liquid capsule around the RNA. Instead of simply being forced to divulge their IP or see it be compulsorily licensed to other manufacturers, in light of the extreme complexity of manufacturing COVID-19 vaccines and therapeutics, companies should have the right to evaluate potential license partners and ensure that they can meet the production standards required to safely and reliably produce COVID-19 vaccines or treatments before entering into license arrangements with them. Indeed, this is critical for it would be disastrous if defective vaccines or therapeutics were produced at facilities not properly equipped to produce such complex treatments. As Phil Stevens and Mark Schultz [have written](https://geneva-network.com/research/why-intellectual-property-rights-matter-for-covid-19/), there’s simply no evidence that invalidating IP rights would achieve more than the licensing agreements currently being forged between innovators and reputable vaccine manufacturers in countries such as India and Brazil. Instead of rolling back intellectual property rights, policymakers in developed and developing nations alike should focus on mechanisms to scale up production of vaccines and make them affordably available to citizens in developing countries. But to achieve that, there is simply no compelling reason for a blanket suspension of the intellectual property rights associated with COVID-19 products and technologies. For this reason, the Biden administration should continue the previous administration’s stance of opposing the waiver at the WTO TRIPS council, where deliberations resume on March 10, and reject [calls from some in Congress](https://news.bloomberglaw.com/health-law-and-business/democratic-lawmaker-pushes-biden-to-back-vaccine-patent-waiver) to endorse the proposed TRIPS waiver.

#### African pharmaceutical industries are still underdeveloped, but investment is growing. Any assistance for the African pharmaceutical industry is good.

**Idris 20** [Abubakar Idris, 16-03-2020, "Investor interest in Africa’s innovative pharma business is growing," TechCabal, <https://techcabal.com/2020/03/16/lifestores-seed-funding/>] //DD PT

Pharmacies are the first contact for millions of Africans accessing healthcare services on the continent. This makes the business a big one. The African pharma market is worth over [$50 billion](https://techcabal.com/2020/03/11/nigerian-health-startup-field-intelligence-funding/). In Nigeria, [McKinsey predicts](https://www.mckinsey.com/industries/pharmaceuticals-and-medical-products/our-insights/winning-in-nigeria-pharmas-next-frontier) that the market could grow as high as 9 per cent annually by 2026, contributing between $950 million and $1.1 billion during this period. But the business is underdeveloped. The demand is high but the supply chain is broken, causing many drug stores to run out of important products quickly and longer times to restock. In most parts of the continent, quality drugs are exported. The supply chain is dominated by a few middlemen who have the links and resources to bring drugs into the country. To augment supply, some chemists fall victim to fake drugs, putting the lives of their customers at risk. According to the [United Nations Industrial Development Organisation (UNIDO)](https://www.unido.org/sites/default/files/2011-04/Nigeria_Pharma%20Sector%20Profile_032011_Ebook_0.pdf) [PDF], fakes account for around 30% of drugs in circulation in the Nigerian market. This is a problem. Over the last five years, a number of innovators have identified this problem and have developed their own tech solutions to address it. [Lifestores](https://techcabal.com/2019/10/07/lifestores-wants-to-change-nigerias-pharma-business-using-technology/) is one company doing this. They are on a “mission to democratize access to quality healthcare,” the company told TechCabal. Lifestores started operations in 2017 to make quality and affordable drugs available for the mass market. It started operations in 2017 and is using a different go-to-market strategy. Rather than restrict itself to quality drugs delivery to third-party pharmacies, Lifestores has gone into the business for itself. It has opened a number of drug stores to understand the challenges chemists are facing in their daily operations. In 2019, it operated three stores in Yaba, Ilupeju and Festac. It acquired a fourth store in early 2020 and is on course to take over another store. Lifestores has developed a software component to its operation for inventory management and to address supply chain issues. It is working directly with pharmaceutical companies to purchase its stock. This makes its drugs cheaper and high quality. Between 2018 and 2019, its sales have grown by five times, the company told TechCabal. For the long term, the company is focused on the mass market. It wants to work with thousands of pharmacies to develop a network of stores in Nigeria. In the West African country, “the [pharmacy] space is incredibly fragmented,” Andrew Garza, Lifestores’ COO [told TechCabal](https://techcabal.com/2019/10/07/lifestores-wants-to-change-nigerias-pharma-business-using-technology/) in October 2019. The market leaders own just 2% of the market, “they’re quite small compared to other markets like South Africa where the single lead tends to have as much as 30% of market share,” he said. For its franchising model, Lifestores provides third-party stores (which it calls affiliates) with the software to manage their processes and inventory. “We’ve developed the software that will be the foundation of the program,” Garza told TechCabal. “[We] are currently testing it in our own stores before rolling it out to 3rd party pharmacies.” By the end of March or the next quarter, Lifestores will roll out the pilot to include third-party stores. The full rollout would happen later in the year. “The focus of the program will be on helping pharmacies manage their inventory more efficiently,” Garza said, “providing them with group purchase discounts and enabling them to better serve customers.” The company recently closed an over $1 million seed-stage funding round. The round was led by Consonance Investment Managers. Other investors who participated include Flying Doctors Nigeria Group & the Greentree Syndicate, the StartUp Health Transformer Fund, Altadore Lionbear Capital, Unseen Ventures, K50 Ventures, Chinook Capital and Kepple Africa Ventures. A number of angel investors also invested in this round. Lifestores is not the only pharma-focused company generating a buzz. Field Intelligence is another startup attracting a lot of attention. The health-tech company is focused on supply chain issues for pharmacies. It has around 280 pharmacies signed up to its service. The five-year-old company just [closed a $3.6 million Series A](https://techcabal.com/2020/03/11/nigerian-health-startup-field-intelligence-funding/) round led by Blue Haven Initiative, one of the world’s biggest impact investors. Ghana’s mPharma is one of the biggest movers in the African retail drug market. The seven-year-old company raised $12 million Series B funding last year. It operates in five countries and expanded to Kenya by acquiring the country’s second-largest pharmacy chain. 54gene, a Nigerian startup, is providing pharma companies with genomics data about Africans that makes it easier for them to develop effective drugs. The startup raised $4.5 million in 2019. In 2018, Nigerian pharmacy chain, [HealthPlus raised $18 million](https://www.businesswire.com/news/home/20180327005256/en/Alta-Semper-Capital-LLP-commits-US18-million) from Alta Semper Capital, a London-based investor. Founded in 1999, Health Plus has 80 stores and plans to expand across West Africa. In February, [three Ghanaian pharmaceutical companies merged](https://africanbusinessmagazine.com/african-banker/ghana-pharma-firms-merge-into-single-giant/) to create the largest drug company in the country. The new entity, Dannex Ayrton Starwin Plc or DAS Pharma, will produce around 80 drugs and is planning to expand across Africa. Daniel Apeagyei Kissi, DAS Pharma’s CEO, said the new entity will take advantage of new trends in the market spurred by tech. “[DAS Pharma] is coming into the market at an opportune time when the industry as we know is changing,” a [Ghanaian publication](https://www.graphic.com.gh/business/business-news/three-local-pharmaceutical-companies-merge-lists-on-gse-as-das-pharma.html) quoted him as saying. “Consumer and customer needs are changing, industry players are integrating vertically, dealer-owned brands are appearing on the market and technology is manifesting in online pharmacies, electronic payment, online healthcare systems [and] online doctors.” “DAS Pharma is well placed to respond to and take advantage of to make even greater history,” he said. These are exciting activities in the pharma market and could fuel more investor interests.

#### The only way that we can ensure that we can counter highly deadly pandemics is through pharmaceutical drug development and innovation.

**Madhav et al 17** [Madhav N, Oppenheim B, Gallivan M, et al. Pandemics: Risks, Impacts, and Mitigation. In: Jamison DT, Gelband H, Horton S, et al., editors. Disease Control Priorities: Improving Health and Reducing Poverty. 3rd edition. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2017 Nov 27. Chapter 17. Available from: https://www.ncbi.nlm.nih.gov/books/NBK525302/ doi: 10.1596/978-1-4648-0527-1\_ch17] //DD PT

Vaccines, antibiotics, and antiviral drugs can play a critical role in mitigating a pandemic by reducing the infectiousness of symptomatic patients and the susceptibility of uninfected individuals. Antivirals may reduce influenza transmission, although the extent of their effectiveness is unclear ([Ferguson and others 2005](https://www.ncbi.nlm.nih.gov/books/NBK525302/); [Jefferson and others 2014](https://www.ncbi.nlm.nih.gov/books/NBK525302/)). A systematic review of clinical trial data among treated adults showed that oseltamivir reduced the duration of influenza symptoms by 17 hours, but prophylaxis trials found no significant reduction of transmission ([Jefferson and others 2014](https://www.ncbi.nlm.nih.gov/books/NBK525302/)). If available, vaccines can reduce susceptibility. Significant efforts have focused on speeding up vaccine development and scaling up production. However, the availability of vaccines—particularly in LMICs—depends on the affected area’s capacity for distribution (including the scale and integrity of the cold chain), its capacity for last-mile delivery to rural areas, and the population’s willingness to adopt the vaccine. Vaccination strategies targeting younger populations may be especially beneficial, in part because influenza transmissibility is higher among younger populations during pandemics ([Miller and others 2008](https://www.ncbi.nlm.nih.gov/books/NBK525302/)). The effectiveness of antivirals, antibiotics, and vaccines in reducing spread diminishes if the pandemic is already global, if LMICs cannot afford adequate vaccine stocks for their populations, or if specific populations (for example, the poor or the socially vulnerable) cannot access vaccines. Additionally, pandemics may be caused by a pathogen without an available vaccine or efficacious biomedical therapy. Efforts to improve the vaccine development pipeline are underway ([box 17.3](https://www.ncbi.nlm.nih.gov/books/NBK525302/box/pt5.ch17.sec4.box3/?report=objectonly)).

#### Future pandemics are going to cause extinction – gut micro bacteria will mutate into deadly diseases which would threaten humanity.

**Diamandis 21** [Diamandis, E. The Mother of All Battles: Viruses vs. Humans. Can Humans Avoid Extinction in 50-100 Years?. Preprints 2021, 2021040397] //DD PT

The recent SARS-CoV-2 pandemic, which is causing COVID 19 disease, has taught us unexpected lessons about the dangers of human extinction through highly contagious and lethal diseases. As the COVID 19 pandemic is now being controlled by various isolation measures, therapeutics and vaccines, it became clear that our current lifestyle and societal functions may not be sustainable in the long term. We now have to start thinking and planning on how to face the next dangerous pandemic, not just overcoming the one that is upon us now. Is there any evidence that even worse pandemics could strike us in the near future and threaten the existence of the human race? The answer is unequivocally yes. It is not necessary to get infected by viruses of bats, pangolins and other exotic animals that live in remote forests in order to be in danger. Creditable scientific evidence indicates that the human gut microbiota harbor billions of viruses which are capable of affecting the function of vital human organs such as the immune system, lung, brain, liver, kidney, heart etc. It is possible that the development of pathogenic variants in the gut can lead to contagious viruses which can cause pandemics, leading to destruction of vital organs, causing death or various debilitating diseases such as blindness, respiratory, liver, heart and kidney failures. These diseases could result in the complete shutdown of our civilization and probably the extinction of human race. In this essay, I will first provide a few independent pieces of scientific facts and then combine this information to come up with some (but certainly not all) hypothetical scenarios that could cause human race misery, even extinction. I hope that these scary scenarios will trigger preventative measures that could reverse or delay the projected adverse outcomes.

#### THEORY OVERVIEW—1ar theory makes the 2nr very difficult. 3 warrants-

#### 1] Time skew--I can respond to new 1AR positions only once with the 2NR and none of my first speech matters, encouraging the aff to always introduce new 1AR layers since they get 2 speeches on the new issue they introduce and that issue comes first in the decision calculus and they can sit on it for 3 minutes in the 2ar, meaning they got the last say on all impact weighing.

#### 2] Judge intervention – it’s difficult to objectively resolve debates that only have 3 speeches since arguments aren’t fully fleshed out. Biggest link to fairness because its irreversible, debaters can still win rounds skewed against them, but not debates where the judge intervenes.

#### 3] Clash – 1AR is incentivized to restart the debate and avoid the 1N. You are the empirical proof—you go for 1ar theory all the time. Clash has strongest link into unique and transferable education. Without it the vast majority of the debate is scripted and skewed towards topic-independent meta-debates.