# 1AC

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### Top Level

#### Dr. Benjamin Mitra-Khan one a world renowned economist at the Australian patent office stated – “When it comes to intellectual property rights, not everything that glitters is gold.”

<https://www.quotemaster.org/intellectual+property+rights>

#### Thus I affirm the resolution Resolved – Member nations of the world trade organization ought to reduce intellectual property protections for medicines.

https://www.azquotes.com/picture-quotes/quote-there-are-a-lot-of-weapons-that-we-ve-developed-which-we-ve-pulled-back-from-biological-peter-singer-129-56-05.jpg

#### Intellectual property defined by the WTO is

https://www.wto.org/english/thewto\_e/whatis\_e/tif\_e/agrm7\_e.htm

"Intellectual property" refers to creations of the mind. These creations can take many different forms, such as artistic expressions, signs, symbols and names used in commerce, designs and inventions. Governments grant creators the right to prevent others from using their inventions, designs or other creations — and to use that right to negotiate payment in return for others using them. These are “intellectual property rights”. They take a number of forms. For example, books, paintings and films come under copyright; eligible inventions can be patented; brand names and product logos can be registered as trademarks; and so on. Governments grant creators these rights as an incentive to produce and spread ideas that will benefit society as a whole.

#### Specify on ipp for medicines in the resolution.

### Fwrk

#### My value is morality as per the word ought in the resolution

#### My value criterion is maximizing expected wellbeing

#### Prefer for actor specificity – A] Governments must aggregate since every policy benefit some and harms others, which also means side constraints freeze action. B] States lack wills or intentions since policies are collective actions. C] Actor-specificity comes first since different agents have different ethical standings. D] governments must aggregate averages between populations to conduct accurate policy

### Contention 1 – Vaccine Inequality

#### The status quo ensures vaccine imperialism. Intellectual property law is the lynchpin of North-South health inequality and has empirically resulted in disparate life outcomes.

Vanni 21 – Dr. Amaka Vanni is Lecturer in Law at the University of Leeds. ("On Intellectual Property Rights, Access to Medicines and Vaccine Imperialism," 3-23-2021, <https://twailr.com/on-intellectual-property-rights-access-to-medicines-and-vaccine-imperialism/>) julian

While the response to COVID-19 has shown what can be accomplished when the world works together, it has also underscored three interrelated points. First, the neoliberal framework – including the critical role intellectual property (IP) law plays in constituting this form of civilisation – is an unsuitable model for delivering the goods needed to respond to global health emergencies. The current economic/market system does not allow for equitable responses to infectious diseases, particularly access to sufficient medical and health resources. This inequity was obvious in the early days of the pandemic when test kits, PPEs, and ventilation machines were being distributed on the basis of who could pay the most rather than who needed them the most. Second, the beggar-thy-neighbor response currently adopted by developed countries hurts everyone because failing to stop the spread of the virus globally allows more mutations, which makes existing vaccines less effective. As COVID-19 has shown, no one is safe until everyone is safe. Yet, despite this warning, the hoarding of vaccines by developed countries continues unabated and speaks to the wider racist capitalist system we live in. If anything, this crude accumulation of vaccines reinforces North-South economic and political dominance and marks, as Onur Ince observes, the conceptual locus of political violence operative in the global genealogy of capitalism. Third, while COVID-19 may endanger us all, it is far more costly to some than others. Numerous reports have shown how black and brown people are most impacted by the pandemic. In the United States, for example, indigenous Americans have the highest COVID-19 mortality rates nationwide while African American communities have COVID-19 mortality that is 2.3 times higher than the rate for Asians and Latinxs, and 2.6 times higher than the rate for Whites. Similar data is also emerging in the UK where people from black and minority ethnic groups are at greater risk of dying from coronavirus. This means those groups suffer higher loss of life compared to other racial groups due to inequities in healthcare access as well as higher rate of pre-existing conditions. In other parts of the world, the most vulnerable and the economically marginalized such as those working in the informal sector and living in shanty towns are feeling the effects of the pandemic the most. In Latin America and the Caribbean, 70 per cent of domestic workers have been affected by the pandemic where most have stopped receiving income. In Ghana, residents of slums at Old Fadama – a suburb in Accra – were made homeless when the government demolished their homes. The ensuing homelessness means there is little to no space of observing social distancing rules, access to running water and access to other resources to practice basic hygiene. Meanwhile in India, the pandemic has unsurprisingly hit the country along caste lines where the Dalits are most impacted because many are poor and have limited access to healthcare. As Kimberlé Williams Crenshaw reminds us, the high number of minority deaths is not new. Rather, this crisis simply amplified racism and other forms of structural inequality as a pre-existing condition – an intersectional issue – where those disproportionately hurt are those who are already structurally marginalized. Thus, while recognising a broken global IP regime that triggered the scramble for vaccines, the racialized impact of the pandemic cannot be ignored, and it points to the entangled roots of race and capitalism. The rest of this analysis takes a close look at some of the legal, political and economic forces that have animated IP rights and access to COVID-19 vaccine. It will focus on how the entanglement of corporate capture of global IP regime, state complicity and vaccine imperialism have come together to shape public health responses to the pandemic. It underscores how the law, in this case international IP law, consistently shelters capital and operates as an expression to further corporate pharmaceutical interests. If there is a lesson to be gleaned from this pandemic, it is that intellectual property is not failing us but is functioning the way it is set up to do. As the history of IP globalization has shown, the World Trade Organization’s (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) is a transplant of the Euro-American model of property, driven by multinational corporations who used their respective national governments to underwrite and export their domestic IP claims. Therefore, it is unsurprising that this international legal regime employed to advance the interests of particular classes, nations and regions at the expense of others continues to reproduce extreme inequality with human costs.

#### This means COVID and future pandemics will reproduce untenable working conditions and racialized and classed life outcomes.

Sell 20 – Susan K. Sell is a Professor of Political Science and International Affairs at George Washington University. (“What COVID‑19 Reveals About Twenty‑First Century Capitalism: Adversity and Opportunity,” pg. 152-153) julian

The COVID-19 pandemic has revealed the lethal consequences of the sharp rise in economic inequality, the concentration of wealth in fewer and fewer hands and the increasing precarity of labour. For example, as COVID-19 slammed Manhattan, members of the top 1% flocked to their beach retreats in the Hamptons to ride out the contagion (Sellinger 2020). Meanwhile, ‘essential workers’ at the bottom of the contemporary economic hierarchy had no options but to continue to show up for work and face exposure to the deadly virus. First responders, bus drivers, nursing home workers, janitors, postal workers, grocery stockers, agricultural workers, Wal-Mart employees, Amazon warehouse workers, delivery drivers, and meat packers—many earning minimum wage and most without employer-subsidized health insurance or other benefits—had to keep working. As Bertha Bradley, a food service worker in North Carolina stated, ‘I don’t get health benefits, I don’t get sick time, I don’t get paid vacations, I don’t get a living wage’ (Jaffe and Chen 2020: 126). Katie Pine and Kate Henne refer to them as ‘new risk workers’, many of whom are given mandates for minimizing risk but few resources to implement them (Pine and Henne 2020). For example, in the John H. Stroger Hospital in Chicago, nurses were being told to reuse N95 masks, ‘sometimes up to forty-five days’ (Jaffe and Chen 2020: 138). By contrast, knowledge workers could work from the safety of their own homes and reduce their risks of becoming infected. COVID-19 has disproportionately attacked communities of colour, compounding economic inequality and systemic racism. It is clear that ‘race matters for the way that markets have been built historically and function today’ (McNamara and Newman 2020: 6). As Presidential candidate Joe Biden pointed out during the presidential debate in September 2020, 1 out of every one-thousand African Americans in the US has died from COVID-19. In Chicago about 70% of the COVID deaths were African Americans (Jaffe and Chen 2020: 140). The UN Secretary-General António Guterres pointed out that COVID-19 ‘is exposing fallacies and falsehoods everywhere … the delusion that we live in a post-racist world, the myth that we are all in the same boat’ (Guterres 2020). In September, Citigroup released a report that systemic racism, discrimination against African Americans, has cost the economy $16 trillion (Akala 2020). Many of the precariat are people of colour, recent immigrants and undocumented workers. By May 2020 slaughterhouses around the world became virus hot spots and exposed multiple layers of dysfunction. The meat processing industry is highly consolidated, dominated by global multinational corporations including Cargill, JBS, Smithfield and Tyson. Since the 1980s this industry has pursued the financialized model of consolidation and vertical integration, ‘aimed at increasing profits through efficiency and low wages’ (van der Zee et al. 2020). Many migrant workers in these plants live in communal housing; crowded working conditions, large plants and cramped housing, and lack of paid sick leave all exacerbate the spread of coronavirus in these environments. Indeed, Tyson was even offering workers $500 bonuses to keep working in the midst of plant outbreaks (van der Zee et al. 2020). Workers are shouldering all of the risk as slaughterhouse companies get the rewards. Structures of the global economy, including financialization and monopoly capitalism have amplified the dangers of the pandemic and pushed people further ‘into unequal groups that are not only divided by money but by matters of life and death’ (McNamara and Newman 2020: 11; Sell and Williams 2019).

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

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

\*\*cut part about economic hardships

Although focusing on these immediate constraints is vital, we cannot confine our attention to the short term. First of all, the **COVID-19 pandemic is far from over**. Although Americans can now see the light at the end of the tunnel thanks to the rapid rollout of vaccines, most of the world isn’t so lucky. The virus is **currently raging in India and throughout South America, overwhelming health care systems and inflicting suffering and loss on a horrific scale**. And consider the fact that Australia, which has been successful in suppressing the virus, recently announced it was sticking to plans to keep its borders closed until mid-2022. Criticisms of the TRIPS waiver that focus only on the next few months are **therefore short-sighted**: this pandemic could well **drag on long enough for elimination of patent restrictions to enable new vaccine producers to make a positive difference.**

#### The plan reverse casually ensures the reduction of vaccine imperialism.

Vanni 21 – Dr. Amaka Vanni is Lecturer in Law at the University of Leeds. ("On Intellectual Property Rights, Access to Medicines and Vaccine Imperialism," 3-23-2021, <https://twailr.com/on-intellectual-property-rights-access-to-medicines-and-vaccine-imperialism/>) julian

Despite calls to make COVID-19 vaccines and related technologies a global public good, western pharmaceutical companies have declined to loosen or temporarily suspend IP protections and transfer technology to generic manufacturers. Such transfer would enable the scale-up of production and supply of lifesaving COVID-19 medical tools across the world. Furthermore, these countries are also blocking the TRIPS waiver proposal put forward by South Africa and India at the WTO despite being supported by 57 mostly developing countries. The waiver proposal seeks to temporarily postpone certain provisions of the TRIPS Agreement for treating, containing and preventing the coronavirus, but only until widespread vaccination and immunity are achieved. This means that countries will not be required to provide any form of IP protection on all COVID-19 related therapeutics, diagnostics and other technologies for the duration of the pandemic. It is important to reiterate the waiver proposal is time-limited and is different from TRIPS flexibilities, which are safeguards within the Agreement to mitigate the negative impact of patents such as high price of patented medicines. These safeguards include compulsory licenses and parallel importation. However, because of the onerous process of initiating these flexibilities as well as the threat of possible trade penalties by the US through the United States Trade Representative (USTR) “Special 301” Report targeting countries even in the absence of illegality, many developing countries are reluctant to invoke TRIPS flexibilities for public health purposes. For example, in the past, countries such as Colombia, India, Thailand and recently Malaysia have all featured in the Special 301 Report for using compulsory licenses to increase access to cancer medications. It is these challenges that the TRIPS waiver seeks to alleviate and, if approved, would also provide countries the space, without fear of retaliation from developed countries, to collaborate with competent developers in the R&D, manufacturing, scaling-up, and supply of COVID-19 tools. However, because this waiver is being opposed by a group of developed countries, we are grappling with the problem of artificially-created vaccine scarcity. The effect of this scarcity will further prolong and deepen the financial impact of this pandemic currently estimated to cost USD 9.2 trillion, half of which will be borne by advanced economies. Thus, in opposing the TRIPS waiver with the hopes of reaping huge financial rewards, developed countries are worsening pandemic woes in the long term. Another kind of scarcity caused by vaccine nationalism has also reduced equitable access. Vaccine nationalism is a phenomenon where rich countries buy up global supply of vaccines through advance purchase agreements (APA) with pharmaceutical companies for their own populations at the expense of other countries. But perhaps it is time to reorient our sight and call the ongoing practices of buying up global supply of vaccine what it truly is – vaccine imperialism. If we take seriously the argument put forward by Antony Anghie on the colonial origins of international law, particularly how these origins create a set of structures that continually repeat themselves at various stages, we will begin to see COVID-19 vaccine accumulation not only as political, but also as imperial continuities manifesting in the present. Take, for instance, the report released by the Duke Global Health Innovation Center that shows that high-income countries have already purchased nearly 3.8 billion COVID-19 vaccine doses. Specifically, the United States has secured 400 million doses of the Pfizer-BioNTech and Moderna vaccines, and has APAs for more than 1 billion doses from four other companies yet to secure US regulatory approval. The European Union has similarly negotiated nearly 2.3 billion doses under contract and is negotiating for about 300 million more. With these purchases, these countries will be able to vaccinate their populations twice over, while many developing states, especially in Africa, are left behind. In hoarding vaccines whilst protecting the IP interests of their pharmaceutical multinational corporations, the afterlife of imperialism is playing out in this pandemic. Moreover, these bilateral deals are hampering initiatives such as the COVID-19 Vaccine Global Access Facility (COVAX) – a pooled procurement mechanism for COVID-19 vaccine – aimed at equitable and science-led global vaccine distribution. By engaging in bilateral deals, wealthy countries impede the possibility of effective mass-inoculation campaigns. While the usefulness of the COVAX initiative cannot be denied, it is not enough. It will cover only the most vulnerable 20 per cent of a country’s population, it is severely underfunded and there are lingering questions regarding the contractual obligations of pharmaceutical companies involved in the initiative. For instance, it is not clear whether the COVAX contract includes IP-related clauses such as sharing of technological know-how. Still, even with all its faults, without a global ramping-up of production, distribution and vaccination campaigns via COVAX, the world will not be able to combat the COVID-19 pandemic and its growing variants. Health inequity and inequalities in vaccine access are not unfortunate outcomes of the global IP regime; they are part of its central architecture. The system is functioning exactly as it is set up to do. These events – the corporate capture of the global pharmaceutical IP regime, state complicity and vaccine imperialism – are not new. Recall Article 7 of TRIPS, which states that the objective of the Agreement is the ‘protection and enforcement of intellectual property rights [to] contribute to the promotion of technological innovation and to the transfer and dissemination of technology’. In similar vein, Article 66(2) of TRIPS further calls on developed countries to ‘provide incentives to enterprises and institutions within their territories to promote and encourage technology transfer to least-developed country’. While the language of ‘transfer of technology’ might seem beneficial or benign, in actuality it is not. As I discussed in my book, and as Carmen Gonzalez has also shown, when development objectives are incorporated into international legal instruments and institutions, they become embedded in structures that may constrain their transformative potential and reproduce North-South power imbalances. This is because these development objectives are circumscribed by capitalist imperialist structures, adapted to justify colonial practices and mobilized through racial differences. These structures are the essence of international law and its institutions even in the twenty-first century. They continue to animate broader socio-economic engagement with the global economy even in the present as well as in the legal and regulatory codes that support them. Thus, it is not surprising that even in current global health crisis, calls for this same transfer of technology in the form of a TRIPS waiver to scale up global vaccine production is being thwarted by the hegemony of developed states inevitably influenced by their respective pharmaceutical companies. The ‘emancipatory potential’ of TRIPS cannot be achieved if it was not created to be emancipatory in the first place. It also makes obvious the ways international IP law is not only unsuited to promote structural reform to enable the self-sufficiency and self-determination of the countries in the global south, but also produces asymmetries that perpetuate inequalities.

#### Advantage sub b

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

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

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

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

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

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

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

#### Goes nuclear!

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

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

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

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

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

### Contention 2 – Insulin

#### US insulin prices are skyrocketing – lifesaving drugs for patients with diabetes are becoming more unaffordable.

Rajkumar 20 [S. Vincent Rajkumar, “The High Cost of Insulin in the United States: An Urgent Call to Action,” Mayo Clinic Proceedings, vol. 95, no. 1, Jan. 2020, pp. 22-28. Rajkumar, MD, is Consultant at the Division of Hematology, Department of Internal Medicine at the Mayo Clinic.] [CHSTM](file://CHSTM) recut //Lex VM

The most commonly used forms of analog insulin cost 10 times more in the United States than in any other developed country.3 There have been many other recent reports of deaths in patients with type 1 diabetes because of lack of affordable insulin.4,5 The high prevalence of diabetes, the chronic lifelong nature of the disease, and the fact that patients with type 1 diabetes will die without access to insulin make this an urgent problem that must be solved expeditiously. The price of insulin is also a stark and troubling example of the rising cost of prescription drugs in the United States and highlights a systemic problem with how drugs are priced compared with every other commodity.6,7 This commentary will address the reasons for the high cost of insulin and examine possible solutions. By understanding and solving this problem, we can create a roadmap that brings much needed reform and fairness to the existing system and helps make all prescription drugs more affordable.

The 3 main reasons cited by pharmaceutical companies for the high cost of new prescription drugs do not apply to insulin. First, the “high cost of development” is not relevant for a drug that is more than 100 years old; even the latest and most commonly used analog insulin products are all over 20 years old.8 Second, the pricing is not the product of a free market economy. Free market forces are clearly not operational; there is limited competition on price, the person who needs the product is not in a position to negotiate the price, and there is no relationship of price increases over time compared with overall market inflation. The price of insulin has risen inexplicably over the past 20 years at a rate far higher than the rate of inflation.9 One vial of Humalog (insulin lispro), which used to cost $21 in 1999, costs $332 in 2019, reflecting a price increase of more than 1000%.10-12 In contrast, insulin prices in other developed countries, including neighboring Canada, have stayed the same. Insulin pricing in the United States is the consequence of the exact opposite of a free market: extended monopoly on a lifesaving product in which prices can be increased at will, taking advantage of regulatory and legal restrictions on market entry and importation. Third, the arguments that high costs are needed for continued innovation and that attempts to lower or regulate the prices will hamper innovation are not a valid excuse.13 There is limited innovation when it comes to insulin; the more pressing need is affordability.

#### As a consequence there has been a surge in diabetes related deaths.

Terhune et al 8/12 [Chad Terhune, Robin Respaut, Deborah J. Nelson, "Special Report-How the pandemic laid bare America's diabetes crisis", U.S., 8-12-2021, https://www.reuters.com/article/us-usa-diabetes-covid-specialreport/special-report-how-the-pandemic-laid-bare-americas-diabetes-crisis-idUSKBN2FD13Q, accessed: 9-9-2021.] //Lex VM

The failure to effectively treat diabetes carries enormous consequences for patients, their families and society at large. Roughly 34 million people, or about 1 in 10 Americans, have diabetes. Treating them costs more than $230 billion a year – more than the U.S. Navy’s annual budget – much of that borne by taxpayers through government-sponsored Medicare insurance for the elderly and Medicaid for the poor. About 1.6 million people have type 1 diabetes, an autoimmune disease of unknown cause that requires lifelong insulin injections when the pancreas stops producing the hormone. Without insulin, cells are unable to absorb glucose, their primary source of energy, and the sugar builds up in the blood. But the vast majority of patients, accounting for most of the increase in new cases in recent years, have type 2 diabetes, a chronic condition linked to genetics, weight gain and inactivity. These patients’ bodies don’t make enough insulin or don’t use it well. Diet and exercise can help manage the disease, but many also need medication that helps them use the insulin their bodies produce. Many eventually require insulin injections. For all diabetes patients, life revolves around checking their numbers. That means testing their current blood glucose levels several times a day. And it means visiting a lab every few months to test their hemoglobin A1c, a measure of their glucose levels over the preceding three months. The higher the number, the worse it can be for a patient. Uncontrolled diabetes wreaks havoc on the body. Acute hyperglycemia can lead to coma or even death. Over time, the disease degrades blood vessels and damages major organs, leaving patients prone to heart disease, stroke, kidney failure, amputations and blindness. While the coronavirus battered diabetes patients around the world, the longer-term reversal of fortunes is a particularly American problem. The U.S. mortality rate for diabetes was 42% higher than the average among 10 other industrialized countries in 2017, according to the Organization for Economic Cooperation and Development. In the British medical journal Lancet, researchers in 2018 gave the United States a score of 62 out of 100 on the quality of diabetes care. Most Western European countries scored in the 90s. The United States trailed Libya, Iran and Vietnam. “Other countries have more of a safety net to get people through hard times,” said Steven Woolf, a professor at the Virginia Commonwealth University School of Medicine who studies death rates from diabetes and other causes. “People here are more vulnerable to the economic shocks of job losses, the last recession and now the pandemic.” Reversing the gloomy outlook for diabetes patients isn’t easy. Advances in medication and technology to help patients better manage their condition often fail to reach those whose access to care is hampered by their race, income or type of insurance, according to experts in diabetes and public health. And reducing those disparities, they said, would have to come with major investments in primary care and a coordinated effort to curb obesity and inactivity. “The current approach has failed,” said Dr David Kerr, director of research and innovation at the Sansum Diabetes Research Institute in Santa Barbara, California. “And just creating more expensive pharmaceuticals is not going to cut it at a population level.”

#### Generic competition arises as a patent expires – evergreening and stacked patents on Insulin delays it which drastically raises prices.

Christensen 20 [Connor Christensen, "The Evergreen Forests of Insulin Patents", Awakenwfu, The Creative Journal of Contemporary Bioethics, 9-14-2020, https://awakenwfu.com/2020/09/14/the-evergreen-forests-of-insulin-patents/, accessed: 9-7-2021.] //CHSTM and Lex VM

The prices of insulin have risen to unconscionable levels in just a little over two decades. What used to be a relatively minor expense for Americans with diabetes has, for some, become an insurmountable obstacle to living a normal life, or, in some cases living at all. The purpose of this brief commentary is to address just one of the many issues attributed to the stark increase in insulin prices: patent evergreening. People with Type I and Type II diabetes constantly depend on insulin injections to supplement their insufficient natural production of the blood-sugar regulating hormone in their pancreas.[1] Without this hormone, a diabetic person’s life expectancy is short and riddled with many serious health complications.[2] For many decades insulin was readily accessible and affordable for those who needed it. Recently, however, things have changed. In 1996, the list price of a single vial of insulin manufactured by Eli Lilly, a pharmaceutical firm, was only $25.[3] Since then, the formula for the same bottle of insulin hasn’t changed, but the list price has gone up to around $275 per vial.[4] This price increase alone is shocking, but it becomes even more unthinkable when you consider the fact that the average diabetic person uses between one and three vials per month.[5] Presently, a diabetic person without insurance requiring three vials per month could expect to pay at a minimum of $825 a month for just insulin alone.[6] Some people have even reported paying as much as $2880 for a month’s supply of insulin.[7] The exact reason for this stark increase in price is not uniformly agreed upon. Still, it’s speculated that it is a result of multiple “opaque” transactions among wholesalers, pharmacies, and manufacturers.[8] With figures this high, it is unsurprising that 27% of diabetics report that affording insulin has impacted their daily life.[9] The financially vulnerable are particularly put at risk by these exorbitant list prices. Being economically vulnerable and diabetic requires people to make sacrifices in other parts of their lives to keep affording insulin.[10] These sacrifices include staying at undesirable jobs, maintaining unhealthy relationships, foregoing higher education, selling valuables, and rationing food.[11] However, sometimes, even these sacrifices aren’t enough. In 2017, after aging out of his mother’s health insurance and despite making above minimum wage, Alec Smith, a 26-year-old diabetic man, died because he wasn’t able to afford enough insulin to live.[12] Tragic losses of life, like Alec’s, are entirely preventable, and there are a number of potential solutions that can fix or at least ameliorate the situation. Finding methods to prevent “patent evergreening ” is one of the possible solutions to the insulin crisis.[13] Evergreening occurs when brand-name companies patent “new inventions” that, in actuality, are simply old drugs with slight modifications.[14] Evergreening a patent can be done in various ways such as by “stacking patents,” (covering one drug with multiple patents) or by making small improvements to the drug and then pulling the old drug from the market.[15] Insulin, like many other drugs, has fallen prey to such evergreening.[16] Traditionally, patent monopolies on drugs eventually give way to generic competition after the patent expires. Upon expiration of the original patent other entities are allowed to produce the drug.[17] Evergreening, however, delays this process. The generic competition of once patented drugs is critical for consumers, consistently reducing the price of the drug by over 50%.[18] However, the unique development of insulin has allowed its formula and delivery to be continually improved upon since its discovery and first isolation.[19] Evergreening can essentially re-patent a drug, thus substantially extending the life of the monopoly granted to drug companies for their product.[20] As a consequence, by “evergreening” a patent, drug companies can effectively prevent biosimilar, or generic versions of that drug from being sold for far longer than the twenty years of a standard patent. Although there may be no protections remaining on the original formula, the “stacked” patents around that formula may cause it to be economically impossible to produce the original formula.[21] For example, Sanofi’s insulin, Lantus, has 74 patents associated with it, which will work together to protect it from generic competition for 37 years into the future.[22] Stacked patents not only discourage competition, but they also are incredibly effective at squashing potential patent infringers. Unsurprisingly, drug companies with multiple patents on their drugs are able to win 65% of the infringement cases against their drug.[23] Closing the loopholes that allow evergreening patents is a bipartisan issue. President Trump has even stated, “[o]ur patent system will reward innovation, but it will not be used as a shield to protect unfair monopolies.”[24] There is no question as to whether modern insulin is better than what we had in 1921; its formula, dosage, and administration improved beyond belief.[25] What used to be riddled with impurities is now a work-horse of a drug. However, it is highly questionable whether each small step in the lineage is deserving of patent protection.[26]

#### Reducing IP Rights on insulin medicines allows for equal access and reduces prices

Christensen 20 [Connor Christensen, "The Evergreen Forests of Insulin Patents", Awakenwfu, The Creative Journal of Contemporary Bioethics, 9-14-2020, https://awakenwfu.com/2020/09/14/the-evergreen-forests-of-insulin-patents/, accessed: 9-7-2021.] //CHSTM and Lex VM

A potential solution to prevent patent evergreening would be to modify the “inventiveness” standard required to obtain a new patent on drugs.[[27]](https://awakenwfu.com/2020/09/14/the-evergreen-forests-of-insulin-patents/#ftn27) By modifying this standard, the goal would be to stop non-inventive and commonly practiced pharmaceutical techniques from receiving patent protection.[[28]](https://awakenwfu.com/2020/09/14/the-evergreen-forests-of-insulin-patents/#ftn28) Moreover, each incremental improvement must be worth the burden on the consumer, especially in a country where the price of insulin has reached unconscionable levels.[[29]](https://awakenwfu.com/2020/09/14/the-evergreen-forests-of-insulin-patents/#ftn29) Therefore, to be considered inventive, the newer formula or methodology should be demonstratively safer or clearly more efficacious.[[30]](https://awakenwfu.com/2020/09/14/the-evergreen-forests-of-insulin-patents/#ftn30) Increasing the scrutiny would help control drug companies receiving patents on non-inventive, incremental improvements on insulin while still rewarding them for making sizable leaps forward.[31] Further, increasing the “inventiveness” standard would also encourage generic drug companies to enter the market. Previously, generic companies were precluded from producing generic insulins because patents protected the original formulas for such long periods of time that they were obsolete when it became possible to make a generic version.[[32]](https://awakenwfu.com/2020/09/14/the-evergreen-forests-of-insulin-patents/#ftn32) These obsolete versions of insulin were not viewed as a worthwhile investment to generic drug companies, so the market has been mostly devoid of generic versions.[[33]](https://awakenwfu.com/2020/09/14/the-evergreen-forests-of-insulin-patents/#ftn33) However, generic drug companies have shown some interest in creating generic versions of the next-generation of insulin. Reducing evergreening by raising the inventiveness standard required for new insulin patents could be enough to make manufacturing generics a worthwhile investment.[[34]](https://awakenwfu.com/2020/09/14/the-evergreen-forests-of-insulin-patents/#ftn34) Affording greater scrutiny to the issue of whether an incremental improvement is truly “inventive” is just one piece of the solution to reducing the price of insulin to affordable levels. Evergreens are a symbol of vitality; the irony is tangible that something of the same name can be depriving people of life.

## 1AR

#### 1] There is ZERO link to the DA---First, in the case of future pandemic there is still an incentive for producing medicines as there can be direct government funding in spite of waivers for patent protections that incentives innovation. Second, TRIPS alone provides a reasonable baseline and many of these provisions are artificial extensions of patents like data exclusivity that no one - thinks are a massive incentive for innovation-other incentives, like huge markets and public funding, ensure it’ll continue. That’s Erfani

#### 2] Turn – the plan allows for direct state funding which is the only thing that can solve their future impacts

Lindsey 21 Brink Lindsey is Vice President and Director of the Open Society Project at the Niskanen Center. Previously he was the Cato Institute's vice president for research [Brink Lindsey, 6-3-2021, "Why intellectual property and pandemics don’t mix," Brookings, <https://www.brookings.edu/blog/up-front/2021/06/03/why-intellectual-property-and-pandemics-dont-mix/>] //Lex AKo

THE NATURE OF THE PATENT BARGAIN When we take the longer view, we can see a fundamental mismatch between the policy design of intellectual property protection and the policy requirements of effective pandemic response. Although **patent law**, properly restrained, **constitutes one important element of a well-designed national innovation system**, the way it goes about encouraging technological progress **is singularly ill-suited to the emergency conditions** of a pandemic or other public health crisis. Securing a TRIPS waiver for COVID-19 vaccines and treatments would thus establish a salutary precedent that, in emergencies of this kind, **governments should employ other, more direct means to incentivize the development of new drugs.** Here is the basic bargain offered by patent law: encourage the creation of useful new ideas for the long run by slowing the diffusion of useful new ideas in the short run. The second half of the bargain, the half that imposes costs on society, comes from the temporary exclusive rights, or monopoly privileges, that a patent holder enjoys. Under U.S. patent law, for a period of 20 years nobody else can manufacture or sell the patented product without the permission of the patent holder. This allows the **patent holder to block competitors from the market**, or extract licensing fees before allowing them to enter, and consequently charge above-market prices to its customers. Patent rights thus slow the diffusion of a new invention by restricting output and raising prices. The imposition of these short-run costs, however, can bring net long-term benefits by sharpening the incentives to invent new products. In the absence of patent protection, the prospect of easy imitation by later market entrants can deter would-be innovators from incurring the up-front fixed costs of research and development. But with a guaranteed period of market exclusivity, inventors can proceed with greater confidence that they will be able to recoup their investment. For the tradeoff between costs and benefits to come out positive on net, patent law must strike the right balance. **Exclusive rights should be valuable enough to encourage greater innovation, but not so easily granted or extensive in scope or term that this encouragement is outweighed by output restrictions** on the patented product and discouragement of downstream innovations dependent on access to the patented technology. Unfortunately, the U.S. patent system at present is out of balance. Over the past few decades, the expansion of patentability to include software and business methods as well as a general relaxation of patenting requirements have led to wildly excessive growth in these temporary monopolies: the number of patents granted annually has skyrocketed roughly fivefold since the early 1980s. One unfortunate result has been the rise of “non-practicing entities,” better known as patent trolls: firms that make nothing themselves but buy up patent portfolios and monetize them through aggressive litigation. As a result, a law that is supposed to encourage innovation has turned into a legal minefield for many would-be innovators. In the pharmaceutical industry, firms have abused the law by piling up patents for trivial, therapeutically irrelevant “innovations” that allow them to extend their monopolies and keep raising prices long beyond the statutorily contemplated 20 years. Patent law is creating these unintended consequences because policymakers have been caught in an ideological fog that conflates “intellectual property” with actual property rights over physical objects. Enveloped in that fog, they regard any attempts to put limits on patent monopolies as attacks on private property and view ongoing expansions of patent privileges as necessary to keep innovation from grinding to a halt. In fact, patent law is a tool of regulatory policy with the usual tradeoffs between costs and benefits; like all tools, it can be misused, and as with all tools there are some jobs for which other tools are better suited. A well-designed patent system, in which benefits are maximized and costs kept to a minimum, is just one of various policy options that governments can employ to stimulate technological advance—including tax credits for R&D, prizes for targeted inventions, and direct government support. PUBLIC HEALTH EMERGENCIES AND DIRECT GOVERNMENT SUPPORT For pandemics and other public health emergencies, patents’ mix of costs and benefits is misaligned with what is needed for an effective policy response. The basic patent bargain, even when well struck, is to pay for more innovation down the road with slower diffusion of innovation today. In the context of a pandemic, that bargain is a bad one and should be rejected entirely. Here the imperative is to accelerate the diffusion of vaccines and other treatments, not slow it down. Giving drug companies the power to hold things up by blocking competitors and raising prices pushes in the completely wrong direction. What approach to encouraging innovation should we take instead? How do we incentivize drug makers to undertake the hefty R&D costs to develop new vaccines without giving them exclusive rights over their production and sale? **The most effective approach** during a public health crisis **is direct government support: public funding of R&D, advance purchase commitments by the government to buy large numbers of doses at set prices, and other, related payouts**. And when we pay drug makers, we should not hesitate to pay generously, even extravagantly: **we want to offer drug companies big profits so that they prioritize this work** above everything else, and so that they are ready and eager to come to the rescue again the next time there’s a crisis.

#### 3] Courts clogged now – COVID, criminal suits.

Finnegan and Dolan 21 [(Michael Finnegan, Los Angeles Times reporter covering federal courts and law enforcement in California. Maura Dolan, California-based legal affairs writer for the Los Angeles Times) " Coronavirus shutdown of jury trials upends California's federal courts," Los Angeles Times, 4-12-2021, https://www.latimes.com/california/story/2021-04-12/coronavirus-federal-court-jury-trials-shutdown-california] TDI

Ronald Ware spent five months in a Santa Ana jail awaiting trial after his arrest in Brea last summer on a federal gun charge. His day in court never came. U.S. District Judge Cormac J. Carney dismissed the case in January, saying emergency rules that shut down federal jury trials during the pandemic had denied Ware his right to a speedy trial. “Nowhere in the Constitution is there an exception for times of emergency or crisis,” Carney wrote in the ruling that set Ware free. Carney has tossed criminal charges against a jewelry-store robbery suspect and [three others](https://www.latimes.com/socal/daily-pilot/entertainment/story/2021-02-25/u-s-judge-drops-charges-in-fifth-criminal-case-citing-suspects-right-to-a-speedy-trial) for the same reason. The decision to shut down all jury trials, he found, was excessive. The 13-month suspension of trials in the federal court system’s Central District of California, which includes Los Angeles and six neighboring counties, has disrupted the prosecution of hundreds of alleged drug dealers, tax cheats, cybercriminals, child porn purveyors and health insurance swindlers. It has clogged the courts with an unprecedented backlog of both criminal and civil cases. While many of those charged with crimes have been free on bail as they await trial, others have remained behind bars, enduring long stretches of solitude as detainees are kept apart to minimize spread of the coronavirus. Guan Lei, a Chinese scholar in the U.S. for research at UCLA, has been detained for eight months on a charge of [destroying a hard drive](https://www.latimes.com/california/story/2020-08-28/ucla-researcher-accused-of-destroying-evidence-latest-arrest-in-crackdown-on-visiting-chinese-scientists) in an attempt to obstruct a federal investigation. After two postponements, Guan’s scheduled May 4 trial will have to be delayed again, because Los Angeles federal court will not yet be open. Guan appeared at a court hearing Thursday by video from a downtown L.A. jail. “Mr. Guan, I’m very sorry it’s taken this long to give you a trial,” U.S. District Judge Michael W. Fitzgerald told him. Case dismissals have been rare; prosecutors have appealed Carney’s decisions. But an increasing number of defendants are alleging violations of their speedy trial rights, casting uncertainty over their cases as the pandemic subsides and federal courts prepare to reopen. Criminal defendants have the right to a trial within a set time period. In federal court, if they invoke that right, their trial generally must start within 70 days of when charges were filed. Typically, judges grant requests for more time to prepare for trial. Guan Lei and others charged with federal crimes have spent much of the pandemic detained at the Metropolitan Detention Center in downtown Los Angeles during a shutdown of federal jury trials. (Robyn Beck/AFP via Getty Images) One of the next defendants to seek dismissal of charges on speedy trial grounds in federal court will be Jerome Terry, who has been jailed for three years awaiting trial. He was arrested in connection with his alleged role in a sex-trafficking conspiracy in which two aspiring Canadian models were forced to work as prostitutes in the Hollywood Hills. Terry’s trial was most recently put off until July. “There’s this general feeling of purgatory,” said Meghan Blanco, his attorney. With nearly 20 million residents, California’s Central District is the country’s most populous federal judicial district, spanning Los Angeles, Orange, Riverside, San Bernardino, Ventura, Santa Barbara and San Luis Obispo counties. Even before the pandemic, vacancies on the bench had left overworked judges struggling to keep up with [growing caseloads.](https://www.cacd.uscourts.gov/sites/default/files/CACD_FY2019_Annual_Report.pdf) When jury trials stopped in March 2020, 10 of the district’s 28 judicial slots were unfilled. Six vacancies remain for President Biden to fill. In the year before the trial shutdown, more than 16,000 new cases were filed in the district: 15,514 civil lawsuits and 1,138 criminal prosecutions. Most criminal cases yield guilty pleas, and most civil lawsuits end in settlements. But nearly 150 trials typically occur each year in the district’s three courthouses — in Los Angeles, Santa Ana and Riverside. Pretrial hearings have kept moving over the last 13 months, thanks largely to Zoom. But the strongest incentive for guilty pleas and civil settlements often comes on the eve of a trial, so many cases that might have ended in normal times have instead lumbered along. “Once you open up the courthouse to trials, I think that, in and of itself, helps alleviate the backlog,” said U.S. District Judge Philip S. Gutierrez, the chief judge of the Central District. “There’s always going to be that 150 cases that you’re going to have to try, and those are backed up. So I think in the short term, we’re going to be working really hard and trying more cases than we would otherwise try once we get up to speed.” Criminal trials will have top priority, he said, starting with defendants in custody. With the recent decline in California’s coronavirus infections, jury summonses have been issued for federal trials to resume May 10 in Orange County. Gutierrez expects trials in Los Angeles and Riverside to start back up in June. Safety measures will be extensive. Jury selection will be tightly choreographed so it takes place in large courtrooms where everyone can stay six feet apart. Elevator use will be curtailed. Plexiglass will section off each judge, witness and court reporter. Masks will be mandatory, with possible exceptions for witnesses. In many other jurisdictions, trials have moved forward during the pandemic. Most visible is the ongoing murder trial in state court of former Minneapolis Police Officer Derek Chauvin in the death of George Floyd at a time when the coronavirus is far more widespread in Minnesota than in California. State courts in California have also pressed ahead with trials. In January and February, four employees of the [Los Angeles County Superior Court](https://www.latimes.com/california/story/2021-02-09/lawsuit-seeks-to-stop-l-a-courts-from-holding-some-civil-trials-due-to-covid-concerns) system died from COVID-19; it’s unclear whether they caught the coronavirus in court.

**That destroys the patent process and discourages investment---kills impact uniqueness.**

**Ball and Kesan 10** [(Gwendolyn G. Ball Research Fellow Business, Economics and Law Group Institute for Genomic Biology and Information Trust Institute University of Illinois Jay P. Kesan Professor and Mildred Van.Voorhis Jones Faculty Scholar College of Law Business, Economics and Law Group Institute of Genomic Biology University of Illinois) “Judges, Courts and Economic Development: the Impact of Judicial Human Capital on the Efficiency and Accuracy of the Court System” unpublished manuscript April 30, 2010] TDI

There is a long-standing consensus that the clear definition and enforcement of property rights is an important element in economic development.1 This consensus is of more than scholarly concern; the experience in the reforming socialist economies demonstrates that secure property rights play an major role in market economies.2 But well-designed laws and regulations cannot ensure property rights without an institution that will enforce those rights and settle disputes, and in nearly all countries the final forum for resolving property rights disputes is the court system. **Thus, a well-functioning court system is crucial for economic growth.** Following this line of reasoning, economists have considered the operations of court systems an important area of study. However, economic study of courts has usually focused on the design of incentive mechanisms to ensure an accountable and impartial judiciary. Much of this literature discusses the inherent tradeoff between judicial independence and judicial accountability.3 Nonetheless, some authors have noted that even if judicial incentives are perfectly designed, the organization of the court system and the rules under which it operates can have a dramatic impact on its effectiveness as an economic institution. While it is true that judges need to be protected from outside influences which could bias their decision, even unbiased decisions must accurately interpret the law. Inaccurate or well meaning but seemingly idiosyncratic decisions will decrease confidence in the legal system and increase uncertainty in economic activity.4 And accuracy alone is not sufficient for a high quality court system. Disputes must be resolved and decisions must be rendered in a timely manner **if they are to provide investors with the security and certainty necessary to promote investment.** Thus, a judicial system must not only be impartial, it must be accurate and efficient as well. International institutions promoting economic development, such as The World Bank, have recognized this link and launched technical assistance efforts to improve the administration of court systems around the developing world.5 Economic scholarship also recognizes the importance of a well-managed court system. In their study of the relationship between entrepreneurial investment and the “quality” of the legal systems across states in Mexico, Laeven and Woodruff, define “quality” not only as “the impartiality of judges” but also as “the quality of judges; the adequacy of judicial resources; the efficiency of enforcement of rulings; the efficiency of judicial administration more generally; the cost, ease of use and completeness of property registries and the adequacy of local legislation related to contract enforcement.”6 Rosales-Lopez explores the impact of recent reforms in the Spanish court system on its ability to resolve disputes, citing the “problems such as congestion, the high cost and delay of procedures [that weaken] the access and citizens’ equality before the law, as well as the enforcement of laws and the guarantees of property rights and contracts.”7 Choi, Gulati and Posner8 compare compare appointed and judges and find ambiguous results regarding the “independence” of the two judicial systems. However, they also evaluate both the “productivity” (as measured by the number of opinons written) and the “quality” (as measured by the number of citations received by such opinions) of judges in the two systems. Thus, to ensure public confidence and promote investment, courts must not only be impartial in administering justice, but also accurate and efficient in the resolution of disputes.9 . Finally, in their massive international study of adjudication of simple civil cases, Djankov, et. al.[3] analyze the importance of court procedures on both accountability and also on accuracy and case duration. Thus Recent economic scholarship has acknowledged the importance of case duration in analyzing the operation of court systems. However, what this literature generally neglects is that, just as there may be a trade-off between accountability and independence, there may be a trade-off between court reforms promoting accountability and those promoting increased judicial “human capital.”10 The various proposed measures to increase the“openness” and “accountability” of courts–election, versus appointment of judges; term limits; etc.–all involve the actual or threatened removal of judges from office. However, the job of managing a case docket is one which a judge must learn on the job. Presumably, a judge with many years on the bench should have developed a set of skills to keep cases flowing smoothly–scheduling the necessary court procedures, managing lawyers, etc. And previous legal experience may not have exposed a new judge to all the areas of the law s/he may see on the bench; as a judge sees more cases of a particular type, his/her knowledge of that area of the law should become deeper and richer, leading to more accurate decisions and rulings. Thus, the importance of general managerial skills and familiarity with special areas of the law can play a part in discussions of judicial term limits as well as whether judges should be elected or appointed. Maskin and Tirole note this problem by acknowledging that there may be a tradeoff between measures designed to create an unbiased court system and the “set up” costs of a new judge, including the “learning by doing” which occurs on the bench.11 And there is empirical verification that some policies designed to increase accountability may decrease experience and the resultant stock of human capital. In his study of state court judges, for example, Hanssen finds that appointed judges serve 50% longer on average than do elected judges.12 Thus, there is cause to worry that some legal reforms my reduce judicial experience due to a legal “switching cost” which kicks in when judges are removed from the bench. The possibility of such costs could be an important consideration in implementing reforms designed to increase the contribution of the courts to economic development. If the costs are great, reforms which lead to too much “churning” on the bench might be avoided. In fact, it might be worth pursuing policies which increase judicial experience and human capital, even if such changes might lead to a decrease in “impartiality.” For example, many countries employ specialized court systems which cover only one type of particularly complex case case. An argument for such specialized courts is that they lead to greater judicial human capital as judges specialize on one area of the law. But one argument against them is that judges and lawyers practicing in that area might become overly familiar, thereby decreasing impartiality.13 However, behind all the arguments about these potential tradeoffs between openness and experience lies one fact: this underlying hypothesis–that there is a positive relationship between judicial human capital and the accuracy and efficiency of the court system–must be empirically verified. This paper performs such an analysis, utilizing a class of litigation particulary suited to the question: litigation of patent infringement disputes in the United States. All U.S. patent cases must be filed in the U.S. Federal District Court system. Thus all patent cases are litigated using a uniform set of rules and procedures; data drawn form other types of litigation, which can be filed in both federal and state courts, has to account for a wide variety of legal statutes, precedents and procedural rules.14 In addition, all cases in U.S District Courts are randomly assigned to judges through a “round robin” system, freeing our analysis of experience from the type of endogeneity that plagues studies of education. Moreover, patent law is a highly specialized area of the law, allowing for a distinction between the “general” judicial human capital acquired through time on the bench and “specialized” human capital acquired through experience with a particular area of the law. Finally, examination of these issues with respect to patent cases has particular policy relevancy; as of this writing, the U.S. is contemplating the creation of a specialized patent trial court in order to increase the specialized knowledge of judges presiding over such cases. Thus, study of the relationship between judicial experience and the litigation of patent cases is both highly suitable and timely. The rest of the paper pursues this issue as follows. First, we provide some background on patent litigation in the United States and why it provides a good vehicle for the study of the impact of judicial human capital. Then, we outline the data collection procedure, including details about the data generating process which make unobserved heterogeneity a cause for concern, as well as the various methods for defining judicial experience. In the next section, we estimate the relationship between experience and efficiency using a duration model and using appropriate techniques for controlling for the impact of both observed and unobserved heterogeneity. Finally, we explore the relationship between experience and accuracy by analyzing the probability that a case will be reversed on appeal. Through these mechanisms we will examine the relationship between judicial human capital and the accuracy and efficiency of the court system. 2 Accurate and Efficient Patent Litigation and Judicial Human Capital. **While most economic scholarship analyzing the importance of the courts has focused on disputes over real property, the relationship between the court system and investment is no less strong for intellectual property.** And to a large extent, the relationship between the courts and the patent system depends on the quality of “judicial human capital.” In the United States, as in many countries, the courts are a crucial part of the patent system to the extent that the patent system is can be termed a two-stage process. In the first stage, the U.S. Patent and Trademark Office grants property rights to inventors. In the second stage, inventors can protect those rights through patent infringement suits in the courts and alleged infringers have the right to challenge improvidently granted patents and have them declared invalid. As a consequence, some authors have referred to patent rights as being “probabilistic,” depending not only on whether the innovation embodied in the patent has commercial value, but also on the refinement of that patent property right after litigation.15 **Just as with real property, the management of the court system has an impact on both patenting behavior and on investment in r**esearch **and d**evelopment. **While the majority of all patents are not litigated, those that are disputed in the courts are among the most valuable**.16 **The rules governing the court system may even “feed back” into patenting behavior;** some authors have found evidence that the increasingly “patent friendly” rules17 adopted by the courts are a major factor in the surge in patenting since the 1980s.18 Moreover, the ability to define the “probabilistic” property rights is an important element in determining whether patents fulfill their purpose of promoting innovation.19 Finally, the costs associated with the patent systems can be reduced by an efficient court system; firms may hesitate to invest in new products and technologies which may infringe on existing patents, so any additional delay or cost in clarifying existent rights may slow the process of innovation. The more quickly and cheaply these rights are defined, the more beneficial the patent system will be in promoting and not inhibiting innovation and investment.