### 1 – CP

#### The member nations of the World Trade Organization should

#### directly subsidize and support medical innovations

#### keep strong IP rights while awarding cash prizes for discovering new medications

#### purchase the patents for needed vaccines, purchase enough doses to vaccinate every human on the planet, and distribute said doses through local governments.

#### purchase enough insulin for every human who needs it.

#### First plank solves – the only internal link you provided is that the plan causes that, no reason we can’t do it directly

#### It fully solves but avoids the Innovation Disad

Miron and Soares 21 Miron, Jeffrey and Pedro Braga Soares. Jeffrey Miron is director of economic studies at the Cato Institute and the director of undergraduate studies in the economics department at Harvard University. Pedro Braga Soares is a graduate student in economics at Pontifical Catholic University of Rio de Janeiro, Brazil, and holds a BA in international relations. "Waiving COVID-19 vaccine patents would be disastrous." MarketWatch, 19 May. 2021, www.marketwatch.com/story/waiving-covid-19-vaccine-patents-would-be-disastrous-11621430167. [Quality Control]

Finally, even if patents were an obstacle to increased production, an alternative for producing more vaccines exists: pay for them. Governments could buy patents, or doses, from pharmaceutical companies and donate them around the world. Such buyouts have the same upsides as waivers, but without risking long-term vaccine innovation. The rule of law could live to see another day.

### 2 – Extra Topicality

#### Our interpretation is The aff shouldn’t be allowed to garner offense from actions beyond the scope of the resolution.

#### Violation: The garner impacts from prize funds which is NOT within the scope of the topic.

#### Prize Funds are an alternative system distinct from simply reducing patents – requires external action like establishing new funds

iMED No Date "Medical Innovation Prize Fund (MIPF) · iMed - Innovating Medicines Entrepreneurship and Delivery.", imedproject.org/proposals-database/mipf.

The Medical Innovation Prize Fund has been proposed in a series of acts by Senator Bernie Sanders in the US.

It is a comprehensive scheme designed to replace the patent system. It would establish a government fund which would reward innovators according to the health impact achieved by their innovations. Under this system, patents would only function to secure eligibility for funding, and would not confer exclusive rights.

#### Standards:

#### Ground: Allowing the aff to access extratopical offense explodes the range of possible aff arguments. While the negative may only access offense from topical arguments about the aff, the aff may access offense from any area they wish. This is essentially unlimited: once the topic doesn’t matter, they can garner offense from reforming the government entirely or solving world peace.

#### Predictability: The negative preparation for the round relies on the topic as a limit to aff advocacies. Allowing the aff to be extratopical prevents the negative from preparing answers, and gives the aff a huge advantage in terms of quality and quantity of relevant evidence. This prevents me from having evidence to test her solvency advocates.

#### Strat Skew: His blurring of extratopical arguments with topical arguments forces me to waste CX and speech time to identify which impacts he can get. He also can plan on claiming more of the extratopical benefits later in the round, which skews NC and NR Strategy.

#### Voter: Fairness is a gateway issue because unfair rules result in unfair decisions. The ballot shouldn’t be a measure of who can interpret the resolution in the most imbalanced manner. Your decision is meaningless unless you enforce ground-rules that maintain fairness.

#### No RVIS – don’t get a cookie for being fair and it’s illogical

#### Drop the debater – Aff set the stage for the rest of the debate, dropping the argument is the same as dropping the Aff and deters other abuses

### 3 – Innovation DA

#### Pharmaceutical innovation is accelerating now – new medicines are substantially better than existing treatments.

Wills, MBA, and Lipkus, PhD, 20 – Todd J. Wills [Managing Director @ Chemical Abstracts Service, MBA from THE Ohio State University] and Alan H. Lipkus [Senior Data Analyst @ Chemical Abstracts Service, PhD Physical Chemistry from the University of Rochester], “Structural Approach to Assessing the Innovativeness of New Drugs Finds Accelerating Rate of Innovation,” ACS Medicinal Chemistry Letters, Vol. 11, 2020, <https://pubs.acs.org/doi/pdf/10.1021/acsmedchemlett.0c00319> C.VC

Despite recent concerns over an innovation crisis, this analysis shows pharmaceutical innovation has actually increased over the last several decades based on the structural novelty of approved NMEs. The higher proportion of Pioneers over the most recent decade is a sign that innovation within the industry is accelerating rather than slowing. It is also an encouraging sign for the state of innovation in drug discovery that these Pioneers are significantly more likely to be the source of promising new therapies that are expected to provide substantial clinical advantages over existing treatments. Drug hunters are discovering Pioneers in newer and less explored regions of chemical space as they are increasingly found on scaffolds first reported in the CAS REGISTRY five or less years prior to their IND year or on scaffolds populated with 50 or less other compounds at the time of IND.

As scale becomes less of a strategic advantage, Big Pharma’s share of Pioneers has decreased even though the number of Big Pharma originated Pioneers has increased. This has created a structural innovation gap between Big Pharma and the Rest of Ecosystem which has widened over the last two decades as the Rest of Ecosystem is now responsible for originating almost 3 out of every 4 Pioneers. Pioneers originated by the Rest of Ecosystem are increasingly on new scaffolds, while a majority of Big Pharma originated Pioneers have historically been on new scaffolds.

The work presented here was intended as a study of drug innovation at a macro level. As a result, it included substances of various sizes with different degrees of complexity belonging to a range of functional and drug classes. Even though it was outside the scope of the present work to study specific subsets, such focused studies could yield additional insights into how innovation at a more micro level has changed over time. Other interesting subsets of our data set are the shapes and scaffolds of the Settlers and Colonists. Many of these shapes and scaffolds are privileged in the sense that they are seemingly capable of serving as ligands for a diverse array of target proteins. A separate study of the Settlers and Colonists as well as their side chains could provide insights into possible target-specific innovation trends.

As it often takes more than 10 years after initial discovery for an experimental drug to gain FDA approval, any measure of drug innovation that relies on the time of approval incorporates a significant time lag between initial discovery and ultimate approval. However, characterizing drug innovation based on structural novelty provides a means to assess the forward-looking innovation potential of an experimental drug at the time of initial discovery by comparing its framework information (at the scaffold and shape level) with prior FDA-approved drugs. Therefore, a separate study of drug candidates with publically disclosed structures currently in clinical development could provide additional insights into innovation trends at an FDA regulatory review level and serve as a leading indicator of innovation trends at an FDA approval level.

Given the tremendous opportunity represented by the vast amount of chemical space yet to be explored, drug-hunters of all types will continue pushing the boundaries to find promising new therapies in previously unexplored areas of chemical space. The race to discover these new drugs will be fueled by further advancements in screening approaches and in-silico methods (including innovations related to machine learning algorithms and molecular representations). However, comprehensive data on known shapes and scaffolds can fast track the identification of meaningful open areas of chemical space (shapes or scaffolds that are potentially important but have never been used as the basis for a molecule) to further explore.

#### The biopharmaceutical industry is uniquely reliant on IP protections – undermining them would kill innovation by making an already expensive process completely unfeasible.

Kristina M. Lybecker, PhD, 17 [PhD Economics, Associate Professor of Economics @ Colorado College], “Intellectual Property Rights Protection and the Biopharmaceutical Industry: How Canada Measures Up,” Fraser Institute, January 2017, <https://www.fraserinstitute.org/sites/default/files/intellectual-property-rights-protection-and-the%20biopharmaceutical-industry.pdf> C.VC

The unique structure of the innovative biopharmaceutical industry necessitates a variety of intellectual property protection mechanisms. In particular, the industry is characterized by a research and development (R&D) process that is lengthy, expensive, uncertain, and risky. According to DiMasi and colleagues, the estimated cost of developing a new medicine is US$2.6 billion (DiMasi, Grabowski, and Hansen, 2016).2 In addition, the time required to develop a new drug is also significant, averaging 10 to 15 years without any guarantee of success (PhRMA, n.d.). While these figures are highly controversial, biopharmaceutical innovation is unquestionably an expensive and lengthy undertaking.3 For the biopharmaceutical industry, innovation and its protection are essential and the source of both profits and growth. As such, patent protection is disproportionally more important for ensuring that the innovator appropriates the returns to R&D for the biopharmaceutical industry than virtually any other. Extending the findings of the 1987 “Yale Survey” (Levin, Klevorick, Nelson, and Winter, 1987), the “Carnegie Mellon Survey” established that while patents are again considered “unambiguously the least effective appropriability mechanisms,” the drug industry and other scholars regard them as strictly more effective than alternative mechanisms (Cohen, Nelson, and Walsh, 1996). The industry’s disproportionate reliance on patents and other forms of intellectual property protection is confirmed in numerous other studies.4

In essence, IPR protections provide innovative biopharmaceutical firms with an assurance of some return on their investment, thus creating incentives for the development of new technologies that could otherwise be easily replicated and sold by competitors. Due to the tremendous fixed costs required to develop new treatments and cures, a significant potential exists for free riding by follower firms, a market failure that would prevent investment in innovation were it not for the patents and other forms of intellectual property protections that provide a limited period of market exclusivity or other such incentives. Fundamentally, patents amount to an efficiency tradeoff. Society provides innovators with a limited period of market exclusivity to encourage innovation in exchange for public access to this knowledge. In exchange for the temporary static loss from market exclusivity, society gains complete knowledge of the innovation through disclosure, a permanent dynamic gain. Through this tradeoff, the existing patent system corrects the market failure that would stymie innovation. In its Apotex Inc. v. Wellcome Foundation Ltd. finding, Justice Binnie wrote for the Supreme Court of Canada, “A patent, as has been said many times, is not intended as an accolade or civic award for ingenuity. It is a method by which inventive solutions to practical problems are coaxed into the public domain by the promise of a limited monopoly for a limited time. Disclosure is the quid pro quo for valuable proprietary rights to exclusivity which are entirely the statutory creature of the Patent Act” (para. 37).

The biopharmaceutical industry is characterized by a number of legal and economic issues that distinguish it from other research-intensive industries. Danzon (1999) describes three features that are particularly noteworthy. First, given that the biopharmaceutical industry is characterized by an unusually high rate of R&D, intellectual property protection provides for the potential for significant market power and monopoly pricing that raises numerous public health policy questions surrounding prices and profits. Second, virtually every aspect of the industry is heavily regulated, from safety and efficacy to promotion and advertising, to pricing and reimbursement. Danzon describes the impact of these regulations as “profound and multidimensional even within a single country, affecting consumption patterns, productivity, R&D and hence the supply of future technologies” (Danzon, 1999: 1056). Lastly, while research and development costs are borne solely by the innovator, the resulting product is a global public good. “Each country faces an incentive to adopt the regulatory policies that best control its pharmaceutical budget in the short run, free-riding on others to pay for the joint costs of R&D and ignoring cross-national spillovers of national regulatory policies through parallel trade and international price comparisons” (Danzon, 1999: 1056). The combination of these characteristics defines a set of unique economic and legal challenges for the innovation of new drugs and the public health policies that surround their production, marketing, and distribution.

Innovative companies make far greater investments in time, resources, and financial support than do generic firms. Notably, innovation-based companies spend more than 200 times that which generic companies spend on the development of a particular drug (CIPC, 2011: 10). In addition, the investment of time, from laboratory to market, is also close to double for innovative companies relative to generic producers. Table 1 highlights the differences in the drug development processes of innovative and generic companies. For innovative biopharmaceutical companies, the development process is expensive, risky, and time consuming, all of which points to the need for strong IP protection to encourage investment and ensure companies are able to recover their investments.

The risk involved in biopharmaceutical development is starkly illustrated in a recent report by Biotechnology Innovation Organization (BIO), which reports that less than one of every 10 drugs that enter clinical trials is ultimately approved by the Food and Drug Administration in the United States. The report finds a success rate of merely 9.6%, a calculation that is significantly smaller than the widely-cited 11.8% figure from a 2014 study by the Tufts University’s Center for the Study of Drug Development.5 The International Federation of Pharmaceutical Manufacturers and Associations (2012) estimates that more than 3,200 compounds were at different stages of development globally in 2011, but only 35 new medicines were launched (Dawson, 2015).

Fundamentally, research-based biopharmaceutical companies incur greater expenses and risk in the development of their products than do generic manufactures. These investments of time and financial resources should be recognized and the effective patent life should be sufficient to recoup these investments. Continued investment and innovation are contingent upon strong, effective intellectual property protection and the ability of innovative firms to recoup their investments. Patents and other forms of intellectual property protection are disproportionally important to the research-based biopharmaceutical industry. Consequently, the legal architecture necessary to foster a robust innovation-based industry is multifaceted and is a powerful force shaping the biopharmaceutical industry, its profitability, productivity, and innovative future.

**Pharmaceutical innovation is key to protecting against future pandemics, bioterrorism, and antibiotic resistance.**

**Marjanovic and Fejiao ‘20** Marjanovic, Sonja, and Carolina Feijao. Sonja Marjanovic, Ph.D., Judge Business School, University of Cambridge. Carolina Feijao, Ph.D. in biochemistry, University of Cambridge; M.Sc. in quantitive biology, Imperial College London; B.Sc. in biology, University of Lisbon. "Pharmaceutical Innovation for Infectious Disease Management: From Troubleshooting to Sustainable Models of Engagement." (2020). [Quality Control]

As key actors in the healthcare innovation landscape, pharmaceutical and life sci-ences companies have been called on to develop medicines, vaccines and diagnostics for pressing public health challenges. The COVID-19 crisis is one such challenge, but there are many others. For example, MERS, SARS, Ebola, Zika and avian and swine flu are also infectious diseases that represent public health threats. Infectious agents such as anthrax, smallpox and tularemia could present threats in a **bioterrorism con-text**.1 The general threat to public health that is posed by **antimicrobial resistance** is also **well-recognised** as an area **in need of pharmaceutical innovation**. Innovating in response to these challenges does not always align well with pharmaceutical industry commercial models, shareholder expectations and compe-tition within the industry. However, the expertise, networks and infrastructure that industry has within its reach, as well as public expectations and the moral imperative, make pharmaceutical companies and the wider life sciences sector an **indispensable** partner in the search for solutions that save lives. This perspective argues for the need to establish more sustainable and scalable ways of incentivising pharmaceu-tical innovation in response to infectious disease threats to public health. It considers both past and current examples of efforts to mobilise pharmaceutical innovation in high commercial risk areas, including in the context of current efforts to respond to the COVID-19 pandemic. In global pandemic crises like COVID-19, the urgency and scale of the crisis – as well as the spotlight placed on pharmaceutical companies – mean that contributing to the search for effective medicines, vaccines or diagnostics is **essential** for socially responsible companies in the sec-tor.2 It is therefore unsurprising that we are seeing indus-try-wide efforts unfold at unprecedented scale and pace. Whereas there is always scope for more activity, industry is currently contributing in a variety of ways. Examples include pharmaceutical companies donating existing com-pounds to assess their utility in the fight against COVID-19; screening existing compound libraries in-house or with partners to see if they can be repurposed; accelerating tri-als for potentially effective medicine or vaccine candidates; and in some cases rapidly accelerating in-house research and development to discover new treatments or vaccine agents and develop diagnostics tests.3,4 Pharmaceutical companies are collaborating with each other in some of these efforts and participating in global R&D partnerships (such as the Innovative Medicines Initiative effort to accel-erate the development of potential therapies for COVID-19) and supporting national efforts to expand diagnosis and testing capacity and ensure affordable and ready access to potential solutions.3,5,6 The primary purpose of such innovation is to **benefit patients** and wider **population health**. Although there are also reputational benefits from involvement that can be realised across the industry, there are likely to be rela-tively few companies that are ‘commercial’ winners. Those who might gain substantial revenues will be under pres-sure not to be seen as profiting from the pandemic. In the United Kingdom for example, GSK has stated that it does not expect to profit from its COVID-19 related activities and that any gains will be invested in supporting research and long-term pandemic preparedness, as well as in developing products that would be affordable in the world’s poorest countries.7 Similarly, in the United States AbbVie has waived intellectual property rights for an existing com-bination product that is being tested for therapeutic poten-tial against COVID-19, which would support affordability and allow for a supply of generics.8,9 Johnson & Johnson has stated that its potential vaccine – which is expected to begin trials – will be available on a not-for-profit basis during the pandemic.10 Pharma is mobilising substantial efforts to rise to the COVID-19 challenge at hand. However, we need to consider how pharmaceutical innovation for responding to emerging infectious diseases can best be enabled beyond the current crisis. Many public health threats (including those associated with other **infectious diseases**, **bioterror-ism** agents **and antimicrobial resistance**) are **urgently in need of pharmaceutical innovation**, **even if their impacts are not as visible** to society **as COVID**-19 is in the imme-diate term. The pharmaceutical industry has responded to previous public health emergencies associated with infec-tious disease in recent times – for example those associated with Ebola and Zika outbreaks.11 However, it has done so to a lesser scale than for COVID-19 and with contribu-tions from fewer companies. Similarly, levels of activity in response to the threat of antimicrobial resistance are still **low**.12 There are important policy questions as to whether – and how – industry could engage with such public health threats to an even greater extent under improved innova-tion conditions.

#### Bioterrorism and future pandemics cause extinction.

Hamish De Bretton-Gordon, CBRN Expert @ British Army, 20 [Director @ DBG Defense, Consultant on CBRN and Biosecurity], “Biosecurity in the Wake of COVID-19: The Urgent Action Needed,” Combatting Terrorism Center Sentinel, November/December 2020, Volume 13, Issue 11, <https://ctc.usma.edu/biosecurity-in-the-wake-of-covid-19-the-urgent-action-needed/> C.VC

Policymakers around the world did not grasp just how large the impact of a bio threat could be. Beyond the enormous human and economic impact, the current pandemic has exposed the weakness, lack of preparedness, and poor responsiveness of healthcare systems of even highly developed countries like the United States and the United Kingdom. And the virus has inflicted carnage, even though SARS-CoV-2 (the virus that causes COVID-19) is not especially virulent. The world may be confronted with other viruses in the future whose combination of virulence (the harm a pathogen does to its host), transmissibility, and other characteristics pose much greater danger.

While overwhelming evidence points to SARS-CoV-2 spontaneously spreading to humans, the advances in synthetic biology and the growth in the number of Level 3 and 4 biocontainment facilities around the world storing deadly viruses1 mean there is also the very real possibility that in the future, bad actors will try to engineer or steal/obtain a highly transmissible and highly virulent virus and unleash it onto the world. Another risk is accidental releases from such biocontainment facilities.

COVID-19, a highly transmissible but not very virulent pathogen, has had a devastating global impact, a fact that will not have gone unnoticed by rogue states and terror organizations. Advances in synthetic biology have created tools that could be put to malevolent use. In the last two decades, scientists synthesized the poliovirus from its genetic sequence,2 recreated the 1918 Spanish flu virus,3 and succeeded in modifying the H5N1 avian flu virus so that it resulted (in a research laboratory) in airborne transmission among mammals.4 In the future, we should think of weaponized biology as no less of an existential threat to the planet than weaponized atomic science. It should also be noted that the fear and panic that even a medium-scale bioterror attack could create could have dangerous implications that may rival or even surpass the immediate loss of life.

The Need to Rethink Likelihood

Given the fact that in late 2019 when, as far as is known, COVID-19 cases first started emerging in China, it had been more than a century since the previous catastrophic outbreak (the 1918-1919 “Spanish flu” pandemic),d it was unsurprising that many thought of such pandemics as a one-in-a-100-year event. Such assumptions should no longer hold. The encroachment of human settlements into areas that had previously been sanctuaries for wildlife5 and the popularity in some parts of the world of markets where people and wild animals are brought into proximity have made it more likely viruses will make the species leap to human beings.e And when they do, as the COVID-19 pandemic illustrated, the interconnectedness of a world in which millions of people fly each day6 means they can spread very rapidly.

There is also growing concern about engineered viruses. Not only have advances in synthetic biology (SynBio) created growing capacity for extremely dangerous viruses to be engineered in a laboratory, but the number of people with access to potentially dangerous ‘dual use’ technology has greatly expanded and continues to expand, making malevolent use of such technology ever more likely.

In the August 2020 issue of this publication, scientists at the U.S. Military Academy at West Point warned that:

The wide availability of the protocols, procedures, and techniques necessary to produce and modify living organisms combined with an exponential increase in the availability of genetic data is leading to a revolution in science affecting the threat landscape that can be rivaled only by the development of the atomic bomb. As the technology improves, the level of education and skills necessary to engineer biological agents decreases. Whereas only state actors historically had the resources to develop and employ biological weapons, SynBio is changing the threat paradigm.

The cost threshold of engineering viruses is also lowering, with the West Point scientists warning that synthetic biology has “placed the ability to recreate some of the deadliest infectious diseases known well within the grasp of the state-sponsored terrorist and the talented non-state actor.”7

As already noted, another source of vulnerability is that deadly viruses could be stolen from or escape from a research laboratory. There are now around 50 Biosafety Level 4f facilities around the world, where the deadliest pathogens are stored and worked on, and this figure is set to increase in the next few years.g This is a large increase over the last 30 years, creating bigger risk of a breach. Of equal, if not greater concern are the thousands of Biosafety Level 3 labs globally,8 which handle deadly pathogens like COVID-19.9

Given what has been outlined above, the risk of a future destructive biological attack or another devastating global pandemic should no longer be seen as low. From this point forward, there should no higher priority for the international community than biosecurity.

### Case – Global access

#### 1. Link outweighs the link turn –

#### A. Timeframe – medicines have to exist in order for them to be equitably distributed – if we win our link it proves that there won’t be enough innovation to create effective treatments for future pandemics in the first place

#### B. Long-term – future disease outbreaks are inevitable given the progression of technology and globalization, it’s just a question of how equipped we are to deal with them – the issues of unequitable distribution of treatments will be magnified in the future since new therapeutics will be of poorer quality – err on the side of caution – it’s better to have some treatment than no treatment

#### 2. IP rights aren’t the issue – this begs the question of the case debate – the plan does nothing to improve infrastructure, manufacturing, or the counterfeit drug trade.

### Case – Innovation

#### A] Answered by the disad — they just state that competition in the market bolsters innovation with no warrants whereas our ev has empirics and a more rigorous set of justifications regarding how pharma companies make decisions.

#### B] They say that prizes solve. This is extra T.

#### C] Feldman ev has NOTHING to do with innovation. Also no warrant as to why a patent results in other companies not being able to compete.

### Case – HIV/AIDS

#### A] HIV/AIDS is a totally different scenario – countries waving rights were largely poorer with a smaller customer base, didn’t have significant industry to disrupt pharma profits, et cetera

#### B] HIV was a success for the free market – but poor patent protection in developing nations hurt innovation due to reexporting

Bandow 3 Doug Bandow, you all fear the name, is a senior fellow at the Cato Institute, specializing in foreign policy and civil liberties. JD from Stanford University. "Demonizing Drugmakers: The Political Assault on the Pharmaceutical Industry." Cato Institute, May 8, 2003, [www.cato.org/policy-analysis/demonizing-drugmakers-political-assault-pharmaceutical-industry#](http://www.cato.org/policy-analysis/demonizing-drugmakers-political-assault-pharmaceutical-industry). [“Quality” Control]

Observes commentator Andrew Sullivan: “The reason we have a treatment for HIV is not the angelic brilliance of anyone per se but the free-market system that rewards serious research with serious money.”200 Yet some self-styled activists treat the AIDS epidemic as the fault of the very parties that seek to cure it. They would strip the companies that produce AIDS drugs of some or all patent protection, through such means as compul- sory licensing and parallel importation.201 Some countries have exploited those prac- tices to boost their own generic drug indus- tries. For example, India stopped respecting drug patents in the 1970s, although it has promised to again accept intellectual proper- ty rights starting in 2005 as the price of join- ing the World Trade Organization. Brazil has authorized the copying of Viracept, an AIDS medicine produced by Roche. Explained Health Minister Jose Serra, “We are in favor of patents, but not the abuse of patents.”202 At its November 2001 ministerial confer- ence in Doha, the World Trade Organization declared legal clarifications of the Trade- Related Aspects of Intellectual Property Rights (TRIPS) treaty that would allow poor countries to declare “national emergencies” and produce generic substitutes of brand medicines.203 In practice, those states appar- ently can abrogate patents at will, since the Doha declaration gives nations “the freedom to determine the grounds upon which such licenses are granted.”204 Although the precise impact of the Doha declaration remains sub- ject to ongoing trade negotiations, it appears to encourage developing nations to expand their use of compulsory licenses to produce patented medicines (with minimal royalties) and to allow “parallel imports” of patented drugs from developing nations’ markets where original prices are set lower.205 The pharmaceutical industry put on a brave front, contending that nothing had really changed, but Sanford C. Bernstein & Co. analyst Richard Evans observes that drugmakers now “can write off the developing countries as a long-term source of profits.”206 A more recent round of international trade negotiations, launched in late 2002 and resumed in February 2003, threatens to fur- ther loosen the range of exemptions from drug patent protection for virtually any “pub- lic health problem.”207 James Love, director of the Consumer Project on Technology, has exulted: “This goes beyond AIDS, malaria and tuberculosis. Any health care item could be included. We want to use this in the United States, in Germany and in Switzerland.”208 Indeed, many developing nations are demand- ing the right to override existing patents and reduce existing barriers to parallel imports of pharmaceuticals on a wide-scale basis.209 Such an agreement would discourage pharmaceutical patent holders from selling their many other products (those used to treat other diseases and health conditions) at much lower prices in developing nations where demand (i.e., ability to pay) is weak. Drugmakers would fear that low-priced sales in those markets could be reexported to more lucrative Western markets and undercut prices there. (In fact, $20 million worth of HIV drugs first sold at a deep discount in Africa were recently stolen and resold in Europe for higher profits.)210 Faced with the prospect of undercutting their key streams of revenue, pharmaceutical firms would be most likely to cut their losses and either reduce sales or raise prices in the very markets that most need some of their products.211 If legal restrictions on the arbitrage of parallel imports across national borders continue to weaken, charging different prices in different markets (“price discrimination” to maximize total revenue) will be difficult to maintain, says University of Michigan law professor Rebecca Eisenberg.212 Last December’s international trade nego- tiations in Geneva broke down when the United States blocked a draft agreement that would allow pharmaceutical companies in developing nations much greater freedom to export their lower-priced generic versions of patented drugs to other poor countries. U.S. trade negotiators insisted that patent excep- tions should apply only to drugs that treat a restricted list of infectious diseases—such as HIV/AIDS, malaria, and tuberculosis—in poor countries. On December 20, 2002, U.S. Trade Representative Robert Zoellick announced a temporary moratorium on U.S. enforcement of drug patents for exports to poor nations to combat diseases posing national health crises.213 The justifications given for invalidating patents are always presented as high-minded. For instance, Julia Neuberger of the King’s Fund, an independent charitable foundation in London, recently announced: “In Africa, com- mercial interests must not be permitted to restrict access to vital medicines for HIV and AIDS.”214 The group Oxfam has charged that patents “are deepening the public-health crisis by increasing the cost of medicines.”215 Doctors Without Borders has led a coali- tion that opposes international trade rules that might discourage the importation of 23 The Doha decla- ration appears to encourage com- pulsory licenses and “parallel imports” of patented drugs. less expensive drugs. “We’re basically talking about a system that could help save mil- lions,” said Ellen ‘t Hoen, program director for the private, nonprofit organization.216 But without patents the newer drugs would not exist because there would be little incentive to produce them. Observes Jean Lanjouw of Yale University: “Private firms currently do very little research on products for the developing world. There is little doubt that the lack of patent protection in major developing country markets has contributed to this disinterest.”

# 4 – Drug Pricing

#### Drug price controls coming now but Biden PC key

Weisman 8/12 Weisman, Jonathan. Jonathan Weisman is a congressional correspondent, veteran Washington journalist. "Biden Presses Congress to Act on Prescription Drug Prices." N.Y. Times, 12 Aug. 2021, www.nytimes.com/2021/08/12/us/politics/biden-prescription-drugs.html.

WASHINGTON — President Biden implored Congress on Thursday to include strict controls on prescription drug prices in the mammoth social policy bill that Democrats plan to draft this fall, hitting on an issue that his predecessor campaigned on but failed to achieve.

Mr. Biden said he wanted at least three measures included in the $3.5 trillion social policy bill that Democrats hope to pass using budget rules that would protect it from a Republican filibuster. He wants Medicare to be granted the power to negotiate lower drug prices, pharmaceutical companies to face penalties if they raise prices faster than inflation, and a new cap on how much Medicare recipients have to spend on medications.

“There aren’t a lot of things that almost every American could agree on,” the president said at the White House. “But I think it is safe to say that all of us, whatever our background or our age and where we live, could agree that prescription drug prices are outrageously expensive in America.”

The president was pushing on an open door. Congressional Democrats have already said they want to include all three measures in the so-called reconciliation bill that House and Senate committees hope to assemble.

“The Finance Committee will be a central part of the debate when it comes to lowering Americans’ health care costs and making high-quality health care available to more families,” the panel’s chairman, Senator Ron Wyden of Oregon, said as Senate Democrats unveiled the $3.5 trillion budget blueprint that would allow them to pass the legislation without a Republican vote.

#### Passing a WTO patent waiver stops split-lobbying efforts from Big Pharma – they’ll focus on fighting drug pricing reform instead

Stacey and Asgari 5/26 Kiran Stacey, Washington correspondent for the FT; Nikou Asgari, reporter covering the US pharmaceutical industry. "How drugmakers went from vaccine heroes to patent villains within weeks." 26 May. 2021, www.ft.com/content/96d10dc8-8158-4cbc-9876-0b7d0a1e774e.

The tone of that call, followed by the decision to support a patent waver proposal at the World Trade Organization, has triggered concerns among some in the pharmaceutical industry, who fear they will lose political capital amassed during the pandemic at a crucial moment in their fight against drug pricing controls in the US. “One day Bourla is being feted by the president for making vaccines which will help end the pandemic, the next he is being lectured by one of Biden’s senior officials for not supplying vaccines to India — even though the Pfizer vaccine hasn’t been approved there,” said one person briefed on the call. “It did shake the industry a bit.” American drugmakers have been the target of political criticism for years, accused of fuelling the US opioid epidemic and making their treatments unaffordable for millions of Americans. The fact that the Biden administration was willing to support the [patent] waiver shows . . . the pharma industry is not going to be as strong as it was in the past Michael Carrier, Rutgers university Many in the industry hoped their response to the pandemic would help to persuade politicians and the wider public that the US benefits from having a well-funded pharmaceutical industry with strong intellectual property protections. The country has carried out one of the fastest Covid-19 vaccine rollouts in the world, largely thanks to steady supplies from Pfizer and its smaller rival Moderna. “The Covid-19 vaccine is a proof point for the powerful combination of breakthrough science and the private sector,” said Sally Susman, chief corporate affairs officer at Pfizer. The public agrees. Surveys conducted by The Harris Poll found that approval of the pharmaceutical industry had almost doubled from 32 per cent in January last year to 62 per cent in February this year. But the decision to support the move at the WTO to waive international intellectual property rights on Covid vaccines suggests the Biden administration is not entirely convinced by the arguments put forward by drugmakers’ well-funded army of lobbyists. “The fact that the Biden administration was willing to support the waiver shows the argument has shifted and that the pharma industry is not going to be as strong as it was in the past,” said Michael Carrier, a law professor at Rutgers university in Camden, New Jersey. The industry spends far more on lobbying than any other — more than $92m this year, according to figures compiled by the Washington-based Center for Responsive Politics. That is more than double the outlay from the electronics industry, which is the next heaviest spender. It also donates liberally, and increasingly to Democrats. CRP figures show that 2020 was the first year in which the industry gave significantly more to Democratic candidates than Republican ones. Pfizer donated $1m to Biden’s inaugural fund, though the money did not buy the kind of high-level access it would have done in previous years due to the virtual nature of many of the inaugural events. The industry is primarily occupied by two issues in Washington: the WTO’s proposed intellectual property waiver and legislation to curb drug prices. On the former, companies are keen to limit the scope of any waiver. On the latter, they want to stop a bill that would allow the government to negotiate the prices for certain drugs prescribed to seniors covered by the publicly-funded Medicare scheme. The industry’s most prominent voice on such issues is Steve Ubl, chief executive of industry group Phrma and a veteran Washington operator. “The Biden administration made a politically expedient decision [on the WTO waiver], but we think we are still able to lean in on other debates such as drug pricing,” he said. Some are concerned that Ubl, a former aide to the Republican senator Chuck Grassley, is too obviously corporate and Republican to make inroads in the Democratically-controlled administration and Congress. Instead, some say Michelle McMurry-Heath, the chief executive of the smaller Biotechnology Innovation Organization, might have more success. “Steve has been very successful for years, but Michelle is a bit more dynamic and less buttoned-up,” said one industry lobbyist. Before rushing to do the WTO waiver, perhaps we should get our own house in order first Debra Dixon, Ferox Strategies Those in the industry who have deep connections within the Democratic party are in strong demand, such as Susman, who worked as a senior official in the commerce department during the Clinton administration. Another is Debra Dixon, a former chief of staff to the health secretary Xavier Becerra. Dixon works for Ferox Strategies and was recently hired by Eli Lilly, which has been criticised for raising the prices of its insulin drugs. Dixon said the industry should focus on how therapeutics can “alleviate health disparities” when discussing drug prices. She added: “While the US vaccine rollout has gone well, there are still people falling through the cracks. Before rushing to do the WTO waiver, perhaps we should get our own house in order first.” Moderna, meanwhile, has hired Brownstein Hyatt Farber Schreck as one of its external lobbying firms. Its team includes Nadeam Elshami, the former chief of staff to Nancy Pelosi, the Democratic Speaker of the House of Representatives, and Carmencita Whonder, a former aide to Chuck Schumer, the Democratic Senate majority leader. There are some signs that their efforts are paying off. Earlier this month 10 Democrats in the House sent a letter to Pelosi urging her to pursue drug pricing reforms on a bipartisan basis. That missive was interpreted as a criticism of the proposal for the government to negotiate drug prices, which has little support among Republicans. Recommended Pharmaceuticals sector Biden urged to oblige US vaccine makers to share technology Scott Peters, the lead signatory on that letter, was the sixth-highest recipient in the House of money from the pharma industry in the last election cycle, according to the CRP. Others in Congress also continue to champion the industry, especially those in New Jersey and Delaware, where many pharma companies have a significant presence. Industry lobbyists say they expect Chris Coons, the senator from Delaware and a longtime friend of Biden, to prove a vital ally. Many lobbyists hope that Biden will prove receptive to the industry’s arguments, in part because he worked closely with pharmaceutical companies as vice-president while developing his “cancer moonshot” to help find a cure for the disease. But they do not necessarily need to win the president round. With both houses of Congress finely balanced, a handful of Democratic supporters could squash the reforms being proposed by those on the left of the party. “We don’t need many people to block HR3,” said one industry lobbyist, referring to the proposed bill that would allow the government to negotiate some drug prices. “The 10 people that signed that letter could be enough to get us what we want.”

#### And a WTO waiver takes time, energy, and political capital away from domestic legislation – big pharma and EU allies

Bhadrakumar 5/9 M K Bhadrakumar is a former Indian diplomat. "Biden’s talk of vaccine IP waiver is political theater." Asia Times, May 9, 2021, asiatimes.com/2021/05/bidens-talk-of-vaccine-ip-waiver-is-political-theater.

On the other hand, Biden, whose political life of half a century was largely spent in the US Congress, is well aware of the awesome clout of the pharmaceutical companies in American politics. From that lobby’s perspective, the patent waiver “amounts to the expropriation of the property of the pharmaceutical companies whose innovation and financial investments made the development of Covid-19 vaccines possible in the first place,” as a senior scholar at the Johns Hopkins Center for Health Security puts it. The US pharmaceutical industry and congressional Republicans have already gone on the offensive blasting Biden’s announcement, saying it undermines incentives for American innovation. Besides, the argument goes, even with the patent waiver, vaccine manufacturing is a complex process and is not like simply flipping a switch. Senator Richard Burr, the top Republican on the US Senate Health Committee, denounced Biden’s decision. “Intellectual property protections are part of the reason we have these life-saving products,” he said. “Stripping these protections only ensures we won’t have the vaccines or treatments we need when the next pandemic occurs.” The Republican senators backed by Republican Study Committee chairman Jim Banks propose to introduce legislation to block the move. Clearly, Biden would rather spend his political capital on getting the necessary legislation through Congress to advance his domestic reform agenda rather than spend time and energy to take on the pharmaceutical industry to burnish his image as a good Samaritan on the world stage. Conceivably, Biden could be counting on the “text-based negotiations” at the WTO dragging on for months, if not years, without reaching anywhere. The US support for the waiver could even be a tactic to persuade pharmaceutical firms to back less drastic steps like sharing technology and expanding joint ventures to boost global production quickly. So far Covid-19 vaccines have been distributed primarily to the wealthy countries that developed them, while the pandemic sweeps through poorer ones such as India, and the real goal is, after all, expanded vaccine distribution. Biden is well aware that there will be huge opposition to the TRIPS waiver from the United States’ European allies as well. The British press has reported that the UK has been in closed-door talks at the World Trade Organization in recent months along with the likes of Australia, Canada, Japan, Norway, Singapore, the European Union and the US, who all opposed the idea.

#### The threat of a waiver to manipulate Pharma is good but an actual waiver wastes political capital on other health issues

Silverman 6/2 Rachel Silverman is a policy fellow at the Center for Global Development. Master’s of philosophy with distinction in public health from the University of Cambridge, which she attended as a Gates Cambridge Scholar. She also holds a BA with distinction in international relations and economics from Stanford University.Argument’, 'The. "Opinion | Could Spilling Big Pharma’s Secrets Vaccinate the World?" N.Y. Times, 2 June 2021, [www.nytimes.com/2021/06/02/opinion/covid-vaccine-ip-waiver.html](http://www.nytimes.com/2021/06/02/opinion/covid-vaccine-ip-waiver.html). [the original podcast was between multiple people, only person carded is Silverman so they’re the only person cited]

[rachel silverman] So I very much agree with Tahir that a lot of this is theater. And I guess that gets to part of my concern about the waiver, which is, I’m not, again, that opposed to the waiver per se. I’m a little bit wishy-washy on it. I think there are people who yell doom about it. I don’t think it will spell doom. But what I really am concerned about is that while I do think the waiver campaign has been helpful in terms of putting pressure on the pharmaceutical industry, you know, that threat of a stick that we’re talking about, what I do worry about is that it’s sucking up a lot of political oxygen. And it’s the kind of thing where the U.S. can come out with a statement and say, oh, yes, we support the waiver. And what that will really mean is we spend the next 12 months negotiating it down in the W.T.O., and we coordinate with the Europeans to weaken it further. And everyone applauds, and everyone says, oh, great, what a great move towards vaccine equity. And nothing really comes of it. And it takes pressure off them to address the more immediate challenges. And I’d say we had a letter out from my institution, the Center for Global Development, and some other think tanks, calling on the Biden administration to do a lot more, generally, more money, more support, more engagement, better dose sharing, more leadership in this space. And we haven’t seen it. The reality of the world we live in is there’s a limited amount of political capital. And I’m worried we’re sucking it up on this, which will maybe, maybe best case scenario, have an impact six to nine months down the road if everything goes right, and not the immediate measures that we could be taking worldwide.

#### Drug price controls massively reduce healthcare costs across the board – even assuming conservative models

Gamba 6/9 Gamba, Tyler. Author at the AJMC. "Adoption of the Lower Drug Costs Now Act May Lead to Billions in Savings." AJMC, 9 June 2021, www.ajmc.com/view/adoption-of-the-lower-drug-costs-now-act-may-lead-to-billions-in-savings.

H.R.3, the Elijah E. Cummings Lower Drug Costs Now Act would improve efficiency and produce billions in savings for the commercial health care market’s employers and end consumers if fully implemented, according to a new study from Milliman commissioned by the West Health Policy Center.

Among its goals, the act’s provisions seek to reduce prescription drug costs, increase drug price transparency, lower member out-of-pocket spending, and increase potential coverage eligibility. Costs for the most expensive brand drugs in the United States would be negotiated between the manufacturers and the HHS secretary. Significant drug cost increases over the rate of inflation would need to be issued back as rebates to CMS.

To predict the effects of such reforms, the Milliman study sought quantitative estimates for the scope of these changes. Milliman’s models incorporated several variables, including current trends and projected spending based on different percentage adjustments to drug prices, rebates, and public vs private cost rates from 2023 through 2029.

The study estimates 46% of drug spending would be subject to negotiation under the legislation’s Title I by 2026, with an average 2.5% reduction in total commercial market claims by 2029.Overall, successful implementation of H.R. 3 means employers may reduce their health care expenditures by $195 billion while employees would save $61 billion. Of this latter amount, reduced premiums would account for $53 billion and out-of-pocket costs, $8 billion.

Overall, the market covered by the Affordable Care Act (ACA) could see savings of $58 billion, comprising $34 billon in reduced beneficiary premiums, $21 billion in federal savings by reduced Advance-Premium Tax Credits, and $2 billion in lower cost-sharing.

The estimates assume manufacturers could make such increases to the prices at a faster rate than the current yearly trends. This possibility still leads to stronger total savings via H.R. 3’s Title I. The study does not factor in further limitations on increases by plan sponsors and pharmacy benefit managers, which could improve savings for employers and employees, because it mainly applies to Medicare.

Under the most conservative pricing model—where manufacturers hypothetically increase supply costs to unprecedented highs to minimize revenue loses—$250 billion in lower costs are still passed on to employers and employees.

Additionally, the study notes that although end consumers are generally responsible for most of their plan premiums, and thus would get most of the savings, the federal government also would save on the significant portion it pays toward member premiums in the individual marketplaces.

#### Collapses the economy

Howrigon, 16 — Ron Howrigon, M.S. in Economics with a focus on Health Economics from North Carolina State University, President and Founder of Fulcrum Strategies, 18 Years of Experience in Healthcare, 12-30-2016, “Flatlining: How Healthcare Could Kill the U.S. Economy,” Greenbranch Publishing, 1st Edition, Accessed via Minnesota Libraries, Date Accessed: 8-10

Ok, let’s shift from looking at individuals to looking at the big picture—from micro- to macroeconomics. It’s important to understand where healthcare **fits into the big picture** when it comes to the economy at large. Most people who don’t work in the industry don’t clearly understand how much of the U.S. economy healthcare makes up. In fact, given the size of the economy, healthcare in the U.S. can be impactful on the ***world* economy**. This is important to understand because future changes in healthcare not only affect ow we get care and how much we pay for it, but could also significantly affect things like **unemployment**, the **national debt**, and **interest rates**. The influences on the U.S. economy will have **a ripple effect** on other countries around the world. In 1960, healthcare as a market accounted for only 5% of the U.S. economy. For every dollar transacted, only 5 cents were spent for healthcare. The entire U.S. economy was $543 billion, and healthcare accounted for about $27 billion. By itself, in 1960, the U.S. healthcare market would rank as the 15th largest world economy, putting it just in front of the GDP (Gross Domestic Product) of Australia and just behind the GDP of Italy. Think about that for a minute: the U.S., **spent more money on healthcare** than the Australians did on everything! To put this further into perspective, in 1960, the U.S. Department of Defense was twice as large as healthcare. The Defense Department consumed 10% of the U.S. economy, which means it would rank as the 11th largest world economy just in front of Japan and just behind China. Now fast-forward 50 years. In 2010, the United States GDP was $15 trillion. The total healthcare expenditures in the United States for 2010 were $2.6 trillion. At $2.6 trillion, the U.S. healthcare market has moved up from 15th and now ranks as the **5th largest world economy**, just behind Germany and just ahead of both France and the United Kingdom. That means that while healthcare was only 5% of GDP in 1960, it has risen to over 17% of GDP in only 50 years. Over that same time, the Defense Department has gone from 10% of GDP to less than 5% of GDP. This means that in terms in terms of its portion of the U.S. economy, defense spending has been reduced by half while healthcare spending has more than tripled. If **healthcare** continues to trend at the same pace it has for the last 50 years, it will consume more than **50% of the U.S. economy** by the year 2060. Every economist worth their salt will tell you that health-care will never reach 50% of the economy. It’s simply not possible because of **all the other things** it would have to **crowd out to reach** that point. So, if we know healthcare can’t grow to 50% of our economy, **where is the breaking point?** **At what point does healthcare consume so much of the economy that it breaks the bank**, so to speak? This is the big question when it comes to healthcare. If something doesn’t happen to reverse the 50-year trend we’ve been riding, when will the healthcare bubble burst? How bad will it be and how exactly will it happen? While no one knows the **exact answers** to those questions, economists and healthcare experts agree that something needs to **happen**, because we simply **can’t continue on this trend** forever. Another way to look at healthcare is to study its impact on the federal budget and the national debt. In 1998, federal healthcare spending accounted for 19% of the revenue taken in by the government. Just eight years later, in 2006, healthcare spending had increased to 24% of federal revenue. In 2010, the Affordable Healthcare Act passed and significantly increased federal spending accounted for almost one-third of all revenue received by the government and surpassed Social Security as the largest single budget category. What makes this trend even more alarming is the fact that revenue to the federal government double from 1998 to 2016. That means healthcare spending by the federal government has almost quadrupled in terms of actual dollars in that same time period. If this trend continues for the next 20 years, healthcare spending will account for over half the revenue received by the government by the year 2035. Again, the simply can’t happen without causing significant issue for the financial wellbeing of out country. In recent history, the U.S. economy has experienced the near catastrophic failure of two major market segments. The first was the auto industry and the second was the housing industry. While each of these reached their breaking point for different reasons, they both required a significant government bailout to keep them from completely melting down. What is also true about both of **those market failures** is that, looking back, it’s easy to see the warning signs. What happens if health care is the next industry to suffer a major failure and collapse? It’s safe to say that a **health care meltdown** would make both the **auto**motive and **housing** industries’ experiences **seem minor** in comparison. While that may be hard to believe, it becomes clear if you look at the numbers. The **auto industry** contributes around 3.5 percent of this country’s GDP and employs 1.7 million people. This industry was deemed **“too big to fail”** which is the rationale the U.S. government used to finance its bail out. From 2009 through 2014, the federal government invested around $80 billion in the U.S. auto industry to keep it from collapsing. Health care is five times larger than the auto industry in terms of its percentage of GDP, and is ten times larger than the auto industry in terms of the number of people it employs. The construction industry (which includes all construction, not just housing) contributes about 6 percent of our country’s GDP and employs 6.1 million people. Again, the health care market dwarfs this industry. It’s **three times larger** in terms of GDP production and, with 18 million people employed in the health care sector, it’s three times larger than construction in this area, too. These comparisons give you an idea of just how significant a portion health care comprises of the U.S. economy. It also begins to help us understand the impact it would have on the economy if health care melted down like the auto and housing industries did. So, let’s continue the comparison and use our experience with the auto and housing industries to suggest to what order of magnitude the impact a failure in the health care market would cause our economy. The bailout in the auto industry cost the federal government $80 billion over five years. Imagine a similar failure in health care that prompted the federal government to propose a similar bailout program. Let’s imagine the government felt the need to inject cash into hospital systems and doctors’ offices to keep them afloat like they did with General Motors. Since health care is five times the size of the auto industry, a similar bailout could easily cost in excess of $400 billion. That’s about the same amount of money the federal government spends on welfare programs. To pay for a bailout of the health care industry, we’d have to eliminate all welfare programs in this country. Can you imagine the impact it would have on the economy if there were suddenly none of the assistance programs so many have come to rely upon? When the housing market crashed, it caused the loss of about 3 million jobs from its peak employment level of 7.4 million in 1996. Again, if we transfer that experience to the health care market, we come up with a truly frightening scenario. If health care lost 40 percent of its jobs like housing did, it would mean 7.2 million jobs lost. That’s more than four times the number of people who are employed by the entire auto industry — an industry that was considered too big to be allowed to fail. The loss of **7.2 million jobs** would increase the unemployment rate by 5 percent. That means we could easily top the **all-time high unemployment rate** for our country. OK, now it’s time to take a deep breath. I’m not convinced that health care is fated to **unavoidable failure** and economic catastrophe. That’s a worst-case scenario. The problem is that at even a fraction the severity of the auto or housing industry crises we’ve already faced, a health care collapse would still be devastating. Health care **can’t be allowed** to continue its current inflationary trending. I believe we are on the verge of some major changes in health care, and that how they’re **implemented** will determine their impact on the overall **economic picture** in this country and around the world. Continued failure to recognize the truth about health care will only cause the resulting market corrections to be worse than they need to be. I don’t want to diminish the pain and anguish that many people caught up in the housing crash experienced. I think an argument can be made, though, that if the health care market crashes and millions of people end up with no health care, the resulting fallout could be could be much worse than even the housing crisis.

#### Economic decline causes nuclear war

Tønnesson, 15 — Stein Tønnesson, Leader of East Asia Peace program at Uppsala University, Research Professor at the Peace Research Institute Oslo, “Deterrence, Interdependence and Sino–US Peace” International Area Studies Review, Review Essay, Volume 18, Issue 3, Pages 297-311, SAGE Journals, Minnesota Libraries, Date Accessed: 8-4

Several recent works on China and Sino–US relations have made substantial contributions to the current understanding of how and under what circumstances a combination of nuclear deterrence and economic interdependence may reduce the risk of war between major powers. At least four conclusions can be drawn from the review above: first, those who say that interdependence may **both inhibit and drive conflict** are right. Interdependence raises the **cost of conflict** for all sides but asymmetrical or unbalanced dependencies and **negative trade expectations** may generate tensions leading to trade wars among inter-dependent states that in turn increase the risk of military conflict (Copeland, 2015: 1, 14, 437; Roach, 2014). The risk may increase if one of the interdependent countries is governed by an inward-looking socio-economic coalition (Solingen, 2015); second, the risk of war between China and the US should not just be analysed bilaterally but include their allies and partners. Third party countries could drag China or the US into confrontation; third, in this context it is of some comfort that the three main economic powers in Northeast Asia (China, Japan and South Korea) are all deeply integrated economically through production networks within a global system of trade and finance (Ravenhill, 2014; Yoshimatsu, 2014: 576); and fourth, decisions for war and peace are taken by very few people, who act on the basis of their future expectations. International relations theory must be supplemented by foreign policy analysis in order to assess the value attributed by national decision-makers to economic development and their assessments of risks and opportunities. If leaders on either side of the Atlantic begin to seriously fear or **anticipate their own nation’s decline** then they may blame this on **external dependence**, appeal to anti-foreign sentiments, contemplate the use of force to gain respect or credibility, adopt protectionist policies, and ultimately **refuse to be deterred by** either **nuclear arms** or prospects of socioeconomic calamities. Such a dangerous shift could happen **abruptly**, i.e. under the instigation of actions by a third party – or against a third party.

Yet as long as there is both nuclear deterrence and interdependence, the tensions in East Asia are unlikely to escalate to war. As Chan (2013) says, all states in the region are aware that they cannot count on support from either China or the US if they make provocative moves. The greatest risk is **not** that **a territorial dispute** leads to war under present circumstances but that **changes in the world economy** alter those circumstances in ways that render **inter-state peace** more precarious. If China and the US fail to rebalance their financial and trading relations (Roach, 2014) then a trade war could result, interrupting transnational production networks, provoking social distress, and exacerbating nationalist emotions. This could have **unforeseen consequences** in the field of security, with nuclear deterrence remaining the only factor to **protect the world from Armageddon**, and **unreliably so**. Deterrence could **lose its credibility**: one of the two great powers might gamble that the other yield in a cyber-war or conventional limited war, or third-party countries might engage in conflict with each other, with a view to obliging Washington or Beijing to **intervene**.