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**Prohibition requires forbidding a practice, that’s distinct from a mere hindrance**

**Van Eaton** et al **17** (Joseph Van Eaton, Gail Karish Gerard Lavery Lederer, lawyers for BEST BEST & KRIEGER, LLP. Michael Watza, KITCH DRUTCHAS WAGNER VALITUTTI & SHERBROOK, “BEFORE THE FEDERAL COMMUNICATIONS COMMISSION WASHINGTON, D.C”, COMMENTS OF SMART COMMUNITIES SITING COALITION, March 8, 2017 , https://tellusventure.com/downloads/policy/fcc\_row/smart\_communities\_siting\_coaltion\_comments\_mobilitie\_8mar2017.pdf)

2. What are at issue legally are prohibitions and effective prohibitions, and not hindrances, as the Commission seems to suggest in its Notice. The term “prohibit” is not defined in the Act, but it has an ordinary meaning: to formally forbid (something) by law, rule, or other authority; or to “prevent, stop, rule out, preclude, make impossible.” A mere “hindrance” “is simply not **in accord with** the ordinaryand fairmeaning” ofthe termprohibit,104 and can provide no basis for additional Commission intrusions on local authority over wireless facilities. Much of what Mobilitie complains about is a “hindrance” at most (and usually a hindrance magnified by its own actions).

#### Violation—the aff creates a presumption

Ahrens 2k (Deborah Ahrens-J.D., magna cum laude, New York University School of Law, 2000. NOTE:NOT IN FRONT OF THE CHILDREN: PROHIBITION ON CHILD CUSTODY AS CIVIL BRANDING FOR CRIMINAL ACTIVITY, 75 N.Y.U.L. Rev. 737, 764-765, June, 2000, Lexis, accessed via KU libraries, date accessed 12/22/21)

Statutes enacted in Arkansas, California, and Washington seem facially less troublesome; these statutes only affect the ability of persons convicted of sexual offenses against children to live in homes with children, and the Arkansas and Washington statutes only affect [\*765] convicted persons during the period of their probation. 128 Further, these statutes are presumptions against custody, in contrast with the Alabama statute's absolute prohibition (although the requirements to overcome these presumptions can be substantial). 129 Some aspects of these statutes, however, are actually tougher on released persons; in particular, none of these states makes exception for the person's own children. 130 California's statute, further, was amended in 1998 to create a presumption, not only against physical custody for persons convicted of sexual offenses, but against any legal custody, including visitation. 131

#### Vote Neg:

#### 1. Limits—there are infinite ways to tinker incrementally absent prohibition

#### 2. Ground—only forbidding a practice guarantees the neg link uniqueness for core DAs

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#### The United States federal government should:

#### — establish national health insurance

#### — amend the Defense Production Act to ensure Research & Development in the creation, storage, and acquisition of counterterrorism pharmaceuticals to be used in an emergency to mitigate the impact of bioterrorism

#### — Substantially invest in development of smart cities and urge global efforts among allies.

#### — Substantially fund initiatives for domestic preparedness, including testing, contact tracing, isolating, and clear risk communication

#### Plank 1 solves health care costs

Snapp 17, MS Business Logistics from Penn State, Managing Editor & Consultant at Brightwork Research & Analysis (Shaun, “The Inefficiency of the Pharmaceutical Industry”, 4/26/17, http://www.scmfocus.com/criticalthinking/2017/04/inefficiency-pharmaceutical-industry/)

NIH vs. Pharmaceutical Companies There are two research paths in the pharmaceutical industry. One is the NIH, which spends roughly $30 billion per year on basic research. The other is pharmaceutical companies which mostly perform and run clinical trials, but also perform research in assaying chemicals found by NIH supported university research. This comes to roughly $25 billion per year. Pharmaceutical revenues are roughly $325 billion per year (according to Reuters). Most the costs that the pharmaceutical companies incur are “marketing” related costs (over-paying doctors for clinical trials in order to get them to prescribe drugs, buying off top university research professors, patenting and re-patenting drugs, paying for pharmaceutical reps for distributing company propaganda, lobbying in congress, television advertising etc..). As can be seen, some of these marketing costs are not really marketing costs as much as bribes. The Current System Under a system where the NIH took over final drug development and clinical trials patents could be removed from the drug business altogether. The productivity of drug companies is atrocious. For the $325 billion in yearly expenditures (to which we must add the $30 billion of the NIH budget bringing it to $355 billion), US drug companies produce roughly 7 innovative drugs, and most of these are very narrow drugs which do not cure ailments but extend the life of late-stage terminal diseases. 78% of drugs are simply extending the life of old drugs which could come off of patent or copying another drug that already exists. This is according to (Marcia Angell as well as Dr. Jerry Avorn – two of the top experts in the field) Secondly the cost of clinical trials is greatly increased by the fact that a good portion of the payment to doctors is, in fact, a payoff to prescribe drugs (for those that are already approved), and in 78% of the cases, the drugs they are performing a trial on are not new chemical compounds. For this reason, we estimate that pharmaceutical companies only do actually $2.5 billion in research on new drugs. (and a number of these drug tests are falsified) However, they claim $325 billion in drug revenues. Even if all of their research was beneficial and non-corrupt (which we estimate less than $2.5 billion of it is) it still would not entitle the industry to $325 billion off of it. Handing it All Over to the NIH If the NIH took over clinical trials, it could do so at a cost of only $32.75 billion dollars (their current budget + the actual contribution of pharmaceutical company research). These unpatented discoveries could then be released to the generic manufacturers. This new system would mean no advertising, no pharmaceutical reps (doctors can read journals for their medical information, or if they don’t have time (and most of them don’t) they can go to Consumer Reports Health.com which provides a quick rundown of the benefits of drugs in an easy to read and digest format). This would allow the doctor to begin working for the patient rather than the pharmaceutical industry when prescribing drugs. It would also allow the doctor to be looking for other factors related to health problems rather than taking a narrow-minded drug approach because that is where their bread is buttered. Generic drug companies have low-profit margins and low costs of doing business. It cost less than ½ again as much to provide generic companies with a good profit for manufacturing and distributing the drugs because it is a very simple operation with high economies of scale. This would mean the total drug cost to Americans would not be more than $32.75 billion x 1.4 = $45 billion. This would reduce US health care costs by roughly $280 billion per year. In fact, there would be so much only left over that we could even increase the NIH budget by another $10 to $20 billion creating somewhat of a renaissance in medical research and providing more employment in the industry. This would require that most the old drugs, which should come off patent because they have been artificially extended through the abuse of patent law, need to fall into the public domain. It also means that the major pharmaceutical companies essentially go away and become small generic manufacturers with no ability to influence health care policy. For all the calculations see the image below. How Easy Would It Be? What is amazing is how easy this policy change would be (practically, not politically). The NIH can easily run clinical trials and do it far better than pharmaceutical companies. Pharmaceutical companies should not be running clinical trials, or even paying for clinical trials at all. Universities used to perform more clinical trials, but big pharma has increasingly begun to use private practice doctors or trial mills that they completely control. They then receive the studies, and compile them and then send only the ones the like to the FDA, where they have already positioned executives from their company into the top roles through political appointment. Better Quality Drugs Another issue that could be changed with an NIH takeover is better drugs could be developed. We could even decide as a society to give another 5 to 10 billion to the NIH, there would be so much excess created by removing the pharmaceutical companies, which could lead to even more useful drugs and more money for the actual workers, medical researchers. Because of greed and narrow self-interest, big pharma is pushing mostly the wrong drugs to clinical trials. Right now drugs that are not very socially beneficial are developed because they are the most profitable. The major category being lifestyle drugs. Pharmaceutical companies don’t develop drugs that support that overall objective of the health care system, but rather develop drugs that are very profitable. By having the NIH take over drug development, social goals in public health can begin to come to the forefront. Indirect Cost Benefits The indirect cost reductions would be enormous. Pharmaceuticals are a force that corrupts everything it touches. In addition to developing the wrong drugs, and re-patenting old drugs that are not improvements, they have a big place at the health care policy table that they do not deserve. They sit there for one reason, the corrupting influence of their money. Because this plan would essentially break the pharmaceutical monopoly, relegating them to nothing more than generic drug manufacturers, it would actually change how health care is practiced in the US. The indirect cost savings fall into the following categories: The major pharmaceutical companies would wither away as lobbyists in Washington and would lose their ability to corrupt medical schools and motivate the profession to look for pharmaceutical solutions to every problem. Over prescriptions, which is currently a huge problem would be greatly reduced because pharmaceuticals would tend to be prescribed only if they actually benefited the patient. The medical industry could begin to refocus on health and prevention. Many people currently employed in non-value added activities (pharmaceutical marketing and influence peddling activities) could be redirected to beneficial pursuits. Many clinical trials that are currently run need not be run. This would greatly reduce the load of pharmaceuticals on trial subjects, which they are, in the majority of cases, being misled into thinking that they are doing something beneficial for themselves and for society. (the very fact that clinical trial recipients are taking placebos when the exact drug was tested years ago is a loss for the system in terms of health efficiency.) The indirect benefits are difficult if not impossible to quantify. However, indirect benefits being ½ of the direct benefits could be easily justified. This would bring the benefits to $280 billion x 1.5 or $480 billion, or ½ trillion. Health care costs are growing in an unsustainable fashion, this could be critical change which in addition to reducing costs would more likely than not lead to better health for the country’s population.

#### Plank 2 solves bioterrorism via mitigating the impact but not creating full on biological innovation

#### Planks 3 & 4 solve disease without innovating in pharma

**Burwell ’20** — Sylvia Matthew Burwell, President of American University, chief of staff to the secretary of the treasury, and special assistant to the director of the National Economic Council; (October 2020; “Improving Pandemic Preparedness: Lessons From COVID-19”; *Council on Foreign Relations*; <https://www.cfr.org/report/pandemic-preparedness-lessons-COVID-19//> //LFS—JCM)

The Task Force presents its findings grouped into three sections: the inevitability of pandemics and the logic of preparedness; an assessment of the global response to COVID-19, including the performance of the World Health Organization (WHO), multilateral forums, and the main international legal agreement governing pandemic disease; and the performance of the United States, while also drawing lessons from other countries, including several whose outcomes contrast favorably with the U.S. experience.

Preparation can mitigate the effects of pandemics.

Pandemics are not random events. Outbreaks of well-known infections and new diseases occur regularly. These outbreaks can spread easily on this interconnected planet and impose significant human and economic costs, making preparedness imperative. Since the 1990s, successive U.S. administrations, as well as other governments and international organizations, have acknowledged this reality. In the United States, this recognition has been reflected in multiple national security strategies and intelligence assessments, blue-ribbon commissions, and simulation exercises that anticipated many of the challenges the world encountered in 2020.

* The Task Force finds that U.S. and global efforts to prepare for the inevitability of pandemics provided the illusion—but not the reality—of preparedness. Despite a succession of previous global public health emergencies, the United States and other governments failed to invest adequately in prevention, detection, and response capabilities to protect the populations most vulnerable to infectious disease outbreaks, or to fulfill their multilateral obligations to international organizations and to one another. The COVID-19 pandemic laid bare these failures in global and U.S. domestic preparedness and implementation, exposing important lessons that had not been learned, critical initiatives left unfunded, and solemn obligations that had not been met.
* The Task Force finds that early action and investment in preparedness have mattered in this pandemic. In the early stages, a diverse group of nations was prepared to respond rapidly and aggressively to COVID-19 with public health fundamentals, including testing, contact tracing, isolating, and clear, science-based risk communication to the public. Others, including the United States, were not.

### 1NC — DA

#### US tech leadership is secure, BUT antitrust cedes it.

Abbott 21, JD, MA, Senior Research Fellow at the Mercatus Center focusing on antitrust, formerly served as the Federal Trade Commission’s General Counsel. (Alden, *et al*, 3-10-2021, “Aligning Intellectual Property, Antitrust, and National Security Policy”, *Regulatory Transparency Project of the Federalist Society*, pg. 2-5, <https://regproject.org/wp-content/uploads/Paper-Aligning-Intellectual-Property-Antitrust-and-National-SecurityPolicy.pdf>)

II. The United States Plays a Critical Role in 5G Standards Development

The U.S. government has recognized that “5G is a critical strategic technology [such that] nations that master advanced communications technologies and ubiquitous connectivity will have a long-term economic and military advantage.”8 The U.S. has had a substantial technological edge over our military and intelligence rivals in foundational R&D for 5G and other next-generation technologies. U.S. companies have long been leaders in the development of previous generations of core mobile standards (2G, 3G, 4G, and LTE). This technological leadership has made it possible for U.S. companies to ensure the security and integrity of the hardware and software products that make up the backbone of the U.S. telecommunication systems. This leadership must continue for the U.S. government to more effectively anticipate potential security risks and take the necessary steps to protect national security.9

Despite this history of clear technological leadership, there are causes for concern. First, a very small number of U.S. companies have made the investments in the overwhelming majority of the R&D necessary to develop 5G.10 Historically, U.S. companies have heavily invested in R&D, which has propelled the U.S. into leadership positions in critical standard development organizations working on foundational next-generation technologies like 5G.11 U.S. companies like Qualcomm play a significant and important role in this process through innovation, patenting, and standard setting, but they are not alone in the global community of high-tech companies.12 Backed by their nations’ leadership, Chinese and Korean companies have also invested heavily in developing the core technologies for 5G.13

The willingness of U.S. companies to invest in R&D is threatened, however. The development of 5G is a bit like a race, with the companies who develop the best technology coming out ahead. While U.S. companies are savvy and talented competitors in this race, aggressive and unwarranted use of antitrust law by U.S. regulators, as well as by foreign antitrust authorities, threatens to put obstacles in these companies’ paths and hinder their ability to lead.

III. Overly Aggressive Antitrust Enforcement Hinders American Technological Leadership and Threatens National Security

As companies from around the world develop the technology and standards for 5G mobile devices and networks, American companies are under threat by aggressive antitrust enforcement that ultimately redounds to the benefit of these foreign companies, which are economic competitors in countries that are also military competitors of the U.S. Over the past five years, foreign governments, particularly in Asia, have subjected U.S. companies to antitrust investigations that failed to follow basic norms of the rule of law, such as providing basic due process protections.14 These antitrust investigations were a thinly-disguised effort by these countries to force the transfer of U.S. patented technology to their own domestic companies, or to insulate their domestic companies from American competition. In recent years, Chinese, Korean, and Taiwanese antitrust authorities have brought nearly 30 investigations against 60 foreign companies across a range of industries, including manufacturing, life sciences, and technology.15

Antitrust challenges undermine intellectual property rights by forcing companies to license their products on non-market-based terms. One prominent example in U.S. history is when the Department of Justice wrung a concession from AT&T to license royalty-free the entire portfolio of 8,600 patents held by Bell Labs in a 1956 antitrust consent decree with the company.16 Today, the White House Office of Trade and Manufacturing Policy has observed that “China uses the Antimonopoly Law of the People’s Republic of China not just to foster competition but also to force foreign companies to make concessions such as reduced prices and below-market royalty rates for licensed technology.”17 Companies have also complained about poor policy guidance and procedural protections under China’s competition laws.18 Others have complained about China’s use of its competition laws to promote policy objectives rather than protect competition and advance consumer welfare.19 In one example, companies raised concerns with Article 7 of China’s State Administration of Industry Commerce (SAIC) 2015 Rules on the Prohibition of Conduct Eliminating or Restricting Competition by Abusing Intellectual Property Rights.20 Under this provision, intellectual property constitutes an “essential facility,” which could allow parties to raise abuse of intellectual property rights claims against patent owners for a unilateral refusal to license their patents.21

Predatory antitrust enforcement actions threaten the ability of U.S. companies to continue to be leaders in 5G technological development. China and other nations with similarly restrictive regulatory frameworks can weaken the ability of the United States to compete in global markets by exacting high monetary penalties from U.S. intellectual property owners or forcing the transfer of their intellectual property to domestic commercial rivals. As a penalty for violations of its competition laws, China can impose exorbitant fines that range up to 10% of a foreign company’s entire revenue in the prior year.22 This is not a legal rule observed in the breach; it has already resulted in fines just shy of $1 billion.23

Another way in which courts in China and other foreign countries are harming U.S. companies is through the use of anti-suit injunctions. One example of this is in the recent patent infringement lawsuit brought by InterDigital, an American high-tech company that has developed key technologies in wireless telecommunication, against Chinese company Xiaomi. In June 2020, Xiaomi filed a lawsuit in the Wuhan Intermediate Court in China requesting that the court set global licensing rates for InterDigital’s patents on standardized technologies. In July 2020, InterDigital sued Xiaomi in India for infringement of InterDigital’s Indian patents. The Wuhan Intermediate Court then ordered InterDigital to stop its lawsuit with its request for an injunction in India. The Chinese court further prohibited InterDigital from suing Xiaomi and requesting an injunction or damages in the form of reasonable licensing rates, or even to enforce a previously-issued injunction, in any other country. If InterDigital does not comply with this worldwide injunction against pursuing legal relief for the violation of its patents in any other country, the company faces a significant fine in China. The type of judicial order issued by the Wuhan court is known as an anti-suit injunction and its purpose is to force an intellectual property dispute to play out solely in a Chinese court at the behest of the Chinese government. These court orders demonstrate China’s desire to become the source of 5G innovation and to dictate the licensing terms of the technology, and the anti-suit injunctions hamstring U.S. companies like InterDigital from enforcing their intellectual property rights anywhere in the world.

The unfair use of antitrust enforcement and related legal actions like anti-suit injunctions to weaken U.S. intellectual property rights around the world risks diminishing U.S. global competitiveness in critical technologies like 5G, and further empowers China and others to expand their influence over the evolving 5G technological ecosystem. To the extent the U.S. cedes its dominance in 5G standards development, China will continue its focused efforts to fill that void. Huawei, a China-based company, has increased its R&D spending while growing its share of patents on the standardized technologies comprising 5G.24 The President’s Council on Science and Technology issued a report concluding that Chinese actions in the semiconductor industry, which include a range of policies backed by over $100 billion in government funds, threaten U.S. leadership in the industry and present risks to U.S. national security.25 China’s “Made in China 2025” plan called for China to become a leader in 5G technology, including in the development of the standards for the technology, by 2020.26 The plan expressly favors Chinese domestic producers, calling for raising the domestic content of core components in high-tech industries like 5G to 70% by 2025.27

This issue, however, extends far beyond simply the ability and willingness of U.S. companies to engage in the requisite R&D to participate in the 5G race. Reduced U.S. influence on 5G standard-setting would force the U.S. government to rely on untrusted foreign companies for its 5G product supply. The Department of the Treasury has expressed concern about the “well-known” U.S. national security risks posed by Huawei and other Chinese telecommunications companies.28

#### The plan’s precedent spills over and stifles innovation broadly

Huddleston 20, JD, Former Director of Technology and Innovation Policy at the American Action Forum. (Jennifer, 12-18-2020, "Antitrust Actions Beyond the Federal Government: The Potential Impact of State and Private Litigation", *AAF*, <https://www.americanactionforum.org/insight/antitrust-actions-beyond-the-federal-government-the-potential-impact-of-state-and-private-litigation/>)

With a growing number of likely divergent claims, the current tech antitrust battles could continue for some time and lead to more confusion around the application of antitrust to this dynamic sector of economy. This may appear to be a short term problem, but uncertainty around the application of competition policy could impact numerous sectors of the economy. Regulators already appear to be increasing scrutiny of acquisitions related to the technology sector well-beyond the tech giants. Multiple court cases with a wide-range of theories that do not follow traditional antitrust applications could further the uncertainty or thought that previously justified actions might be subject to greater scrutiny. If a court chooses to embrace the creative and expansive theories at the center of these state-led cases, it could set precedent that changes the application of antitrust law in the future not only for the technology industry, but in many other areas of the economy as well. Regardless of the impact of these cases—and there is reason to think that these antitrust actions would not remedy the underlying policy concerns—the uncertainty and broad reach created by these competing state cases would likely stifle economic growth and innovation.

#### Revisionist tech leadership causes nuclear war.

Kroenig & Gopalaswamy 18, \*Associate Professor of Government and Foreign Service at Georgetown University and Deputy Director for Strategy in the Scowcroft Center for Strategy and Security at the Atlantic Council. \*\*Director of the South Asia Center at the Atlantic Council. He holds a PhD in mechanical engineering with a specialization in numerical acoustics from Trinity College, Dublin. (Matthew & Bharath, 11-12-2018, "Will disruptive technology cause nuclear war?", *Bulletin of the Atomic Scientists*, <https://thebulletin.org/2018/11/will-disruptive-technology-cause-nuclear-war/>)

Rather, we should think more broadly about how new technology might affect global politics, and, for this, it is helpful to turn to scholarly international relations theory. The dominant theory of the causes of war in the academy is the “bargaining model of war.” This theory identifies rapid shifts in the balance of power as a primary cause of conflict.

International politics often presents states with conflicts that they can settle through peaceful bargaining, but when bargaining breaks down, war results. Shifts in the balance of power are problematic because they undermine effective bargaining. After all, why agree to a deal today if your bargaining position will be stronger tomorrow? And, a clear understanding of the military balance of power can contribute to peace. (Why start a war you are likely to lose?) But shifts in the balance of power muddy understandings of which states have the advantage.

You may see where this is going. New technologies threaten to create potentially destabilizing shifts in the balance of power.

For decades, stability in Europe and Asia has been supported by US military power. In recent years, however, the balance of power in Asia has begun to shift, as China has increased its military capabilities. Already, Beijing has become more assertive in the region, claiming contested territory in the South China Sea. And the results of Russia’s military modernization have been on full display in its ongoing intervention in Ukraine.

Moreover, China may have the lead over the United States in emerging technologies that could be decisive for the future of military acquisitions and warfare, including 3D printing, hypersonic missiles, quantum computing, 5G wireless connectivity, and artificial intelligence (AI). And Russian President Vladimir Putin is building new unmanned vehicles while ominously declaring, “Whoever leads in AI will rule the world.”

If China or Russia are able to incorporate new technologies into their militaries before the United States, then this could lead to the kind of rapid shift in the balance of power that often causes war.

If Beijing believes emerging technologies provide it with a newfound, local military advantage over the United States, for example, it may be more willing than previously to initiate conflict over Taiwan. And if Putin thinks new tech has strengthened his hand, he may be more tempted to launch a Ukraine-style invasion of a NATO member.

Either scenario could bring these nuclear powers into direct conflict with the United States, and once nuclear armed states are at war, there is an inherent risk of nuclear conflict through limited nuclear war strategies, nuclear brinkmanship, or simple accident or inadvertent escalation.

This framing of the problem leads to a different set of policy implications. The concern is not simply technologies that threaten to undermine nuclear second-strike capabilities directly, but, rather, any technologies that can result in a meaningful shift in the broader balance of power. And the solution is not to preserve second-strike capabilities, but to preserve prevailing power balances more broadly.

### 1NC — CP

#### Text:

#### The United States should, through at least thirty-four of the States, call a constitutional convention strictly limited to proposing the ratification of amendments to the constitution that substantially increases prohibitions on anticompetitive business practices by the private sector by at least expanding the scope of its core antitrust laws to presume that biosimilar reverse payment settlements are anticompetitive.

#### At least thirty-eight of the States should ratify the amendments.

#### Solves and avoids politics.

Elving ’18 [Ron; March 1; Senior Editor and Correspondent on the Washington Desk for NPR; NRP, “Repeal the Second Amendment? That’s Not So Simple. Here’s What It Would Take,” https://www.npr.org/2018/03/01/589397317/repeal-the-second-amendment-thats-not-so-simple-here-s-what-it-would-take]

A new Constitutional Convention?

If all this seems daunting, as it should, there is one alternative for changing the Constitution. That is the calling of a Constitutional Convention. This, too, is found in Article V of the Constitution and allows for a new convention to bypass Congress and address issues of amendment on its own.

To exist with this authority, the new convention would need to be called for by two-thirds of the state legislatures.

So if 34 states saw fit, they could convene their delegations and start writing amendments. Some believe such a convention would have the power to rewrite the entire 1787 Constitution, if it saw fit. Others say it would and should be limited to specific issues or targets, such as term limits or balancing the budget — or changing the campaign-finance system or restricting the individual rights of gun owners.

There have been calls for an "Article V convention" from prominent figures on the left as well as the right. But there are those on both sides of the partisan divide who regard the entire proposition as suspect, if not frightening.

One way or another, any changes made by such a powerful convention would need to be ratified by three-fourths of the states — just like amendments that might come from Congress.

### 1NC — DA

#### USICA will pass, it’s TOA, new priorities trade off. It key to tech leadership

Mattingly 1-28-2021, analyst @ CNN (Phil, “Biden builds toward a much-needed bipartisan Capitol Hill victory -- on China,” *CNN News*, https://www.cnn.com/2022/01/28/politics/china-us-semiconductor-chips-joe-biden/index.html)

After months of frustration, White House officials are suddenly looking at a rare opportunity on Capitol Hill -- the chance to pass something important with the support of both Democrats and Republicans. A sweeping, roughly $250 billion proposal to bolster US competitiveness with China has moved to the top of their legislative agenda, carrying policy and political benefits that tie directly to some of the most pressing issues President Joe Biden's administration faces. "We have momentum now, there's no doubt about it -- you can feel it," Commerce Secretary Gina Raimondo, one of the administration's point people on the bill, told CNN in an interview. "It's a sea change in momentum." The White House is leading the effort, with the support of Senate Majority Leader Chuck Schumer and Speaker Nancy Pelosi, and has been privately pressing Democrats to elevate the proposal as a priority, multiple people familiar with the effort said. White House officials view the proposal as an opportunity for a substantive bipartisan legislative victory that would address a series of clear domestic issues, ranging from bolstering manufacturing to easing pervasive price increases, ahead of a critical election year. It also serves as a critical element of Biden's efforts to directly respond to a rising China at a time when the relationship between the two countries has grown increasingly tense amid a series of actions, particularly related to Taiwan, that are viewed as intentionally aggressive by the administration. The bill comes at a time when Biden and his White House are looking for an opportunity to turn the page on a disappointing end to his first year in office. The potential bipartisan legislative win -- when combined with the promise to pick the nation's first Black female Supreme Court Justice to replace the retiring Stephen Breyer, strong economic growth statistics released Thursday and decreasing Covid-19 cases -- could signal a turnaround the President desperately needs ahead of November's midterm elections. On the policy side of things, it addresses a series of urgent issues, most notably the global shortage in semi-conductor chips, that Biden has consistently highlighted throughout his first year in office. On the political front, it neatly aligns with what Biden framed as the core of his economic policy -- an emphasis on domestic manufacturing and a clear and unmitigated effort to directly bolster US economic and technological advances to counter a rising China. The moment arrives as Biden's highest-profile legislative goals have run into a brick wall. Biden's cornerstone $1.75 trillion economic and climate package has been frozen in place due to the opposition of West Virginia Democratic Sen. Joe Manchin, with the centrist Democrat collapsing the arduous, months-long process to pass the bill in December. A few weeks later, Senate Republicans unanimously opposed Biden's voting reform push -- and Manchin joined with Sen. Kyrsten Sinema, an Arizona Democrat, to reject the Biden-backed effort to change the Senate filibuster rule to pass the measure with a simple majority. The twin defeats laid bare the reality of Biden's precarious political position, wrestling with the slimmest of congressional majorities and searching for a path forward at the very moment he entered a midterm election year with his lowest poll numbers of his time in office. The result drew no shortage of concern and complaints from Democrats both inside and outside of Washington. White House officials stress that they plan to take another run at a scaled back -- if still sweeping -- Build Back Better package. There's also cautious optimism that the bipartisan group of senators working to reform the Electoral Count Act could lead to an outcome Biden would support, even as officials have kept their distance from the effort and take pains to note it's not a substitute for their voting reform efforts. Yet neither of those is viewed inside the White House as imminent, with both likely weeks away from taking legislative center stage. A February 18 government funding deadline remains the most pressing issue on the calendar, but talks on a broader funding agreement, while progressing, have been plodding, indicating another short-term extension may prove necessary. 'The sweetest of political sweet spots' Therein lies the long-awaited opening for action. As Democrats sought to retrench amid the setbacks, they didn't have to look far for a proposal to move to the forefront -- one that had already passed the Senate with significant bipartisan support and that White House officials see as carrying significant policy and political benefits. At the core of the bill is $52 billion to turbocharge US semiconductor development and manufacturing, an area of palpable -- and growing -- economic and national security concern for administration officials. The effort would mark dramatic expansion of federal investment in manufacturing, new technologies and research and development, marking a dive into industrial policy designed to spur innovation and private sector follow-on that could dramatically reshape the US posture in what has become a strident technological rivalry with China. "Let's do it for the sake of our economic competitiveness and our national security," Biden said as he pressed lawmakers to act on the proposal last week at the White House. "Let's do it for the cities and towns all across America working to get their piece of the global economic package." "We need not have confrontation, but we have a stiff economic and technological competition," Biden added, speaking of China, which has served as a -- if not the -- animating element of Biden's foreign and domestic policy efforts. The pervasive shortage of chips, which are critical components in everything from cars and washing machines to phones and electrical grids, has been perhaps the most acutely painful of a myriad of pandemic-driven supply chain issues that have contributed to inflation that sits at a year-over-year 39-year high. Some manufacturers that rely on semiconductors are down to less than five days' worth of inventory, according to a report released Tuesday by the Commerce Department. "It's China, it's national security, it's inflation, it's manufacturing, it's bipartisan," one Democratic lawmaker who has pushed to move the bill for several months told CNN. "Beyond the policy necessity, it's the sweetest of political sweet spots." That a single bill could directly address some of the most significant issues facing the country is not lost on a White House -- or frontline House Democrats -- looking for a win. "There's not a member of Congress who is going into their district and not hearing about inflation, supply chain, chips," Raimondo said. A 'Sputnik moment' Yet for all of its political salience, supporters view the proposal as broadly transformational. Biden, when talking about the effort, has framed it through his oft-mentioned lens of the world facing an existential moment where democracies must confront the challenge of rising autocratic regimes. Sen. Todd Young, the Indiana Republican who has spearheaded the effort and successfully shepherded the measure through the Senate along with Schumer, the lead Democratic author, has compared the measure to a "Sputnik moment." In the place of the Soviet Union's technological advancements of last century, Young has pointed to China's vast investment in research and technology driving the USpublic and private sector response. White House officials view the measure as a vehicle not just for economic and technological advancement, but societal as well. One White House official outlined how design of the effort can re-attach the now disparate elements of local communities -- where things like regional technology hubs can serve as drivers for university researchers and corporations to align with workers and labor unions and philanthropic and community organizations. Taken together, they are lofty -- and, to a degree, hard to quantify -- ambitions for a single piece of legislation. But they also underscore sheer scale of what would mark the largest industrial policy effort in recent history. Despite suggestions by some lawmakers that the semiconductor piece be split off and moved separately, White House officials and key sponsors repeatedly rejected the idea, knowing separating the most urgent component would likely doom its other parts. The package, for it to have its full effect, needed to stay intact, they said. Yet for months the critical, if underappreciated, element of Biden's legislative checklist sat in limbo, stuck behind high-profile Democratic priorities, and weighed down by a handful of substantive policy disputes. "The biggest stumbling block to getting this done has just been distraction," Young said in an interview with Punchbowl News, citing the White House and congressional Democratic focus that, for months on end, centered on finding a path for Biden's Build Back Better Act. White House officials note Biden's focus on the core elements has been consistent throughout, with a bipartisan meeting to highlight the issue in February, followed by an executive order that laid the groundwork for the administration's focus on supply chain resilience -- with a clear focus on semiconductor chips. The Senate process was largely driven by lawmakers, with the White House providing technical advice and consultation, and those conversations have continued in the months that followed. Still, officials acknowledge that an almost all-consuming Democratic focus other agenda items played a role in a timeline that has remained ambiguous for months. A clear shift emerges But over the course of the last week, a series of intentional moves have underscored a clear shift. Biden highlighted the need for the legislation at a White House event, Pelosi listed the proposal in a memo to House Democrats as a top priority for House consideration and the Commerce Department released a report highlighting the severity of the current semiconductor shortage -- data Raimondo described as "truly alarming." In the most critical step, House Democrats released their long-awaited 3,000-page version of the bill. "We are hopeful about that process moving forward quickly, and the President would certainly like to sign it as soon as possible," White House press secretary Jen Psaki told reporters Wednesday. There remain significant hurdles, even as the White House throws its weight behind quick action. House Republicans have already made clear they largely plan to oppose the House Democratic proposal after their top committee members felt cut out as Democratic leaders moved to release the bill text. Administration officials, including Raimondo, have been pressing to line up the votes the last several days. The House bill diverges in several critical areas from its Senate counterpart, laying the groundwork for a complex conference process after House passage. Resolving those differences, particularly on differing trade provisions, between powerful House Democratic chairs and Senate authors who can point to a significant bipartisan vote in their favor is certain to create complications. The window for action, even though it's clearly open at the moment, may be fleeting as other priorities bubble in the background -- something underscored by the surprise addition of a looming Supreme Court confirmation battle to the Senate agenda Still, Biden's advisers have strategically mapped out ways to keep the issue on the front burner. Biden will highlight the bill, and the need to get it to his desk, once again when he travels to Pittsburgh on Friday. There will be an intensive focus on its necessity, not just for the near term, but also in laying the groundwork for a US. competitive advantage for years in the future. A sustained public and private focus is planned in the weeks ahead, officials said, as House Democrats move on their version of the legislation and then both chambers work to reconcile differences to get a final version to Biden's desk. The economic and national security risks, after all, aren't going away, even if it's taken longer than some lawmakers would have liked to finally lay out the path to the finish line. "Our challenge is to show leadership and not get tied up in any one particular red-line and miss the forest for the trees, which is: We have a semiconductor crisis," Raimondo said. "It's a national security crisis. It's an economic security crisis. And so, we just have to try to keep folks really focused on that."

#### Antitrust reform trades off with other legislative priorities

Carstensen 21, JD and MA @ Yale, Former Chair of U-W Law School, Senior Fellow of the American Antitrust Institute (Peter, “THE “OUGHT” AND “IS LIKELY” OF BIDEN ANTITRUST,” <https://www.concurrences.com/en/review/issues/no-1-2021/on-topic/the-new-us-antitrust-administration-en>)

14. Similarly, despite bipartisan murmurs about competitive issues, the potential in a closely divided Congress that any major initiatives will survive is limited at best. In part the challenge here is how the Biden administration will rank its commitments. If it were to make reform of competition law a major and primary commitment, it would have to trade off other goals, which might include health care reform or increases in the minimum wage. It is likely in this circumstance the new administration, like the Obama administration’s abandonment of the pro-competitive rules proposed under the PSA, would elect to give up stricter competition rules in order to achieve other legislative priorities. 15. Another key to a robust commitment to workable competition is the choice of cabinet and other key administrative positions. Here as well, the early signs are not entirely encouraging. In selecting Tom Vilsack to return as secretary of agriculture, the president has embraced a friend of the large corporate interests dominating agriculture who has spent the last four years in a highly lucrative position advancing their interests. Given the desperate need for pro-competitive rules to implement the PSA and control exploitation of dairy farmers through milk-market orders, the return of Vilsack is not good news. Who will head the FTC and who will be the attorney general and assistant attorney general for antitrust is still unknown, but if those picks are also centrists with strong links to corporate America the hope for robust enforcement of competition law will further attenuate! 16. In sum, this is a pessimistic prognostication for the likely Biden antitrust enforcement agenda. There is much that ought to be done. But this requires a willingness to take major enforcement risks, to invest significant political capital in the legislative process, and to select leaders who are committed to advancing the public interest in fair, efficient and dynamically competitive markets. The early signs are that the new administration will be no more committed to robust competition policy than the Obama administration. Events may force a more vigorous policy—I will cling to that hope as the Biden administration takes shape.

#### USICA is key to disruptive innovations that solve climate change

Walker 21 Senior Vice President for Global Affairs and Chief Legal Officer at Google, Seizing the moment - A framework for American innovation, <https://blog.google/perspectives/kent-walker/seizing-moment-framework-american-innovation/>

Decades of government investment in R&D led to scientific breakthroughs that gave us the tools we use every day, and public-private partnerships have sparked innovations from the microchip to the internet. Government R&D investment has led to economic growth, jobs and new startups. As just one example, some of Google’s earliest work was made possible, in part, by the Digital Library Initiative, funded by the National Science Foundation. But if you fast forward to today, the U.S. government investment in tech has moved to the slow lane. Government-funded research in the U.S. has fallen by 60% as a percentage of GDP — from 1.9% of GDP in 1964 to just 0.7% today. Many countries around the world are investing significantly in research and development. For example, China has said that it will be increasing government R&D funding by 7% annually and recently announced a five-year plan to invest an additional $1.4 trillion in developing next-generation technologies. As a nation we now have a historic opportunity to put aside partisanship and come together on an issue that will determine our future competitiveness. The United States must seize the moment to cultivate science and technology by setting out a national innovation strategy, and we commit to doing our part. Senators Schumer and Young have introduced the bipartisan Endless Frontier Act — an important step in putting to work America’s strengths in science and technology to tackle some of the biggest issues of our time, from climate change to global health. Legislative proposals to increase funding for the National Science Foundation will accelerate innovation in the technologies of the future — including quantum computing, AI, biotech and genomics, advanced wireless networks, and robotics — and strengthen the U.S. innovation ecosystem through regional hubs spread throughout the country.

#### Climate change causes extinction

Alexander-Sears 21, PhD Candidate in Political Science at The University of Toronto, former Professor of International Relations at the Universidad de Las Américas (Nathan, “Great Powers, Polarity, and Existential Threats to Humanity: An Analysis of the Distribution of the Forces of Total Destruction in International Security,” Conference Paper: *International Studies Association, 2021 Annual Conference*, Research Gate)

Humanity faces existential risks from the large-scale destruction of Earth’s natural environment making the planet less hospitable for humankind (Wallace-Wells 2019). The decline of some of Earth’s natural systems may already exceed the “planetary boundaries” that represent a “safe operating space for humanity” (Rockstrom et al. 2009). Humanity has become one of the driving forces behind Earth’s climate system (Crutzen 2002). The major anthropogenic drivers of climate change are the burning of fossil fuels (e.g., coal, oil, and gas), combined with the degradation of Earth’s natural systems for absorbing carbon dioxide, such as deforestation for agriculture (e.g., livestock and monocultures) and resource extraction (e.g., mining and oil), and the warming of the oceans (Kump et al. 2003). While humanity has influenced Earth’s climate since at least the Industrial Revolution, the dramatic increase in greenhouse gas emissions since the mid-twentieth century—the “Great Acceleration” (Steffen et al. 2007; 2015; McNeill & Engelke 2016)— is responsible for contemporary climate change, which has reached approximately 1°C above preindustrial levels (IPCC 2018). Climate change could become an existential threat to humanity if the planet’s climate reaches a “Hothouse Earth” state (Ripple et al. 2020). What are the dangers? There are two mechanisms of climate change that threaten humankind. The direct threat is extreme heat. While human societies possesses some capacity for adaptation and resilience to climate change, the physiological response of humans to heat stress imposes physical limits—with a hard limit at roughly 35°C wet-bulb temperature (Sherwood et al. 2010). A rise in global average temperatures by 3–4°C would increase the risk of heat stress, while 7°C could render some regions uninhabitable, and 11–12°C would leave much of the planet too hot for human habitation (Sherwood et al. 2010). The indirect effects of climate change could include, inter alia, rising sea levels affecting coastal regions (e.g., Miami and Shanghai), or even swallowing entire countries (e.g., Bangladesh and the Maldives); extreme and unpredictable weather and natural disasters (e.g., hurricanes and forest fires); environmental pressures on water and food scarcity (e.g., droughts from less-dispersed rainfall, and lower wheat-yields at higher temperatures); the possible inception of new bacteria and viruses; and, of course, large-scale human migration (World Bank 2012; Wallace-Well 2019; Richards, Lupton & Allywood 2001). While it is difficult to determine the existential implications of extreme environmental conditions, there are historic precedents for the collapse of human societies under environmental pressures (Diamond 2005). Earth’s “big five” mass extinction events have been linked to dramatic shifts in Earth’s climate (Ward 2008; Payne & Clapham 2012; Kolbert 2014; Brannen 2017), and a Hothouse Earth climate would represent terra incognita for humanity. Thus, the assumption here is that a Hothouse Earth climate could pose an existential threat to the habitability of the planet for humanity (Steffen et al. 2018., 5). At what point could climate change cross the threshold of an existential threat to humankind? The complexity of Earth’s natural systems makes it extremely difficult to give a precise figure (Rockstrom et al. 2009; ). However, much of the concern about climate change is over the danger of crossing “tipping points,” whereby positive feedback loops in Earth’s climate system could lead to potentially irreversible and self-reinforcing “runaway” climate change. For example, the melting of Arctic “permafrost” could produce additional warming, as glacial retreat reduces the refractory effect of the ice and releases huge quantities of methane currently trapped beneath it. A recent study suggests that a “planetary threshold” could exist at global average temperature of 2°C above preindustrial levels (Steffen et al. 2018; also IPCC 2018). Therefore, the analysis here takes the 2°C rise in global average temperatures as representing the lower-boundary of an existential threat to humanity, with higher temperatures increasing the risk of runaway climate change leading to a Hothouse Earth. The Paris Agreement on Climate Change set the goal of limiting the increase in global average temperatures to “well below” 2°C and to pursue efforts to limit the increase to 1.5°C. If the Paris Agreement goals are met, then nations would likely keep climate change below the threshold of an existential threat to humanity. According to Climate Action Tracker (2020), however, current policies of states are expected to produce global average temperatures of 2.9°C above preindustrial levels by 2100 (range between +2.1 and +3.9°C), while if states succeed in meeting their pledges and targets, global average temperatures are still projected to increase by 2.6°C (range between +2.1 and +3.3°C). Thus, while the Paris Agreements sets a goal that would reduce the exis 6 - tential risk of climate change, the actual policies of states could easily cross the threshold that would constitute an existential threat to humanity (CAT 2020)

### 1NC — T

#### Private sector means all non-governmental persons or entities, including non-profits

Senate Report 95 (Senate Report. 104-1, “UNFUNDED MANDATE REFORM ACT OF 1995,” https://www.congress.gov/congressional-report/104th-congress/senate-report/1 , date accessed 9/10/21)

"Private sector" is defined to cover all persons or entities in the United States except for State, local or tribal governments. It includes individuals, partnerships, associations, corporations, and educational and nonprofit institutions.

#### Topical affs must change a universally-applied standard, like the CWS [Consumer Welfare Standard]

Phillips 18, commissioner on the Federal Trade Commission. (Noah J. November 1, 2018, Before the Federal Trade Commission, “Competition and Consumer Protection in the 21st Century,” https://www.ftc.gov/system/files/documents/public\_events/1415284/ftc\_hearings\_session\_5\_transcript\_11-1-18\_0.pdf)

Our second topic today is the consumer welfare standard. And I think most folks even out in the public know, this is the standard that we use across the board, mergers and conduct in courts and at agencies, to judge anticompetitive conduct. It is not only a standard that we in the U.S. apply, it is a standard that is used by competition agencies around the world. It is an economically-grounded standard, and it requires that there be harm to consumers for conduct to be condemned. Mere harm to competitors is considered insufficient. So let me repeat that again. There has to be harm to consumers, not just competitors. The reason that is so, the reason harm to competitors is considered insufficient is because sometimes a less-efficient firm losing sales or market share to a cheaper, more innovative or efficient rival, can be and often is consistent with vibrant competition and with outcomes that benefit consumers. Courts and agencies have embraced this standard for decades. Today, there are two very important discussions going on about the consumer welfare standard, and they are happening simultaneously. And I think it is important that we understand that there are two conversations going on. One is a continuing discussion about how we apply the standard, regarding whether enforcement is at the appropriate level, whether it is properly targeted. This is an introspective question on some level, in which scholars, economists, practitioners, and enforcers all ask ourselves, are we bringing the right kinds of cases? Are we using the right kinds of evidence? Should we be doing more or less in certain places? The antitrust bar, the business community, and others benefit from this ongoing and active analysis. The second discussion happening now, and the one on which today’s consumer welfare standard panels will focus, is whether the standard is itself the right metric we ought to use in antitrust enforcement and in antitrust law; some argue that enforcement under the consumer welfare standard has failed because of the law, and accordingly, that we should reform the law.

#### Violation: the aff applies exclusively to conduct in a specific segment of the private sector.

#### Vote neg:

#### FIRST---limits and ground---the number of potential subsets is infinite---any industry, product, single companies, individuals---undermines clash. Only big affs have link uniqueness.

#### SECOND----precision---our interp has intent to define, exclude and is in legislative context.

### 1NC — CP

#### The 50 states and all relevant territories should substantially increase prohibitions on anticompetitive business practices by the private sector by at least expanding the scope of its core antitrust laws to presume that biosimilar reverse payment settlements are anticompetitive.

#### The United States federal government should not pre-empt state antitrust law.

## 1NC — Advantage

### 1NC — Top Level

#### Their bioterror impact card is a bunch of Bill Gates quotes — that doesn’t rise to the level of an impact

#### COVID proves healthcare is resilient AND innovation has only improved

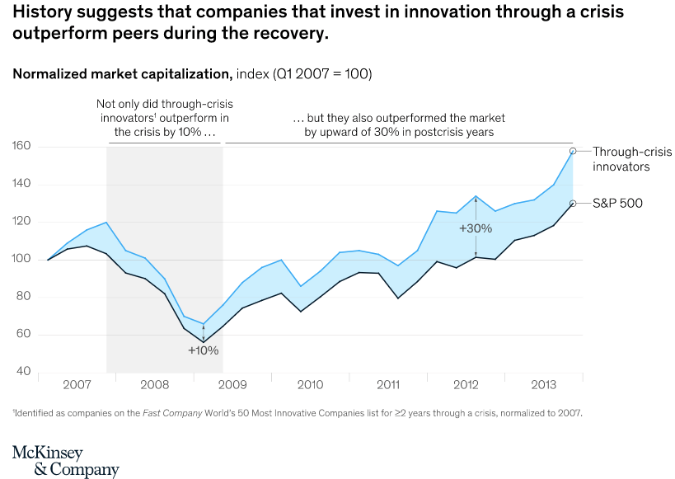
Jansen et al ’20 — Leigh Jansen (Associate Partner, McKinsey & Company); “Industry innovation: How has COVID-19 changed global healthcare?;” World Economic Forum; November 25th, 2020; <https://www.weforum.org/agenda/2020/11/healthcare-innovation-covid-coronavirus-pandemic-response-health>

[TITLE]: Industry Innovation: How has COVID-19 changed global healthcare?

While the COVID-19 pandemic has placed unparalleled demands on modern healthcare systems, the industry’s response has vividly demonstrated its resilience and ability to bring innovations to market quickly.

The effects of the pandemic on the industry continue to be profound. The shifts in consumer behavior, an [acceleration of established trends](https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-great-acceleration), and the likely deep and lasting economic impact will potentially affect healthcare companies no less—and quite possibly more—than those in other sectors. Around the world, more than [90 percent of executives](https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/innovation-in-a-crisis-why-it-is-more-critical-than-ever) we polled believe COVID-19 will fundamentally change their businesses, and 85 percent predict lasting changes in customers’ preferences. Among healthcare leaders, two-thirds expect this period to be the most challenging in their careers.1

To meet both the humanitarian challenge and the obligation to their stakeholders, leaders of healthcare organizations need to meet the innovation imperative. History tells us that organizations that invest in innovation during a crisis [outperform their peers in the recovery](https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-great-acceleration) (exhibit). What’s more, a crisis can create an urgency that rallies collaborative effort, breaks through organizational silos, and overcomes institutional inertia.



During the course of this year, the healthcare industry has produced inspiring examples of innovation in products, services, processes, and business and delivery models, often in partnership with other sectors. For example, Sheba Medical Center in Israel is working with TytoCare to keep COVID-19 patients in their homes by supplying them with special stethoscopes that both listen to their hearts and transmit images of their lungs to a care team that can intervene as appropriate.2 In the United States, Zipline, which specializes in delivering medical supplies to remote areas, quickly formed a partnership with Novant Health in North Carolina to distribute supplies to hospitals via drones.3 The adoption of telehealth has exploded, from 11 percent of consumers using it in 2019 to [46 percent in April 2020](https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality), and well more than half of healthcare providers polled indicate higher comfort with this care-delivery method than before.

#### COVID thumps any lethality warrant — the worst, global pandemic in a century had an extremely low lethality rate — natural pandemics cannot cause extinction

#### AND burnout means that even if they do exist, they cannot cause extinction

Owen Cotton-Barratt 17, et al, PhD in Pure Mathematics, Oxford, Lecturer in Mathematics at Oxford, Research Associate at the Future of Humanity Institute, 2/3/2017, Existential Risk: Diplomacy and Governance, https://www.fhi.ox.ac.uk/wp-content/uploads/Existential-Risks-2017-01-23.pdf

For most of human history, natural pandemics have posed the greatest risk of mass global fatalities.37 However, there are some reasons to believe that natural pandemics are very unlikely to cause human extinction. Analysis of the International Union for Conservation of Nature (IUCN) red list database has shown that of the 833 recorded plant and animal species extinctions known to have occurred since 1500, less than 4% (31 species) were ascribed to infectious disease.38 None of the mammals and amphibians on this list were globally dispersed, and other factors aside from infectious disease also contributed to their extinction. It therefore seems that our own species, which is very numerous, globally dispersed, and capable of a rational response to problems, is very unlikely to be killed off by a natural pandemic.

One underlying explanation for this is that highly lethal pathogens can kill their hosts before they have a chance to spread, so there is a selective pressure for pathogens not to be highly lethal. Therefore, pathogens are likely to co-evolve with their hosts rather than kill all possible hosts.39

#### ABR is gradual, slow, and will be addressed---reject scary-sounding headlines

Smith 16, PhD molecular biologist, former R&D director at MicroPhage and SomaLogic. (Drew, 6-14-16, “The Myth Of The Post-Antibiotic Era”, <https://www.forbes.com/sites/quora/2016/06/14/the-myth-of-the-post-antibiotic-era/#db027696fa83>)

Right now, drug resistant infections are mainly a threat to those that are already sick and/or in medical facilities. But, if we continue down this path, mundane infections in the otherwise healthy could someday morph into life-threatening ordeals, and simple medical procedures and surgeries may be skipped to avoid risk of infection. However, while this threat is real, it’s important to keep in mind that this is an ongoing, gradual challenge; it’s extremely unlikely that a single event will herald with complete certainty the abrupt end of modern medicine as we know it. In this context, those scary headlines are inappropriate, if not numbing and counterproductive. In May, Ars wrote about some alarmist and inaccurate news stories dealing with a newly identified type of drug resistance—one that makes bacteria resistant to a last-resort antibiotic called colistin and can spread between bacteria easily. The headlines blared that it was the “first” time such a dastardly microbe had seeped into the US—which is not true. And they suggested that it would certainly mark the end of antibiotics—also not true. This week, scientists provided updates on tracking that type of resistance, and of course some alarmist headlines followed. Yet, the new data actually suggests that a tempering of concerns about this particular resistance may be in order. It turns out that this “dreaded,” “scary,” “nightmare” of a drug-resistant microbe has been in the US for more than a year and elsewhere in the world since as far back as 2005—it’s just that nobody noticed it. And nobody noticed it because so far it hasn’t been the dreaded, scary nightmare some have feared. “It’s not a huge cause for concern,” Mariana Castanheira, lead author of one of this week’s resistance updates, told Ars. Castanheira is the director for Molecular and Microbiology at JMI Laboratories, a private company that monitors drug resistance microbes in hospitals and medical settings. They and others are finding this new type of resistance now simply because they’re looking for it, she said. Castanheira explains that people initially started digging for this new type of drug resistance—a gene called mcr-1—out of concern that it makes bacteria resistant to the antibiotic colistin, which is a relatively toxic drug used only when nearly all others have failed against a multi-drug resistant infection. Bacteria have shown up with colistin resistance before—in fact, many times in the US and elsewhere around the world. But in those cases, the genes were embedded in the bacteria’s chromosomes and generally passed down through generations. The mcr-1 resistance gene, on the other hand, seems to always sit on a plasmid, a small loop of DNA that bacteria can readily pass around to neighbors. If colistin-resistant bacteria shared their mcr-1 plasmid with others that are already resistant to lots of antibiotics, they could create a long-feared invincible germ—a “pan-resistant” bacteria. “Doesn’t scare me” So far that doesn’t seem to be happening, though, Castanheira said. In more than a decade of skulking around, mcr-1 has made its way into bacteria in animals, people, and soil all over the world. Yet, all of the mcr-1 carrying microbes examined have been susceptible to at least one antibiotic—and often several.

### 1NC — Turn

#### We’ll explicitly concede that ABR increases life expectancy and longevity — that would have devastating global impacts

Louria 5 Donald B. Louria MD, \*Department of Preventive Medicine and Community Health, University of Medicine and Dentistry of New Jersey, New Jersey Medical School, Extraordinary Longevity: Individual and Societal Issues, Journal of the American Geriatrics Society, Volume 53, Issue 9s September 2005 Pages S317–S319

Striking increases in individual and population longevity will have profound effects. Each 10-year prolongation of life expectancy will increase the eventual population of Earth at stability by 1.3 billion persons according to projections by a senior demographer at the International Program Center of the U.S. Census Bureau (unpublished data). If world longevity follows the patterns that will be achieved first in the more developed countries and reaches 115 years, 5 decades longer then the current worldwide longevity, that would mean a further increase of 6.5 billion persons. Instead of the current estimated final population at stability of about 10 billion persons, there would be 16.5 billion, a huge difference; there would be almost three people for every one now living worldwide. Given the damage to the planet being inflicted by 6 billion people, the potential for another 10 billion people raises the issue of sustainability. Can one generation meet its needs and wants without depleting the earth's resources to the degree that future generations are unable to satisfy their needs and thrive? The derivative question is, When does the human crush make life miserable for most people and impossible for many other species? A marked world population increase has, potentially, a variety of undesirable effects that could far outweigh any potential benefits. These include: more huge urban centers, most with festering, unhygienic slums that promote emerging infection epidemics that can rapidly spread worldwide; increased poverty and malnutrition; resource depletion that, together with ethnic, religious, and tribal animosities, leads to ferocious conflicts; population-related global warming that, in turn, could create hundreds of millions of refugees and political instability that could lead to more strife. In the United States, there will be daunting issues as the number of old and very old people increases dramatically. Currently, there are 36 million people aged 65 and older and 4.5 million aged 85 and older. By 2050, those figures will increase to 80 million aged 65 and older and 20 million age 85 and older—and that does not include additional numbers that could result from interfering with the aging process. The critical concern as we create large numbers of very old people relates to quality of life. Will very old people be vigorous and healthy, living full lives with many exciting activities, or will their lives be filled with boredom, inactivity, and depression? Will the body be rejuvenated but the mind suffer deterioration? Will the mind remain clear and active even as parts of the body deteriorate? We are racing toward profound life extension with no answers to these critical questions. Then there are the intertwined concerns of retirement duration, Social Security, pensions, healthcare costs, and return to the labor market. At present, individuals can anticipate that 25% to 29% of adult life will be spent in retirement (if one retires at age 65). When life expectancy is 95 years, that percentage will rise to about 40%; if average life expectancy increases further to 110 to 120 years, at least half an adult's life could be spent in “retirement.” It is hard to conceive that, with that length of time in retirement, businesses could afford significant pensions (which are already under siege). Similarly, it is hard to see how the Social Security system could survive into the next century. By 2050, there will be only two active workers for every retiree, a ratio that will get smaller with each succeeding decade and will threaten the viability of the Social Security system—and that is without consideration of the compounding effects of marked longevity increase. Older people consume more healthcare dollars; those aged 85 and older use more than double the annual healthcare dollars used by 65-year-olds.2 At present, 13% of the population is aged 65 and older; they use more than 30% of healthcare dollars.3,4 When those aged 65 and older increase to 30% of the population, will they use 75% of healthcare dollars? That would be an impossible situation. Additionally, the older people are, the greater the likelihood they will outlive their financial resources; poverty and near-poverty rates for those aged 85 and older are double those of people aged 65 to 69;5 and that is another quality-of-life concern. The retirement age will almost certainly have to be delayed until at least age 70, but many old, and even very old, people will return to the labor market because of financial necessity or for other reasons. If average life spans increased to 110 to 120 years, that could result in four generations competing for the same jobs and lead to some serious intergenerational antagonisms. The strong possibility that younger generations, in addition to their own family and personal obligations, will have to assume some financial responsibility for retired parents, grandparents, and even great-grandparents could well exacerbate intergenerational problems. Some suggest that there has been a decline in illness and disability in older people, and they argue there will be many more older people but they will be healthier.6,7 I believe that this is largely a mirage. There has been a significant drop in disability in older people, but it is, for the most part, in the category of mild disability (instrumental activities of daily living).6–8 There has been only small change in the percentage suffering from moderate to severe disability (in activities of daily living). Even if reductions in overall disability rates occur, there will be, nevertheless, many more disabled persons because of the anticipated marked growth in the population aged 65 and older. Thus, the numbers of older people who are frail will increase, and they will use a large percentage of the healthcare dollars and will often have an unsatisfactory quality of life.

#### Extinction

Hopkins 17 James Hopkins is the webmaster for Cosmosmith and a writer on environmental and social issues Article Source: http://EzineArticles.com/617986HUMAN POPULATION CRISIS , <http://www.cosmosmith.com/human_population_crisis.htm>

Overpopulation isn't just population density (amount of people per landmass). Overpopulation applies much more so to the number of people in an area exceeding the resources and the carrying capacity of the environment necessary to sustain human activities. United Nations Population Prospect Graph So much focus is placed on the rapid population growth in third world countries. However, when we compare lifestyles of the rich countries vs. the poor countries, the rich countries are a much greater problem. For example, Americans constitute less than five percent of the world's total population, but consume 26% of the world's energy. Just as much as the population size, we need to consider the resources consumed by each person, and the damage done by technologies used to supply them. Overpopulation is when the number of people can not be permanently maintained without depleting resources and without degrading the environment and the people's standard of living. Because we are rapidly using up resources around the world, virtually all nations are overpopulated. This applies even more so to the rich nations. As we use up the resources, the earth's carrying capacity continues to decrease. Just like with people, an overpopulation of animals is not defined by the number of animals that could hypothetically fit within a specific area, but rather when the number of animals that occupy their habitat are not capable of behaving as they naturally would. Unfortunately, the animals' behavior is often altered not so much by their number, but by humans encroaching upon their habitat and then claiming the animal to be a nuisance to man. We should practice the saying "live and let live", but we do not have the resources to do this while our number continues to increase. Lifespan/Quantity vs. Quality One thing which must be taken into consideration is the amount of time, money, and effort we have spent toward saving and extending lives. Although these are positive accomplishments, we must also consider the effect it has had on our own number. How much have we contributed toward humanely contolling our number and preserving the environment? Nature is a balance of existence. In order to coincide with nature, we must balance the number of lives which we produce with the saving and extending of lives. We mustn't use resources any faster than they can be reproduced. We need to respect ourselves by learning to respect the environment which we rely upon for our own existence. If not, we will cease to exist.

#### Haas is wrong---aging causes global instability.

Leuprecht 10 (Christian, associate professor of political science at the Royal Military College of Canada, “International Security Strategy and Global Population Aging,” 2010, Journal of Strategic Security 3, no. 4 (2010): : 27-48., <https://www.jstor.org/stable/pdf/26463163.pdf>, DOA: 1-29-2022) //Snowball

Raining on the Parade: When the Young and the Restless Move to the City, and Grow Old… before They Grow Rich

Despite the predictions of Haas, global population aging is likely to make the twenty-first century a particularly dangerous time for U.S. international interests. Population aging will beset much of the world at some point this century. In fact, the aging problem in many developing states is likely to be as acute as for industrialized countries, but the former have the added disadvantage of growing old before growing rich, thus greatly ~~handicapping~~ their ability to pay for elder-care costs.16 For example, in China the comparative advantage associated with a large working-age population relative to a small proportion of children and elderly starts to wane around 2015, a problem that is further exacerbated by a growing excess of men over women.17 The ratio of working-age adults to elderly is projected to shrink from just under ten in 2000 to 2.6 by 2050 when China's median age is projected to be just over forty-five years of age. That median age will make China one of the oldest populations in the world— older than Japan, the country with the oldest population today and a projected median age of forty-three by then.18

If the strain on governments' resources caused by the cost of aging populations becomes sufficiently great, it has the potential to exacerbate systematically both the number of fragile states and the extent and depth of that fragility. As fragile states are prospective havens for organized crime and terrorism, the prospect of having to contend with a proliferation of fragile states with fewer resources at the allies' disposal could prove the single greatest security challenge of this century.19 This is complemented by an already reduced capacity to realize other key international objectives, including preventing the proliferation of weapons of mass destruction (WMD), funding nation-building, engaging in military humanitarian interventions, and various other costly strategies of international conflict resolution and prevention.

#### The effects are linear—each year of longevity increases species destruction and planetary destruction

Rowland 14 Dominic Rowland Head of Trade Capability and Engagement, UK Department for Environment, Food and Rural Affairs Defra University College London, 15 April 2014 Long lives, big impacts: human life expectancy linked to extinctions, https://news.mongabay.com/2014/04/long-lives-big-impacts-human-life-expectancy-linked-to-extinctions/

“Increased life expectancy means that people live longer and affect the planet longer; each year is another year of carbon footprint, ecological footprint, use of natural resources, etc.,“ the authors write. “The magnitude of this impact is increased as more people live longer.” The study used a computer model to examine human impacts on birds and mammals. By comparing the number of invasive and endangered species between countries, the researchers examined the effects of many human variables such as gross domestic product (GDP), pesticide use, tourism, agriculture, wilderness protection, global trade, regulation and life expectancy. “It’s not a random pattern,” said lead author Aaron Lotz, a postdoctoral scholar in the Department of Wildlife, Fish and Conservation at UC Davis. “Out of all this data, that one factor — human life expectancy — was the determining factor for endangered and invasive birds and mammals.” The study also looked at the effects of wealth, with GDP per capita strongly linked to increased numbers of both invasive and endangered bird and mammal species. “Humanity’s global influence is orders of magnitude greater than that of any other species, primarily because of the large human population size, anthropogenic CO2 production, biomass consumption, energy use and geographical range size,” the writers state in their paper. When comparing countries, New Zealand came off as the worst with a dramatic decline in biodiversity since human colonization. This is partially because its absence of native land mammals has meant that native fauna has evolved in insolation from many types of predators. Once introduced by human colonists, these invasive animals ravaged the country, driving many native species to extinction. African countries, by contrast, had the fewest invasive species, partially explained because lower levels of international trade introduced fewer exotic stowaways “Even though the analysis in this study does not determine mechanisms, the patterns observed in this study clearly suggest that there is a relationship between humans (i.e., living longer and thus having a longer negative impact on the planet) and the loss of endangered species,” Lotz said.

#### Extinction

Bove 17 Jennfer Bove is an award winning author studying nature, Why It Matters When Species Go Extinct, <https://www.thoughtco.com/why-it-matters-when-species-go-extinct-1182006>

So, does it really matter if an animal goes extinct when we can still watch it on television, even after it's gone? A single species' disappearance can, in fact, make a huge difference on a global scale. Like pieces of yarn in a woven tapestry, the removal of one can start unraveling the whole system. THE WORLDWIDE WEB Before the internet, the "worldwide web" could have referred to the intricate systems of connections between living organisms and their environments. We often call it the food web, although it encompasses many more factors than just diet. The living web, like a tapestry, is held together not by tacks or glue, but by interdependence — one strand stays in place because it is entwined with many others. The same concept keeps our planet working. Plants and animals (including humans) depend on each other as well as microorganisms, land, water, and climate to keep our entire system alive and well. Remove one piece, one species, and small changes lead to big problems that aren't easy to fix. In the words of the World Wildlife Fund, "When you remove one element from a fragile ecosystem, it has far-reaching and long-lasting effects on biodiversity." BALANCE AND BIODIVERSITY Many endangered species are top predators whose numbers are dwindling due to conflicts with humans. We kill predators all over the world because we fear for our own lives as well as pets and livestock, we compete with them for prey and we destroy their habitats to expand our communities and agricultural operations. Take for example the effect human intervention had on the gray wolf and the subsequential effects their dwindling population numbers had on its environment and biodiversity: Before a mass extermination effort in the U.S. that decimated wolf populations in the first half of the 20th century, wolves kept other animals' populations from growing exponentially. They hunted elk, deer, and moose and also killed smaller animals such as coyotes, raccoons, and beavers. Without wolves to keep other animals' numbers in check, prey populations grew larger. Exploding elk populations in the western United States wiped out so many willows and other riparian plants that songbirds no longer had sufficient food or cover in these areas, threatening their survival and increasing numbers of insects like mosquitos that the songbirds were meant to control. "Oregon State University scientists point to the intricacy of the Yellowstone ecosystem," reported EarthSky in 2011. "The wolves prey on the elk, for example, which in turn graze on young aspen and willow trees in Yellowstone, which in their turn provide cover and food for songbirds and other species. As the elks' fear of wolves has increased over the past 15 years, elk 'browse' less — that is, eat fewer twigs, leaves, and shoots from the park's young trees — and that is why, the scientists say, trees and shrubs have begun recovering along some of Yellowstone's streams. These streams are now providing improved habitat for beaver and fish, with more food for birds and bears." But it's not only large beasts of prey that can impact the ecosystem in their absence, small species can have just as big of an effect. EXTINCTIONS OF SMALL SPECIES MATTER, TOO! While the losses of large, iconic species like the wolf, tiger, rhino, and polar bear may make for more stimulating news stories than the disappearance of moths or mussels, even small species can affect ecosystems in significant ways. Consider the meager freshwater mussel: There are nearly 300 species of mussel in North American river and lakes, and most of them are threatened. How does this affect the water we all depend on? "Mussels play an important role in the aquatic ecosystem," explains the U.S. Fish and Wildlife Service. "Many different kinds of wildlife eat mussels, including raccoon, otters, herons and egrets. Mussels filter water for food and thus are a purification system. They are usually present in groups called beds. Beds of mussels may range in size from smaller than a square foot to many acres; these mussel beds can be a hard 'cobble' on the lake, river, or stream bottom which supports other species of fish, aquatic insects and worms." In their absence, these dependent species settle elsewhere, lower the available food source for their predators and in turn causing those predators to leave the area. Like the gray wolf, even the small mussel's disappearance acts like a domino, toppling the entire ecosystem one related species at a time. KEEPING THE WEB INTACT We may not see wolves on a regular basis, and nobody really wants a poster of a Higgins eye pearly mussel on the wall, but the presence of these creatures is interwoven with the environment we all share. Losing even a small strand in the web of life contributes to the unraveling of our planet's sustainability, the fine balance of biodiversity that affects each and every one of us.

#### Longevity creates demographic imbalance and drives up costs of supporting older populations

Bruce & MacLaury 3Henry J. Aaron is Bruce and Virginia MacLaury Senior Fellow in the Brookings Economic Studies program. William B. Schwartz is a professor of medicine at the Keck School of Medicine at the University of Southern California, Coping with Methuselah Aaron, Henry JAuthor InformationView Profile; Schwartz, William BAuthor InformationView Profile. The Brookings Review; Washington Vol. 21, Iss. 4, (Fall 2003): 36-39. <https://search-proquest-com.www2.lib.ku.edu/docview/195571477?accountid=14556>

Many scientists have long believed that the human life span has a natural limit. The finding by 19th-century scientist August Wiseman that cells stopped reproducing after a certain number of divisions seems consistent with this hypothesis. But even if a natural limit exists, the practical question is how far that limit exceeds current average life span and what can be done to push today's life span closer to that limit. One theory of aging draws an analogy between a person and a machine consisting of many systems, each essential for its operation. Each system within the machine remains functional until too many of its constituent parts fail, leading the machine itself to fail over time in patterns that closely resemble human mortality rates. The implication is that medical progress comes through interventions that prevent or postpone the failure of the constituent parts of each of the biological "systems" essential for life. Rapidly falling mortality rates would affect longevity relatively quickly but would take many years to alter the age distribution of the population. The U.S. Social Security Administration, which assumes that mortality rates will continue to decline at the current annual rate, about 0.6 percent, projects that people born in 2030 will have a life expectancy at birth of just over 84 years; those born in 2075, just over 86. If mortality rates decline 2 percent a year, babies born in 2030 could expect to live 104 years; those born in 2075, more than 115 years. But even this rapid rate of decline would have little effect on the U.S. population distribution until past mid-century. How would rapidly declining mortality affect the U.S. workplace and public programs to support the elderly? Much would depend on the onset of physical decline in the longer-lived Americans. Would greatly increased longevity mean longer periods of dependency? Or would older Americans stay healthy longer? If workers were able to keep working for a greater portion of their lives than they do now, the cost of supporting the elderly might increase only slightly because the ratio of retirees to active workers might increase only a little. If current retirement age patterns persisted, however, the cost of increased longevity would rise sharply as people spent ever more years outside the labor force. Little in economic theory or empirical evidence suggests that sharply increased longevity would directly affect retirement behavior. But if workers extended their years in retirement, it would boost pension costs, which, in turn, would probably force changes in public policy to encourage workers to extend their working lives. Higher pension costs would necessitate sharply increased pension contributions by workers or their employers, or higher taxes on workers and employers to support public pensions, or cuts in benefits and increases in the age at which pensions are first paid. These changes would likely cause Americans to work more years than they now do. Rapidly falling mortality would certainly affect government revenues and spending. If longer-living Americans extended their working lives, they would earn and produce more, swelling tax revenues. But increased longevity would also boost government spending on Social Security, Medicare, and Medicaid, all of which are already projected to grow rapidly as baby boomers begin retiring. And a major new decline in mortality rates would drive spending above these already steeply rising trends. Social Security costs are officially projected to increase between now and 2080, from just under 11 percent to just over 20 percent of earnings subject to the Social Security payroll tax. If mortality rates were to fall 2 percent annually while the duration of working lives remained the same, Social Security costs would reach more than 25 percent of payroll. Raising the age at which full Social Security benefits are paid by one month a year starting in 2018 would eliminate most of the additional longevity-related cost. The message is simple and clear: as longevity increased, so too would Social Security costs. Projecting the effects of longevity on Medicare and Medicaid costs is much trickier because spending depends not only on the number of beneficiaries, but also on trends in the cost of medical care. Regardless of trends in mortality rates, Medicare and Medicaid costs will soar because per capita medical costs for everyone will increase. Medical spending also rises with age as people's bodies gradually wear out or become subject to disease. Some observers see decline as an immutable consequence of a person's age since birth-an 80-year-old whose life expectancy is 85 will be in the same state of decline as an 80-year-old whose life expectancy is 110. But Stanford University economist John Shoven thinks it more plausible that medical spending depends on years until death. And the fact that disability rates have fallen as mortality rates have improved supports that view. If mortality declines at historical rates, projections based on the years-since-birth assumption show Medicare costing about 2 percent of gross domestic product more in 2070 than if costs are projected on the years-until-death assumption. The difference jumps to roughly 5 percent of GDP if mortality rates fall 2 percent a year. In the case of Medicaid, the cost difference in 2070 between projections is a bit over 1 percent of GDP if mortality declines at officially assumed rates, but nearly 6 percent if it declines 2 percent a year.

# 2NC

## T — Presumption

#### Presumptions shape prohibitions but are NOT prohibitions

Gavil and Salop 20 (Andrew I, Professor of Law, Howard University School of Law, and Steven C, Professor of Economics and Law, Georgetown University Law Center, University of Pennsylvania Law Review, “PROBABILITY, PRESUMPTIONS AND EVIDENTIARY BURDENS IN ANTITRUST ANALYSIS: REVITALIZING THE RULE OF REASON FOR EXCLUSIONARY CONDUCT”, Vol. 168, No. 2107) DB \*Footnotes in brackets

Since its emergence in Standard Oil,25 the rule of reason has been rooted in probability, not certainty.26 The Supreme Court explained that conduct could be deemed “unreasonably restrictive of competitive conditions” if it “were of such a character as to give rise to the inference or presumption” that it was “restraining the free flow of commerce and tending to bring about the evils, such as enhancement of prices, which were considered to be against public policy.”27 [27 Standard Oil, 221 U.S. at 58 (emphasis added). The Court also noted that the use of “presumption[s]” in interpreting and applying the Sherman Act was rooted in the common law, on which its core prohibitions were modeled. Id. at 27, 58.] Seven years later, the Court again emphasized the probabilistic nature of judgments under the rule of reason in Board of Trade of Chicago.28 In Justice Brandeis’s statement of the rule of reason, he explained that the court “must ordinarily consider . . . the nature of the restraint and its effect, actual or probable.”29

#### Advocates explicitly propose presumptions *in lieu of* prohibitions.

Kroll 16 (Kyle R. Kroll-J.D. Candidate 2016, University of Minnesota Law School; B.S.B. 2013, Carlson School of Management, University of Minnesota. NoteAnticompetitive Until Proven Innocent: An Antitrust Proposal To Embargo Covert Patent Privateering Against Small Businesses, 100 Minn. L. Rev. 2167, 2212. May, 2016. Lexis accessed via KU Libraries, date accessed 12/22/21)

Lastly, a blanket prohibition against the use of PAEs in patent litigation would probably not curb patent privateering. 290 First, it would be difficult for courts to determine if a company truly is a PAE or not, given the secretiveness of privateering arrangements. A court could employ the same criteria as listed in the proposed presumption in Section A, but if it did so, it might as well simply employ the presumption anyway. Second, benign uses of PAEs for litigation by inventors, universities, and small firms would be unjustifiably enjoined. 291 A blanket prohibition on privateering would thus be overly broad. Third, prohibition would still not solve the evidentiary difficulty of discovering the existence of a privateering arrangement or the identity of a sponsor. 292 Fourth, such a prohibition may violate Noerr-Pennington immunity, established by the First Amendment. A presumption, on the other hand, succumbs to none of these difficulties.

#### That’s due to being lighter

Parrish 8 (Austen Parrish- Vice Dean for Academic Affairs and Professor of Law, Southwestern Law School. J.D., Columbia University School of Law, 1997; B.A., University of Washington, 1994. The author is the Director of Southwestern's Summer Law Program in Vancouver, B.C., Canada, where he teaches courses in international and comparative law at the University of British Columbia. ARTICLE: The Effects Test: Extraterritoriality's Fifth Business, 61 Vand. L. Rev. 1455, 1470-1471. October, 2008.Lexis accessed via KU libraries, date accessed 12/22/21)

As territoriality lost its hold over law, 82 the prohibition against extraterritoriality weakened to a mere presumption. 83 Congress had [\*1471] the power to enact extraterritorial laws, but it was presumed not to have used that power in most circumstances. The development of the effects test, however, marked the beginning of the end for meaningful territorial limits on legislative jurisdiction.

#### They’re contextually distinct

Manne et al 18 (Geoffrey A. Manne (President & Founder, International Center for Law & Economics). Julian Morris (Executive Director, International Center for Law & Economics). Kristian Stout (Associate Director, International Center for Law & Economics). Dirk Auer (Senior Fellow, International Center for Law & Economics). “Comments of the International Center for Law & Economics on the Consumer Welfare Standard (Hearing No. 5)” , FTC Hearings on Competition & Consumer Protection in the 21st Century FTC Docket No. FTC-2018-0091 , <https://laweconcenter.org/wp-content/uploads/2019/01/ICLE-FTC-Hearings-CWS-Comments-12-2018.pdf> , December 31, 2018, date accessed 9/20/21)

Just as the CWS evolves to develop more nuanced analysis for conduct that was previously poorly understood and, therefore, subject to sub-optimal prohibitions or presumptions, the doctrine is also capable of growing in order to recognize more expanded claims, or to modify existing doctrine in light of new business practices. Under the CWS

antitrust law can replace rules that require detailed factual assessment of individual cases with simpler, more categorical rules, such as the per se prohibition of price fixing; the modified per se rule applicable to most tying arrangements under Jefferson Parish; presumptions such as those used in horizontal merger analysis: and abbreviated rule of reason standards which do not require plaintiffs to prove harm to competition. While antitrust law moved away from such short-hands in recent years, there is nothing about the [consumer welfare] paradigm that would preclude a movement of the pendulum in the other direction, as evidenced by past episodes of antitrust expansion in monopolization doctrine and enforcement policy.33

Recently, the Supreme Court took up just such a potential modification in Apple v. Pepper. 34 Apple v. Pepper emerged from a claim that Apple’s pricing model for its App Store violates US antitrust laws. The central dispute of the case is whether the Illinois Brick indirect purchaser doctrine35 — which limits standing in price fixing cases only to those parties directly injured, and prevents private actions by subsequent purchasers — can be used to prevent App Store users from suing Apple for its alleged anticompetitive pricing imposed on app developers.36 Those in favor of applying Illinois Brick to prevent the standing of users assert that — following Campos v. Ticketmaster in the 8th Circuit37 — it is the app developers themselves who are injured by the restrictive pricing (while users receive only a pass-through injury).38 Therefore, so the argument goes, end users do not have standing under Illinois Brick to bring an antitrust suit.

#### As well as legally

Billings 99 (LUCY BILLINGS-judge. Opinion in ROXBOROUGH APT CORP v. Becker, 183 Misc. 2d 744 - NY: County Court, Civil Court 1999. Google scholar caselaw, date accessed 9/20/21)

While Real Property Law § 235-f allows a lease to limit roommates to one, the statute does not contain any prohibition or presumption against more than one. Therefore the standard lease provision at issue, which limits the number of roommates "in accordance with" Real Property Law § 235-f, permits more than one roommate.

#### At best they’re effects T

Taylor 2k (GREG TAYLOR- BA (Hons), LLB (Hons) (Adel), LLM (Marburg), GCLP (SA); Barrister and Solicitor of the Supreme Court of South Australia; Lecturer in Law, The University of Adelaide. ARTICLE: COMMONWEALTH v WESTERN AUSTRALIA AND THE OPERATION IN FEDERAL SYSTEMS OF THE PRESUMPTION THAT STATUTES DO NOT APPLY TO THE CROWN, 24 Melbourne U. L.R. 77, 113. April, 2000. Lexis accessed online via KU libraries, date accessed 12/22/21)

Thirdly, it is apparent that, on the facts of this case, the State was attempting to make use of too blunt an instrument to repel the attempted search. The State, as has been said, did not want to defeat the search to save itself from a present or prospective liability under s 10, for there was none; rather, it was concerned to safeguard its sources of information. If fishers thought that the information which they provided to the government might be used against them, they might not co-operate with the State, and this would hinder the research for which it needed the information. This extra-legal consideration (it is extra-legal because allowing a search warrant to be issued would not as a matter of law reduce in the least the legal obligation of fishers under the State Act to furnish information) was the real reason for the State's alarm at the issue of search warrants against it. But as the majority pointed out, 226 the State might be able to claim public interest immunity when seizure of confidential information is threatened. Applying the presumption would lead to a blanket prohibition of searching State premises even where confidential information is not involved, but public interest immunity, a much finer instrument, would exempt from use in criminal proceedings only such information as is confidential and could satisfy other tests (including the test of public interest) for the existence of the immunity. This is clearly a much better way of protecting information which is said to be confidential, because it does not involve a blanket prohibition which catches all information, whether confidential or not. Rather, there is a curial investigation which is specifically designed for the purpose of weighing the competing interests involved in keeping confidential information confidential. In this case the competing interests were the public benefit involved in the research conducted by the State government and the public interest in ensuring that people pay all the tax to which they are liable.

#### Presumptions can make bidirectional changes that weaken existing antitrust

Butler 84 (HENRY N. BUTLER, \*Assistant Professor of Management, Texas A & M University. B.A., 1977, University of Richmond; M.A., 1979, Ph.D, 1982, Virginia Polytechnic Institute and State University; J.D., 1982, University of Miami. W. J. LANE, \*\*Assistant Professor of Economics, Texas A & M University. B.A., 1974, Point Loma College; Ph.D., 1978, University of California, San Diego. and OWEN R. PHILLIPS \*\*\*Assistant Professor of Economics, Texas A & M University. B.A., 1974, Ph.D., 1979, Stanford University. ARTICLE: The Futility of Antitrust Attacks on Tie-In Sales: An Economic and Legal Analysis., 36 Hastings L.J. 173, 212-213, NOVEMBER, 1984, Lexis, accessed online via KU libraries date accessed 12/22/21)

Per se illegality is only appropriate when an act is certain, or almost certain, to create social losses. Furthermore, prohibition of an action must result in avoiding those losses at a reasonable enforcement cost. The Supreme Court, in maintaining its per se prohibition of tying, has chosen to ignore economists' well-reasoned attacks on the view that tying arrangements create monopoly power. Even if the Court's analysis of tying arrangements were correct, however, our analysis indicates that the per se prohibition of tie-in sales would not result in a significant increase in consumer welfare. The losses that allegedly result from tying arrangements are not avoided by a strict prohibition because firms shift their activities to different methods that are not illegal. Nonlinear pricing strategies, which are legally available to firms that, according to the Court's view, could otherwise use tying arrangments to extend their monopoly power, may be as profitable as tying arrangements. Thus, the potential gains from an effective prohibition of tie-in sales are small. Considering that the resources devoted to the enforcement of the prohibition may well exceed the potential gains from such enforcement, the per se prohibition should be abandoned.

[\*213] We conclude that the appropriate legal approach to tying is a rule of reason analysis that includes a presumption of legality. This approach would rid the courts of many cases in which there is no hope of any social gain from enforcing the law and would restrict attention to the few cases in which enforcment might improve the performance of the market. The Court should only prohibit tying when there is substantial likelihood of eliminating significant losses through legal action.

#### That allows the aff to turn core DAs like innovation or biz con

Lemos 6 (Margaret H. Lemos- Furman Fellow, New York University School of Law; B.A. (Political Science) Brown University, 1997; J.D. NYU School of Law, 2001. Article: The Commerce Power and Criminal Punishment: Presumption of Constitutionality or Presumption of Innocence?, 84 Tex. L. Rev. 1203, 1218-1219.April, 2006. Lexis, accessed online via KU libraries, date accessed 12/22/21)

The mismatch between the two standards for judicial review is even more remarkable when one recognizes that an explicit statutory presumption [\*1219] is actually far better for the defendant than a categorical findings-based prohibition. A statutory presumption is rebuttable; it gives the defendant an opportunity to make an individualized showing that his own conduct had no effect on commerce. An explicit presumption also ensures that the jury will resolve any factual disputes about the presumption's accuracy as applied to the defendant.

A categorical prohibition is far more difficult to challenge, and it removes the jury from the picture altogether. Because a findings-based statute defines the prohibited conduct without reference to interstate commerce, the defendant has no opportunity to raise the issue of commercial effects with the jury. Although the defendant can challenge the statute on constitutional grounds, his argument will be addressed to the judge rather than the jury, and he will bear the burden of proving that his conduct had no effect on interstate commerce. Indeed, even if the defendant can prove his innocence, so to speak, he still may not prevail in a constitutional challenge. As noted above, the question for the court is whether there is a rational basis for Congress's judgment that the class of prohibited conduct has the requisite connection to interstate commerce, not whether that judgment is correct with respect to the individual defendant.

#### It means completely and explicitly forbid---merely hindering isn’t T

Julie E. Carnes 4, Judge, US Court of Appeals for the 11th Circuit, “Paradies Shops, Inc. v. Hartford Fire Ins. Co.,” 2004 U.S. Dist. LEXIS 30124, Lexis

Even if plaintiff could establish that an order of civil authority was issued as the direct result of the damage or loss of property at the World Trade Center, the Pentagon, or Stony Creek Township, Pennsylvania, in order to prevail on its breach of contract claim, plaintiff must be able to establish that some order of civil authority "specifically prohibited" access to plaintiff's premises. Plaintiff argues that because Order Two grounded all flights "there was no reason for the traveling public to go to the airport, and the public was discouraged from doing so," and that this discouragement is tantamount to access to plaintiff's premises being "specifically prohibited." (PSMF at P 12.) In order to make this argument, plaintiff attempts to lead this Court through a series of online [\*23] dictionary definitions. 4 [\*24] [FOOTNOTE 4 BEGINS] Merriam-Webster's online dictionary lists the following definitions for the term "prohibit": 1: to forbid by authority or command 2: to prevent from doing or accomplishing something: effectively stop (www.merriamwebster.com (last visited September 8, 2004)) Plaintiff relies on the second of these two definitions while ignoring the first to argue that, because prohibit may be defined to mean "to prevent from doing or accomplishing something," and because prevent may be defined to mean "to deprive of power or hope of acting or succeeding…to hold or keep back…to hinder," orders of civil authority prohibited the traveling public from going to plaintiff's airport shops. (Pl.'s Resp. at 5.) The Court rejects this argument. [FOOTNOTE 4 ENDS] In doing so plaintiff neglects to site the first definition listed by plaintiff's own source which defines prohibit to mean "to forbid by authority or command." The Court finds this first definition to be the plain meaning of the unambiguous term "prohibit". Indeed, the Court sees no reasonable means of construing Secretary Mineta's order to ground all aircraft as an order specifically forbidding access to plaintiff's premises. The Court notes that at least three other federal district courts who have considered claims for insurance coverage for losses sustained as a result of September 11th have held that the term "prohibit" is unambiguous. 5 [FOOTNOTE 5 BEGINS] In Abner, Herrman & Brock, Inc. v. Great N. Ins. Co., 308 F. Supp. 2d 331 (S.D.N.Y. 2004), the Civil Authority provision at issue provided that the insurer would pay "for actual business income loss you incur . . . when a civil authority prohibits access to your premises." Id. at 334. Concluding that policy language requiring a civil authority to "prohibit access" in order for coverage to attach was unambiguous, the Abner court granted insured recovery only for losses sustained during the period of time in which civil authorities actually prohibited access to insured's business premises located in lower Manhattan. At the same time, the Abner court denied recovery for losses sustained during the time period in which employees were confused about access to the premises and upper management had difficulty getting into and out of the area because during this time access was not prohibited. Id. at 336. The United States District Court for the Western District of Oklahoma has also concluded that the term "prohibit", as used in contract language requiring an "action of civil authority that prohibits access to the described premises," is unambiguous. Southern Hospitality, Inc. v. Zurich American Ins., 2003 U.S. Dist. LEXIS 18324, No. Civ.02-923-C, 2003 WL 23416117, at \*2, 4 (W.D. Okla. Sept. 30, 2003). [FOOTNOTE 5 ENDS]

## CP — Advantage

#### Severs, a VI for NEG ground: the “core antitrust laws” means Sherman, Clayton, and FTC acts. The preamble is not one of those.

**FTC ND**. “The Antitrust Laws.” 2013. Federal Trade Commission. June 11, 2013. https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/antitrust-laws.

Congress passed the first antitrust law, the Sherman Act, in 1890 as a "comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade." In 1914, Congress passed two additional antitrust laws: the Federal Trade Commission Act, which created the FTC, and the Clayton Act. With some revisions, these are the three core federal antitrust laws still in effect today.

## DA — Innovation

#### Enforcement deters innovation in unrelated industries

Crews and Young 19, \*Wayne Crews is Vice President for Policy and Senior Fellow. \*Ryan Young is a Senior Fellow at the Competitive Enterprise Institute (CEI). His research focuses on regulatory reform, trade policy, antitrust regulation, and other issues. (4-16-2019, “The Case against Antitrust Law,” *Competitive Enterprise Institute,* <https://cei.org/studies/the-case-against-antitrust-law)>

More to the point, does the short-term benefit come at a greater long-term cost? An enforcement action now could have a deterrent effect on future mergers, contracts, and innovations, including in unrelated industries. The consumer harm from these could well exceed the short-term benefits of a short-term improvement on market outcomes—assuming that regulators are consistently capable of such a feat.

#### Courts will shut antitrust down.

Goldsmith 10-7-2021, freelance writer based in Brooklyn. (Eloise, "Biden Wants to Break Up Big Companies. Will the Courts Stop Him?", *WhoWhatWhy*, https://whowhatwhy.org/politics/government-integrity/biden-wants-to-break-up-big-companies-will-the-courts-stop-him/)

When President Joe Biden nominated 32-year-old Lina Khan to head the Federal Trade Commission in June, both Republican and Democratic lawmakers heralded the appointment of the influential critic of monopoly power as the beginning of a new, tough-on-big-business era of antitrust enforcement. But less than two weeks later, an Obama-appointed judge delivered a setback, when he ruled that the FTC’s ongoing effort to break up social media giant Facebook had failed to prove the company was an illegal monopoly. The FTC filed a revised complaint in August, and experts expect the case to go to trial in what is just the beginning of a much larger fight between government and so-called corporate monopolies — especially those in Silicon Valley. But in this square-off between Big Tech and the state, the federal government’s regulatory power may be checked by the courts, which for the past 40 years have consistently come down in favor of firms in monopoly cases. If the FTC brings strong antitrust cases but loses in the courts, the onus will be on Congress to update century-old antitrust law to make it easier to police big business. Khan first made waves in 2017 when, as a law school student, she published a paper titled “Amazon’s Antitrust Paradox.” In a challenge to decades of established antitrust thinking, Khan argued against the “consumer welfare” approach, which accepts monopolies so long as they deliver low prices for consumers. In her analysis, low prices do not offset the harm monopolies can cause small businesses, workers, communities, and suppliers. Observers say the appointment of Khan and other advocates for breaking up Facebook signals the Biden administration’s tougher stance against the Big Tech companies that benefited from a laissez-faire approach to Silicon Valley during the Obama and Trump years. And for many, Monday’s hours-long Facebook outage, which disrupted the lives of the billions of people worldwide who rely on Facebook properties like Messenger and WhatsApp for basic communication, was yet another demonstration that the company is too big and wields too much power. There’s broad support for this new approach. Lawmakers in both parties and a majority of the American public believe that Big Tech companies have too much power, and breaking them up — in the way that past monopolies on oil and telephone services have been split — is wildly popular with voters of all stripes. Khan’s appointment to the FTC has generated buzz among people who work in the field of antitrust, said John Newman, a law professor at the University of Miami who focuses on competition and antitrust. But, “It’s early days,” he cautioned. Khan and her fellow appointees are bringing new ideas, which is a good thing, but it’s too soon to predict how successful they’ll be, he said. And they are still up against a decades-long winning streak for firms accused of monopoly behavior. Corporate Welfare In the 1970s, a group of conservative scholars, led by future Supreme Court nominee Robert Bork, popularized the consumer welfare approach to antitrust, which directs courts to leave monopolies unchecked as long as they keep prices low. Ever since, courts have been more “skeptical” of legal claims invoking antitrust law, said Randy Stutz, vice president of legal advocacy at the American Trust Institute, a nonprofit that researches and advocates for increased competition and antitrust enforcement. “There is a tremendous amount of caution about overreach baked into the case law,” Stutz said. “I would say excessive caution.” In practice, this has meant courts have given firms significant freedom to set prices and pursue mergers. And corporate defendants almost always win when antitrust cases are brought against them. Apple app store In September, a US District court judge issued a mixed ruling in Epic Games vs. Apple, in which the Fortnite-maker alleged that Apple’s operation of its app store violated antitrust law. The judge told Apple that app developers can use other payment methods in order to sidestep Apple’s 30 percent commission fee. But the judge upheld that Apple does not have a monopoly in the “digital mobile gaming transactions” market — ultimately, a win for Apple. Newman also points to the 2018 Supreme Court case Ohio v. American Express Co. as another recent example where courts sided with the large corporation. In that case, the federal government and 17 states accused American Express — one of the four largest American credit card companies — of “unreasonably restraining trade” with its “anti-steering provisions,” which prohibit merchants from encouraging customers to use competing credit cards with lower transaction fees. A lower court agreed, but on appeal, the Supreme Court’s conservative bloc, with Justice Anthony Kennedy as the swing vote, ruled 5-4 in AmEx’s favor.

#### Antitrust now is insignificant---it’ll be slow and rolled back.

Silverman 21, staff writer at The New Republic. (Jacob, 7-9-2021, "Biden Wants to Tame Big Tech With a Thousand Paper Cuts", *New Republic*, <https://newrepublic.com/article/162940/biden-executive-order-big-tech-monopoly>)

On Friday, the White House announced a potentially important, if modest, effort to further tamp down the power of the technology industry. This time the instrument is an executive order—the kind of wide-ranging declaration that often gets called “sweeping” or “major,” though its efficacy may take years to gauge—that covers everything from competition in the economy to drug prices to reforming a tech sector that is defined by a handful of seemingly unstoppable titans. Offering a mix of general recommendations, requests for action from other government agencies, and new administration policies, the Executive Order on Promoting Competition in the American Economy may be just what our overconsolidated economic system needs. But in tackling the power of a tech sector that has not only wrested control of the economy but remade it in its own data-hungry image, the Biden administration is still throwing pebbles at its enemy’s parapets. The tech industry has had 20 years to establish a stranglehold over our personal data, attention, and consumer choice. To tackle these problems, we need more, much more.

Despite promising to take on the power of Big Tech, President Joe Biden and his administration have so far taken a cautiously incrementalist approach. He’s appointed tough industry critics like Lina Khan to be commissioner of the Federal Trade Commission, but he has yet to name a head of the Justice Department’s antitrust division, a key role for any future enforcement action. In Congress, Democrats have introduced six smallish antitrust bills, but their path out of the House is murky, as ongoing disputes between Republicans and Democrats over how to fight this legislative battle mean that the final bills could look much different than they did in committee—if they make it to a floor vote at all. (It doesn’t help that some Silicon Valley-adjacent Democratic politicians, like Representative Ted Lieu and Representative Ro Khanna, have been less than supportive of the bills.)

As federal and congressional leadership lag, states have forged ahead, with dozens of attorneys general coming together in lawsuits like one, filed this week, accusing Google of anti-competitive practices. Other ongoing antitrust suits include one against Amazon over pricing issues; another lawsuit (this one with DOJ participation) against Google; and two others against Facebook that a judge recently threw out. In this proliferating legal war against Big Tech—premised on a lack of competition and companies’ abusing their monopoly status—any of these cases could yield billion-dollar fines for one of the tech giants. But fines are easily paid. Whether these suits can lead to meaningful reform, to breaking up companies and redirecting business practices away from the current dominant model of user surveillance and bulk data collection—that is far less clear. As with proposed legislation in the House, bipartisan legal efforts may be sundered on the altar of competing partisan priorities, with Republicans focusing on alleged censorship and Democrats more focused on economic competition and user rights.

With the stage set for legislative gridlock, drawn-out lawsuits, and bickering over the FTC’s legitimacy, a small opening has emerged for the Biden administration to take meaningful action on its own. And there are some measures in the executive order worth celebrating. One section aims to improve internet service by eliminating early termination fees and providing transparent pricing to help drive competition. Another proviso calls for gadget users—from farmers working on tractors to people tinkering with their own cell phones—to have what’s often referred to as “the right to repair,” a right that tech companies have suppressed by discouraging DIY or third-party work on broken items. (Forcing customers to take their doddering laptop to Apple’s Genius Bar helps the company maintain control over its products and ensures that repairs, and the money they generate, stay in-house.) Other relevant orders call for the restoration of net neutrality and applying more scrutiny to corporate mergers, which may prevent a tech giant from swallowing up the next WhatsApp or Slack, formerly insurgent chat/social media platforms that were absorbed by Facebook and Salesforce.

In the last year, tech companies have shifted their rhetoric, claiming that they are in favor of regulation—just on their terms. To that end, they’ve deployed armies of lobbyists to woo elected officials, making companies like Google and Facebook some of the most profligate spenders on K Street. With the potential for major legislative action still up in the air—a divided Senate doesn’t augur well, unless tech-critical Republicans like Senator Josh Hawley line up behind the Democratic legislative agenda, which seems unlikely—executive action may be the most promising way forward. Call it death by a thousand regulations. It’s also—as the executive order’s many prompts for action by the Federal Communications Commission, the FTC, and DOJ show—a plea for the government to do its damn job.

Even sympathetic observers may survey this latest initiative with some well-earned cynicism. Regulatory capture, in which regulatory agencies become beholden to the companies and industries they oversee, is a well-known feature of the land, and the families of leading politicians like Representative Nancy Pelosi periodically trade stocks based on what appears to be insider information. And as demonstrated by the measure to treat all internet traffic equally by restoring net neutrality (something that the Trump administration did away with), the Biden administration is still playing catchup, fighting many of yesterday’s battles. For instance, the order “calls on the leading antitrust agencies, [the DOJ and FTC], to enforce the antitrust laws vigorously and recognizes that the law allows them to challenge prior bad mergers that past Administrations did not previously challenge.”

While divesting WhatsApp and Instagram from Facebook are worthwhile efforts, there’s also a sense that would-be tech reformers are struggling to deal with the mistakes and oversights of a previous generation of politicians (i.e., pushing for the enforcement of existing laws is yet another call for the government to do its job). Even the order’s directive that the FTC “establish rules on surveillance and the accumulation of data” seems incredibly belated. We are 20-odd years into a surveillance economy, in which consumers have become the main source to be mined for value. The resulting inequities are vast, as the tech giants have had decades to strengthen their positions. It will take far more than an executive order to undo all this, much less to ensure a more equitable future. The question is: Does the Biden administration understand this grim state of play, or is this the best we’re going to get?

#### Guidelines are nonbinding and won’t be enforced.

Holding et al. 21, \*Christopher, Chair of Goodwin’s Antitrust & Competition practice, \*Paul Jin, \*Andrew Lacy, \*Arman Oruc. (7-15-2021, "Biden Executive Order Calls for Heightened Antitrust Scrutiny", *JD Supra*, <https://www.jdsupra.com/legalnews/biden-executive-order-calls-for-7783960/>)

KEY IMPLICATIONS:

Revised horizontal and vertical merger guidelines are expected, which will likely implement a much more aggressive approach to deals. Note, however, that agency merger guidelines are not binding on courts and merger challenges under more aggressive theories may be met with skeptical courts; Anticipate delays in HSR review especially for deals in industries singled out by the Order (e.g., tech, pharma, healthcare, among others), even if competitive overlaps are minimal; Deals not subject to HSR filing requirements, even when purchase prices are relatively low, should be reviewed by antitrust specialists to assess risk, especially in the sectors identified in the Order; Past deals that are now viewed as potentially raising antitrust concerns may be subject to review and scrutiny; The agencies’ shift to more rigorous guidelines means it will be even more essential to negotiate antitrust risk provisions in agreements with a complete grasp of the substantive antitrust risk under this new landscape; and This novel proposal for the FTC to exercise rulemaking authority may impose new requirement on affected industries, but will also likely face litigation challenges.

# 1NR

## Advantage

#### Biodiversity loss causes extinction

Joe McCarthy 18, a Staff Writer at Global Citizen, Nov 8 2018, "Humans Could Face Extinction if We Don't Protect Biodiversity: UN", Global Citizen, <https://www.globalcitizen.org/en/content/biodiversity-loss-human-extinction/>

As the sixth mass extinction event accelerates around the world, engulfing thousands of animal and plant species, humans risk facing a similar fate unless drastic interventions are made, according to Cristiana Pașca Palmer, the United Nations biodiversity chief, who recently spoke with the Guardian.

Palmer said that within the next two years, countries have to develop an ambitious plan to conserve land, protect animals, and stop practices that are harming wildlife. This effort is equally as urgent as the Paris climate agreement’s goal of mitigating climate change, she said.

“The loss of biodiversity is a silent killer,” she told the Guardian. “It’s different from climate change, where people feel the impact in everyday life. With biodiversity, it is not so clear but by the time you feel what is happening, it may be too late.”

Next month, countries will meet in Sharm el Sheikh, Egypt, to begin mapping out what such a plan would like. Palmer hopes that a final version will be formalized in Beijing in 2020.

If a binding global treaty fails to materialize, then humanity faces an uncertain future, she said. Past efforts to stop the loss of biodiversity have not proved successful, according to the Guardian.

In recent years, evidence of this staggering loss has begun accumulating.

Wild animal populations have declined by 60% since 1970, more than 26,000 plants and animals are close to extinction, nearly two-thirds of the world’s wetlands and half of all rainforests have been destroyed, more than 87% of the world’s ocean area is dying, and the planet needs an estimated 5 million years to recover from the biodiversity loss it has already sustained.

“We are sleepwalking towards the edge of a cliff,” Mike Barrett, executive director of science and conservation at WWF, recently told the Guardian. “If there was a 60% decline in the human population, that would be equivalent to emptying North America, South America, Africa, Europe, China, and Oceania. That is the scale of what we have done.”

“This is far more than just being about losing the wonders of nature, desperately sad though that is,” he said. “This is actually now jeopardising the future of people. Nature is not a ‘nice to have’ — it is our life-support system.”

The benefits of biodiversity are hard to overstate. The food chain, climate systems, atmospheric conditions, natural resources, and much more depend on the delicately structured interactions of ecosystems around the world.

The truly wild places in the world, meanwhile, are crucial to generating, cleaning, and distributing water around the world, and could help to mitigate the looming water crisis. These landscapes and marine environments also clean the air and act as carbon sinks, stabilize the global environment, and protect countries from natural disasters.

#### OK, boomer

Haas, 20

(Mark L., Raymond J. Kelley Endowed Chair in International Relations and Professor of Political Science at Duquesne University in Pittsburgh. He formerly was a National Security Fellow at the Olin Institute for Strategic Studies and an International Security Fellow at the Belfer Center for Science and International Affairs, both at Harvard University, “War-Weary America's Little-Known Deterrent: Its Aging Population”, National Interest, 04-02-2020, https://nationalinterest.org/feature/war-weary-americas-little-known-deterrent-its-aging-population-140357)\\JM

The United States, like most countries in the world, is aging. According to the United Nations, roughly 15 percent of the U.S. population is older than sixty-five, which is the highest proportion in the country’s history. This percentage is forecasted to continue to grow, reaching nearly 28 percent by the end of the century. By 2050, the United States is expected to have more people over the age of sixty-five than under the age of twenty, which will be a historical first. Although many decry the domestic ramifications created by population aging, this demographic development has a major yet largely unrecognized international benefit: it significantly increases the likelihood of international peace, which is something my colleagues and I have observed. Public opinion and scholarly analyses of aging miss this major positive development. Generational polarization is at an all-time high, as the differences between age groups on numerous issues, including race, climate change, and party preferences, are stark. A 2015 survey funded by the American Association of Retired Persons and other organizations in the field of aging found that the majority of the U.S. public view the elderly as an “other” group that is engaged in a zero-sum competition with the rest of society for resources. Indeed, some studies have found that the very use of generational labels, especially that of “baby boomer,” stimulates negative stereotypes, nicely captured by the dismissive retort popular among members of younger groups: “OK, boomer.” Media and academic analyses of the aging population also appear to be negative, with most analyses concentrating on the population’s likely major domestic costs. Additionally, much attention has been paid to the potential slowing of economic growth and massive new public expenditures for elderly welfare. The international effects created by the shift from a younger to an older world are much more salutary. Countries with large numbers of young people (ages fifteen to twenty-four) as a percentage of the total adult population are more likely to engage in international hostilities than ones with older populations. With a surplus of military-aged citizens, soldiers are cheaper and easier to recruit and replace. Younger populations are also more easily radicalized, especially when the country is poorer with fewer economic opportunities. The reverse dynamics occur in older societies. In fact, aging tends to reduce both states’ capacity and willingness to go to war. As societies age, governments are likely to dedicate an increasing percentage of their budgets to spending on elderly welfare, which is likely to reduce expenditures in all other areas, including the amount of money it spends on the military. Moreover, with fewer military-age citizens, soldiers can demand higher salaries, making them more expensive to recruit and replace. Governments of older societies are therefore less likely to jeopardize their soldiers by engaging in conflict. At the same time, survey data across many generations clearly indicate that the elderly are significantly less supportive of war than are younger individuals. Consequently, as older-age cohorts become a larger percentage of a state’s population, the political pressure against international conflict is likely to increase. It is also important to recognize that while the U.S. population is aging, it is doing so at a slower pace than its main international rivals, China and Russia. For example, while the United States’ working-age population (ages fifteen to sixty-four) is forecasted to increase by 13 percent within the next thirty years, Russia’s is expected to decline by 23 percent and China’s by 18 percent. These very different demographic trajectories give the United States a substantial comparative advantage, both economically and militarily. The effects of aging across the great powers are therefore likely to inhibit the emergence of a dangerous “power transition” (that is when a rising power catches up to the existing leading power) between the United States and its chief international competitors. Studies have shown that the probability of international conflict grows when either the dominant country anticipates a power transition in favor of a rising state or states, or when such a transition actually takes place. By adding substantial support to the continuation of U.S. power superiority, global aging works against either outcome transpiring. It should be noted that immigration accounts for almost all of the United States’ forecasted population growth; if immigration rates are significantly reduced, so will the United States’ major demographic advantages compared to those of other great powers. Demography is not destiny, but it is an extremely powerful force. Because aging states are likely to be significantly less aggressive internationally than younger ones, the future of international relations is likely to be more peaceful than the past—an outcome all can celebrate.

#### That collapses the economy

de Grey 4 Aubrey D. N. J de Grey de Grey ADNJ (2004) Escape Velocity: Why the Prospect of Extreme Human Life Extension Matters Now. PLoS Biol 2(6): e187. <https://doi.org/10.1371/journal.pbio.0020187>

The second oversight made both by the contributors to Coping with Methuselah and by other commentators is demographic. Life expectancy is typically defined in terms of what demographers call a period survival curve, which is a purely artificial construction derived from the proportions of those of each age at the start of a given year who die during that year. The ‘life expectancy’ of the ‘population’ thus described is that of a hypothetical population whose members live all their lives with the mortality risk at each age that the real people of that age experienced in the year of interest. The remaining life expectancy of someone aged N in that year is more than this life expectancy minus N for two reasons: one mathematical (what one actually wants, roughly, is the age to which the probability of survival is half that of survival to N) and one biomedical (mortality rates at each age, especially advanced ages, tend to fall with time). My spirits briefly rose on reading Aaron and Harris's explicit statement (p. 69) of the latter reason. Unfortunately, they didn't discuss what would happen if age-specific mortality rates fell by more than 2% per year. An interesting scenario was thus unexplored: that in which mortality rates fall so fast that people's remaining (not merely total) life expectancy increases with time. Is this unimaginably fast? Not at all: it is simply the ratio of the mortality rates at consecutive ages (in the same year) in the age range where most people die, which is only about 10% per year. I term this rate of reduction of age-specific mortality risk ‘actuarial escape velocity’ (AEV), because an individual's remaining life expectancy is affected by aging and by improvements in life-extending therapy in a way qualitatively very similar to how the remaining life expectancy of someone jumping off a cliff is affected by, respectively, gravity and upward jet propulsion (Figure 1). The escape velocity cusp is closer than you might guess. Since we are already so long lived, even a 30% increase in healthy life span will give the first beneficiaries of rejuvenation therapies another 20 years—an eternity in science—to benefit from second-generation therapies that would give another 30%, and so on ad infinitum. Thus, if first-generation rejuvenation therapies were universally available and this progress in developing rejuvenation therapy could be indefinitely maintained, these advances would put us beyond AEV. Universal availability might be thought economically and sociopolitically implausible (though that conclusion may be premature, as I will summarise below), so it's worth considering the same question in terms of life-span potential (the life span of the luckiest people). Figure 1 again illustrates this: those who get first-generation therapies only just in time will in fact be unlikely to live more than 20–30 years more than their parents, because they will spend many frail years with a short remaining life expectancy (i.e., a high risk of imminent death), whereas those only a little younger will never get that frail and will spend rather few years even in biological middle age. Quantitatively, what this means is that if a 10% per year decline of mortality rates at all ages is achieved and sustained indefinitely, then the first 1000-year-old is probably only 5–10 years younger than the first 150-year-old. The third oversight that I observe in contemporary commentaries on life extension, among which Coping with Methuselah is representative, is the most significant because of its urgency. First-generation rejuvenation therapies, whenever they arrive, will surely build on a string of prior laboratory achievements. Those achievements, it seems to me, will have progressively worn down humanity's evidently desperate determination to close its eyes to the prospect of defeating its foremost remaining scourge anytime soon. The problem (if we can call it that) is that this wearing-down may have been completed long before the rejuvenation therapies arrive. There will come an advance—probably a single laboratory result—that breaks the camel's back and forces society to abandon that denial: to accept that the risk of getting one's hopes up and seeing them dashed is now outweighed by the risk of missing the AEV boat by inaction. What will that result be? I think a conservative guess is a trebling of the remaining life span of mice of a long-lived strain that have reached two-thirds of their normal life span before treatment begins. This would possess what I claim are the key necessary features: a big life extension, in something furry and not congenitally sick, from treatment begun in middle age. It is the prospect of AEV, of course, that makes this juncture so pivotal. It seems quite certain to me that the announcement of such mice will cause huge, essentially immediate, society-wide changes in lifestyle and expenditure choices—in a word, pandemonium—resulting from the anticipation that extreme human life extension might arrive soon enough to benefit people already alive. We will probably not have effective rejuvenation therapies for humans for at least 25 years, and it could certainly be 100 years. But given the present status of the therapies listed in Table 1, we have, in my view, a high probability of reaching the mouse life extension milestone just described (which I call ‘robust mouse rejuvenation’) within just ten years, given adequate and focused funding (perhaps $100 million per year). And nobody in Coping with Methuselah said so. This timeframe could be way off, of course, but as Wade notes (p. 57), big advances often occur much sooner than most experts expect. Even the most obvious of these lifestyle changes—greater expenditure on traditional medical care, avoidance of socially vital but risky professions—could severely destabilise the global economy; those better versed in economics and sociology than I would doubtless be even more pessimistic about our ability to negotiate this period smoothly. Overpopulation, probably the most frequently cited drawback of curing aging, could not result for many decades, but the same cannot be said for breadth of access irrespective of ability to pay: in a post-9/11 world, restricted availability of rejuvenation therapies resembling that seen today with AIDS drugs would invite violence on a scale that, shall we say, might be worth trying to avoid.

**Causes nuclear war.**

**Henricksen 17**, \*Thomas H., emeritus senior fellow at the Hoover Institution; (March 23rd, 2017, “Post-American World Order,” Hoover Institution, <http://www.hoover.org/research/post-american-world-order>)

What Is To Be Done?

The first marching order is to dodge any kind of perpetual war of the sort that George Orwell outlined in  “1984,” which engulfed the three super states of Eastasia, Eurasia, and Oceania, and made possible the totalitarian Big Brother regime. A long-running Cold War-type confrontation would almost certainly take another form than the one that ran from 1945 until the downfall of the Soviet Union.

What prescriptions can be offered in the face of the escalating competition among the three global powers? First, by staying militarily and **economically strong**, the United States will have the resources to deter its peers’ **hawkish behavior** that might otherwise trigger a **major conflict**. Judging by the history of the Cold War, the coming strategic **chess match** with Russia and China will prove **tense** and **demanding**—since all the countries boast **nuclear arms** and long-range ballistic missiles. Next, the United States should widen and sustain willing coalitions of partners, something at which America excels, and at which China and Russia fail conspicuously.

There can be **little room** for **error** in **fraught crises** among **nuclear-weaponized** and hostile powers. Short- and long-term standoffs are likely, as they were during the Cold War. Thus, the playbook, in part, involves a **waiting game** in which each power looks to its rivals to suffer grievous internal problems which could entail a **collapse**, as happened to the Soviet Union.

Some Chinese and Russian experts predict grave domestic problems for each other. They also entertain **similar** thoughts about the United States, which they view as terminally decadent and catastrophically polarized over politics, ethnicity, and the future direction of the country. So, the brewing three-way struggle also involves a **systemic contest**, which will test the competitors’ **economic** and **political institutions**.

At this juncture, the world is entering a standoff among the three great and several not-so-great powers. Averting war, while defending our interests, will prove a challenge, calling for deft policy, political endurance, and **economic growth**, as well as sufficient military force to **keep at bay** aggressive states or **prevail** over them if ever a war breaks out.

#### Growth increases stability and disincentivizes conflict and expansionism---decline causes war.

Szayna et al 17, Research department director of the Defense and Political Sciences Department and a senior political scientist at the RAND Corporation. He has over 30 years of experience in national security policy and defense analysis. From 1997 to 2011 he served as associate director of the Strategy, Doctrine, and Resources Program in RAND's Army Research Division. His research has focused on aspects of strategic planning for the U.S. armed forces, post-conflict stability and reconstruction operations, and coalition interoperability. He gave testimony for the U.S. House of Representatives and has been a keynote speaker at a number of defense conferences. Szayna received a B.A. in history and philosophy from Villanova University and an M.A. in international relations from Claremont Graduate School. Also Angela O’Mahony, Jennifer Kavanagh, Stephen Watts, Bryan Frederick, Tova C. Norlen, Phoenix Voorhies. (“Conflict Trends and Conflict Drivers: An Empirical Assessment of Historical Conflict Patterns and Future Conflict Projections”. 2017. https://www.rand.org/pubs/research\_reports/RR1063.html)

There are a number of factors that could lead to discontinuous changes in this metric. For example, a global economic downturn could lead to sharp reductions in development aid that could threaten any improvements in governance that had been made with the benefit of that assistance. Alternatively, a major jump in global energy costs could induce widespread fiscal crises similar to those of the 1970s and 1980s, ultimately leading to reduced state capacity. The branch scenario in red projects essentially no improvements in state capacity over the period in question, so larger changes would entail the rapid erosion of the capacity of states that are already relatively capable. Such changes are certainly possible, but they would constitute an example of nonlinear disruptive change. On balance, our projection is that state capacity is likely to continue to improve, which will tend to exert a downward pressure on the likelihood of intrastate conflict. Prevalence of Consolidated Democracies Consolidated democracies are less likely to fight one another and to be involved in internal conflict. While this correlation is clear, the mechanism by which democracies reduce conflict is more contested. The literature on interstate conflict has focused on the greater transparency and consistency of democratic regimes that allow them to credibly commit to peaceful solutions to disputes and the possibility that domestic norms and greater political accountability may make democratic states less likely to pursue violent conflicts.8 There are fewer arguments that the greater ability of consolidated democracies to resolve grievances within the political system leads to less intrastate conflict.9 We note, however, that partial democracies or the process of democratization itself may not be particularly peaceful and may even be associated with an increase in conflict.10 Given the importance of consolidated democracy in the literature on conflict, there is already a great deal of work in the academic literature on measurement of democracy. Several aggregate measures of democracy have been developed that include the competitiveness of elections; the state’s respect for civil, political, and minority rights; and freedoms of the press and religion. The most widely used measure of consolidated democracy, and the one we employ, comes from the Polity project. By coding a wide range of regime characteristics, such as political 8 Arend Lijphart, Democracies: Patterns of Majoritarian and Consensus Government in Twenty-One Countries, New Haven, Conn., and London: Yale University Press, 1984; Peter Liberman, Does Conquest Pay? The Exploitation of Occupied Industrial Societies, Princeton, N.J.: Princeton University Press, 1996; Charles Lipson, Reliable Partners: How Democracies Have Made a Separate Peace, Princeton, N.J.: Princeton University Press, 2003. 9 Håvard Hegre, Tanja Ellingsen, Scott Gates, and Nils Petter Gleditsch, “Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816–1992,” American Political Science Review, Vol. 95, No. 1, March 2001, pp. 33–48; Christian Davenport, State Repression and the Domestic Democratic Peace, New York, N.Y.: Cambridge University Press, 2007. 10 Hegre et al., 2001; Lars-Erik Cederman, Kristian Skrede Gleditsch, and Simon Hug, “Elections and Ethnic Civil War,” Comparative Political Studies, Vol. 46, No. 3, 2012, pp. 387–417. 49 competition and constraints on the executive, an aggregate “Polity score” is produced, ranging from –10 to 10. Values of 6 or higher are typically used to identify the presence of a democracy, with a more conservative measurement of 8 or higher often used to identify consolidated democracies. We use this metric to calculate the percentage of all states that are consolidated democracies, with the historical values denoted by the black line in Figure 3.2. Figure 3.2. Prevalence of Consolidated Democracies SOURCE: Historical data: Monty G. Marshall and Keith Jaggers, Polity IV Data Set [Computer file; version p4v2012], College Park, Md.: Center for International Development and Conflict Management, University of Maryland, 2002; projections calculated by authors. We projected the baseline scenario by fitting a trend line to the historical data and calculating the future values.11 This projection is represented in the figure by the gray line. We calculated the two branch scenarios as one standard deviation above and below the baseline projection; they are shown in the figure by the blue and red lines, respectively. Discontinuous growth in the prevalence of democracies could result from various tippingpoint effects. If a high percentage of the world’s population were governed through democracy, other forms of government may come to be seen as illegitimate, and greater international pressure may be brought to bear to remove them. Within the time frame of our study, a dramatic reversal in the prevalence of consolidated democracies appears to be less likely. The reversion of 11 The trend line was fit using a generalized linear model linked to a binomial logit function. The resulting projections are therefore bounded between 0 and 1 (in this case, 0 and 100 percent). The model used in Figure 3.2 has a Pearson statistic (1/df) of .0037, suggesting a high degree of fit with the data. 50 consolidated democracies to autocracies historically has been extremely rare and is unlikely in the absence of extreme economic decline, the conquest of democracies by more powerful autocracies, or both. Either of these potential paths is likely to lead directly to increases in future conflict levels as well. Degree of Ethnic and Sectarian Polarization The academic literature generally agrees that a high level of ethnic and sectarian polarization is not sufficient by itself to cause conflict either within or between states. However, there is also agreement that in the intrastate context, where group mobilization occurs along ethnic lines, identity can become a significant contributing factor for violence, especially when strengthened by socioeconomic and sociopolitical grievances. Consequently, we identified the degree of ethnic and sectarian polarization as one of the primary factors likely to affect the level of intrastate conflict in the future. Evidence also shows that while ethnicity may not lead to conflict by itself, it may work to prolong conflicts and increase the intensity of violence in those conflicts that are already occurring.12 Such effects will most likely be strengthened if ethnic groups are deliberately disadvantaged by the state or if they are territorially based and have secessionist or separatist demands.13 Scholars tend to agree that ethnic and sectarian polarization, while a strong predictor for increased levels of intrastate conflict, is not a strong driver for conflicts between states. However, if regional and international actors become involved in intrastate conflicts, or if conflicts spread across borders, such polarization could also affect levels of interstate conflict. Such a scenario is especially likely where ethnic kin-groups in neighboring states become involved with secessionist movements.14 Quantifying ethnic and sectarian polarization is inherently difficult. While various measures have been tried, such as linguistic differences (e.g., ethno-linguistic fractionalization) or religious preferences, they are often criticized for not capturing the cleavage that gives rise to political mobilization. For example, different ethnic groups may share the same religion, and one ethnic group may speak multiple languages. It can also be difficult to determine when certain identities in a society are increasing in salience, and when they are becoming less relevant. One prominent 12 Rajat Ganguly and Raymond Taras, Understanding Ethnic Conflict: The International Dimension, Longman Publishers, 2002; Fearon and Laitin, 2003; and Daniel Bar-Tal, “Sociopsychological Foundations of Intractable Conflicts,” American Behavioral Scientist, Vol. 50, No. 11, 2007. 13 Gurr, 1970; Stephen M. Saideman, and William R. Ayres, “Determining the Causes of Irredentism: Logit Analyses of Minorities at Risk Data from the 1980s and 1990s,” Journal of Politics, Vol. 62, No. 4, November 2000, pp. 1126–1144; Monica Duffy Toft, The Geography of Ethnic Violence: Identity, Interests, and the Indivisibility of Territory, Princeton, N.J.: Princeton University Press, 2003. 14 John A. Vasquez, and Brendan Valeriano, “Territory as a Source of Conflict and a Road to Peace,” in Jacob Bercovitch, Viktor Kremenyuk, and I. William Zartman, eds., The Sage Handbook of Conflict Resolution, Los Angeles, Calif.: SAGE, 2009, pp. 193–209. 51 attempt to quantify relevant ethnic identities is the Minorities at Risk data set at the University of Maryland, which identifies minority groups by their “at risk” status—that is, by the extent to which they are disadvantaged in their relationships with other groups in the state in which they reside. However, the Minorities at Risk data identify such “at risk” groups somewhat subjectively, and the project does not claim to be comprehensive. An alternative, objective measure is to look for the degree of formal discrimination against ethnic, religious, or linguistic groups. The creation or removal of official laws providing for formal discrimination can help to identify states where identity-based grievances may become more or less salient. For capturing the degree of ethnic and sectarian polarization, therefore, we looked at the percentage of states with formal discrimination against minorities, where such minority groups make up at least 5 percent of the state’s population. We used the Ethnic Power Relations data set (EPR), which tracks the extent of access to state power for all politically relevant ethnic groups in every country of the world from 1946 to 2013. It includes annual data on more than 733 groups and codes the degree to which their representatives held executive-level state power—from total control of the government to being formally barred from holding political office. While the disadvantage of such a proxy may be that it potentially fails to capture some of the unofficial social discrimination that can lead to group mobilization, the advantage is that it allows for a more objective measure of sectarian tension. The overall levels of ethnic or sectarian polarization in the figure below may therefore be understated, but we can have more confidence in the general trend line than we could with more subjective data sources. We projected the baseline scenario by fitting an exponential trend line to the available historical data and calculating the future values.15 The projection is shown by a gray line in Figure 3.3. We calculated the two branch scenarios as one standard deviation above and below the baseline projection; they are shown by a red and blue line, respectively. 15 The exponential trend line fit to the data has the equation: y = 0.3098e-0.012x. The trend line has a high degree of fit with the data, with an R² of 0.85. 52 Figure 3.3. Percentage of States with Discriminated Minorities SOURCE: Historical data: Andreas Wimmer, Lars-Erik Cederman, and Brian Min, “Ethnic Politics and Armed Conflict: A Configurational Analysis of a New Global Data set,” American Sociological Review, Vol. 74, No. 2, 2009, pp. 316–337; projections calculated by authors. Discontinuous change in this variable may occur as a result of several factors. Historically, ethnic and sectarian factors often have increased in relevance after the breakup of larger states and empires, including the breakup of the Soviet Union in the early 1990s, or the end of colonialism in the 1960s. The breakup of other large, multiethnic states in the future could result in a similar outcome. Extremely high levels of resource stress because of population pressures also could prompt increased ethnically based conflict within states. Ethnic and sectarian polarization and grievances are latent in many societies, and may become politically important in order to mobilize groups to violence under conditions of severe resource or economic privation. Rate of Economic Growth Economic growth affects the prevalence of conflict in several ways. While territorial expansion traditionally has been a major cause of interstate war, states with higher levels of economic development may be less motivated to pursue such expansion because of the lower relative value of land inputs in an industrialized economy. Moreover, their reliance on international capital markets may increase the potential costs of disruptions from serious 53 international crises.16 At the intrastate level, economic growth (if broadly shared) reduces grievances, bolsters the capacity of the state to handle security challenges, and increases the population’s opportunities for licit employment, thus raising the opportunity costs of participating in rebellions or insurgencies.17 Growth benefits that accrue along ethnic or sectarian lines, however, might increase the potential for intrastate conflict, as discussed in the previous section, and sharp declines in the rate of economic growth could be associated with an increased risk of internal conflict as well.18 Therefore, there are at least two different concepts that any operationalization of this factor should attempt to capture: the overall level of economic development and changes in the rate of economic growth. Over the short term, wealthy countries tend to remain wealthy and poor countries tend to remain poor, and their degree of wealth may have a strong effect on their overall likelihood of being involved in conflict. In addition, sharp declines in the rate of growth for a range of states may increase their likelihood of intrastate conflict in particular.

#### Resiliency, intervening actors, burnout

Adalja 16, infectious-disease physician at the University of Pittsburgh (Amesh, 6-17-2016, "Why Hasn't Disease Wiped out the Human Race?," *The Atlantic*, https://www.theatlantic.com/health/archive/2016/06/infectious-diseases-extinction/487514/)

In Michael Crichton’s The Andromeda Strain, the canonical book in the disease-outbreak genre, an alien microbe threatens the human race with extinction, and humanity’s best minds are marshaled to combat the enemy organism. Fortunately, outside of fiction, there’s no reason to expect alien pathogens to wage war on the human race any time soon, and my analysis suggests that any real-life domestic microbe reaching an extinction level of threat probably is just as unlikely.

When humans began to focus their minds on the problems posed by infectious disease, human life ceased being nasty, brutish, and short.

Any apocalyptic pathogen would need to possess a very special combination of two attributes. First, it would have to be so unfamiliar that no existing therapy or vaccine could be applied to it. Second, it would need to have a high and surreptitious transmissibility before symptoms occur. The first is essential because any microbe from a known class of pathogens would, by definition, have family members that could serve as models for containment and countermeasures. The second would allow the hypothetical disease to spread without being detected by even the most astute clinicians.

The three infectious diseases most likely to be considered extinction-level threats in the world today—influenza, HIV, and Ebola—don’t meet these two requirements. Influenza, for instance, despite its well-established ability to kill on a large scale, its contagiousness, and its unrivaled ability to shift and drift away from our vaccines, is still what I would call a “known unknown.” While there are many mysteries about how new flu strains emerge, from at least the time of Hippocrates, humans have been attuned to its risk. And in the modern era, a full-fledged industry of influenza preparedness exists, with effective vaccine strategies and antiviral therapies.

HIV, which has killed 39 million people over several decades, is similarly limited due to several factors. Most importantly, HIV’s dependency on blood and body fluid for transmission (similar to Ebola) requires intimate human-to-human contact, which limits contagion. Highly potent antiviral therapy allows most people to live normally with the disease, and a substantial group of the population has genetic mutations that render them impervious to infection in the first place. Lastly, simple prevention strategies such as needle exchange for injection drug users and barrier contraceptives—when available—can curtail transmission risk.

Ebola, for many of the same reasons as HIV as well as several others, also falls short of the mark. This is especially due to the fact that it spreads almost exclusively through people with easily recognizable symptoms, plus the taming of its once unfathomable 90 percent mortality rate by simple supportive care.

Beyond those three, every other known disease falls short of what seems required to wipe out humans—which is, of course, why we’re still here. And it’s not that diseases are ineffective. On the contrary, diseases’ failure to knock us out is a testament to just how resilient humans are. Part of our evolutionary heritage is our immune system, one of the most complex on the planet, even without the benefit of vaccines or the helping hand of antimicrobial drugs. This system, when viewed at a species level, can adapt to almost any enemy imaginable. Coupled to genetic variations amongst humans—which open up the possibility for a range of advantages, from imperviousness to infection to a tendency for mild symptoms—this adaptability ensures that almost any infectious disease onslaught will leave a large proportion of the population alive to rebuild, in contrast to the fictional Hollywood versions.

While the immune system’s role can never be understated, an even more powerful protector is the faculty of consciousness. Humans are not the most prolific, quickly evolving, or strongest organisms on the planet, but as Aristotle identified, humans are the rational animals—and it is this fundamental distinguishing characteristic that allows humans to form abstractions, think in principles, and plan long-range. These capacities, in turn, allow humans to modify, alter, and improve themselves and their environments. Consciousness equips us, at an individual and a species level, to make nature safe for the species through such technological marvels as antibiotics, antivirals, vaccines, and sanitation. When humans began to focus their minds on the problems posed by infectious disease, human life ceased being nasty, brutish, and short. In many ways, human consciousness became infectious diseases’ worthiest adversary.

#### Terrorists are conservative, and technical complexities overwhelm.

Lentzos 17, Senior research fellow jointly appointed in the Departments of War Studies and of Global Health and Social Medicine at King’s College London. (Filippa, 07/3/17, "Ignore Bill Gates: Where bioweapons focus really belongs", *Bulletin of the Atomic Scientists*, https://thebulletin.org/2017/07/ignore-bill-gates-where-bioweapons-focus-really-belongs/)

I disagree. At a stretch, terrorists taking advantage of advances in biology might be able to create a viable pathogen. That does not mean they could create a sophisticated biological weapon, and certainly not a weapon that could kill 30 million people. Terrorists in any event tend to be conservative. They use readily available weapons that have a proven track record—not unconventional weapons that are more difficult to develop and deploy. Available evidence shows that few terrorists have ever even contemplated using biological agents, and the extremely small number of bioterrorism incidents in the historical record shows that biological agents are difficult to use as weapons. The skills required to undertake even the most basic of bioterrorism attacks are more demanding than often assumed. These technical barriers are likely to persist in the near- and medium-term future.