# 1AC

### Plan

#### Plan: The United States federal government should substantially increase prohibitions on private sector conduct that is more restrictive of competition than reasonably necessary to enable creation of information technology standards.

### 1AC---Innovation ADV

#### Advantage 1 is Innovation:

#### Current standard setting organization and FRAND enforcement is failing now

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I. Standard Setting and the Competitive Process

The fundamental economics in the information technology sector, driven by network effects, implies that there is enormous value associated with establishing compatibility standards. Popular standards include the mobile broadband standards used in cell phones, which are established by the 3rd Generation Partnership Project (3GPP), and the Wi-Fi technology for wireless local area networks, which is enabled by the 802.11 standard established by the Institute of Electrical and Electronics Engineers (IEEE).4

There are many SSOs, and their rules and procedures differ considerably. In addition to IEEE, leading SSOs include the International Organization for Standardization (ISO), the International Telecommunication Union (ITU), the European Telecommunications Standards Institute (ETSI), the Internet Engineering Task Force (IETF), and the World Wide Web Consortium (W3C).5 SSOs generally establish standards by holding a series of committee meetings among industry participants. These meetings culminate in a vote on a technical specification that describes what features or attributes a product must have in order to comply with the standard. Most SSOs are open to all industry participants and seek to operate on a consensus basis, applying certain voting rules. SSOs do not normally engage in patent licensing, nor do they specify how patent royalties will be divided up among patent holders. They leave that to their members, which in some cases form patent pools to address these issues.6

SSOs adopt specific policies relating to intellectual property rights (IPRs).7 These IPR policies are generally intended to enable the SEP holders to obtain reasonable royalties for licensing their patents, while prohibiting them from charging excessive royalties after other industry participants have committed to the standard. At that point, firms committed to implementing the standard— which we call “implementers”—would find it very costly to avoid using the patented technology. For this purpose, most SSOs require SEP owners to license their SEPs on FRAND terms.8

FRAND policies are especially necessary because negotiations between SEP holders and implementers generally take place only after the implementers have used and infringed the technologies claimed by the SEPs. Standards involving information and communications technology can involve hundreds or even thousands of SEPs, many with uncertain boundaries for infringement. In addition, a time lag exists between patent application and patent issuance. For these and other reasons, it is impractical for implementers to enter into negotiations for patent licenses with all SEP owners prior to the establishment of a standard and to their implementation of it.9

The fact that patent negotiations generally do not take place until after implementers have used and infringed the technologies has several critical implications. First, at the time of negotiation, implementers are locked into the standard and the technologies claimed by the SEPs—that is, the cost to switch to an alternative technology or standard at that point—ex post—is much greater than it was ex ante, before the patented technology was first included in the standard. Ex post, the patent holder is no longer competing to have its technology included in the standard, nor is it competing to have implementers of the standard use its technology. Instead, because the patent holder owns an asset that is essential to the standard, implementers have no choice but to use the patented technology.

If the standard is commercially successful, implementers are willing to pay a much larger royalty for use of the patented technology than they would have paid ex ante, when the SEP holder faced competition from other technologies. In these circumstances, the SEP holder can be said to have obtained monopoly power in the market in which the patented technology is licensed for use in implementing the standard.10

Second, because of lock-in and the implementer’s ongoing infringement, the potential for litigation looms large in licensing negotiations. In effect, the parties are negotiating about how to settle an infringement suit, and that negotiation is heavily influenced by their predictions as to what the court will do if they cannot agree. This situation is not unique to SEPs; it arises frequently when firms are faced with patent infringement claims for products they have independently developed or technologies they have inadvertently infringed. Patent law addresses such instances by specifying that patent holders are entitled to “reasonable royalties,” defined as the royalties that the parties would have negotiated prior to the infringement and thus prior to lock-in.11 Those hypothetical ex ante royalties reflect the market value of the patent license. Notwithstanding the law’s embrace of this principle, however, as a practical matter, patent holders are generally able to recover more than the ex ante value of the patent when litigation occurs after the implementers are locked in. Further, negotiations in the shadow of litigation after lock-in tend to result in royalties in excess of the ex ante or market value of the patented technology.12

Third, the shadow of litigation is particularly problematic in the communications and technology sector, in which products typically include hundreds or thousands of patented technologies. A court-ordered injunction involving such products would deprive the implementer of not only the value of the technology covered by the patent-in-suit, but also the value of the entire product.13 Implementers that are forced to bear the risk of an injunction are thus induced to agree to royalties greater than those that would be appropriate if only the value of the patented technology were at stake. Those royalties systematically provide SEP holders with excessive compensation in comparison with the benchmark of ex ante royalties.

These implications of lock-in and ex post dealings are well-understood: they represent an example of the general concept of lock-in and opportunism developed by Oliver Williamson.14 The Federal Circuit has also recognized the market distortions caused by the inclusion of patented technologies in public standards and the resulting danger of patent holdup involving SEPs.15

For these and other reasons, the SEP holder has ex post monopoly power that, if left unchecked, would enable it to obtain royalties far in excess of the royalties that it could earn in a competitive market.16 To address this common problem and limit ex post opportunism by SEP holders, SSOs typically require participants that own SEPs to make certain FRAND commitments. In particular, by requiring a commitment to license on “fair and reasonable” terms, the FRAND requirement aims to prevent, or at least reduce, the extent of monopoly pricing by SEP holders. And by requiring a commitment to license on “nondiscriminatory” terms, the FRAND requirement can prevent SEP holders from extracting monopoly premiums by selective licensing or, more important, migrating their monopoly power from the FRAND-regulated market to unregulated standard-implementing product markets by licensing to only one or a few implementers or licensing to selected implementers on discriminatorily favorable terms.

#### Holdup is accentuated by FTC v Qualcomm

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Standards can enhance competition and consumer choice, but they also massively inflate the value of patents deemed essential to the standard, and give their owners the power to sue companies that implement the standard for money damages or injunctions to block them from using their SEPs. When standards cover critical features like wireless connectivity, SEP owners wield a huge amount of “hold-up” power because their patents allow them to effectively block access to the standard altogether. That lets them charge unduly large tolls to anyone who wants to implement the standard.

To minimize that risk, standard-setting organizations typically require companies that want their patented technology incorporated into a standard to promise in advance to license their SEPs to others on fair, reasonable, and non-discriminatory (FRAND) terms. But that promise strikes at a key tension between antitrust and patent law: patent owners have no obligation to let anyone use technology their patent covers, but to get those technologies incorporated into standards, patent owners usually have to promise that they will give permission to anyone who wants to implement the standard as long as they pay a reasonable license fee.

Qualcomm is one of the most important and dominant companies in the history of wireless communication standards. It is a multinational conglomerate that has owned patents on every major wireless communication standard since its first CDMA patent in 1985, and it participates in the standard-setting organizations that define those standards. Qualcomm is somewhat unique in that it not only licenses SEPs, but also supplies the modem chips used by a wide range of devices. These include chips that implement wireless communication standards, which lie at the heart of every mobile computing device.

Although Qualcomm promised to license its SEPs (including patents essential to CDMA, 3G, 4G, and 5G) on FRAND terms, its conduct has to many looked unfair, unreasonable, and highly discriminatory. In particular, Qualcomm has drawn scrutiny for bundling tens of thousands of patents together—including many that are not standard-essential—and offering portfolio-only licenses no matter what licensees actually want or need; refusing to sell modem chips to anyone without a SEP license and threatening to withhold chips from companies trying to negotiate different license terms; refusing to license anyone other than original-equipment manufacturers (OEMs); and insisting on royalties calculated as a percentage of the sale price of a handset sold to end users for hundreds of dollars, despite the minimal contribution of any particular patent to the retail value.

In 2017, the U.S. Federal Trade Commission [sued](https://www.ftc.gov/news-events/press-releases/2017/01/ftc-charges-qualcomm-monopolizing-key-semiconductor-device-used) Qualcomm for violating both sections of the Sherman Antitrust Act by engaging in a number of anticompetitive SEP licensing practices. In May 2019, the U.S. District Court for the Northern District of California agreed with the FTC, identifying numerous instances of Qualcomm’s unlawful, anticompetitive conduct in a comprehensive [233-page opinion](https://www.eff.org/document/ftc-v-qualcomm-district-court-opinion). We were pleased to see the FTC take action and the district court credit the overwhelming evidence that Qualcomm’s conduct is corrosive to market-based competition and threatens to cement Qualcomm’s dominance for years to come.

But this month, a panel of judges from the Court of Appeals for the Ninth Circuit unanimously [overturned](https://www.eff.org/document/ninth-circuit-opinion-ftc-v-qualcomm) the district court’s decision, reasoning that Qualcomm’s conduct was “hypercompetitive” but not “anticompetitive,” and therefore not a violation of antitrust law. To reach that result, the Ninth Circuit made the patent grant more powerful and antitrust law weaker than ever.

According to the Ninth Circuit, patent owners don’t have a duty to let anyone use what their patent covers, and therefore Qualcomm had no duty to license its SEPs to anyone. But that framing requires ignoring the promises Qualcomm made to license its SEPs on reasonable and non-discriminatory terms—promises that courts in this country and around the world have consistently enforced. It also means ignoring antitrust principles like the essential facilities doctrine, which limits the ability of a monopolist with hold-up power over an essential facility (like a port) to shut out rivals. Instead, the Ninth Circuit held rather simplistically that a duty to deal could arise only if the monopolist had provided access, and then reversed its policy.

But even when Qualcomm restricted its licensing policies in critical ways, the Ninth Circuit found reasons to approve those restrictions. For example, Qualcomm stopped licensing its patents to chip manufacturers and started licensing them only to OEMs. This had a major benefit: it let Qualcomm charge a much higher royalty rate based on the high retail price of the end user devices, like smartphones and tablets, that OEMs make and sell. If Qualcomm had continued to license to chip suppliers, its patents would be “exhausted” once the chips were sold to OEMs, extinguishing Qualcomm’s right to assert its patents and control how the chips were used.

Patent exhaustion is a century-old doctrine that protects the rights of consumers to use things they buy without getting the patent owner’s permission again and again. Patent exhaustion is important because it prevents price-gouging, but also because it protects space for innovation by letting people use things they buy freely, including to build innovations of their own. The doctrine thus helps patent law serve its underlying goal—promoting economic growth and innovation. In other words, the doctrine of exhaustion is baked into the patent grant; it is not optional. Nevertheless, the Ninth Circuit wholeheartedly approved of Qualcomm’s efforts to avoid exhaustion—even when that meant cutting off access to previous licensees (chip-makers) in ways that let Qualcomm charge far more in licensing fees than its SEPs could possibly have contributed to the retail value of the final product.

It makes no sense that Qualcomm could contract around a fundamental principle like patent exhaustion, but at the same time did not assume any antitrust duty to deal under these circumstances. Worse, it’s harmful for the economy, innovation, and consumers. Unfortunately, the kind of harm that antitrust law recognizes is limited to harm affecting “competition” or the “competitive process.” Antitrust law, at least as the Ninth Circuit interprets it, doesn’t do nearly enough to address the harm downstream consumers experience when they pay inflated prices for high-tech devices, and miss out on innovation that might have developed from fair, reasonable, and non-discriminatory licensing practices.

We hope the FTC sticks to its guns and asks the Ninth Circuit to go en banc and reconsider this decision. Otherwise, antitrust law will become an even weaker weapon against innovation-stifling conduct in technology markets.

#### Weakened antitrust enforcement emboldens firms to follow Qualcomm’s lead

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While the FRAND process has been highly productive, it is also fragile. Firms are tempted to make commitments at the beginning when the incentive to join is large, but renege on them later when they can profit by doing so. At least in this particular case, private FRAND enforcement had not worked very well. Qualcomm had been able to violate FRAND commitments in order to exclude rivals and obtain higher royalties than FRAND would permit, largely with impunity. Other firms will very likely follow Qualcomm’s lead. If that happens the FRAND system will fall apart, doing irreparable injury to the modern wireless telecommunications network or, at the very least, diminishing the leadership role of the United States in preserving effective network competition.

While governments can be heavily involved in standard set-ting,9 the implementation of technical standards in information technologies is largely the work of private actors. Government involvement is limited mainly to enforcement of contract, intellectual property, or antitrust law. As private actors, those involved in standard setting or compliance are fully subject to the federal antitrust laws.

This Article addresses one question: when is an SSO participant’s violation of a FRAND commitment an antitrust violation, and if it is, of what kind and what are the implications for remedies? It warns against two extremes. One is thinking that any violation of a FRAND commitment is an antitrust violation as well. In the first instance FRAND obligations are contractual, and most breaches of contract do not violate any antitrust law. The other extreme is thinking that, because a FRAND violation is a breach of contract, it cannot also be an antitrust violation. The question of an antitrust violation does not de-pend on whether the conduct breached a particular agreement but rather on whether it caused competitive harm. This can happen because the conduct restrained trade under section 1 of the Sherman Act, was unreasonably exclusionary under section 2 of the Sherman Act, or amounted to an anticompetitive condition or understanding as defined by section 3 of the Clay-ton Act.10 The end goal is to identify practices that harm com-petition, thereby injuring consumers.

The Ninth Circuit’s Qualcomm decision will make antitrust violations in the context of FRAND licensing much more difficult to prove, even in cases where anticompetitive behavior and consumer harm seem clear.11 Indeed, in this case the court itself acknowledged the harm to consumers but appeared to think that they were not entitled to protection.12 If this decision stands, FRAND obligations will to a larger extent have to be settled through private litigation and the federal antitrust enforcement agencies will have a diminished role. Anticompetitive behavior by one firm that is not effectively disciplined will lead others to do the same thing.

#### A trusted and credible system for ICT innovation is critical to rapid tech diffusion and economic growth---absent FRAND, the system will collapse.

Bauer et al. 17, \*Matthias Bauer is Senior Economist at ECIPE; \*Fredrik Erixon is a Swedish economist and writer. He has been the Director of the European Centre for International Political Economy (ECIPE) ever since its start in 2006; (October 2017, “Standard Essential Patents and the Quest for Faster Diffusion of Technology”, https://ecipe.org/publications/standard-essential-patents/)

It is easy to take a pessimistic view about whether the system will break. If the current trend continues, the system is likely to break at some point for the simple reason that companies will not trust it anymore. The series of legal disputes witnessed over the past years – sometimes referred to as the “smartphone patent wars” – has been fodder for a pessimistic reading of “the two tales of SEPs”. While it is common in the business world that disputes over patents and licenses are settled in courts, various SEP disputes have revealed problematic aspects of the SEP market that are different from those disputes that follow the normal stream of business and contracts. Often, the SEP disputes are less concerned about the rights and boundaries of patents, and more about antitrust limits to market behavior: they concern market abusive practices and restrictions to competition as much as they are about intellectual property.

If the SEP system actually does break at some point, the consequences would be felt throughout the economy. SEPs have been a critical part of the ICT revolution. SEPs have allowed for the fast rates of innovation diffusion that the world has witnessed over the past quarter of a century. All the computer and Internet related products and services that people are now dependent upon for their private and professional lives are intricate webs of intellectual property. As many as 250,000 patents can be used to claim ownership of some technical specification or design element in a single smartphone (NYT 2012). A laptop, suggests one calculation, implements more than 250 interoperability standards (Biddle et al. 2010), and the number of SEP holders for 3G and 4G standards grew from 2 in 1994 to 130 in 2013 while the number of SEPs rose from fewer than 150 in 1994 to more than 150,000 in 2013 (Galetovic and Gupta 2016). The standardization-body ETSI has registered more than 150,000 declarations of SEPs from companies, and ETSI is just one of many bodies in the world of ICT standardization. For the 3G standard, the same body has about 24,000 patents that have been declared essential. Now, with the economy yet again on the threshold of big technological change, a trusted and credible system for creators and users of technology to standardize proprietary technology would be a boon for innovation, interoperability and – ultimately – the consumers.

And there are reasons for optimism. Although many of the problems in the SEP regimes need to be addressed, the numbers above indicate that the SEP system is in fact attractive to patent holders and SEP implementers. It is easy to see why: neither holders nor implementers are presented with alternative options that on the face of it would be far more profitable for them. In other words, there simply would not be as many patents declared as essential if both creators and users of technology believed the SEP system worked to their disadvantage or was grossly unfair. While the reality for some companies may be that legal disputes and unpredictability prompt them to find other ways than SEPs to get access to key technologies for their products, it remains the case that most stakeholders have strong economic incentives to maintain a balanced SEP system that is trusted.

First, standard essential patents are an asset for creators of technology because, by becoming essential to a standard, their volumes of sales for technologies that users value rise significantly. As many holders want to raise more revenues for their SEPs and – ideally – have the freedom to contract with buyers on their terms, they can expand their customer base when they agree to sell patented technology in accordance with a set of rules that are designed to prevent SEP holders exploiting the weakness of a customer that has grown dependent on having access to their technology.

Second, SEPs are hugely beneficial also to those that buy the licenses – the implementers or users. Through the SEP system, they can access technologies that are interoperable and work with different products and functionalities – and they can do it under conditions that, if history is a guide, in most cases give them stable and predictable terms of contract. As a consequence, both creators and users can focus on their competitive advantages and profit on the economies of scale and specialization. Downstream firms do not need to develop their own upstream technology and upstream firms do not need to package their technologies in end-customer products in order to make their products valuable.

Third, standard-setting organisations (SSOs) also have a big stake in an SEP system that works well – and, like creators and users of technology, they would stand to lose significantly if the SEP system were to collapse.

Lastly, the biggest beneficiaries are individual consumers – those who buy the end products using FRAND-conditioned SEPs. The advent of SEPs and the rules represented by FRAND have enabled a development of fast technology creation and contributed to the rapid diffusion in ICT goods and ICT-based services. The SEP system has also allowed for new competition, both between existing technologies and brands, and from new ones that have stepped into the market with the ambition to disrupt it, again to the benefit of the consumer. It is difficult to imagine that the ICT and digital development would have been as fast as it has been if SEPs had not been a central feature of the market.

The changing fortunes of companies operating in the cellular and smartphone market would not have been possible if there had not been an SEP system that supported competition. Now that the world economy is on the doorstep of new innovations that are dependent on a great number of input technologies – e.g. the Internet-of-Things, transport connectivity and intelligent vehicles – it is crucially important for the consumer that a balanced and functioning SEP system is maintained and that actors in the system converge towards it – which would ultimately meet their economic interests.

#### ICT innovation is key to post-COVID economic recovery and long-term growth.

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Introduction

As the global economy has entered recession in 2020, triggered by the COVID-19 pandemic, the human casualties, and economic damage are perceived to be very large. Even as the health crisis will gradually become manageable, the impact on economic growth can be long-lasting and the recovery path can take several years. In particular, growth drivers such as the pace of job creation, income generation and investment may take several years to get back to pre-crisis trends. Initially the productivity of those growth drivers may be of less concern as the mantra of ‘we’ll do what it takes to avoid worse’ is predominant in this phase of the crisis.

However, once the recovery gets underway the productive use of resources is key to sustained growth. While we do not ignore the short-term challenges of the economic recovery, our primary focus in this paper is on the productivity puzzle from a long-term perspective. Productivity is driven by technological change and innovation which, in turn, depends on investment in human and physical capital as well as in other ‘missing capitals’ often referred to as intangible assets. Indeed, those investments create a positive feedback effect, as the productivity it generates also helps to make more efficient usage of scarce resources in the future. When properly measured and valued, productivity also provides a critical yardstick to realise a fairer distribution of the gains from economic growth to those who bring the resources to bear. It thereby creates the incentives for people to produce and business to invest helping to drive economic growth and raise living standards.

Unfortunately, in the aftermath of the global financial crisis of 2008/2009, many economies around the world, especially advanced economies, have failed to recharge the economy by powering productivity as the key source of growth in the long term. Indeed the latest update of The Conference Board Total Economy Database (July 2020) points at significant weakening in labor productivity growth in Europe up to 2019 (figure 1a–c). While the United States experienced somewhat faster productivity growth from 2017 to 2019 than the Euro Area and the United Kingdom, it still has not recovered to the rates of productivity growth from before the global financial crisis either.

The slowdown in productivity growth over the past 15 years has been well documented. There are multiple causes including an exhaustion of catch-up potential in emerging markets impacting economies along entire global value chains, and the drag from the global financial crisis because of low demand and weak investment, too low interest rates causing misallocations an overreliance on cheap labor, and failing fiscal policies (Bauer et al., 2020; Cette et al., 2016; Crafts, 2018; Dieppe, 2020; Fernald et al., 2017; Syverson, 2016).1 Technical measurement issues regarding inputs and outputs may have played a role as well.

In our earlier work we have stressed the importance of time lags in the adoption of new technologies, and in particular the complexity in generating productivity growth from the latest round of new digital technologies since the early 2010s, including the move toward mobile, ubiquitous access to broadband, the rise of cloud storage and advances in artificial intelligence (AI) and robotics (van Ark, 2016a, 2016b; van Ark and O’Mahony, 2016; van Ark et al., 2016).

While the first priority for economic recovery from the COVID-19 crisis is to restore jobs, it is important that any employment-intensive growth path does go together with a productivity revival. In this paper, we argue that it is possible to avoid another productivity slowdown. Underneath the aggregate figures, there is evidence pointing toward a possible tipping point at which many advanced economies may expect to see more widespread impacts from the adoption and absorption of digital technology on productivity and GDP growth.

In Section 2 we review the latest literature on the productivity impacts of general purpose technologies (GPTs), including the notion of time lapses through which digital technologies result in faster productivity growth. We also look at patterns by which innovation and productivity effects GPTs emerge across industries and disperse across the economy. We explain why the New Digital Economy (NDE) is especially characterised by long lag effects.

In Section 3 we provide an empirical analysis of productivity growth by industry data to observe whether we can detect a distinct pattern across groups of industries pointing to a structural improvement in recent years. We use a taxonomy on digital intensity by industry which was recently developed by the Organisation for Economic Co-operation and Development (OECD) (Calvino et al., 2018), showing that the most digital-intensive industries have experienced a relatively strong performance in terms of labor productivity growth since 2007 and especially since 2013.

In Section 4 of the paper, we discuss the connection between labor and skills in the digital economy, which we believe provides the key to a productivity revival. We developed a new metric on innovation competencies by occupation on the basis of data from the O\*Net database on occupation-specific descriptors in the United States (Hao et al., 2018). When applied to the United Kingdom, we find that innovation competencies point at stronger productivity effects by industry.

In Section 5 we focus on how productivity has been behaving in the short-term during the COVID-19 recession. In particular, we address the potential trade-offs between traditional pro-cyclical recovery effects and scarring effects the recession leaves, especially on the labor market. We argue that increased adoption and usage of digital technologies during the COVID-19 crisis may create a positive productivity effect. In the final section, Section 6, we will review our hypothesis that a productivity revival could be imminent in the light of the recovery from the COVID-19 crisis. In order not to miss this opportunity again, as happened a decade ago, we argue that a coordinated effort from business and policy is needed, and has to be delivered in such a way that the gains from productivity will be more widespread and such that those who provide the resources for growth are incentivised to deliver them in an efficient way.

2. The productivity paradox of the New Digital Economy

It is well known that General Purpose Technologies (GPTs), defined as new methods of producing and inventing new goods and services which are important enough to have a long-term aggregate impact on the economy, can take a significant amount of time to translate to faster productivity growth at the aggregate level of the economy. This is inherent to the three critical characteristics of a GPT as identified by Bresnahan and Trajtenberg (1995).2

1. Pervasiveness –The GPT should spread to most sectors.

2. Improvement –The GPT should get better over time and, hence, should keep lowering the costs of its users.

3. Innovation spawning –The GPT should make it easier to invent and produce new products or processes.

Historical analysis has focussed on productivity trends in previous technology phases (Bakker et al., 2019; Crafts, 2004). Recent literature has shown that the information and communication technology (ICT) revolution of the past 50 years can be characterised as a GPT and doesn’t pale with previous GPTs such as steam technology, electricity and the combustion engine. For example, Hempell (2005) concludes that ‘investment in information and communication technologies (ICT) are closely linked to complementary innovations and are most productive in firms with experience from earlier innovations’. In a more recent analysis of the evolution of the Internet, Simcoe (2015) argues that the modularity of the internet has prevented a fall in return to investments in innovation by ‘facilitating low-cost adaptation of a shared general-purpose technology to the demands of heterogeneous applications’. In a review of the data, Liao et al. (2016) conclude that:

‘...ICT investment does contribute to productivity but not in the usual manner –we find a positive (but lagged) ICT effect on technological progress. We argue that for a positive ICT role on growth to actually take place, a period of negative relationship between productivity and ICT investment together with ICT-using sectors’ capacity to learn from the embodied new technology was crucial. In addition, it took a learning period with appropriate complementary co-inventions for the new ICT-capital to become effective and its gains to be realised. Our findings provide solid, further empirical evidence to support ICT as a general purpose technology’.

#### Growth solves 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.

#### Emergence of smart cities depends on IoT applications of 5G interoperability standards---absent FRAND, excessive royalties will undermine sustainable development.

Schwartz 18, \*Matt Schwartz, Privacy Fellowship Coordinator at ACT, App Association; (March 2nd, 2018, “It’s Smart to be FRANDly: How the FRAND Commitment Will Determine the Future of Smart Cities”, https://actonline.org/2018/03/02/its-smart-to-be-frandly-how-the-frand-commitment-will-determine-the-future-of-smart-cities/)

In December, we [outlined](https://actonline.org/2017/12/18/smart-cities-connecting-your-community-through-technology/%5d) the emergence of Smart Cities – cities that harness technological innovations like internet of things (IoT) devices and data analytics to improve essential infrastructure in growing urban centers. The technological foundation of Smart Cities aims to improve public safety, better allocate resources, and meet the needs of citizens more quickly.

A central element to Smart Cities is the comprehensive network of sensors and devices implemented within buildings, roads, traffic signs, and parking meters that allows them to interact with public, and potentially private-owned, infrastructure. These sensors will “speak” to one another, communicating information about energy usage, traffic density, or other elements of city management that have traditionally either been analyzed separately or not tracked at all. The potential of Smart Cities allows data to flow from previously disconnected branches of the city and be processed in real-time, unlocking previously unknown insights.

The powerful interoperability of Smart Cities will rely heavily on standardized technologies developed in organizations like the IEEE, which is responsible for standardizing the wi-fi technology we use every day. Standardized technologies often include standard-essential patents (SEPs), which, like their name suggests, are patents declared essential to an industry standard by a standards-setting organization. In simple terms, one cannot implement the standardized technology without using the patent.

Like regular patents, the users of SEPs must pay royalties or licensing fees to the patent owner before they may use it. For example, if a manufacturing company wants to make an IoT device interoperable with a 5G network, the manufacturer must pay a licensing fee to the owner of the SEP that is essential to the 5G standard. SEPs play a vital role in the new innovations we enjoy and have come to expect, and because of the value of these patents, SEP holders have the ability to demand high license fees from those who wish to implement the standard. To offset this competition issue, many SEP holders voluntarily agree to license their SEPs to any willing licensee under fair, reasonable, and non-discriminatory (FRAND) terms.

While wi-fi and LTE are standards that will be vital to Smart City deployment, countless new standardized technologies are being developed that will be integral to any fully-operational Smart City. With reasonable access to SEPs, assured by the FRAND commitment, innovators can enjoy the legal and business certainty they need to compete. While the meaning of the FRAND commitment continues to be refined – as evidenced by the development of SEP best practices recently launched by the App Association in Europe – its foundations are well-established.

But what happens when SEP holders do not abide by the FRAND licensing commitment, or simply refuse to license at all? Sadly, small and medium-sized companies would be forced to accept untenable licensing terms, but more realistically, they would be priced out of using the standard altogether. As a result, it would impose a barrier to innovation that would result in fewer products offered to consumers or cities eager to implement IoT technologies. For example, many hope the rise of autonomous vehicles will be seamlessly integrated into the Smart City network. But how beneficial would it be if only some autonomous vehicle brands are able to license the technology needed to communicate with traffic lights, simply because of the market power of a chipmaker? The FRAND commitment is an important backstop to that unfortunate possibility.

It is vital for SEP holders to honor FRAND licensing terms, if not for small and medium-sized innovators, then for the sustainability of future Smart Cities. FRAND creates a platform for innovation, providing a floor on which companies can stand, innovate, and compete. If the foundation of the FRAND commitment is reneged, American innovators pay a steep price – not only do they lose a key component of product development and market entry, but they are also left with years of expensive negotiations and litigation if they choose to challenge the licensing practice. What’s more, the confidence developed in the open standards development system is shaken, and Smart Cities have fewer choices in IoT solutions for their future.

To achieve the promise of Smart Cities, a balanced standards ecosystem is essential. We must allow small and medium-sized developers to leverage industry standards for innovation and prevent cost-prohibitive royalty structures and negotiating practices that are detrimental to competition, while also ensuring that SEP owners can protect their intellectual property and be fairly compensated for its use. The FRAND commitment continues to be the best framework to achieve this balance, and adherence to its principles will determine the future and success of Smart Cities.

#### Climate change is anthropogenic and causes extinction---5G-enabled smart cities are critical for mitigation and adaptation.

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Currently, the entire planet is at risk due to continual climate change [1–3]. The recorded increase in average temperature across the world in the past hundred years, and the associated changes attributed to this, are known as global warming. Many scientists are convinced by the published evidence that this change is anthropogenic and resulted from the elevated emission levels of global greenhouse gases (GHGs) [4,5]. Gases such as water vapor, carbon dioxide, methane, nitrous oxide, and ozone are responsible for the absorption and emission of thermal radiation. These changes in the relative quantities of the GHGs induce a proportional change in the amount of preserved solar energy. Presently, the accepted indicator for global warming is the sustained rise in the mean temperature worldwide. This definition is designed to account for the fact that there may be some localized exceptions to this rise. For example, there may be cooling experienced in a region while the global temperature may increase altogether, hence the need for average temperature. A key concern with the GHGs trapping of more heat in the atmosphere is that it affects both climate and short scale weather patterns. Consequently, it results in greater numbers of adverse weather events such as storms, heat waves, cold snaps, droughts, and fires [6]. Climate-related risks to health, livelihoods, food security, water supply, human safety, and economic growth are projected to increase with global warming of 1.5 ◦C [7] and further increase further at 2 ◦C, as shown in Figure 1. In addition, the risks to global aggregated economic growth due to the climate change impacts are projected to be lower at 1.5 ◦C than at 2 ◦C by the end of this century.

Carbon dioxide has the most substantial effect on global warming [8]. Although it was once assumed to have an ~100 year lifespan in the atmosphere, careful studies revealed that the situation is far worse, with three-quarters of the gas expected to remain for a time in the region of up to ~1000 years, with the remainder lasting for an indefinite period of time [9]. It was indicated that the present impacts of humanity on the atmosphere can certainly cause a long term problem [10]. Carbon dioxide is released when oil, coal, and other fossil fuels are burnt for the energy we use to power our homes, cars, and smartphones. By lessening its usage, we can curb our own contribution to climate change while saving money. The first challenge is eliminating the burning of coal, oil, and, eventually, natural gas. Oil is the lubricant of the global economy as it is hidden inside such ubiquitous items as plastic and corn, fundamental to the transportation of both consumers and goods. Coal is the substrate, supplying roughly half of the electricity worldwide, a percentage that is likely to grow according to the International Energy Agency (IEA). In fact, buildings contribute up to 43% of all the greenhouse gas emissions worldwide [11], even though investing in thicker insulation and other cost-effective as well as temperature-regulating strategies can save money in the long run. Investment in new infrastructures, or radical upgradation of the existing highways and transmission lines, may help to reduce greenhouse gas emissions, yielding economic growth in the developing countries.

Nations across the globe have kept very high targets to reducing their GHG discharges [12,13]. In order to meet these goals, considerable reductions in city energy usage is required. At a global scale, urban communities represent over half (55%) of the population, which is predicted to reach 68% by the middle of this century [14]. Urban areas claim ownership of the highest levels of energy use, gas emission, and also the largest local economy. As such, it is crucial for urban areas to reduce their consumption and utilize renewable sources wherever available to reduce their gas discharge levels. Smart cities often utilize digital sensors to measure and transmit data about the levels of GHGs in the city at that moment, as a means of tackling them [15]. The efficacy of such a system is thus reliant on the network used to collate and analyze the data collected as an extant network. The mobile telecommunications networks offer a convenient solution to this desire, as their pre-existence has the clear benefit of reducing costs compared to the design and implementation of a novel system. It is recognized that smart cities will certainly act as the key players meeting these ambitious targets [16,17]. In this study, we focused primarily on the potential applications of 5G network technology to control climate change in Singapore. In addition, a clear overview of the sustainability benefits of introducing 5G technology compatible smart cities, buildings, and farms in all aspects of urbanization is provided. Herein, the main purpose is to tackle the negative outcomes associated with anthropogenic climate change, with a particular focus on the contributions that are best made by the telecoms network operators.

Climate change is one of the most challenging problems that humanity has ever faced. Presently, hundreds of millions of lives, innumerable species, entire ecosystems, health, economy, and the future habitability of this planet are at risk. Fortunately, climate change is solvable, we just need to wisely exploit the existing technologies and sciences. Climate change mitigation is a pressing international need in which many management actions are required. The development of 5G technology has been largely driven by smart mobile devices and advanced communication technologies. It may thus serve as a technical enabler for a whole new range of business opportunities, energy, and facilities management, together with industrial applications. Moreover, it may enable different devices to work together seamlessly. Definitely, the 5G cellular network technology is expected to revolutionize the global industries with profound effects on the savings of energy, waste generation and recycling, and water resources management, thus reducing the climate change impacts.

#### Patent holdup is real and necessitates intervention, even if it can’t be systemically proven.

Contreras 19, \*Jorge Contreras, Professor, University of Utah S.J. Quinney College of Law; (2019, “MUCH ADO ABOUT HOLD-UP”, <https://www.illinoislawreview.org/wp-content/uploads/2019/08/Contreras.pdf>)

B. Protective Measures May Already Be Working to Reduce Hold-Up

Another important factor that should be considered regarding the purported lack of empirical evidence of systemic hold-up is the effect that existing policy measures have already had in reducing hold-up. As noted above, the threat of patent hold-up was a primary motivating factor for many SDOs to adopt policies requiring the disclosure and licensing of SEPs. These policies have been in place for decades. In the United States, the first such policy was adopted in 1959 by the American Standards Association (the predecessor to today’s American National Standards Institute (ANSI).102 Today, every one of the more than 200 ANSI-accredited developers of American National Standards must adhere to ANSI’s essential requirements, including the adoption of such a licensing policy for SEPs. Similar policies have existed in European and international standards organizations since at least the 1980s.103 These policies, which were developed by SDOs in large part to reduce the likelihood of hold-up within standard-setting systems, have had several decades to work, and it is likely that the lack of observed hold-up in some studies can be attributed to the successful operation of these policies.

Similarly, antitrust and competition enforcement agencies in the U.S. and Europe have been aware of the potential for hold-up connected with standardization for many years. Accordingly, they have brought enforcement actions when it has been alleged that hold-up behavior has resulted in a violation of the antitrust laws. High-profile enforcement actions against patent holders such as Rambus, 104 Google 105 and Qualcomm106 send powerful deterrent signals to the market and warn others not to engage in similar behavior lest they, too, become the subject of agency enforcement. Like SDO policies, it is likely that the general market awareness of agency interest in standard-setting and hold-up has, to a degree, limited the amount of hold-up that is actually attempted in the marketplace, thereby limiting the direct evidence of hold-up as a systemic problem.

But do the deterrent effects of SDO and agency efforts to reduce hold-up signify that hold-up is not a problem? Certainly not. To reach such a conclusion would be perverse: akin to claiming that burglary is not a problem in a neighborhood that experiences reduced burglary rates after it has implemented an active neighborhood watch program and enhanced policing.

C. Indicia of Healthy Markets do not Prove the Absence of Anticompetitive Conduct

As noted above, one of the principal arguments advanced by commentators seeking to refute the “hold-up theory” is that markets for telecommunications products, namely smart phones, are robust – evidenced by increasing product functionality, decreasing consumer prices and rapid innovation -- and that this degree of robustness indicates that hold-up cannot be a problem in these markets.107 If hold-up were a problem in these markets, they reason, we would see product stagnation, stable (but high) prices, and a lack of competition – features associated with classic examples of hold-up in markets for products such as natural resources and agricultural goods.108

But this argument relies on a false syllogism: hold-up results in market dysfunction; if a market functions well, then it cannot be subject to hold-up. The weaknesses in this argument are multifold. First, hold-up may exist in individual instances without sufficient weight to affect overall market characteristics, particularly in a large global market such as mobile telecommunications. Thus hold-up may exist, even in a market that outwardly appears to be functioning well. Second, there is no valid counterfactual to use to compare the health and robustness of the market for mobile telecommunications products.109 Other consumer electronics devices, such as televisions and DVD players, do not compare well with mobile telecommunications devices, which have taken on a unique character in the modern networked economy. Thus, observing the strength of the market fails to answer the critical questions “compared to what?” and how much stronger the market might be (through more product diversity, functionality, price reduction) without hold-up?

A simple historical illustration is useful in this context. During the decade leading up to the enactment of the Sherman Antitrust Act of 1890, several major U.S. commodity markets (e.g., steel, salt, petroleum, coal, sugar, lead, and others) came under intense scrutiny for a variety of allegedly anticompetitive industrial arrangements. One might have argued that these markets, had they been subject to the sorts of anticompetitive collusion that the Sherman Act sought to address, should have seen reductions of output and increases in price. Yet, between 1880 and 1890, U.S. output of salt, petroleum, steel, and coal all increased significantly, and prices of steel, sugar and lead all dropped significantly.110 Do these positive market indicia demonstrate that the subject markets were not subject to anticompetitive collusion, and that the Sherman Act was not necessary? Certainly, investigations of these industries revealed significant cartel behavior. I would suggest that few commentators today would argue that the coal, steel, sugar and other major industrial producers of the late nineteenth century were innocent of collusive and anticompetitive conduct, or that the Sherman Act was not a necessary and beneficial measure for the U.S. economy.111 Yet, had we relied solely on the positive characteristics exhibited by these markets as proof that anticompetitive conduct did not exist, then perhaps the Sherman Act never would have been enacted.

By the same token, the fact that global markets for standardized products such as computers and smart phones appear to be thriving does not itself refute the possibility of hold-up nor the existence of anticompetitive conduct in these markets. Nor does it allow regulators and policy makers to drop their guard or cease to monitor these important industries.

#### The plan requires SSO’s to administer reasonable action to prohibit ex post opportunism---that solves

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3. Application of the Basic Legal Principles

The antitrust principle is straightforward: industry-wide collaboration through SSOs to establish procompetitive standards is permitted only if it is no more restrictive of competition than reasonably necessary to enable creation of the standards. When standard setting predictably creates technology monopolies that, if unrestrained, will enable anticompetitive ex post opportunism that would otherwise not occur, an SSO that does not take effective measures to prevent or minimize such ex post opportunism engages in conduct that is more restrictive of competition than necessary. In that case, the SSO and, in appropriate cases, its members, may well violate Section 1 of the Sherman Act.

Under this principle, SSO procedures and FRAND rules should be evaluated based on whether they lead to reasonable SEP royalties, using the competitive ex ante licensing standard discussed above, which has been adopted by the courts in patent law. Put differently, FRAND rules should be evaluated based on their ability to prevent SEP holders from obtaining more than the ex ante value of their technology from implementers.

This limitation would not prevent a SEP holder from proﬁting, perhaps greatly, from participating in the SSO and having its patented technology included in the standard. The SEP holder continues to be rewarded for its technology because the inclusion of its technology in the standard can still greatly increase the volume of licensing opportunities available to the SEP holder.

Whether a particular set of FRAND rules are sufficiently effective in preventing ex post opportunism will depend on the particular circumstances. The procedural unfolding of the case will also depend upon the circumstances. As a general matter, the case would probably be structured as an ordinary Rule of Reason case.82

First, the plaintiff would have to demonstrate harm to competition as a result of the collaboration of the SSO’s members, many of which compete with one another. In this case, the harm to competition would stem from the ability of the SEP holder to exercise monopoly power by obtaining royalties in excess of the competitive, ex ante level. The decision to include patented technologies in the standard would be the allegedly unlawful agreement. Notably, the court need not determine what a FRAND royalty is; it would suffice to determine that market power has been created or exercised, and that existing SSO rules and policies were not adequate to prevent the competitive harm. The defendant, which could be the SSO or perhaps one or more SSO members, would win at this point if the plaintiff failed to show harm to competition. If might fail if the standard faces substantial competition and the court concludes that the SEP holder therefore does not have market power or if the SSO’s rules and policies are found to be effective in preventing ex post opportunism, even if the plaintiff or even the court thinks that other rules and policies would be preferable.

Second, if the plaintiff makes the requisite showing of harm to competition, the defendant(s) would then have to show some procompetitive justiﬁcation— in this case, the beneﬁts of the standard. These two initial steps should be straightforward.

Third, if as is likely the defendant is able to show a procompetitive justiﬁcation, the plaintiff would have to show that the SSO could have used available, reasonable alternatives to realize the efficiency beneﬁts with less or none of the competitive harms. The plaintiff might identify reasonable alternatives that would have led to a different standard, based on including unpatented technology in the standard or perhaps involving fewer SEPs or fewer owners of SEPs, which would be less subject to patent holdup. More likely, the plaintiff could suggest alternative SSO rules that would not change the standard, but would reduce the likelihood or extent of ex post opportunism. For example, the plaintiff might suggest more rigorous FRAND-type rules, such as rules that set forth more precise principles on which FRAND royalties are to be determined and the circumstances under which SEP holders might seek injunctions.

Fourth, the burden would then shift to the defendant(s) to show that the beneﬁts of the standard could not have been realized if the SSO had adopted any of the proffered alternatives or that those alternatives were unrealistic.83 The plaintiff would be entitled to judgment if the court concludes that those beneﬁts could have been realized with less competitive harm if the SSO had adopted the standard with different IPR rules or policies.

Our overall sense, based on experience and the empirical literature, is that the extant FRAND rules are generally useful, but tend to be inadequate because they are imprecise and leave unresolved such critical issues as (a) the meaning of a reasonable royalty, even conceptually; (b) the meaning of “non-discriminatory;” (c) to whom licenses must be offered; and (d) under what circumstances may a SEP holder obtain an injunction.84 These imprecise FRAND commitments are therefore not sufficient to adequately prevent ex post opportunism. The recent revisions to IEEE’s FRAND policy represent a signiﬁcant step in the right direction, but even this advance leaves important questions unanswered.85 If FRAND rules are inadequate in these ways, litigation involving extant FRAND rules would likely be resolved only at the ﬁnal, fourth step. The defendant would be able to demonstrate the beneﬁts created by the standard; the plaintiff would be able to demonstrate the creation of market power and that other reasonable and practical rules or policies would ameliorate the problem. The case would thus turn on whether the defendant is able to demonstrate that signiﬁcant beneﬁts associated with standardization could not have been realized if the SSO had adopted those other rules or policies.

The court would have available a variety of possible remedies if the plaintiff prevails. Implementers that paid supracompetitive royalties or were unlawfully excluded in whole or in part from product markets as a result of the inadequate FRAND policies would be entitled to damages and, in some cases, to treble damages.86 If the unlawful SSO conduct is regarded as the collective action of the SSO and its members, which is likely to be the case in most instances, SSO members would be jointly and severally liable for the damages. Forward-looking injunctive relief aimed at restoring competition would need to be fashioned to the requirements of the individual case. For example, a court could order the SSO to adopt a new rule or policy proposed by the plaintiff. If the court is reluctant to take on that governance role, it might give the SSO a period of time—maybe ninety days—to develop a rule, subject to the court’s ultimate approval, which would adequately ameliorate the competitive problem created by the SSO. Alternatively or in addition, the court might order the parties to attempt to negotiate a rule or policy on which they can agree. And, depending on the circumstances, the court might order SEP holders, including at least those that were defendants in the case, to comply with the new SSO rules and policies.

### 1AC---Cybersecurity ADV

#### Advantage 2 is Cybersecurity:

#### Aggressive patent strategies create structural flaws in 5G standardization that imperils domestic cybersecurity---market competition reduces the incidence of vulnerability and severity of attacks.

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III. COMPETITION AND CYBERSECURITY

In addition to the historical review done so far, another approach to understanding the relationship among patents, competition, and national security is to consider the role of cybersecurity. There is little doubt that computer system vulnerabilities that enable hacking and spread of computer exploits are a threat to the nation’s defenses, so better cybersecurity is a key part of national security strategy.155

Strong competition can thus complement national security by enhancing domestic cybersecurity, and patent assertion that unduly weakens competition detracts from cybersecurity.156 Competition promotes better cybersecurity in at least two ways. First, multiple studies show that competition encourages firms to improve their products on multiple vectors including cybersecurity. Second, competition avoids a situation that security experts call a “monoculture,” which increases vulnerability to severe cyberattacks. As former Secretary of Homeland Security Michael Chertoff wrote recently, “We need competition and multiple providers, not a potentially vulnerable technological monoculture,” to guarantee national security.157 Thus, cybersecurity provides a useful lens for understanding how unfettered patent assertion and licensing can detract from national security.

A. Cybersecurity as Competitive Value-Add

Competition enhances national security by reducing the incidence of technical vulnerabilities. That effect is especially important for security sensitive systems such as mobile telecommunications.

Intuitively, a causal chain from competition to cybersecurity makes logical sense. Computer security is a value-added benefit to consumers, so firms in competitive markets are likely to use security to gain an edge over their competitors.158 In monopolized markets, though, there may be less external impetus to test products for flaws, and the monopolist may choose to focus less on security and more on new product features or increased product quality.

Economic research confirms these hypotheses about competition leading to better cybersecurity. A 2009 empirical study of web browsers considered the impact of market concentration on the amount of time that vendors took to fix security vulnerabilities as they were discovered.159 The study found that the presence of more competitors correlated with faster cybersecurity response—a reduction of 8–10 days in response time per additional market rival.160 Similarly, business researchers in 2005 modeled incentives for firms to engage in sharing of cybersecurity information, and concluded that the “inclination to share information and invest in security technologies increases as the degree of competitiveness in an industry increases.”161 Another study found that, where two software firms are in competition, at least one will be willing to take on some degree of risk and responsibility for cybersecurity, whereas a monopoly software firm will consistently fail to accept such responsibility.162 To be sure, an unpublished study from 2017 found that some market concentration can make firms more responsive to cybersecurity issues, but only to a point: “being in a dominant position reduces the positive effect of having less competitors on the responsiveness of the vendor,” and indeed the “more dominant the firm is, the less rapid it is in releasing security patches.”163 This research confirms that competition is more conducive to cybersecurity.

It is not hard to see how this applies to emerging communication technologies markets. In the absence of competition, the above research suggests that device manufacturers, chip makers, and software developers will lack incentives to respond to vulnerabilities, to share information about cybersecurity practices and issues, and to take responsibility for security matters. Mobile phone chips have had their share of cybersecurity failures already.164 The best way to flush out ongoing and future cybersecurity issues is to maintain competitive pressure at all levels of the supply chain.

B. Vulnerabilities of “Monocultures”

A second reason why monopoly undermines cybersecurity is that monopoly leads to a “monoculture” of single-vendor products, opening the door to massive systemic failure in the case of a cyberattack. Computer researchers developed the theory of software monocultures in the early 2000s, in response to the regular phenomenon of computer viruses and other attacks spreading rapidly by exploiting flaws in the dominant operating system at the time, Microsoft Windows.165 Where a computer system such as Windows has a commanding share of users, a virus that exploits a flaw in that system can quickly spread to infect a whole interconnected ecosystem. An operating system monopoly thus enables fast and easy spread of cyberattacks, and better cybersecurity would be achieved through greater diversity in online systems.166 As one research group posited, “a network architecture that supports a collection of heterogeneous network elements for the same functional capability offers a greater possibility of surviving security attacks as compared to homogeneous networks.”167

There has been considerable study of the theory that computer monocultures are naturally more vulnerable to attacks.168 In one study, computer science researchers reviewed a catalog of 6,340 software vulnerabilities recorded in 2007, to compare whether comparable software would share the same flaws.169 Of the 2,627 vulnerabilities applicable to application software (as opposed to operating systems, web scripts, and other software components), only 29 (1.1%) applied to substitute products from different vendors but providing the same functionality.170 By contrast, different versions of a single software product were found to share vulnerabilities 84.7% of the time.171 Thus, software monocultures share exploitable flaws even when there is some variation in versions across the monoculture; by contrast, diversity in software is almost guaranteed to prevent a single flaw from affecting all users.

In the case of 5G and wireless mobile communications, a monoculture is an especially concerning possibility. To the extent that systems such as smart city sensors or communication networks are widely deployed in a monoculture fashion, a widespread attack could have devastating consequences, potentially blacking out a region and affecting essential services such as 911.172 A monoculture that is vulnerable to so-called “rootkits” or “backdoors”—maliciously installed software that enable bad actors to commandeer systems—could also enable mass surveillance or spying by private hackers or foreign governments.173 The presence of systems from multiple vendors would mitigate these possibilities.

#### Insecure technical standards cause inevitable systemic grid collapse---extinction.

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The infrastructure was essential, ubiquitous and providing basic functionality for everything in daily life from water to heat and transportation. And in an instant it was gone, plunging tens of thousands of residents into a life-threatening crisis. This is, of course, the narrative of the recent debacle in Texas, where a winter storm overwhelmed the state’s electrical grid and brought the state to a near-total blackout. But it should also be interpreted as a preemptive warning of what Americans will face from the next generation of the internet and the new realm of cybersecurity risk it will dramatically amplify.

Both forms of infrastructure—a state-run electrical grid and the 5G and “internet of things” future to which we are rapidly hurtling—share three attributes. First, their construction reflects a lack of imagination about the danger that can quickly coalesce when seemingly remote threat scenarios become real. Second, compounding a lack of analytic imagination is an absence of preparedness. Third, for both the Texas electrical grid and the emerging internet, public policy protections are either meager or completely absent.

In planning for the resilience of its electrical grid, public officials in Texas discounted the potentially devastating disruption that could occur from unpredictable events—whether related to climate change or just a once-a-century anomaly. They also eschewed precautions other states take seriously by allowing for the interconnection of electrical grid supply chains across their borders, ostensibly because of their ideological rejection of federal regulatory oversight governing such arrangements.

As the United States builds out a new national 5G cyber-physical communications network through private service providers, Americans similarly discount the risks—myriad in their diversity and severity—that are orders of magnitude more significant than what Texas confronted recently. More physical things than people are already connected. The super empowered internet of tomorrow, known among some in the field as the “internet of everything,” will exceed by tens of billions of devices the number of connections between individuals simply communicating via social media or digital screens.

This confronts policymakers with an imminent threat: A cyber outage is no longer about losing digital communications but about losing basic societal functioning and even human life. The failure of imagination is to think of the SolarWinds attack on U.S. federal agencies and tech companies as a worst-case scenario. The failure of imagination is to think of cybersecurity through a content-centric lens rather than as possible attacks on the material world. The emergence of internet-connected cardiac devices, digitally dependent cars, and internet-connected agriculture systems portend the stakes of a cyberattack to health care, economic and social functioning, and food security.

The United States should be prepared for, and certainly not be caught by surprise by, such cyberattacks. Yet, the internet of everything is notoriously insecure. Internet-connected physical objects are not necessarily upgradeable. Nor do they come with adequate default security and encryption. The 5G infrastructure that helps connect digital objects has been at the center of debates over Chinese espionage. Industrial cyber-physical systems are based on technical standards that have not been collaboratively vetted for security and interoperability. One of the most infamous cyberattacks—the so-called Mirai botnet that took down major media sites and corporations—hijacked these insecure objects in homes to carry out the assault. The United States is not yet prepared.

Finally, in the race to conceive and deploy effective public policy responses, the U.S. government as a whole is hardly more anticipatory or synthesized in its response to potential calamity than the state of Texas. The focus of U.S. cyber policy remains on information policy issues such as disinformation, manipulation and violent speech rather than securing the digital world that now powers our material day-to-day lives. The Biden administration confronts an enormous challenge in crafting a comprehensive strategy to the cybersecurity risks foreshadowed by the ruinous experience in Texas and its management of vital infrastructure. While the digital world has leapt from two-dimensional to three-dimensional space, cyber policy has not at all jumped from 2D to 3D.

This failure of imagination, preparedness and policy protection must not be America’s cyber future; the stakes are far too high and the costs are far too great. The Texas disaster is a potent illustration of what has always been true: Our digital society and economy are extremely vulnerable and grow more porous and subject to penetration day by day. As digital sensors and cyber control systems become further embedded in physical infrastructure like energy systems, agriculture and transportation, there is no longer a separation between security of the “real” world and security of the online world. They are entangled and increasingly enmeshed—and policy has yet to catch up to either envisioning or mitigating the looming threats the U.S. confronts.

If the energy grid cannot weather a winter storm, how can it be expected to withstand a major cyberattack? What other vital forms of national infrastructure—ranging from water, bridges, highways and roads, and ultimately our day-to-day financial system—are comparably at risk? As Texas dramatizes, it is neither hyperbolic nor exaggerated to assert that our survival could now depend on securing the inevitable cyber-physical future that is accelerating with stunning rapidity.

#### Actors have the means and motivations to strike critical infrastructure.

Wintch 21, \*Timothy M. Wintch, an active-duty Major in the United States Air Force. He is currently a graduate student at the Oettinger School of Science & Technology Intelligence, National Intelligence University, in Bethesda, Maryland. Mr. Wintch has over 11 years of experience in command-and-control operations as an Air Battle Manager. He holds a Bachelor of Arts in Politics from the University of California, Santa Cruz, and a Master of Arts in Military Studies from American Military University. (April 20th, 2021, “PERSPECTIVE: Cyber and Physical Threats to the U.S. Power Grid and Keeping the Lights on”, https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/)

Among critical infrastructure sectors in the U.S., energy is perhaps the most crucial of the 16 sectors defined by the Department of Homeland Security. This sector is so vital because it provides the energy necessary to run every other critical infrastructure sector. However, the U.S. power grid, the backbone of the energy sector, is built upon an aging skeleton that is becoming increasingly vulnerable every day. Whether from terrorists or nation-states like Russia and China, the power grid is susceptible to not just physical attacks, but also to cyber intrusion as well. However, much of this threat can be mitigated if the U.S. takes the appropriate steps to safeguard the power grid and avoid a potential catastrophe in the future.

Since Sept. 11, 2001, terrorism on U.S. soil has been at the forefront of American consciousness. Critical infrastructure provides an appealing target because of the disproportionally large impact even a small attack can have on the sectors. In particular, the power grid represents a particularly lucrative target, both in terms of the ease of access and the large impact it can make. The National Research Council stated that the U.S. power grid is “vulnerable to intelligent multi-site attacks by knowledgeable attackers intent on causing maximum physical damage to key components on a wide geographical scale.”[[1]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn1) Additionally, the physical security of transmission and distribution systems is difficult due to the dispersed nature of these key components, which in turn is advantageous to attackers as it reduces the likelihood of their capture.[[2]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn2) From 2002-2012, approximately 2,500 physical attacks occurred against transmission lines and towers worldwide and approximately 500 attacks against transformer substations.[[3]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn3) Terrorists have the motivation to attack the U.S. power grid but the very nature of the grid makes it highly vulnerable. The power grid is not only at risk from physical attacks, but also nation-state cyberattacks.

One nation that has shown both the capability and intent to use attacks against critical energy infrastructure is Russia, as demonstrated in their 2015 annexation of Crimea from Ukraine. A Russian cyber threat group known as Sandworm, which used its BlackEnergy malware, attacked Ukrainian computer systems that provide remote control of the Ukraine power grid.[[4]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn4) This attack, and another in 2016, each left the capital Kiev without power, prompting cyber experts to raise concern about the same malware already existing in NATO and the U.S. power grids.[[5]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn5) In any conflict between Russia and NATO, not only would similar cyberattacks pose a threat, but so would potential physical attacks severing fuel oil and natural gas lines to Western Europe. Russia has both the capability and intent to attack critical infrastructure, particularly power grids, during future conflicts in their “hybrid warfare” approach.

Another nation that has the capability to attack critical energy infrastructure is China, representing a threat to not just the U.S. energy infrastructure but also that of our allies whose support would be vital in a major conflict. A recent NATO report highlighted this threat from China’s Belt and Road Initiative, stating that “[China’s] foreign direct investment in strategic sectors [such as energy generation and distribution] …raises questions about whether access and control over such infrastructure can be maintained, particularly in crisis when it would be required to support the military.”[[6]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn6) Like Russia, China has been active with cyber intrusions in U.S. energy infrastructure. The Mission Support Center at Idaho National Laboratory characterized these as attacks as “multiple intrusions into US ICS/SCADA [Industrial Control Systems/Supervisory Control and Data Acquisition] and smart grid tools [that] may be aimed more at intellectual property theft and gathering intelligence to bolster their own infrastructure, but it is likely that they are also using these intrusions to develop capabilities to attack the [bulk electric system], as well.”[[7]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn7) China, therefore, has both the capability and intent to conduct cyber intrusions and attacks for myriad reasons.

Another arm of this threat is the reliance the U.S. energy industry has on imports from China, especially transformers. In early 2020, federal officials seized a transformer in the port of Houston that had been imported by the Jiangsu Huapeng Transformer Company before sending it to Sandia National Laboratory in Albuquerque. Sandia is contracted by the U.S. Department of Energy for mitigating national security threats.[[8]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn8) The Wall Street Journal reported that “Mike Howard, chief executive of the Electric Power Research Institute, a utility-funded technical organization, said that the diversion of a huge, expensive transformer is so unusual – in his experience, unprecedented – that it suggests officials had significant security concerns.”[[9]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn9) Previously destined for the Washington Area Power Administration’s Ault, Colo., substation, the transformer is believed to have been seized due to “backdoor” exploitable hardware emplaced by the Chinese prior to shipment.[[10]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/#_ftn10) Shortly after these events, President Trump issued Executive Order 13920, “[Securing the United States Bulk-Power System](https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-securing-united-states-bulk-power-system/),” essentially limiting the import of Chinese-built critical energy infrastructure components due to concerns about cybersecurity.[[11]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/#_ftn11) Interestingly, Jiangsu Huapeng “boasted that it supported 10 percent of New York City’s electricity load.”[[12]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/#_ftn12)

Franklin Kramer, the former Assistant Secretary of Defense for International Security Affairs, testified before a U.S. House of Representatives Energy and Commerce subcommittee during an energy and power hearing in 2011 and said that a “highly-coordinated and structured cyber, physical, or blended attack on the bulk power system, however, could result in long-term (irreparable) damage to key system components in multiple simultaneous or near-simultaneous strikes.” He added that “an outage could result with the potential to affect a wide geographic area and cause large population centers to lose power for extended periods.”[[13]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/#_ftn13) Even the inclusion of features such as smart grids to the overall grid structure poses new vulnerabilities through their connectivity. Kramer stated that “such connectivity means that the distribution system could be a key vector for a national security attack on the grid.”[[14]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/#_ftn14)

#### Those attacks cause accidental nuclear escalation.

Klare 19, \*Michael T. Klare is a professor emeritus of peace and world security studies at Hampshire College and senior visiting fellow at the Arms Control Association; (November 19th, “Cyber Battles, Nuclear Outcomes? Dangerous New Pathways to Escalation”, https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation)

Yet another pathway to escalation could arise from a cascading series of cyberstrikes and counterstrikes against vital national infrastructure rather than on military targets. All major powers, along with Iran and North Korea, have developed and deployed cyberweapons designed to disrupt and destroy major elements of an adversary’s key economic systems, such as power grids, financial systems, and transportation networks. As noted, Russia has infiltrated the U.S. electrical grid, and it is widely believed that the United States has done the same in Russia.[12](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote12) The Pentagon has also devised a plan known as “Nitro Zeus,” intended to immobilize the entire Iranian economy and so force it to capitulate to U.S. demands or, if that approach failed, to pave the way for a crippling air and missile attack.[13](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote12)

The danger here is that economic attacks of this sort, if undertaken during a period of tension and crisis, could lead to an escalating series of tit-for-tat attacks against ever more vital elements of an adversary’s critical infrastructure, producing widespread chaos and harm and eventually leading one side to initiate kinetic attacks on critical military targets, risking the slippery slope to nuclear conflict. For example, a Russian cyberattack on the U.S. power grid could trigger U.S. attacks on Russian energy and financial systems, causing widespread disorder in both countries and generating an impulse for even more devastating attacks. At some point, such attacks “could lead to major conflict and possibly nuclear war.”[14](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote14)

These are by no means the only pathways to escalation resulting from the offensive use of cyberweapons. Others include efforts by third parties, such as proxy states or terrorist organizations, to provoke a global nuclear crisis by causing early-warning systems to generate false readings (“spoofing”) of missile launches. Yet, they do provide a clear indication of the severity of the threat. As states’ reliance on cyberspace grows and cyberweapons become more powerful, the dangers of unintended or accidental escalation can only grow more severe.

#### Cyber-compromised NC3 causes nuclear war.

Klare 19, \*Michael T. Klare is a professor emeritus of peace and world security studies at Hampshire College and senior visiting fellow at the Arms Control Association; (November 19th, “Cyber Battles, Nuclear Outcomes? Dangerous New Pathways to Escalation”, <https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation>)

The Nuclear-Cyber Connection

These links exist because the NC3 systems of the United States and other nuclear-armed states are heavily dependent on computers and other digital processors for virtually every aspect of their operation and because those systems are highly vulnerable to cyberattack. Every nuclear force is composed, most basically, of weapons, early-warning radars, launch facilities, and the top officials, usually presidents or prime ministers, empowered to initiate a nuclear exchange. Connecting them all, however, is an extended network of communications and data-processing systems, all reliant on cyberspace. Warning systems, ground- and space-based, must constantly watch for and analyze possible enemy missile launches. Data on actual threats must rapidly be communicated to decision-makers, who must then weigh possible responses and communicate chosen outcomes to launch facilities, which in turn must provide attack vectors to delivery systems. All of this involves operations in cyberspace, and it is in this domain that great power rivals seek vulnerabilities to exploit in a constant struggle for advantage.

The use of cyberspace to gain an advantage over adversaries takes many forms and is not always aimed at nuclear systems. China has been accused of engaging in widespread cyberespionage to steal technical secrets from U.S. firms for economic and military advantages. Russia has been accused, most extensively in the Robert Mueller report, of exploiting cyberspace to interfere in the 2016 U.S. presidential election. Nonstate actors, including terrorist groups such as al Qaeda and the Islamic State group, have used the internet for recruiting combatants and spreading fear. Criminal groups, including some thought to be allied with state actors, such as North Korea, have used cyberspace to extort money from banks, municipalities, and individuals.[4](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote04) Attacks such as these occupy most of the time and attention of civilian and military cybersecurity organizations that attempt to thwart such attacks. Yet for those who worry about strategic stability and the risks of nuclear escalation, it is the threat of cyberattacks on NC3 systems that provokes the greatest concern.

This concern stems from the fact that, despite the immense effort devoted to protecting NC3 systems from cyberattack, no enterprise that relies so extensively on computers and cyberspace can be made 100 percent invulnerable to attack. This is so because such systems employ many devices and operating systems of various origins and vintages, most incorporating numerous software updates and “patches” over time, offering multiple vectors for attack. Electronic components can also be modified by hostile actors during production, transit, or insertion; and the whole system itself is dependent to a considerable degree on the electrical grid, which itself is vulnerable to cyberattack and is far less protected. Experienced “cyberwarriors” of every major power have been working for years to probe for weaknesses in these systems and in many cases have devised cyberweapons, typically, malicious software (malware) and computer viruses, to exploit those weaknesses for military advantage.[5](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote05)

Although activity in cyberspace is much more difficult to detect and track than conventional military operations, enough information has become public to indicate that the major nuclear powers, notably China, Russia, and the United States, along with such secondary powers as Iran and North Korea, have established extensive cyberwarfare capabilities and engage in offensive cyberoperations on a regular basis, often aimed at critical military infrastructure. “Cyberspace is a contested environment where we are in constant contact with adversaries,” General Paul M. Nakasone, commander of the U.S. Cyber Command (Cybercom), told the Senate Armed Services Committee in February 2019. “We see near-peer competitors [China and Russia] conducting sustained campaigns below the level of armed conflict to erode American strength and gain strategic advantage.”

Although eager to speak of adversary threats to U.S. interests, Nakasone was noticeably but not surprisingly reluctant to say much about U.S. offensive operations in cyberspace. He acknowledged, however, that Cybercom took such action to disrupt possible Russian interference in the 2018 midterm elections. “We created a persistent presence in cyberspace to monitor adversary actions and crafted tools and tactics to frustrate their efforts,” he testified in February. According to press accounts, this included a cyberattack aimed at paralyzing the Internet Research Agency, a “troll farm” in St. Petersburg said to have been deeply involved in generating disruptive propaganda during the 2016 presidential elections.[6](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote06)

Other press investigations have disclosed two other offensive operations undertaken by the United States. One called “Olympic Games” was intended to disrupt Iran’s drive to increase its uranium-enrichment capacity by sabotaging the centrifuges used in the process by infecting them with the so-called Stuxnet virus. Another left of launch effort was intended to cause malfunctions in North Korean missile tests.[7](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote07) Although not aimed at either of the U.S. principal nuclear adversaries, those two attacks demonstrated a willingness and capacity to conduct cyberattacks on the nuclear infrastructure of other states.

Efforts by strategic rivals of the United States to infiltrate and eventually degrade U.S. nuclear infrastructure are far less documented but thought to be no less prevalent. Russia, for example, is believed to have planted malware in the U.S. electrical utility grid, possibly with the intent of cutting off the flow of electricity to critical NC3 facilities in the event of a major crisis.[8](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote08) Indeed, every major power, including the United States, is believed to have crafted cyberweapons aimed at critical NC3 components and to have implanted malware in enemy systems for potential use in some future confrontation.

Pathways to Escalation

Knowing that the NC3 systems of the major powers are constantly being probed for weaknesses and probably infested with malware designed to be activated in a crisis, what does this say about the risks of escalation from a nonkinetic battle, that is, one fought without traditional weaponry, to a kinetic one, at first using conventional weapons and then, potentially, nuclear ones? None of this can be predicted in advance, but those analysts who have studied the subject worry about the emergence of dangerous new pathways for escalation. Indeed, several such scenarios have been identified.[9](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote09)

The first and possibly most dangerous path to escalation would arise from the early use of cyberweapons in a great power crisis to ~~paralyze~~ undermine the vital command, control, and communications capabilities of an adversary, many of which serve nuclear and conventional forces. In the “fog of war” that would naturally ensue from such an encounter, the recipient of such an attack might fear more punishing follow-up kinetic attacks, possibly including the use of nuclear weapons, and, fearing the loss of its own arsenal, launch its weapons immediately. This might occur, for example, in a confrontation between NATO and Russian forces in east and central Europe or between U.S. and Chinese forces in the Asia-Pacific region.

Speaking of a possible confrontation in Europe, for example, James N. Miller Jr. and Richard Fontaine wrote that “both sides would have overwhelming incentives to go early with offensive cyber and counter-space capabilities to negate the other side’s military capabilities or advantages.” If these early attacks succeeded, “it could result in huge military and coercive advantage for the attacker.” This might induce the recipient of such attacks to back down, affording its rival a major victory at very low cost. Alternatively, however, the recipient might view the attacks on its critical command, control, and communications infrastructure as the prelude to a full-scale attack aimed at neutralizing its nuclear capabilities and choose to strike first. “It is worth considering,” Miller and Fontaine concluded, “how even a very limited attack or incident could set both sides on a slippery slope to rapid escalation.”[10](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote10)

What makes the insertion of latent malware in an adversary’s NC3 systems so dangerous is that it may not even need to be activated to increase the risk of nuclear escalation. If a nuclear-armed state comes to believe that its critical systems are infested with enemy malware, its leaders might not trust the information provided by its early-warning systems in a crisis and might misconstrue the nature of an enemy attack, leading them to overreact and possibly launch their nuclear weapons out of fear they are at risk of a preemptive strike.

“The uncertainty caused by the unique character of a cyber threat could jeopardize the credibility of the nuclear deterrent and undermine strategic stability in ways that advances in nuclear and conventional weapons do not,” Page O. Stoutland and Samantha Pitts-Kiefer wrote in 2018 paper for the Nuclear Threat Initiative. “[T]he introduction of a flaw or malicious code into nuclear weapons through the supply chain that compromises the effectiveness of those weapons could lead to a lack of confidence in the nuclear deterrent,” undermining strategic stability.[11](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote11) Without confidence in the reliability of its nuclear weapons infrastructure, a nuclear-armed state may misinterpret confusing signals from its early-warning systems and, fearing the worst, launch its own nuclear weapons rather than lose them to an enemy’s first strike. This makes the scenario proffered in the 2018 NPR report, of a nuclear response to an enemy cyberattack, that much more alarming.

# 2AC---Round 5

## T---Per Se

### 2AC---AT: T---Prohibit = Per Se---TL

#### We meet---the plan still increases prohibitions on anticompetitive conduct, the rule of reason is simply a test that decides whether certain conduct actually violates said prohibition.

Fishman 19, \*Todd Fishman, [Allen & Overy LLP](https://www.jdsupra.com/profile/Allen_Overy_docs/); (January 31st, 2019, “The Rule of Reason as a Bar to Criminal Antitrust Enforcement”, https://www.jdsupra.com/legalnews/the-rule-of-reason-as-a-bar-to-criminal-87406/)

Antitrust law’s rule of reason was born of technical necessity. By its terms, §1 of the Sherman Act prohibits “[e] very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade.” 15 U.S.C. §1. Despite the expansive language of the statutory prohibition, the Supreme Court has held that §1 prohibits only agreements that unreasonably restrain trade. *Board of Trade of Chicago v. United States*, 246 U.S. 231, 238 (1918); *Standard Oil Co. of N.J. v. United States*, 221 U.S. 1, 58-60 (1911). With the rule of reason, antitrust courts assumed a prudential role in administering the scope of antitrust violations, applying a factual inquiry weighing legitimate justifications for a restraint against any anticompetitive effects. Under the rule of reason, “the factfinder weighs all of the circumstances of a case in deciding whether a restrictive practice should be prohibited as imposing an unreasonable restraint on competition.” *Continental T.V. v. GTE Sylvania,* 433 U.S. 36, 49 (1977).

#### Counter-interpretation---rule of reason is a prohibition.

Light 19, Sarah E. Light Assistant Professor of Legal Studies and Business Ethics, The Wharton School, University of Pennsylvania., The Law of the Corporation as Environmental Law, 71 Stan. L. Rev. 137, 2019, Lexis/Nexis

While antitrust law can serve as an environmental mandate by prohibiting collusive behavior that keeps environmentally preferable goods from the market, there is also conflict between antitrust law's goals of promoting competition and environmental law's goals of promoting [\*177] conservation. 192 Because antitrust law's per se rule and rule of reason operate on a somewhat fluid continuum, 193 this Subpart discusses the two doctrines together. The per se rule operates as a prohibition, whereas the rule of reason operates as both a prohibition and a disincentive. As noted above, antitrust law generally prohibits certain types of market activity - price fixing, horizontal boycotts, and output limitations - as illegal per se, and harm to competition is presumed. 194 For example, if an industry association declines to award a seal of approval necessary for a product's sale without any good faith attempt to test the product's performance, but rather simply because that product is manufactured by a competitor, such an action would be illegal per se. 195 Under this Article's framework, a per se violation is thus a prohibition. The more fact-intensive inquiry under the rule of reason tests "whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition." 196 While this extremely broad statement might suggest that any fact is relevant to the inquiry, the salient facts under the rule of reason are "those that tend to establish whether a restraint increases or decreases output, or decreases or increases prices." 197 If an anticompetitive effect is found, then the action is illegal and the rule of reason operates, like the per se rule, as a prohibition. 198 The rule of reason can also operate as a disincentive, even if no [\*178] court finds an anticompetitive effect, as uncertainty and litigation risk may discourage firms from undertaking legally permissible, environmentally positive industry collaborations. 199 Associations of firms have adopted numerous mechanisms of private environmental governance to address the management of common pool resources like fisheries, forests, and the global climate. 200 Examples include the Sustainable Apparel Coalition's Higg Index 201 and the American Chemistry Council's Responsible Care program. 202 But private industry standards raise special antitrust concerns. An agreement among competitors with respect to product or process specifications may exclude competitors who fail to meet such standards, raising the specter that such industry collaborations really constitute output limitations or efforts to limit competition. 203 While the U.S. Supreme Court has scrutinized private standard-setting associations carefully, 204 it has noted that if associations "promulgate … standards based on the merits of objective expert judgments and through procedures that prevent the standard-setting process from being biased by members with economic interests in stifling product competition … , those private standards can have significant procompetitive advantages." 205 In the absence of price fixing or a boycott, a rule of reason analysis generally applies to product standard setting by private associations. 206 The uncertain outcome [\*179] inherent in the application of antitrust law in this context could therefore serve as a potential disincentive to the adoption of private industry standards. 207 The challenge of course is that some form of explicit sanctions on noncompliant industry members may be necessary for private industry standards to be effective. In the context of private reputational mechanisms like the New York Diamond Dealers Club, 208 Barak Richman has pointed out that the Club's use of reputational sanctions and voluntary refusals to deal with actors who flout industry norms, while welfare enhancing, could nonetheless amount to violations of antitrust law. 209 This echoes the concern raised by Andrew King and Michael Lenox in their extensive empirical analysis of the Responsible Care program created by the Chemical Manufacturers Association (now the American Chemistry Council). 210 King and Lenox concluded that the absence of explicit sanctions on members who failed to meet the standards set by the program left the program vulnerable to "opportunism." 211 While they suggested that industry associations could look to third parties to enforce the rules, 212 an alternative way to facilitate the long-term environmental benefits of stronger sanctions would be to interpret antitrust law in conformity with the environmental priority principle presented below. 213 [\*180] In some instances, the conflict between the values of promoting competition and conserving environmental resources can be stark. 214 Jonathan Adler, for example, has identified this conflict in the context of fisheries - a tragedy of the commons situation in which some form of collective action is required to avoid overfishing. 215 He cites as an example Manaka v. Monterey Sardine Industries, Inc., in which a fisherman was excluded from a local fishing cooperative. 216 The fisherman sued the cooperative under the Sherman Act, and the court found an antitrust violation in his exclusion. 217 While the fishing cooperative's policies were no doubt exclusionary, Adler contends that they also promoted conservation by restricting catch. 218 The fishery collapsed by the 1950s, a collapse Adler hypothesizes might have been "inevitable" but that perhaps might not have occurred in the absence of the antitrust suit. 219 While a court performing a rule of reason analysis must consider whether a restraint on trade suppresses or destroys competition, Adler points out that courts may also "consider offsetting efficiencies from otherwise anticompetitive arrangements." 220 It is not clear, however, that the courts have consistently taken these factors into account. 221 Among other potential remedies, Adler argues that to resolve this tension between antitrust law, on the one hand, and private collective action to conserve environmental resources, on the other, courts should more actively consider the "ancillary conservation benefits of otherwise anticompetitive conduct." 222 Recognizing the long-term health of a fishery would be consistent with antitrust law's purpose of ensuring viable markets exist in the future, and consistent with the environmental priority principle introduced below. 223

#### Prohibit can mean ‘severely hinder’---doesn’t necessitate a ban.

Washington Court of Appeals 19 (KORSMO-judge. Opinion in State v. Kimball, No. 35441-5-III (Wash. Ct. App. Apr. 2, 2019). Google scholar caselaw. Date accessed 7/13/21).

His argument runs counter to the meaning of the word "prohibit." It means "1. To forbid by law. 2. To prevent, preclude, or severely hinder." BLACK'S LAW DICTIONARY 1405 (10th ed. 2014). As "severely hinder" suggests, a "prohibition" need not be an all or nothing proposition.

#### The ‘per se’ distinction is meaningless---rules always devolve into standards.

Crane 7 Daniel A. Crane is Assistant Professor, Benjamin N. Cardozo School of Law, Yeshiva University, Rules Versus Standards in Antitrust Adjudication, 64 Wash. & Lee L. Rev. 49 (2007), https://scholarlycommons.law.wlu.edu/wlulr/vol64/iss1/3

Before proceeding much further, it is worth pausing to consider the possibility that a world of antitrust rules would be illusory because, in practice, rules always fade into standards. Take H.L.A. Hart's observation that "[n]atural languages like English are... irreducibly open-textured" when specifying "general classifying terms,' ' 0 0 or Wittgenstein's point that the problem with rules is that they do not tell you when they should be applied.' 0 ' Because language is irreducibly open-textured and indeterminate and because rules lack internal mechanisms to specify when they should be applied, even when the law is formally framed as a rule, it requires penumbral rules, canons of interpretation, and other secondary decisional criteria which end up swallowing the apparent simplicity of the rule. 10 2 Specifying the governing law as a simple, bright-line rule may merely conceal the fact that important balancing of social interests, weighing of probabilities, and choosing between competing ends and means lurk in the shadow of the rule. Declaring a legal rule thus appears misleading or even dishonest because it hides the social preferences that animate the decision-maker's conclusion. Under one interpretation, antitrust law provides the perfect illustration for Hart and Wittgenstein's point. In this view, there never have been such things as case-determinative antitrust rules-only standards clad in rule-bound rhetoric. The current march toward standards, then, is not so much a change in liability determinants as a dissipation of the mystery surrounding antitrust's concealed methodology. In a moment, I will dispute this possibility and argue that the specification of antitrust law as rule or standard has very important practical consequences. But first, it is worth acknowledging the extent to which Hart and Wittgenstein's observation rings true in antitrust. A case in point is antitrust law's long-standing per se prohibition against "price fixing." As any antitrust practitioner will recognize, price fixing appears in quotation marks because application of the per se rule depends not on the fact that competitors have literally fixed prices but that the challenged conduct falls within the antitrust category known as "price fixing." The judicial decision often thought to have established the per se rule against price-fixing did not involve price fixing either literally or figuratively but rather a gentleman's agreement by dominant oil producers to buy up distressed oil from small refineries and thereby stabilize the wholesale market. 1 03 The defendants never came close to agreeing on price. Nonetheless, the Supreme Court held that any "combination formed for the purpose and with the effect of raising, depressing, fixing, pegging, or stabilizing the price of a commodity in interstate or foreign commerce" amounts to "price fixing" in the relevant legal sense, whether or not the defendants have actually done the act that a lay person might suppose "price fixing" to be-fixing a price. 1 On the other hand, the Supreme Court has described an act of apparent price fixing by competitors-an agreement on prices for blanket licensing of musical repertoires-as something other than "price fixing" and hence subject to the rule of reason. 0 5 In BMI v. CBS, the Supreme Court rejected textual "literalism" and held that application of the per se rule against price fixing is not as "simplistic" as "determining whether two or more potential competitors have literally 'fixed' a 'price.'" 06 Rather, "[a] s generally used in the antitrust field, 'price fixing' is a shorthand way of describing certain categories of business behavior to which the per se rule has been held applicable."' 0 7 Application of the per se rule turns not on whether the conduct amounts literally to price fixing but on whether the "particular practice is one of those types or that it is 'plainly anticompetitive' and very likely without 'redeeming virtue."" 8 This flexibility in the per se rule invites endless pages of briefing on whether the conduct at issue should be properly characterized as "price fixing" because it unjustifiably tampers with the market mechanism for determining prices or as something else because it can be justified by efficiencies, a standard-favoring way of doing law.'0 9 Hence, Hart explains that rules inevitably dissolve into standards and Wittgentsein explains that rules do not tell us when to apply them.

## T---Vagueness

### 2AC---Specification

#### We meet---plan is specific enough for the courts.

Cary et al. 08, \*George Cary is a partner in the Washington office of Cleary Gottlieb Steen & Hamilton LLP. He is a former Deputy Director of the Federal Trade Commission's Bureau of Competition and 1976 graduate of the Boalt Hall School of Law at the University of California-Berkeley. \*Larry Work-Dembowski is an associate in the Washington office of Cleary Gottlieb Steen & Hamilton LLP and a 2002 graduate of the Georgetown University Law Center. \*Paul Hayes is an associate in the Washington office of Cleary Gottlieb Steen & Hamilton LLP and a 2001 graduate of the New York University School of Law; (“Antitrust Implications of Abuse of Standard-Setting”, 15 GEO. Mason L. REV. 1241 (2008))

Although evaluation of FRAND commitments and licensing terms can be complex and fact-intensive, there should be no doubt that the courts and enforcement agencies are competent to apply antitrust law to deceptive FRAND commitments. Assessing whether a licensor has complied with its FRAND obligations does not require courts or agencies to make any determinations that they do not already commonly make in antitrust and intellectual property cases. Courts routinely calculate "reasonable royalties" in the patent litigation context 1 ' and compare the "but for" competitive market to the market in which a restraint of competition exists in order to determine damages in the antitrust context. 4 ' In assessing whether a licensor has met its FRAND obligations, a court would engage in similar calculations; it would compare the royalties charged in the ex post market to its assessment of what royalties would have prevailed in the competitive ex ante market.'43 In determining what royalties would have prevailed ex ante, a court would likely consider, among other things, the available alternatives to the technology at issue, the royalties charged to licensees practicing other standards for comparable technologies, and the royalties charged to licensees for comparable technologies in industries where there are no standards or FRAND commitments. Although this may be a demanding task in some cases, it is necessary because the alternative-concluding that FRAND obligations cannot be defined or enforced by the courts-would render FRAND obligations meaningless, would allow unfettered exercise of monopoly power by essential patent holders, and would cause debilitating un- certainty in the standard-setting process.

## CP---Rulemaking

### 2AC---Tsilikas

#### They link---treble damages key.

**1NC Kahn ’21 (KU)**

et al; This is a recent joint statement released by the five Federal Trade Commissioners. The Chair of the Federal Trade Commission is Lina Khan - an Associate Professor of Law at Columbia Law School. Also on the Commission is Rohit Chopra – who was previously The Assistant Director of the Consumer Financial Protection Bureau, as well as Rebecca Slaughter - an American attorney who was previously the acting chair of the Federal Trade Commission. Two others also sit on the Commission. “STATEMENT OF THE COMMISSION On the Withdrawal of the Statement of Enforcement Principles Regarding “Unfair Methods of Competition” Under Section 5 of the FTC Act” - July 9, 2021 - #E&F – modified for language that may offend - https://www.ftc.gov/system/files/documents/public\_statements/1591706/p210100commnstmtwithdrawalsec5enforcement.pdf

**Section 5** of the **F**ederal **T**rade **C**ommission **A**ct **prohibits** “unfair methods of competition in or affecting commerce.”1 In 2015, the Federal Trade Commission under Chairwoman Edith Ramirez published the Statement of Enforcement Principles Regarding “Unfair Methods of Competition” Under Section 5 of the FTC Act (hereinafter “2015 Statement”), which established principles to guide the agency’s exercise of its “standalone” Section 5 authority.2 Although presented as a way to reaffirm the Commission’s preexisting approach to Section 5 and preserve doctrinal flexibility,3 the 2015 Statement contravenes the text, structure, and history of Section 5 and largely writes the FTC’s standalone authority out of existence. In our ~~view~~ (perspective), the 2015 Statement abrogates the Commission’s **congressionally mandated duty** to use its expertise to identify and combat unfair methods of competition even if they do not violate a separate antitrust statute. Accordingly, because the Commission intends to restore the agency to this critical mission, the agency withdraws the 2015 Statement.

I. Background

On August 13, 2015, the Federal Trade Commission issued the 2015 Statement, which announced that the Commission would apply Section 5 using “a framework similar to the rule of reason,” by only challenging actions that “cause, or [are] likely to cause, harm to competition or the competitive process, taking into account any associated cognizable efficiencies and business justifications[.]”4 The 2015 Statement advised that the Commission is “less likely” to raise a standalone Section 5 claim “if enforcement of the Sherman or Clayton Act is sufficient to address the competitive harm.”5

In a statement accompanying the issuance of these principles, the Commission explained that its enforcement of Section 5 would be “aligned with” the Sherman and Clayton Acts and thus subject to “the ‘rule of reason’ framework developed under the antitrust laws[.]”6 In a speech announcing the statement, Chairwoman Ramirez noted that she favored a “common-law approach” to Section 5 rather than “a prescriptive codification of precisely what conduct is prohibited.”7 She also acknowledged that the Commission’s policy statement was codifying an interpretation of Section 5 that is more restrictive than the Commission’s historic approach and more constraining than the prevailing case law.8 She added, “[W]e now exercise our standalone Section 5 authority in a far narrower class of cases than we did throughout most of the twentieth century.”9

With the exception of certain administrative complaints involving invitations to collude, the agency has pled a standalone Section 5 violation just once in the more than five years since it published the statement. 10

II. The Text, Structure, and History of Section 5 Reflect a Clear Legislative Mandate Broader than the Sherman and Clayton Acts

By tethering Section 5 to the Sherman and Clayton Acts, the 2015 Statement negates the Commission’s core legislative mandate, as reflected in the statutory text, the structure of the law, and the legislative history, and undermines the Commission’s institutional strengths.

In 1914, Congress enacted the **F**ederal **T**rade **C**ommission **A**ct to reach beyond the Sherman Act and to provide an alternative institutional framework for **enforcing** the **antitrust** laws. 11 After the Supreme Court announced in Standard Oil that it would subject restraints of trade to an open-ended “standard of reason” under the Sherman Act, lawmakers were concerned that this approach to antitrust delayed resolution of cases, delivered inconsistent and unpredictable results, and yielded outsized and unchecked interpretive authority to the courts.12 For instance, Senator Newlands complained that Standard Oil left antitrust regulation “to the varying judgments of different courts upon the facts and the law”; he thus sought to create an “administrative tribunal … with powers of recommendation, with powers of condemnation, [and] with powers of correction.”13 Likewise, a 1913 Senate committee report lamented that the rule of reason had made it “impossible to predict” whether courts would condemn many “practices that seriously interfere with competition, and are plainly opposed to the public welfare,” and thus called for legislation “establishing a commission for the better administration of the law and to aid in its enforcement.”14 **These concerns spurred the passage of the FTC A**ct, which created an administrative body that could police unlawful business practices with **greater expertise** and **democratic accountability** than courts provided.15

**At the heart of the statute was Section 5,** which declares “unfair methods of competition” **unlawful**.16 By proscribing conduct using this new term, rather than codifying either the text or judicial interpretations of the Sherman Act, the plain language of the statute makes clear that Congress intended for Section 5 to reach beyond existing antitrust law. The structure of Section 5 also supports a reading that is not limited to an extension of the Sherman Act. Notably, the FTC Act’s remedial scheme differs significantly from the remedial structure of the other antitrust statutes. The Commission cannot pursue criminal penalties for violations of “unfair methods of competition,” and Section 5 provides **no private right of action**, shielding violators from **private lawsuits** and treble damages. In this way, the institutional design laid out in the FTC Act reflects a basic tradeoff: Section 5 grants the Commission extensive authority to shape doctrine and reach conduct not otherwise prohibited by the Sherman Act, but provides a more limited set of remedies.17

The legislative debate around the FTC Act makes clear that the text and structure of the statute were intentional. Lawmakers chose to **leave it to the Commission** to determine which practices fell into the category of “unfair methods of competition” rather than attempt to define through statute the **various unlawful practices**, given that “there were too many unfair practices to define, and after writing 20 of them into the law it would be quite possible to invent others.”18 Lawmakers were clear that Section 5 was designed to extend beyond the reach of the antitrust laws. 19 For example, Senator Cummins, one of the main sponsors of the FTC Act, stated that the purpose of Section 5 was “to make some things punishable, to prevent some things, that cannot be punished or prevented under the antitrust law.”20

The Supreme Court has repeatedly affirmed this view of the **agency’s Section 5 authority**, holding that **the statute**, **by its plain text**, does not limit unfair methods of competition to practices that violate other antitrust laws. 21 The Court, recognizing the Commission’s expertise in competition matters, has given “deference”22 and “great weight”23 to the Commission’s determination that a practice is unfair and should be condemned.

### 2AC---Struck Down

#### Struck down on non-delegation grounds.

Helgi Walker 21, partner in Gibson, Dunn & Crutcher's Washington, D.C. office, JD from the University of Virginia, 7/9/2021, “President Signs Executive Order Directing Agencies to Address Wide Range of Businesses’ Competitive Practices, Including Non-Compete Agreements,” https://www.gibsondunn.com/president-signs-executive-order-directing-agencies-to-address-wide-range-of-businesses-competitive-practices-including-non-compete-agreements/

Expansive rulemaking could also expose the FTC to legal challenges under the constitutional “nondelegation doctrine,” which limits the extent to which Congress may delegate lawmaking power to administrative agencies.  Although the nondelegation doctrine has seldom been invoked by the Supreme Court since the New Deal Era, in 2019 five Supreme Court justices expressed interest in reviving the doctrine.[[7]](https://www.gibsondunn.com/president-signs-executive-order-directing-agencies-to-address-wide-range-of-businesses-competitive-practices-including-non-compete-agreements/#_ftn6)  Those five justices constitute a majority of the current Supreme Court.  The FTC Act, which delegates to the FTC the authority to regulate “unfair” behavior, may be susceptible to a challenge on the grounds that Congress must provide concrete guidance to cabin the FTC’s exercise of its delegated power.

#### Rulemaking fails---notice and comment delays and corrupts decision making.

Harold Feld 21, Senior Vice President for Public Knowledge, one of the nation’s premier consumer advocacy organizations working at the intersection of copyright, telecommunications and the Internet, 6/23/2021, “Fake Comments Cause Real Harm: How the Public Comment Process Was Corrupted,” https://promarket.org/2021/06/23/fake-public-comment-process-corrupted-net-neutrality/

At the end of April, the [Administrative Conference of the United States](https://www.acus.gov/) (ACUS) started a proceeding on how federal agencies should deal with “[mass, computer-generated, and fraudulent comments](https://www.acus.gov/research-projects/mass-computer-generated-and-fraudulent-comments).” Shortly thereafter, the NY Attorney General’s Office (NY AG) [released the results](https://ag.ny.gov/sites/default/files/oag-fakecommentsreport.pdf) of its comprehensive three-year investigation into perhaps the most extensive case of fraudulent comments in US regulatory history—the filing of more than 8.5 million fraudulent comments during President Donald [Trump’s Federal Communications Commission’s (FCC) proceeding](https://apnews.com/article/net-neutrality-north-america-us-news-ap-top-news-ajit-pai-e1eabbdf1525477dbaacf1a482b57ed4) to repeal network neutrality in 2017. But while both the ACUS [preliminary report](https://www.acus.gov/report/mass-computer-generated-and-fraudulent-comments-draft-report-4221) and the NY AG report discuss the same phenomena, the two could not be further apart in terms of perspective. Whereas the NY AG report sees special interests hiring companies to generate fraudulent comments using stolen identities as corrupting the regulatory process and an assault on democracy, the ACUS report regards this as a mere nuisance to the expert agency—no different really from when actual citizens file “mass comments.”

ACUS is an independent federal agency that issues reports “to [recommend improvements to administrative process and procedure](https://www.acus.gov/administrative-conference-united-states-acus).” These recommendations carry considerable weight with administrative agencies, Congress, and the courts. If the ACUS proceeding recommends treating fraudulent comments as a mere inconvenience for agencies, rather than a serious issue that requires significant penalties for violators, this will have significant impact on how Congress and the courts approach the issue. If ACUS recommends treating mass comments and computer-generated comments by human beings as imposing significant costs to agencies while providing little value, one of the most important mechanisms of public participation in the modern administrative state will be minimized and trivialized—to the great detriment of our rulemaking institutions and their perceived legitimacy.

Unfortunately, reading the ACUS report and [recommendations](https://www.acus.gov/sites/default/files/documents/Managing%2520Mass%252C%2520Computer-Generated%252C%2520and%2520Malattributed%2520Comments%2520-%2520For%2520Plenary%2520%252806-02-2021%2529.pdf) (as well as [this article](http://cardozolawreview.com/wp-content/uploads/2021/01/42.1.1.Herz_.pdf) by one of the Committee members, cited approvingly throughout the ACUS report), the real problem has nothing to do with democracy or anything so fundamental. The *real* concern is what a terrible waste of agency resources it is to consider “non-technical” and “non-substantive” comments. The ACUS report (and [most recent](https://www.acus.gov/sites/default/files/documents/Managing%2520Mass%252C%2520Computer-Generated%252C%2520and%2520Malattributed%2520Comments%2520-%2520For%2520Plenary%2520%252806-02-2021%2529.pdf) draft recommendation) goes so far as to rename fraudulent comments as “malattributed,” deeming “fraud” as far too dramatic for something that (in the opinion of the authors) matters little in the grand scheme of things. According to the ACUS committee report, expert agencies are not swayed by these tiresome expressions of individual preference—whether properly attributed or not. It is the sort of report and recommendation one could imagine as a parody of technocratic elitism, were the authors not so clearly earnest in their thesis and dismissive of concerns such as legitimacy and the impact on democratic institutions.

“MASS COMMENTS PROVIDE AN IMPORTANT ELEMENT OF REAL DATA ABOUT HOW PEOPLE AND SMALL BUSINESSES PERCEIVE THE LIKELY IMPACTS OF AGENCY POLICY CHOICES, AND THE OVERALL POPULARITY OF THESE CHOICES.”

The NY AG report provides some empirical evidence that directly refute the ACUS assumptions and conclusions. The NY AG report also provides much more useful recommendations. I will briefly run through some of the more significant arguments by ACUS, contrasting these with the evidence from the NY AG report that comments from actual human beings (even when simply submitting a computer-generated statement of support or opposition) have genuine value whereas “malattributed” comments cause real harm and undermine the institutions of self-governance.

ACUS Asks: What’s the Harm in Fraudulent Comments?

ACUS examines the impact of mass comments and fraudulent comments from the perspective of professional staff at expert agencies such as the FCC and the Environmental Protection Administration. As a consequence of this perspective, the ACUS report’s authors conclude that mass comments of any sort—whether submitted by actual people or by a few companies using stolen identities—don’t really influence the outcome of proceedings that much. The ACUS authors reach this conclusion primarily by surveying agency staff and relying on the “expert” qualification of the agency. While the ACUS report does cite literature discussing things such as the legitimacy conferred by popular participation, the expert committee of scholars and representatives from expert agencies express their skepticism of the concept: “If comments contain information that agencies may not or do not consider—including expressions of preference—it is not clear that the process will ultimately enhance perceptions of procedural fairness.” The authors also suggest that producing “high quality, effective government decision making” is another source of legitimacy. Excluding mass and computer-generated comments in addition to “malattributed” comments might therefore *increase* legitimacy by improving the agency’s decision-making processes.

Concluding that mass comments of any variety have virtually no real impact on the regulatory process makes it simple for ACUS to group comments written by real people that simply express a basic idea (“mass comments”), comments generated by computer when individuals visit a website and click a button (“computer-generated comments”), and comments submitted using stolen identities (“fraudulent comments” or “malattributed comments”) as all belonging together in the same category. The objective of reform, therefore, becomes how to prevent any comments in any of these categories from perturbing the meditations of the expert agencies or otherwise draining agency resources. Why bother to distinguish between genuine comments and fraudulent comments if neither sets of comments play any legitimate role in determining the outcome?

Indeed, the ACUS report expresses such confidence in the conclusion that these comments have no impact that the report questions whether any of the federal statutes criminalizing fraudulent, or even simply false, statements really apply when someone forges someone else’s name and files this document in an agency proceeding. As the ACUS report explains, the false or fraudulent statements must be material to a government proceeding, and since these comments don’t really have any effect on outcomes, the ACUS report concludes they do not qualify as “material” under the relevant federal statutes.

Fraudulent Comments Hurt the Rulemaking Process, Harm Those Whose Identities Are Stolen, and Erode Trust in Institutions of Governance.

The NY AG report provides a much-needed empirical and philosophical rebuttal to the ACUS report. First and foremost, mass comments work in a variety of ways. Experts at agencies no doubt genuinely believe mass comments make no difference, just as doctors [genuinely believe](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2563313/#:~:text=We%252520found%25252C%252520as%252520have%252520others,that%252520accepting%252520samples%252520is%252520ethical.) that being showered with [money and gifts](https://www.statnews.com/2020/12/04/drug-companies-payments-gifts-affect-physician-prescribing/) from [drug companies](https://www.npr.org/sections/health-shots/2016/03/17/470679452/drug-company-payments-mirror-doctors-brand-name-prescribing) has no impact on how they write prescriptions. But even accepting this self-assessment, agency professionals that choose to ignore mass comments rather than genuinely engage with them ignore important raw data that a dedicated expert agency staff would take the time to analyze. Mass comments provide an important element of real data about how people and small businesses perceive the likely impacts of agency policy choices, and the overall popularity of these choices. While this may not be determinative, it is not something that can be casually ignored.

Yes, technology has made it much easier for individuals to generate such comments, but individuals are also bombarded with many more distractions and invitations to comment than they can plausibly address. If millions of individuals decide that *this specific* policy is worthy of their attention, that is real information. Bad actors deliberately polluting this process are no more harmless than studies relying on falsified data. But either way, the statement of agency expert staff that they simply ignore mass comments is more a confession of dereliction of duty prompted by arrogance than a meritorious commitment to meritocracy.

“FRAUDULENT COMMENTS MAKE AN ACCURATE ASSESSMENT OF THE REACTION TO NEW POLICIES MUCH HARDER, THUS DISTORTING PUBLIC DEBATE AND COMPROMISING POLITICAL ACCOUNTABILITY AND OVERSIGHT BY ELECTED OFFICIALS.”

More importantly, expert analysis is simply one element of rulemaking. Our system of representative democracy requires democratic accountability at some level—even in rulemaking. This occurs via appointment of political appointees and through Congress, which can disapprove an agency rulemaking through the Congressional Review Act or through legislation. Unlike agency experts, political appointees and members of Congress generally do care about the popularity of specific proposals. Experts and academics may consider this a feature that undermines reasoned, evidence-based decision-making, but it is crucial to the structure of our representative form of government. Mass comments can also bring an issue to the attention of the press, and if genuine comments overwhelmingly support one position over another this will frame the debate.

This is why, according to the NY AG investigation, several of the largest internet service providers (ISPs) were willing to spend over $8 million to flood the record with comments supporting repeal of net neutrality to provide “cover” for the FCC, and why the companies hired to produce these comments went to such pains to make them appear real by stealing the identities of real people. This real passion is also why states such as California have passed their own net neutrality legislation. Even if regulators don’t make decisions by counting comments, they should at least understand the likely consequences of their actions. Fraudulent comments make an accurate assessment of the reaction to new policies much harder, thus distorting public debate and compromising political accountability and oversight by elected officials.

Conversely, turning a blind eye to the corruption of the public comment process—or worse, lumping together genuine mass comments with fraudulent comments—corrupts the rulemaking process. This, in turn, undermines faith in the legitimacy of the rulemaking process, which in turn undermines the legitimacy of the rule of law. Few things can make citizens feel more disconnected from their own government than having the rulemaking institutions of that government treat citizen participation as no better than a fraud. In a time when we are seeing the violent fruits of cultivating alienation, cynicism, and helplessness on the part of the public, the ACUS report is at best tone deaf and at worst a confirmation that “government bureaucrats” are wholly captured by the special interests they are supposed to regulate. As the NY AG report noted: “When the regulatory process is corrupted, citizens may view the system as rigged or broken, which undermines their faith in the proper working of government.”

Finally, the NY AG report documents the feelings of anger and violation from real people when they discover that special interests have stolen their identities to further their corporate agenda. The NY AG report contains a sample of responses from people who found out their names were used for fake comments supporting net neutrality repeal. “I’m sick to my stomach knowing that somebody stole my identity and used it to push a viewpoint that I do not hold.” “I find it extremely sick and disrespectful to be using my deceased dad to try to make an unpopular decision look the opposite.” “This is terrifying. Who knows what else has been said falsely under my name?” “We feel robbed of our rights.” The impact on real people requires lawmakers to take the problem of fraudulent comments seriously rather than simply treat them as a nuisance.

No one can doubt that our complicated world requires complex and nuanced policies. Agencies must routinely balance potential harms against potential benefits. Doing so requires expertise in a wide range of subjects ranging from biological sciences, complex system analysis and economics. But the need for expertise does not make mass comments irrelevant. To the contrary, mass comments provide real data on important and highly relevant matters such as public perception. They can shine a spotlight on potential impacts on specific communities—especially those communities that lack regular representation in the regulatory process. When special interests flood regulatory proceedings with fraudulent comments, it is more than a mere inconvenience and drain on agency resources. Not only does it corrupt the broader policy process, it undermines faith in the institutions of government. As the NY AG report shows, fraudulent comments create real harms. ACUS needs to recognize this.

#### Counterplan collapses innovation.

Maureen K. Ohlhausen 21, American lawyer who is a former Commissioner of the Federal Trade Commission, JD from George Mason University, 8/12/2021, “Pushing the Limits? A Primer on FTC Competition Rulemaking,” https://www.uschamber.com/sites/default/files/ftc\_rulemaking\_white\_paper\_aug12.pdf

A. Legislative Rulemaking on Competition Issues Runs Contrary to the Purpose of Antitrust Law

The core of U.S. antitrust law is based on broadly drafted statutes that, at least for violations outside the criminal conspiracy context, leave determinations of likely anticompetitive effects, procompetitive justifications, and ultimate liability up to fact-finders charged with highly detailed, case-specific determinations. Indeed, it is inherent in the “rule of reason” – the default legal framework for any antitrust claim not falling within the “red zone” of per se prohibited conduct – that the inquiry is deeply rooted in the history, effects, and context of each particular industry and practice being challenged. Although no fact-finder is infallible, this requirement for highly fact- bound analysis helps to ensure that each case’s outcome has a high likelihood of preserving or increasing consumer welfare. As detailed above, the FTC’s administrative process is in some ways the pinnacle of this model, combining the concept of detailed case-specific factual inquiry with administrative law judges focused entirely on competition and consumer protection issues. On appeal, an ALJ’s determinations are evaluated first by another panel of typically seasoned, well- advised antitrust experts – the Commission itself – and the final determinations of the Commission are entitled to significant deference should they be challenged in the Courts of Appeal.

Legislative rulemaking would replace this quintessential fact-based process with one-size- fits-all bright-line rules. Competition rules would function as per se-like prohibitions, but based on notice-and-comment procedures rather than the broad and longstanding legal and economic consensus usually required for per se condemnation under the Sherman Act. Past experience with similar regulatory regimes should give reason for pause here: the Interstate Commerce Commission, for example, failed to efficiently regulate the railroad industry before being abolished with bipartisan consensus in 1996, by some estimates costing consumers as much as several billion 17 (in today’s dollars) per year in lost competitive benefits.74 As FTC Commissioner Christine Wilson observes, regulatory rules “frequently stifle innovation, raise prices, and lower output and quality without producing concomitant health, safety, and other benefits for consumers.”75 By sacrificing the precision of case-by-case adjudication, rulemaking advocates are also losing one of the best tools we have to account for “market dynamics, new sources of competition, and consumer preferences.”76

## CP---States

### 2AC---Preemption

#### The Ninth Circuit imposed court-order limitations on antitrust law to preserve its balance with patent law.

Martino et al. 20, \*[Matthew M. Martino](https://www.skadden.com/professionals/m/martino-matthew-m) [Tara L. Reinhart](https://www.skadden.com/professionals/r/reinhart-tara-l) [Steven C. Sunshine](https://www.skadden.com/professionals/s/sunshine-steven-c) [Julia K. York](https://www.skadden.com/professionals/y/york-julia-k), works with clients at Skadden, Arps, Slate, Meagher & Flom LLP; (August 14th, 2020, “Ninth Circuit Strikes Down Sweeping Injunction Against Qualcomm and Reins In Expansive Interpretation of Sherman Act”, https://www.skadden.com/insights/publications/2020/08/ninth-circuit-strikes-down-sweeping-injunction)

In its highly anticipated decision, the Ninth Circuit panel unanimously rejected the lower court’s reasoning, vacating the judgment and reversing the worldwide injunction against Qualcomm. The panel concluded that the district court had erroneously imposed the antitrust duty to deal on Qualcomm, had impermissibly looked outside the relevant antitrust market in order to infer an anticompetitive act and had relied on outdated evidence of agreements that were terminated before the suit was filed to justify a broad, forward-looking global injunction. The Ninth Circuit further rejected the argument that a SEP holder’s violation of FRAND commitments could independently create antitrust liability, instead pointing to patent and contract law as sources for potential remedies. The decision reflects a considered effort to rei

n in the district court’s expansive interpretation of general antitrust principles and their specific application to SEP holders, as well as recognition that the antitrust laws aim to preserve companies’ incentives to innovate and compete. Recognizing that while “[a]nticompetitive behavior is illegal under federal antitrust law[,]” the panel was adamant that “[h]ypercompetitive behavior is not.”[7](https://www.skadden.com/insights/publications/2020/08/ninth-circuit-strikes-down-sweeping-injunction" \l "ftn7)

Rejection of District Court’s Expansive Interpretation of Antitrust Laws

The Ninth Circuit decision contains several notable conclusions regarding the scope of Section 2 of the Sherman Act and what constitutes cognizable antitrust harm.

#### State efforts to impose greater antitrust liability than established by federal courts will be preempted to protect that balance.

Samp 14, \*Richard A. Samp is the chief counsel for Washington Legal Foundation (WLF), a non-profit, public interest law firm in Washington, D.C. WLF filed an amicus brief in support of Love Terminal Partners. (2014, “The Role of State Antitrust Law in the Aftermath of Actavis”, https://scholarship.law.umn.edu/cgi/viewcontent.cgi?article=1062&context=mjlst)

V. ACTAVIS’S PREEMPTIVE EFFECT

Application of state antitrust law to reverse payment settlements is not merely a hypothetical possibility. There are a fair number of pending lawsuits that challenge reverse payment settlements on state-law grounds. The California Supreme Court has agreed to review one such suit.74 In seeking affirmance of the appeals court’s dismissal of the suit, the defendants argue inter alia that the suit is preempted by federal law.75

As noted above, there is precedent for a finding that state antitrust law is preempted to the extent that it conflicts with the policy underlying a federal statute.76 Moreover, in the context of patent law, federal courts have not hesitated to preempt state laws that the courts deem to stand as an obstacle to accomplishing Congress’s objectives (i.e., encouraging efforts to develop new and useful products).77 To the extent that any portions of Actavis’s holding can be deemed to reflect the Court’s perception of Congress’s new-product-development objectives, a state law is preempted if it is inconsistent with that holding and seeks to impose a greater degree of antitrust liability on the parties to a reverse payment settlement.

Actavis’s treatment of settlements involving a compromise entry date appears to meet that description. Actavis held that federal antitrust liability could not arise from a settlement in which the generic manufacturer agrees not compete for a number of years and in return is rewarded with an exclusive license to market its product several years in advance of the patent’s expiration date.78 Accordingly, states are not permitted to impose antitrust liability under similar circumstances because doing so would upset the balance that, according to Actavis, Congress sought to achieve between antitrust and patent law.

Other issues left open by Actavis are likely to be answered in the years ahead. For example, the Supreme Court did not specify whether noncash benefits received by a generic manufacturer in connection with a patent settlement can ever serve as the basis for federal antitrust liability. If the Supreme Court eventually answers that question by stating: “No, federal antitrust law will not examine settlement benefits other than cash that flow to the infringing party,” then it is likely that state antitrust law would be required to conform to that rule. The potential grounds for such a ruling (a desire both to promote settlement of patent disputes and to uphold reliance interests in existing patents) are based largely on values embedded in federal patent law.

There is little reason to believe, however, that the Court would prevent application of state antitrust law to patent settlement agreements where state law is fully consistent with federal antitrust law. Even in areas subject to extensive federal regulation, the Supreme Court has upheld the authority of states to engage in parallel regulation that is not inconsistent with the federal regulation.79 Unless the Court were to determine, as in Connell,80 that states could not be trusted to properly accommodate the objectives of the federal statute at issue (here, federal patent law), there is no reason to conclude that Congress would not have wanted states to be permitted to police the same sorts of anticompetitive conduct that is policed by federal antitrust law. Moreover, states are likely free to impose greater penalties on the proscribed conduct than is available under federal law. As the Court explained in California v. ARC America Corp., state antitrust law is not required to adhere to the same set of sanctions imposed by federal antitrust law.81

It seems reasonably clear, however, that Actavis prohibits states from adopting the procedural devices rejected by the U.S. Supreme Court—either a per se condemnation of reverse payment settlements or a presumption of illegality accompanied by “quick look” review. The Supreme Court rejected those approaches because it determined that in many cases there might well be pro-competitive economic justifications for reverse payment settlements and that presuming their illegality could result in the suppression of economically useful conduct.82 State antitrust laws that adopted the FTC’s proposed presumption of illegality would be subject to similar criticism, and thus would likely be impliedly preempted as inconsistent with the careful balance between antitrust and patent law established by Actavis.

CONCLUSION

Because Actavis left so many questions unanswered regarding the application of federal antitrust law to patent settlement agreements, the extent to which federal law preempts the application of state antitrust law to such agreements remains similarly unsettled. One can be reasonably confident that if private plaintiffs become dissatisfied with the results of pending litigation under federal antitrust law, they will turn with increasing frequency to state antitrust law as an alternative remedy. Even if state law ends up doing no more than “parallel” federal antitrust law, defendants are likely to incur substantial litigation costs fending off such state claims in the years to come.

## DA---FTC Independence

### 2AC---Antitrust Thumper---Apple

#### Apple case thumps---it’s politicized, and has ripple effects across antitrust.

Albertgotti 9/10/21, \*[Reed Albergotti](https://www.washingtonpost.com/people/reed-albergotti/), Washington Post; (September 10th, 2021, “Judge’s ruling may take a bite out of Apple’s App Store, but falls short of calling the iPhone maker a monopolist”, https://www.washingtonpost.com/technology/2021/09/10/apple-epic-decision-judge-market-monopoly/)

A federal judge fundamentally altered Apple’s App Store business model on Friday in a landmark ruling that accused the iPhone maker of illegal anticompetitive behavior and is likely to have ripple effects across the U.S. antitrust landscape.

In a decision on an antitrust lawsuit brought by Fortnite maker Epic Games, U.S. District Judge Yvonne Gonzalez Rogers ruled that Apple must allow app developers to “steer” customers to alternatives to the tech giant’s payment processing service, which collects a 30 percent fee on most digital transactions. That was previously not allowed by the company, and marks a major victory for developers which have long complained of the tight grip the tech giant holds over its App Store on the roughly one billion iPhones currently in use.

[The blockbuster trial between Apple and the maker of ‘Fortnite’ goes out with a ‘hot tub’ session](https://www.washingtonpost.com/technology/2021/05/24/apple-epic-trial-hot-tubbing/?itid=lk_interstitial_manual_5)

Gonzalez Rogers also found that Apple was in violation of California state competition laws because of the way it forces developers into using Apple’s payment processing service without allowing them to tell customers there are alternatives, which are often cheaper.

She stopped short of ruling in favor of Epic‘s claims that Apple is a monopolist, although she left the door open by suggesting more evidence could have changed her decision.

“The court does not find that it is impossible; only that Epic Games failed in its burden to demonstrate Apple is an illegal monopolist,” she wrote.

Epic spokeswoman Elka Looks said the company plans to appeal the ruling. Tim Sweeney, chief executive of Epic, said in a tweet that, “Today’s ruling isn’t a win for developers or for consumers.”

Apple did not respond to requests for comment.

The ruling, one of the first major legal actions taken against a tech giant in a new era of antitrust scrutiny, is sure to echo loudly both in Washington, where a legislative effort to rein in the power of Big Tech is underway, and in the courts, which are facing the biggest test of existing antitrust laws in decades. Tech giants have come under the microscope in recent years as it became clear that current antitrust law does not effectively address their power, and regulators and lawmakers have been pushing to change that.

### 2AC---Antitrust Thumper---Biden

#### Biden executive order outweighs.

Posner 21, professor at the University of Chicago Law School (Eric, 7-21-2021, "The Antitrust War’s Opening Salvo", Project Syndicate, <https://www.project-syndicate.org/commentary/biden-antitrust-executive-order-what-it-does-by-eric-posner-2021-07>)

CHICAGO – US President Joe Biden’s new executive order on “Promoting Competition in the American Economy” is more significant for what it says than for what it does. In fact, the order doesn’t actually order anything. Rather, it “encourages” federal agencies with authority over market competition to use their existing legal powers to do something about the growing problem of monopoly and cartelization in the United States. In some cases, the relevant agencies are asked merely to “consider” ramping up enforcement; in others, they are directed to issue regulations, but the content of those regulations remains largely up to them.

Nonetheless, it would be a mistake to dismiss the order’s tentative language as mere rhetoric. Antitrust is the main body of law governing market competition in the US, and it has been the object of sustained attack by business interests and conservative intellectuals for more than 50 years. Biden is the first president since Harry Truman to take a strong public [anti-monopoly stand](https://www.project-syndicate.org/commentary/new-brandeisians-antitrust-for-big-tech-by-eric-posner-2021-06), and he has backed it up by [appointing](https://www.politico.com/news/2021/07/20/biden-picks-doj-antitrust-chief-500310) ardent anti-monopoly advocates to his government.

The executive order is ambitious in its scope and style. In strongly worded passages, it accuses businesses of monopolistic and unfair practices in major industries, including technology, agriculture, health care, and telecommunications. It laments the decline of government antitrust enforcement, and identifies numerous harms that have resulted – including economic stagnation and rising inequality.

The order also establishes a new bureaucratic organization in the White House to lead the anti-monopoly effort. Demanding a “whole-of-government” approach, it calls on the vast resources of numerous agencies, and not just the two that traditionally oversee antitrust (the Department of Justice and the Federal Trade Commission).

### 2AC---UQ

#### FTC independence is an impossibility.

Kovacic and Winerman 15 (William, Global Competition Professor of Law and Policy, George Washington University Law School, and Marc, Formerly of the Federal Trade Commission, where he served for over 31 years as an attorney advisor to Kovacic and to FTC Commissioner Maureen Ohlhausen, “The Federal Trade Commission as an Independent Agency: Autonomy, Legitimacy, and Effectiveness,” 100 Iowa L. Rev. 2085 (2015), <https://ilr.law.uiowa.edu/print/volume-100-issue-5/the-federal-trade-commission-as-an-independent-agency-autonomy-legitimacy-and-effectiveness/>, DOA: 10-2-2021) //Snowball

One or more of the following pressure points inevitably limit a competition agency’s freedom from political influence: the need for appointment of board members, the need to obtain funding, the possibility that the legislature will amend the law to curb the agency’s powers, the ability of the legislature to impose significant costs upon the agency through demands for information and hearings, and the dedication to third parties of power to set the agency’s agenda and shape its allocation of resources. These measures can be used individually or in combination to increase the agency’s responsiveness to the preferences of political actors outside the institution.

A. The Appointments Process

The selection of agency leaders is an opportunity to choose individuals who are likely to be sympathetic to the wishes of the Head of State, executive ministries, or the legislature. Alternatively, in an agency that must have multi-party representation, custom or legislative leverage may enable the minority party (that party that does not control the executive) essentially to select some of the Commissioners. The nominating entity (often the executive branch) and the approving entity (often the legislature) can use their power as gatekeepers to filter out candidates who seem certain to ignore external political preferences and, by reason of background and experience, are more likely to share the views of one or more political organs of government or party interests.

The desire to appoint individuals with shared values is evident in the frequency with which appointees to the FTC have been former members of Congress, members of the White House staff, or members of congressional staffs. Screening on the basis of these attributes does not ensure fidelity to executive branch or legislative preferences, but it can create a common understanding by which the appointee anticipates or responds favorably to those with whom the appointee shares a professional background. The proceedings that lead to approval by the body entrusted with the confirmation of the candidate also provide opportunities for the confirming body to extract commitments (subject, of course, to reneging by an individual after a tenured appointment is approved) for future action. In a system that allows reappointment for multiple terms, the desire to please the entity that holds the keys to reappointment and the entity that approves can induce a board member to alter behavior.

One additional factor can affect the behavior of an appointee once Senate approval is obtained and the fixed term (with removal only for cause) begins. The autonomy of an FTC commissioner (or member of any other independent regulatory commission) depends heavily upon how much the appointee desires to be independent from Congress or the White House. Individuals nominated to serve on the FTC ordinarily have generally demonstrated their fidelity to the party of the officials who are the gatekeepers for the appointment. Upon beginning their terms, an occasional appointee may feel little or no need to remain in good standing with the elected officials who selected them or, more generally, to be viewed within the party as loyal to the party’s preferences. Because they do not desire or intend to seek future political favors (e.g., appointments to other positions that require political approval), they may be relatively unconcerned about whether their decisions on the Commission please various political overseers or observers.

By contrast, most appointees may hope for future benefits from their party and therefore may be more reluctant to dismiss requests (or demands) for action from same-party leaders, either in Congress or in the executive branch. Such appointees may be particularly attentive and responsive to the expressed preferences of elected officials from their own party. Even with the protection of a fixed term, failure to heed these preferences could damage an individual’s post-Commission career (by eliminating the prospect of appointment to a new government post, or causing political loyalists to withhold support for positions outside the government), or cause an unwelcome personal isolation that comes about when one’s political cohort imposes ostracism for disloyalty. In short, members of nominally independent agencies may be no more independent than they want to be.

B. Funding

Every competition agency requires funding to operate. A major factor of whether an agency prospers or flounders is the adequacy of its resources. One can imagine a system in which the agency’s source of funds is, to some degree, insulated from the political process. For example, an agency might be permitted to collect and retain user fees associated with merger filings. It also might be allowed to retain all or part of the fines it collects from firms that violate competition laws.

In one sense, none of these funding mechanisms is entirely sheltered from the political process. A legislature always can decide to alter the means of financial support if it is truly unhappy with the agency’s performance. Moreover, each of these autonomous funding techniques has serious difficulties. User fees tied to specific forms of activity depend upon the level of relevant activity, and a substantial drop in chargeable events (e.g., merger filings) can confront the agency with a large revenue shortfall. For example, user fees for merger filings can provide robust funding for an agency when stock markets are booming and parties can use appreciating share prices to purchase other companies. Amid a recession, the filings and the funding diminish dramatically. Allowing an agency to fund itself from the fines it collects can create perverse incentives that undermine sound public administration. Agencies might be tempted to strain to “discover” infringements of the law and accept settlements that fund operations but have questionable substantive merit.

The most common method of funding for competition agencies consists of regular legislative appropriations that are set annually or for a period of years. The need for the agency to obtain regular appropriations creates two possible pressure points. If the agency must submit its budget estimates through an executive branch ministry, the process gives that ministry the ability to reward or punish the competition agency for past behavior. If the legislature is the final gatekeeper for budget approval, the agency must consider how legislators might take the agency’s behavior into account in deciding how to vote on the budget. The legislature can remind the agency regularly during the course of the fiscal year that the agency’s fidelity to its preferences will influence the next year’s budget. Not only can the legislature augment or reduce the overall budget, in some jurisdictions it can specify the purposes for which funds must be used or shall not be used.

The threat to slash a budget can have powerful effects. In January 2002, the FTC and the DOJ announced that a new plan for allocating matters that came within the jurisdiction of the two agencies. The reforms to the agencies’ “clearance” procedure involved some redistribution of industries based on earlier customs that the FTC and DOJ had followed. The Chairman of the Senate Commerce Committee, Ernest Hollings, scorned the proposal. In words that would have made a gangster proud, Hollings said he wanted to “eliminate” Timothy Muris, the FTC’s Chairman. At the time, Hollings also served as the chairman of the Senate Appropriations Subcommittee responsible for the budgets of the Justice Department and the FTC. Hollings threatened to reduce the appropriations for the DOJ and the FTC if the two agencies implemented the clearance process reforms. The DOJ withdrew from the agreement, and the proposed reforms foundered.

C. Legislative Changes

Political institutions that are displeased with a competition agency’s work can threaten to advance legislation that will withdraw authority. The credibility of this threat depends on how difficult, as a matter of law and custom, it is within the jurisdiction to amend existing legislation. At a minimum, a promise to consider a reduction in authority will force the agency to expend considerable resources to make the case against a retrenchment of its powers. It may be possible to create a competing enforcement agent by establishing a new institution or making a grant of overlapping authority to an existing government body—as the FTC was itself created in 1914 to supplement existing enforcement by the DOJ. In general, it may be necessary for the legislature to amend existing statutes occasionally to get the agency’s attention and to consider more carefully whether future initiatives will elicit this form of backlash.

D. Routine Oversight

A legislature can impose substantial costs upon an agency through methods that fall well short of amending legislation or threatening to do so. Legislators can demand that agency officials appear before them in hearings. Such events tend to require extensive preparation within the agency and compel top leadership to devote substantial effort to preparation. A legislature also can submit demands that the agency assemble and present information about its operations. Here, also, the collection and assimilation of records can consume a great deal of staff time. The political branches of government also may have the ability to direct government authorities (such as the U.S. Government Accountability Office) to audit the competition agency and prepare reports on the agency’s work.

Oversight may extend to efforts to obtain information about the status of pending law enforcement matters. The FTC’s rules provide that the Commission can authorize its staff to provide confidential briefings to members of Congress. The Commission has used this rule to provide confidential briefings to committee chairs and subcommittee chairs on pending law enforcement investigations. By this mechanism, the FTC’s staff provided briefings on the agency’s investigation of alleged anticompetitive practices by Google, Inc. to, among others, Senator Herbert Kohl, the Chairman of the Senate Judiciary Subcommittee on Antitrust, Competition Policy and Consumer Rights.

E. Setting the Form of Judicial Review

The political branches of government can constrain a competition agency’s discretion by providing for or increasing judicial oversight of the agency. Legislatures can impose political constraints in the form of legislation that directs courts to engage in careful, painstaking review of agency decision making. For example, if the legislature is dissatisfied with the agency’s choice of cases, it can alter the agency’s statutory mandate to set a more demanding standard of judicial review. Such a signal can be particularly confining if the agency already does not generally receive deference from the courts.

F. Increased Monitoring by External Parties

A competition agency’s freedom of action is determined partly by the extent to which external parties—individual citizens, nongovernment organizations, private companies, or academics—can obtain information about the agency’s operations or force the agency to take certain forms of action. If the legislature imposes expansive disclosure requirements, freedom of information laws can give third parties broad access to agency records and supply an important tool for monitoring agency performance. A competition law or an administrative procedure statute can shape the agency’s agenda by forcing it to open a file in response to all complaints from external parties, explain all decisions to prosecute or not to prosecute, and by subjecting the agency to lawsuits by external parties who believe the agency’s justifications for action or inaction are inadequate. Legislators can also enact statutes, such as the U.S. Government in the Sunshine Act, which require many types of administrative agency deliberations to take place in public. A further mechanism is to establish procedural requirements that force the agency to permit the participation by outsiders in deliberations that could lead to the adoption of secondary legislation or in proceedings that resolve litigated disputes by settlement.

G. The Tradeoff Between Accountability and the Breadth of Delegated Authority

A legislature’s judgment about how much power to delegate to a competition agency is likely to depend, in part, on the legislature’s views about the adequacy of devices to ensure that the agency is accountable to legislators and the public for its policy choices. The more insulated the competition agency is from the political process, the narrower the powers that a legislature is likely to entrust to the agency. It is difficult to imagine that a jurisdiction would give broad powers to a competition agency—for example, to gather business records, to review a wide range of business behavior, and to impose strong sanctions—without also creating some mechanisms that press the agency to exercise its powers in ways that serve society’s interests.

H. Summary: Significance of the Pressure Points

The political branches of government have a variety of measures to influence competition agencies to consider and respond to their preferences, even when the competition agency is established as an administration body that stands outside any government ministry and is headed by a board whose members have fixed terms and can be removed only for good cause. In many jurisdictions, executive bodies and legislatures have shown their willingness to use these techniques.

### 2AC---!D---Trade

#### Trade doesn’t solve war.

White 13, Emeritus Professor of Strategic Studies at the Strategic and Defence Studies Centre of the Australian National University. (Hugh, “China: Power and Ambition,” *The China Choice: Why We Should Share Power*, pg. 51-53, Oxford University Press)

Certainly, the more countries trade and invest with one another, the greater the economic cost of conflict and the stronger the incentive to keep the peace. America and China today are more interdependent economically than any two comparably powerful states have ever been before, and this will certainly restrain ambition and rivalry on both sides. The question is whether the restraints will prove stronger than the pressures going the other way. If interdependence does trump strategic and political ambition, we should be seeing it happening between the United States and China now – but we have not seen much evidence of that yet. So far the two countries seem to be acting very much as strong states in the past have acted as relative power shifts from one to the other. Pessimists like John Mearsheimer and Niall Ferguson remind us that before war broke out in 1914, the great powers of Europe had grown more economically interdependent than they had ever been before, and than they would be again for almost a century.12

The lesson to draw is that interdependence increases the incentive for leaders to subordinate political ambitions and ignore nationalist sentiments, but it does not remove the need for them to take these bold and [politically] politicaly risky steps. The hard choices still have to be made. It is easy for leaders to see that economic interests require them to compromise their countries’ aspirations for international status and power, but it is harder for them to acknowledge that to their people, and harder still to put their economic interests ahead of strategic and political ones when a choice has to be made. In fact, most often people see it as shameful to put economic concerns first when issues of power and status are engaged. What president would tell the American people that their country will compromise its position on an issue like Taiwan in order to protect America’s economic interests? What Chinese leader could make the same argument to the Chinese people? When a choice has to be made, especially when it has to be made in the glare of an international crisis, it is very hard to put economics first.

In some ways the obvious importance of economic interdependence increases rather than limits the risk that rivalry will escalate, because of the way it can affect one country’s view of the other’s priorities. There seems to be a pattern here: each side believes that the imperatives of interdependence will press more heavily on the other. That inclines both governments to assume that the other will compromise to protect the economic relationship, so they do not have to do so. In Washington they expect China to back down from its challenge to America once Beijing understands the economic risks of rivalry. In Beijing they think America will blink. That makes both of them less inclined to compromise their own position – which makes escalation more likely.

Ultimately, faith in the power of interdependence boils down to faith in the power of money to trump other emotions and motivations. That is a risky proposition. We cannot assume that Chinese leaders will always choose rationally to maximise China’s objective benefits. They are no less liable than the leaders of any other country to allow what may be, or may seem to us to be, irrational desires for status and influence to trump the rational calculations of national interest.

Economics is important, but money isn’t everything. Countries, like people, want to be rich, but they also want to be safe and to feel good about themselves. For countries, as for individuals, aspirations for security and identity often compete with material interests, and often win. America’s and China’s divergent visions touch on very deep issues of national identity in both countries, which can easily seem to outweigh economic imperatives when the crunch comes. And there is always something a little strange about the assumption, implicit in the interdependence argument, that our economic desires will suppress the urge to strategic and political competition when our desire to avoid the horrors of war will not.

## DA---Court

### 2AC---General

#### Boonstra lists tons of diseases which aren’t existential

KU= blue

1NC Boonstra 16 – [Heather D. Boonstra - Vice President for Public Policy at the Guttmacher Institute, February 9th 2016, “Fetal Tissue Research: A Weapon and a Casualty in the War Against Abortion”, [https://www.guttmacher.org/gpr/2016/fetal-tissue-research-weapon-and-casualty-war-against-abortion#](https://www.guttmacher.org/gpr/2016/fetal-tissue-research-weapon-and-casualty-war-against-abortion), eph]

Fetal Tissue Research: A Weapon and a Casualty in the War Against Abortion The debate over using human fetal tissue in medical research came roaring back on the national policy agenda last summer when a group of antiabortion activists began releasing deceptively edited videos about Planned Parenthood’s handling of fetal tissue donations for this purpose. Fetal tissue research dates back to the 1930s, and has led to major advances in human health, including the virtual elimination of such childhood scourges as polio, measles and rubella in the United States. 1,2 Today, fetal tissue is being used in the development of vaccines against Ebola and HIV, the study of human development, and efforts to treat and cure conditions and diseases that afflict millions of Americans. To ensure it meets the highest ethical standards, fetal tissue research has been subject to stringent laws and regulations for decades. Abortion foes are now accusing health care providers and researchers of violating these laws and ethical standards, in hopes of undermining the right to abortion and ending fetal tissue research. These attacks not only threaten sexual and reproductive health and rights, but also pose a threat to the large numbers of people who could benefit from fetal tissue research, given the wide range of conditions that such research might ameliorate. Any impediment to ongoing scientific inquiry in the field caused by the current controversy would have substantial consequences. IMPORTANCE OF FETAL TISSUE RESEARCH Unlike embryonic stem cell research, which uses cells from days-old embryos created through in vitro fertilization, fetal tissue research uses tissue derived from induced abortion of pregnancies at or after the ninth week. 1,3 (Fetal tissue obtained from a miscarriage is often not suitable for research purposes because of concerns about potential chromosomal abnormalities that led to the miscarriage. 3) Researchers most often acquire fetal tissue from a tissue bank or, sometimes, directly from a hospital or abortion clinic. 4 Because it is not as developed as adult tissue and is able to adapt to new environments, fetal tissue is critical to the study of a wide variety of diseases and medical conditions, according to the American Society for Cell Biology. 1 Researchers use fetal tissue—and cell cultures derived from such tissue, which can be maintained in a laboratory environment for decades—to study fundamental biological processes and fetal development. According to the U.S. Department of Health and Human Services, fetal tissue continues to be an important resource for researchers studying degenerative eye disease, human development disorders such as Down syndrome, and early brain development (relevant to understanding the causes of autism and schizophrenia). 2 Fetal tissue has also been used to develop vaccines that have saved and improved the lives of billions of people worldwide. 1,2,5 The 1954 Nobel Prize in Medicine was awarded for work using cell cultures originating from fetal tissue that led to the development of the polio vaccine. Vaccines for diseases such as measles, mumps, rubella, chickenpox, whooping cough, tetanus, hepatitis A and rabies were also created using fetal cell cultures, and researchers are now using fetal cells to develop vaccines against other diseases, including Ebola, HIV and dengue fever. In addition, researchers use fetal tissue in transplantation research. Fetal tissue has several unique properties that make it particularly suitable for transplantation. Not only do fetal cells grow at a much faster rate than adult cells, they also elicit less of an immune response, which lowers the risk of tissue rejection. 6 Clinical trials transplanting fetal cells are currently underway for people with spinal cord injury, stroke and ALS (Lou Gehrig’s disease), and may soon begin for those with Alzheimer’s disease, Parkinson’s disease and multiple sclerosis. 1 The National Institutes of Health (NIH) has been supporting research using fetal tissue since the 1950s, and in FY 2014, NIH provided roughly $76 million for this work. 3 According to an analysis of NIH research grants published in Nature, NIH funded 164 projects using fetal tissue in 2014, most often for research on infectious diseases, eye function and disease, and developmental biology (see chart). 7,8 Many of the nation’s leading academic medical centers are involved in fetal tissue research. 7,9,10 Researchers at the University of North Carolina at Chapel Hill are using cell cultures derived from fetal tissue for their work on hepatitis B and C—specifically, on how the viruses evade the human immune system and cause chronic liver diseases. At the University of Wisconsin-Madison, fetal cell cultures are used to study heart disease, including sudden cardiac arrest. At Stanford University, fetal tissue has been used to study Huntington’s disease, juvenile diabetes, autism and schizophrenia. And scientists at Colorado State University are conducting HIV research using fetal tissue. FEDERAL LAW AND REGULATION Soon after the U.S. Supreme Court’s Roe v. Wade decision in 1973 legalizing abortion nationwide, antiabortion leaders in Congress seized on fetal tissue research as a weapon in the war against abortion. Fetal tissue research was perhaps an inevitable target: It provided an aura of legitimacy to abortion itself and, at the same time, could be easily exploited to show how abortion “dehumanizes” the fetus. 11 Accordingly, antiabortion activists employed graphic visuals to shock members of Congress, try to personify the fetus, and demonize abortion providers and the procedure itself. This first incarnation of the controversy coincided with public revelations about the infamous Tuskegee syphilis study—a study that enrolled black men living in Alabama to investigate the long-term effects of syphilis. In 1973, an ad hoc advisory panel convened by the Department of Health, Education and Welfare (now the Department of Health and Human Services) concluded that, in retrospect, the study was “scientifically unsound” and “ethically unjustified.”12 In response to the Tuskegee revelations, Congress felt pressure to create protections for human research subjects, and by 1974, Congress passed the National Research Act. The law created the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research to develop guidelines on the ethical principles that apply to research on all human subjects, as well as on particular principles that apply to research involving fetuses and using fetal tissue. The commission’s report on research on the fetus, issued in 1975, led to the creation of regulations during the Ford administration that set out the rules of the road for federally funded fetal tissue research. The regulations—which are still in effect—specify that “no inducements, monetary or otherwise, will be offered to terminate a pregnancy.” They also provide that “individuals engaged in the research will have no part in any decisions as to the timing, method, or procedures used to terminate a pregnancy.” Fetal tissue research receded as a political issue until the late 1980s, when a group of NIH scientists sought approval from the Reagan administration for a proposed project involving the transplantation of fetal tissue. After deliberating on the request, the administration appointed an advisory panel—which included a chair and several members who were well-known opponents of abortion rights—to examine the ethical, legal and scientific questions raised by this type of research. In 1988, the panel issued its report and, despite its mixed composition, it concluded that “in light of the fact that abortion is legal and that the research in question is intended to achieve significant medical goals…the use of such tissue [for research] is acceptable public policy.”13 Key recommendations of the panel were later codified into law with the passage of the NIH Revitalization Act of 1993. The legislation won broad bipartisan support in Congress, including from several prominent senators with solid antiabortion records. Among them were Sens. Robert Dole (R-KS), a longtime advocate for people with disabilities, and Strom Thurmond (R-SC), who had a daughter with juvenile diabetes. 14,15 The NIH Revitalization Act of 1993 added several provisions to the existing regulations governing fetal tissue research. One such provision prohibits anyone from accepting payment for human fetal tissue other than “reasonable payments associated with the transportation, implantation, processing, preservation, quality control, or storage of human fetal tissue.” Thus, although individuals may be compensated for any costs they incur in the acquisition, receipt or transfer of fetal tissue, they are prohibited from making a profit from these activities, regardless of whether the project is federally funded or not. The law also imposes additional requirements when the donated tissue is used in federally funded research involving the transplantation of fetal tissue for therapeutic purposes. Among these are provisions for informed consent and prohibiting physicians and researchers from altering the timing or method used to terminate the pregnancy solely for the purposes of obtaining the tissue. Although all of these requirements technically apply only to federally funded transplantation research, as a practical matter, they set the standard for all research using fetal tissue. For example, the policies and procedures for fetal tissue donation issued by Planned Parenthood Federation of America and by the National Abortion Federation incorporate the substance of these federal requirements. 16,17 STATE POLICIES At the state level, fetal tissue donation is regulated by the Uniform Anatomical Gift Act (UAGA), versions of which are in effect in every state. 13,18 According to an analysis by the Guttmacher Institute, 38 states and the District of Columbia have UAGA laws that explicitly treat fetal tissue the same way as other human tissue, permitting it to be donated by the woman for research, therapy or education. The remaining 12 states have laws that are silent, neither allowing nor disallowing the donation of fetal tissue (see map). UAGA also prohibits profiting from the sale or purchase of anatomical gifts for transplantation or therapy. Fetal tissue donation and research are also regulated in some states by specific statutes. Often, these statutes incorporate many of the same standards set by federal law and regulations. For example, 12 states prohibit making a profit from the donation or transfer of fetal tissue for research purposes, and eight states require the woman’s consent for research. Five states have laws that ban research using fetal tissue obtained from abortions throughout pregnancy. (Four other states also ban research using postabortion fetal tissue, but these laws have been struck down by the courts.) One of these states with a ban in effect, Indiana, also has a law that requires the disposal of postabortion fetal tissue in an established cemetery or by cremation, presumably precluding any possibility of donation for research. POLITICAL FIRESTORM The current furor over the use of fetal tissue in research ignited last summer, after the release of heavily edited videos purporting to capture undercover sting operations targeted at Planned Parenthood. The series of videos—released in close cooperation with members of Congress who want to ban abortion19—show an antiabortion activist posing as a representative of what turned out to be a sham biomedical research company, in frank discussions with various Planned Parenthood officials about tissue donation policies and reimbursement. The fallout from the videos has been swift, severe and wide-ranging. The stated targets are Planned Parenthood, abortion providers and the legitimacy of abortion. The videos also threaten to undermine fetal tissue research itself, however, by sowing confusion, and by using graphic descriptions and images to turn the public against this research. The primary goal of this current campaign has been to portray Planned Parenthood as callous and its providers as possibly criminal. Antiabortion policymakers have accused Planned Parenthood of violating several provisions of the NIH Revitalization Act of 1993, such as profiting from the sale of fetal tissue and altering the abortion procedure solely for the purpose of obtaining tissue. Opponents of abortion have also accused providers of using a procedure that violates the so-called “partial birth” abortion ban. As an instigator of the videos, David Daleiden explained in an interview with Politico, “For me, the goal was to document and illustrate for the public really, really clearly how Planned Parenthood harvests and sells the body parts of the babies that they abort.”20 Antiabortion elected officials ran with this narrative and immediately called for investigations of the organization. In October 2015, congressional leaders formed a special committee to carry out an official inquiry into Planned Parenthood—bringing the total number of investigations into Planned Parenthood in the House and Senate to five since the first video was released. In January 2016, the House’s first substantive piece of business was yet another attempt to cut off funding for Planned Parenthood, one of several such efforts recently to scale back abortion rights and women’s health care. Also, officials in 11 states have concluded investigations into claims that Planned Parenthood profited from fetal tissue donation, and each one of these investigations has cleared the organization of wrongdoing. 21 Nonetheless, the grandstanding has continued unabated. Antiabortion leaders, lawmakers and all the Republican presidential candidates have used the opportunity to demonize abortion and paint a ghoulish picture of organ harvesting, all in an effort to gin up public disgust and attract public support for themselves and against abortion and Planned Parenthood. Indeed, the videos and the hype around them appear to have provoked at least four arson attacks on Planned Parenthood clinics since July 2015 and set the stage for yet another extreme act of violence in Colorado Springs over Thanksgiving weekend. 10 It was there that Robert Lewis Dear Jr. allegedly killed three people and injured nine others at a Planned Parenthood health center. During his arrest, Dear shouted “no more baby parts,” suggesting that the constant barrage of inflammatory rhetoric around the fetal tissue issue over the prior months played a role in triggering his actions. 22 HIGH STAKES Beyond the attacks on Planned Parenthood, however, the use of fetal tissue in research also is under direct attack. Since July, bills have been introduced in Congress and in several states that would make it more difficult to donate tissue or use fetal tissue in research. Other bills would ban fetal tissue research outright. This trend is almost certain to continue through 2016 as the issue is sure to be exploited in state and federal elections. Meanwhile, the videos appear to have had a chilling effect on science. According to Theresa Naluai-Cecchini, a scientist at the Birth Defects Research Laboratory at the University of Washington (a federally funded entity that has served as a source of donated fetal tissue to researchers nationwide for more than 50 years), tissue donations have dropped dramatically since July 2015. 10 Naluai-Cecchini told Mother Jones that if this trend continues, research that may save lives would take considerably longer. Some scientists involved in fetal tissue research have been afraid to speak out. 7 They have seen how abortion providers have been targeted, and now they too fear for their personal safety. Others have spoken out strongly to defend the importance of their work, pointing out that tissue that would otherwise be discarded has played a vital role in lifesaving medical advances and holds great promise for new breakthroughs. In an October 2015 open letter to Congress, 41 scientists called for the end to political interference with science and research: “Fetal tissue research has already saved and improved the lives of countless people. [We] cannot allow political agendas to undermine our nation’s legacy of leadership in medical and scientific innovation.”23 In another action, the Association of American Medical Colleges released a statement on January 6, 2016 signed by 59 academic medical centers, scientific societies and allied groups—from the University of Alabama School of Medicine to Duke University School of Medicine, from the University of Wisconsin-Madison to Tulane University School of Medicine. 24 The statement expresses “grave concerns” about the numerous legislative proposals now in play in Congress and in many states, and it calls on lawmakers to reject any proposals that restrict access to fetal tissue for research. Ironically, in the wake of all the heightened focus on fetal tissue donation, Planned Parenthood officials report they have seen an uptick in the number of women obtaining abortion who request that the fetal tissue be donated to research. The role that Planned Parenthood plays in providing postabortion tissue to researchers, however, is small: Just 1% of the approximately 700 health centers that are part of the Planned Parenthood network are equipped for fetal tissue donation. And in another response to the disinformation campaign and to try to quell some of the controversy, Planned Parenthood announced in October 2015 that its clinics will no longer seek reimbursement for their costs related to fetal tissue donation, even though the practice is perfectly legal and commonplace. Bioethicist R. Alta Charo has argued that enabling the use of fetal tissue to advance scientific research for the benefit of humankind must be seen as something of a moral imperative. “Virtually every person in this country has benefited from research using fetal tissue,” she wrote in the New England Journal of Medicine. “Every child who’s been spared the risks and misery of chickenpox, rubella, or polio can thank the Nobel Prize recipients and other scientists who used such tissue in research yielding the vaccines that protect us….Any discussion of the ethics of fetal tissue research must begin with its unimpeachable claim to have saved the lives and health of millions of people.”25 As the full impact of the current firestorm surrounding fetal tissue research is still unfolding, it remains to be seen how much this research will continue be used as a weapon against abortion or become a serious target itself—or both. To be sure, the current controversy threatens not just access to safe and legal abortion and the providers who care for the women who seek this essential health service. It also threatens the millions of people globally who could benefit from fetal tissue research—and that includes nearly all of us, whatever our views on abortion rights may be.

### 2AC---Bipartisan

#### Plan is bipartisan.

Contreras 18, \*Jorge L. Contreras teaches in the areas of intellectual property law, property law and genetics and the law at the University of Utah. He has recently been named one of the University of Utah's Presidential Scholars, and won the 2018-19 Faculty Scholarship Award from the S.J. Quinney College of Law. Professor Contreras has previously served on the law faculties of American University Washington College of Law and Washington University in St. Louis, and was a partner at the international law firm Wilmer Cutler Pickering Hale and Dorr LLP, where he practiced transactional and intellectual property law in Boston, London and Washington DC; (August 2018, “Taking it to the Limit: Shifting U.S. Antitrust Policy Toward Standards Development”, https://dc.law.utah.edu/cgi/viewcontent.cgi?article=1114&context=scholarship)

This being said, antitrust policy regarding standard-setting, and hold-up in particular, did not previously appear to run along party lines. In fact, many key DOJ position statements regarding hold-up, including those expressed in its 2006 and 2007 business review letters to VITA and IEEE, respectively, and the 2007 report on antitrust and IP that it produced jointly with the FTC, were developed during the Republican George W. Bush Administration. Each of these documents acknowledged the existence and potential anticompetitive effects of hold-up. At least in this area, the Obama DOJ did not appear to deviate significantly from the policies of prior administrations. As observed by FTC Commissioner Terrell McSweeny, the FTC and prior DOJ approach to combatting hold-up were based on “15 years of scholarship and bipartisan study” and should not lightly be discarded.37

### 2AC---LD---Precedent

#### No link---the plan uses a ‘reasonably necessary’ lens to evaluate anticompetitive conduct, which is consistent with long-held antitrust principles.

Melamed & Shapiro 18, \*A. Douglas Melamed is Professor of the Practice of Law at Stanford Law School; \*Carl Shapiro is the Transamerica Professor of Business Strategy at the Haas School of Business at the University of California at Berkeley; (May 2018, “How Antitrust Law Can Make FRAND Commitments More Effective”, https://www-cdn.law.stanford.edu/wp-content/uploads/2018/05/How-Antitrust-Law-Can-Make-FRAND-Commitments-More-Effective.pdf)

The key antitrust question, therefore, is: how does the law reconcile the legitimate purpose of collaborative standard setting with its likely creation of market power for SEP holders? The answer is found in the fundamental principle of antitrust law that, when firms—and especially competitors—collaborate, even for a legitimate purpose, their collaboration must be no more restrictive of competition than reasonably necessary to enable achievement of the legitimate purpose.

This principle has its origins in the common law 67 and in some of the earliest U.S. antitrust cases.68 It means not just that the collaboration in question—for present purposes, SSO rules and practices regarding the creation of standards and the licensing of SEPs—must on balance enhance competition or consumer welfare, but also that the collaboration is unlawful if a different set of rules and practices could largely achieve the intended benefits with less harm.69 As the Court explained in Allied Tube, “[a]n association cannot validate the anticompetitive activities of its members simply by adopting rules that fail to pro- vide . . . safeguards” against conduct by members “with economic interests in restraining competition.”70

This principle has repeatedly been expressed in lower court decisions and antitrust enforcement agency guidelines. In Kreuzer v. American Academy of Periodontology, which concerned the lawfulness of a professional association’s rules of practice, the court reasoned as follows: “[A] practice intended to benefit the public may have a collateral adverse effect on competition. If it does, then such a practice must be the least restrictive means of achieving the desired goal and the public benefit rendered must outweigh the adverse effect on competition.”71 And the U.S. enforcement agencies’ Competitor Collaboration Guidelines make clear that when a collaboration among competitors harms competition or creates market power—as the creation by SSOs of monopoly power for SEP holders surely does—that harm must be justified by an offsetting, procompetitive justification.

### 2AC- Disease defense

#### Treatment, detection, immunity, and adaptability check

**Adalja 16** (Amesh Adalja – infectious-disease physician at the University of Pittsburgh, Senior Associate at John Hopkins. <KEN> "Why Hasn't Disease Wiped out the Human Race?," Atlantic. June 17, 2016. DOA: 4/2/19. <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. 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 **a**ntibiotics, 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.

# 1AR

## Adv 1

### Case overview

#### Monopoly pricing undermines innovation by reducing product output, taxing follow-on inventions, and distorting the standards-development process.

Melamed & Shapiro 18, \*A. Douglas Melamed is Professor of the Practice of Law at Stanford Law School; \*Carl Shapiro is the Transamerica Professor of Business Strategy at the Haas School of Business at the University of California at Berkeley; (May 2018, “How Antitrust Law Can Make FRAND Commitments More Effective”, https://www-cdn.law.stanford.edu/wp-content/uploads/2018/05/How-Antitrust-Law-Can-Make-FRAND-Commitments-More-Effective.pdf)

II. The Need For Effective FRAND Commitments

Restrictions on ex post opportunism are needed to prevent a wealth transfer from implementers and their customers to SEP holders as a result of monopoly pricing.17 But much more is at stake.

A. Underlying Economic Principles

Basic economic principles instruct that ex post monopoly pricing by SEP holders harms consumers by raising the cost of products that comply with the standard. Ex post monopoly pricing also creates welfare-reducing deadweight loss in three respects. First, it increases the cost of, and thus reduces the output of, standard-implementing products. Second, and perhaps more important, supracompetitive pricing by SEP holders increases the cost of follow-on inventions that build on or improve the technologies claimed by the SEPs. This cost acts as a tax on follow-on innovation, reducing such innovations and impairing the very process of invention that the patent laws are intended to promote. Third, the prospect of ex post monopoly pricing by SEP holders exaggerates incentives for firms to obtain patents that might become SEPs and, perhaps more important, to jockey for inclusion of their patented technologies in industry standards. The latter incentive in turn could cause delays and induce expensive rent-seeking conduct in the standard-setting process and distort the standards-development process away from optimal technical solutions in ways that further the interests of rent seekers.

#### Ex post, patentees are motivated to overclaim patents---creating a thicket of nonessential patents that overburden implementers.

Hovenkamp 20, \*Herbert J. Hovenkamp is James G. Dinan University Professor at the University of Pennsylvania Law School and the Wharton School of the University of Pennsylvania; (2020, “FRAND and Antitrust”, <https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=3095&context=faculty_scholarship>)

Having a patent declared standard essential can increase its value considerably, mainly because the promise of a license at a reasonable rate steers developmental decision making in favor of that particular technology. When a firm makes a commitment to develop its products under a particular standard, it wants assurance that it will have a durable right to operate under that standard at reasonable royalty rates. This process naturally leads to the creation of considerable path dependence in standards. It encourages firms to develop their own technology in ways that ensure interoperability but that can be costly to reverse after the fact.30

This phenomenon of increased value for SEPs also motivates patent owning firms to “over-claim”—that is, to assert that patents are standard essential when subsequent litigation or evaluation determines that they are not. While FRAND agreements require participants to declare relevant patents thought to be essential, the rate of actual declaration far exceeds any rational boundary. As many as one-third to more than half of declared SEPs are very likely not essential to the standard for which they were declared,31 and allegations about the practice of over-declaring are currently being litigated as potential antitrust violations.32 In fact, overall infringement rates for SEP patents are not materially different from those for non-SEP patents.33 A declaration of non-infringement means that, although the patent might be valid, it does not in fact read on the defendant’s particular device or process. In effect, the patent is not a part of the defendant’s technology, and thus cannot be essential. The problem is exacerbated by the fact that, for the most part, SSOs have no process up front for reviewing or questioning individual participants’ declarations that a patent they are offering is in fact both valid and standard essential.34

Ex ante, a patent may offer one of many alternative technological paths to a certain goal. However, ex post, after a standard has been adopted and others have developed their technologies in reliance, the range of acceptable alternatives can decrease dramatically. As a result, the patent whose path is adopted becomes much more valuable.35 In that case, a firm’s ability to evade the FRAND obligation by charging selectively higher royalties to some licensees or conditioning licenses on the purchase of other technology can be extremely lucrative for the patentee but costly to implementers of the standard and disruptive of the SSO’s developmental goals.36 In its Qualcomm decision noted above, the Ninth Circuit did not indicate any awareness of these motivations or their potential for harm.37

#### Individual and collective patent hold-out is factually unsupported.

Melamed & Shapiro 18, \*A. Douglas Melamed is Professor of the Practice of Law at Stanford Law School; \*Carl Shapiro is the Transamerica Professor of Business Strategy at the Haas School of Business at the University of California at Berkeley; (May 2018, “How Antitrust Law Can Make FRAND Commitments More Effective”, https://www-cdn.law.stanford.edu/wp-content/uploads/2018/05/How-Antitrust-Law-Can-Make-FRAND-Commitments-More-Effective.pdf)

Fourth, others who oppose effective measures to prevent ex post opportunism argue that so-called “patent hold-out” by implementers—the unwillingness of some implementers to bargain in good faith for patent licenses—is a more serious problem.27 We know of no factual support for this argument. Moreover, if the implementers are infringing valid patents, they are required by the patent statute to pay at least a reasonable royalty and may be liable for treble damages.28 The issue, therefore, is not whether the implementer would prefer not to pay for a license, but rather whether there is a need for special rules in patent infringement cases—unavailable in other settings—to deal with alleged debtors that would rather litigate than settle on the terms offered to them.

In a recent speech, the Assistant Attorney General for Antitrust, Makan Delrahim, made a different argument about what he calls “collective hold-out.”29 Delrahim seems to have in mind implementers acting “together within a standard-setting organization” in order “to impose anticompetitive licensing terms” before the standard is established.30 This concern should provide no basis to permit SSOs to refrain from enforcing effective FRAND commitments adopting and, much less to stop them from doing so.

In the first place, we know of no instance in which the feared “collective holdout” has happened in the context of modern communications and information industries, and Delrahim cites none. Moreover, SSOs are a form of industry and competitor collaboration, and the creation and promotion of standards is usually procompetitive and efficiency-enhancing. These procompetitive activities and rules of SSOs—including FRAND requirements—cannot therefore be condemned as naked, cartel-like behavior. Instead, they should be assessed for antitrust purposes under the Rule of Reason.31

This does not mean that FRAND requirements can never violate the antitrust laws. FRAND requirements are intended to ameliorate the problem of ex post monopoly power created by the collective action of the SSO. They should do so by, inter alia, constraining monopoly pricing so that ex post royalties will be closer to the competitive ex ante price. As long as FRAND requirements do not entail the use of market power to force patent holders to accept royalties at lower levels, they should not be regarded as an unlawful exercise of collective buyer power. To our knowledge, no SSO has required patent holders to accept less than the ex ante price; and the kind of effective FRAND commitments we advocate, and believe the law requires, would not require that patent holders do so.

Delrahim suggests that any effort by an SSO to enact meaningful FRAND commitments is problematic because “[e]very incremental shift in bargaining leverage toward implementers of new technologies acting in concert can undermine incentives to innovate.”32 But excessive royalties undermine incentives for follow-on innovation and can have adverse economic consequences as well. The patent laws are intended to limit, not maximize, the royalties to which patent holders are entitled.33 Delrahim’s approach is inconsistent with both sound economic analysis and the policies animating patent law. FRAND commitments that reduce excessive royalties further the policies of both the antitrust laws and the patent laws.

## CP---FTC

### 1AR---Deficit

#### Their evidence says FTC guidance can’t overcome 9th circuit court decision in favor of Qualcomm. (KU)

2NC BULUSU 21 --- SIRI BULUSU, “FTC to Come Back Stronger After Dropping Qualcomm Litigation”, Bloomberg Law, April 2nd 2021, https://news.bloomberglaw.com/antitrust/ftc-to-come-back-stronger-after-dropping-qualcomm-litigation

The Federal Trade Commission’s decision to drop its antitrust case against Qualcomm Inc. is part of a broader strategy to regroup and build more favorable case law rather than a retreat from this type of litigation, attorneys say.

Appealing the case to the U.S. Supreme Court now could end the FTC’s ability to target companies with similar business models if the justices rule against the agency.

But leaving in place last summer’s ruling from the U.S. Court of Appeals for the Ninth Circuit means the commission is free to pursue cases similar to Qualcomm in other areas of the country.

“From a legal standpoint, the decision in Ninth Circuit will be binding on the FTC with regards to what goes on out West, but that won’t be binding when it comes to, say, the Fifth Circuit which covers Texas and some other places,” said David Long, a patent attorney and managing partner at Essential Patent LLC.

“So there’s a chance they thought, well let’s see if we can get some more victories in some other circuits,” he said.

And an upcoming shift in the independent agency’s political makeup likely means increased scrutiny of companies using similar patent licensing models.

## DA---FTC

### 1AR---Impact Run

#### Their geoengineering scenario is uncertain.

Halstead 18 (John, head of applied research at Founders Pledge, “Stratospheric aerosol injection research and existential risk,” Futures Volume 102, September 2018, <https://www.sciencedirect.com/science/article/abs/pii/S0016328717301131>, DOA: 10-2-2021) //Snowball

I have argued that SAI would bring the following benefits:

1 Eliminating the risk of existential catastrophe-level warming attributable to climate change. On some highly controversial lines of argument, the probability of existential catastrophe due to the direct effects of climate change is 3.5%. A number of arguments suggest this estimate could be too high, and that a more realistic figure is below 1%.

2 Reducing the security risks associated with climate change.

SAI would also introduce or increase the following risks:

3 Security risks associated with the politicisation of the weather.

4 The risk of increasing knowledge about a doomsday weapon.

5 Termination shock risk

I have argued that factors 4 and 5 present small risks. However, it is extremely difficult to quantify the magnitude of factors 2 and 3; it is unclear whether the risks of interstate conflict would be more severe in a Greenhouse Planet or an Engineered Planet. This is reflected in the fact that there is no expert consensus on the governability of SAI. I have also noted that research into SAI could be an information hazard or an attention hazard for some kind of geoengineering-based weapon, but the risk of discovering a viable and geopolitically destabilising weapon currently appears small.

I have argued that a research programme that focuses primarily and initially on the governance and security risks of SAI would be preferable to one that focuses primarily on the environmental effects of SAI. However, we are arguably in a state of deep uncertainty or complex cluelessness with respect to the question of whether a security-focused research programme would obstruct mitigation and whether it would be increase or reduce existential risk. Nonetheless, in my view, further research is justified provided that extensive efforts are made to reduce mitigation obstruction risk. In light of how hard it is to justify this conclusion with well-justified quantifications of risk, further research into that meta-level research question would also be worthwhile.

#### No Arctic war.

Bartelet & Dubois 18, \*Henry Bartelet is the Founder and Commercial Director of DynaMundo, a Seattle-based think tank. \*\*Kenty Dubois is a Fellow at DynaMundo where he works on a set of policy-oriented research dealing with the Arctic Region. (1-12-2018, "The Arctic Between Hype and Reality", *Polar Connection*, https://polarconnection.org/arctic-geopolitics/)

A Battle for Resources?

Most of the resources in the Arctic are to be found in countries within territorial seas or exclusive economic zones. Since all the Arctic States have pledged to respect UNCLOS in the Illulissat Declaration, there is very little chance of conflict. The principle of precaution seems to be the reason explaining the disputes about the delimitation of the extended continental shelves, in case something would be found even if it is unlikely. Some feared that a “resources driven conflict” would occur in the Circumpolar North after the outbreak of the Ukrainian Crisis; the phenomenon did not occur. The reason is that for its own development, Moscow needs the region to remain peaceful (Käpylä & Mikkola 2015; Rahbek-Clemmensen 2015). Given Gazprom’s earlier decision to involve the Norwegian StatoilHydro in the development phase of its Arctic Shtokman gas field, it can even be argued that Russia will need to cooperate with its Arctic neighbours to develop its Arctic resources successfully.

Currently, the main producer of petroleum in the Arctic is Russia, where the offshore Prirazlomnoye field in the Pechora Sea is operated by Gazprom Neft. This field, which began commercial production in 2013, had an output of 2.1 million tons of Arctic oil in 2016. In March 2016, the Goliat field in Norway, a joint venture between Eni and Statoil, started production of Arctic oil. This field will produce 100,000 barrels of oil per day. With regards to natural gas, the Snøhvit gas field operated by Statoil represents the first and primary offshore development in the Arctic Barents Sea. The giant Russian natural gas field of Shtokman has dealt with several setbacks mostly from technological challenges, cost overruns and low gas prices. The cooperation agreement with European partners Total and Statoil expired in 2012 and further project development and production start is delayed until further notice. Another major Arctic Russian natural gas field, Yamal, has experienced similar setbacks in development. However, as of April 2014, the field operated by Novatek plans to start producing gas condensate.

In the North American Arctic, increased Arctic natural gas production can become a reality with the proposed investments in the ‘Alaska Pipeline Project’ through a consortium involving ExxonMobil, ConocoPhillips, BP and TransCanada. This major infrastructure project would make it possible to transport the natural gas in Alaska’s large Arctic reserves to markets in Canada and the United States. However, the planned continuation of this high investment project depends for a large part on high oil and gas prices. A prolonged period of low oil and gas prices could lead to a delay of the project which is proposed to begin transporting natural gas by 2025. The largest oil field in the American Arctic, in Prudhoe Bay, already reached peak production more than two decades ago. A second field in the Alaskan Arctic is the ‘Alpine field’, developed by ConocoPhillips and which has produced oil since 2000. The extent to which new production fields are to be developed in the Arctic is to a large extent dependent on a recovery of oil prices and domestic policies making a trade-off between environmental objections and the benefits of domestic resource production. In 2015, Royal Dutch Shell, one of the major players in the American Arctic, decided to abandon its drilling operations in the Arctic amid sustained low oil prices and rising pressure about environmental consequences. In October 2016, a large oil discovery was made in the Alaskan Arctic by Caelus Energy. This project, expected to start producing oil by 2022, could potentially offset some of the production declines from the other Arctic oil fields.

In Greenland, oil and gas development is a potential road towards full independence from the Kingdom of Denmark. To that purpose, a national oil company, Nunaoil, has been established; it has an automatic 12.5 percent stake in new oil exploration projects and an option to become a shareholder in oil projects which move to the development phase. Among the companies which have actively engaged in exploration activities in the Greenlandic Arctic are ExxonMobil, Chevron, Statoil, Husky Energy and Cairn Energy. However, also in Greenland, the drop in the oil price in 2014 has had a large effect on prospective Arctic oil exploration activities. Total petroleum prospecting, exploration and exploitation licences (in force) have decreased from nine in 2014 to three in 2015 and zero in 2016 (Mineral Licence and Safety Authority, 2017). The Scottish energy company Cairns Energy, one of the major players in Greenland’s petroleum exploration, is evaluating its Greenlandic portfolio as no commercial oil players have been found yet. In 2014, Statoil decided not to extend three of its four Greenlandic exploration licences.

Asian emerging powers have expressed their interest in Arctic resources. However, their contribution to Arctic economic development remains modest. China, Japan and South Korea are investing in resources exploration in Greenland (Tonami, 2016). Both China and Japan have expressed their will to cooperate with Russian companies and have also expressed their will to invest in the Yamal’s liquified natural gas exploitation. However, the discussions are advancing at a really slow pace. (Pollmann, 2016; Sorensen and Klimenko, 2017).

Arctic Militarisation?

If we analysed the numbers provided by the Stockholm International Peace Research Institute (Wezeman, October 16), we can see that Russia is leading in terms of air and sea capacities, while Canada has the strongest land capabilities but strongly lacks specific Arctic capacities such as icebreakers.

It is interesting to draw a comparison between the current military activities and the Cold War to get some more insight about what happens today in the Arctic. The numbers gathered by Lassi Heininen, Alexander Sergunin and Gleb Yarovoy:

If one observes the data closely, one can draw the following conclusion:

USSR’s presence in the 80s outnumbers the current Russian presence. The same can be said for the US.

NATO has more submarines, lager ships and aircraft that are Arctic capable than Russia. The mention “Arctic capable” is important; these forces can be elsewhere and are not permanently stationed in the region. Russia, thus, remains the strongest Arctic power.

Although there is a military presence, we cannot speak about a military theatre like the region has witnessed during the Cold War. The reason behind the Russian military presence in the region is threefold: 1) to assert Moscow’s sovereignty over the region 2) to protect the Russian companies operating in the region and 3) to show the entire world that Russia is still an Arctic power. Thus, the Russian military presence in the region is tied to prestige, economics and energy security. Unlike, the Cold War, the logic is not grounded in a bloc-to-bloc conflicts and deterrence (Heininen et al., 2014).

A few scholars have used the expression “Arctic exceptionalism” to speak about the lack of conflict in the Arctic. According to them, the Arctic’s current stability is explained by the lack of resources in contested areas or in the high seas3 and the capacity of regional fora, such as the Arctic Council, to defuse tension4 (Käpylä and Mikkola, 2016).