# 1AC

## 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.

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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.

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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.

#### Holdup threatens the entire IOT economy.

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G. Summary

However, our overall conclusions regarding SEPs are more mixed. Policy and legal changes that have reduced the ability of SEP owners to engage in patent holdup appear to have stalled out, especially as regards reform of the IPR rules at SSOs other than the IEEE. If so, this could have important effects on innovation and efficiency. For example, the “Internet of Things” is a new and growing area where royalty stacking and patent holdup appear to be very real dangers. Devices of all sorts, from thermostats to railroad cars to refrigerators, are being given connectivity using standards developed by SSOs. The price of those chips, and whether the IP contained in them costs $5 or $0.50 or $0.005, will determine the nature of new applications and the rate of adoption.

Failure to prevent patent holdup relating to tomorrow’s information technology and communications standards is likely to cause significant social welfare loss in the years ahead. If new and more effective private solutions relating to standard setting do not emerge to promote innovation and protect consumers, antitrust enforcement is one of the only remaining remedies that seems feasible.

V. Conclusions

Over the past five years, the rewards provided to patent owners in the United States have become more closely matched with the value of the technology they contribute. When rewards and contributions are aligned, economic efficiency is promoted because investments into developing new technologies are commensurate with benefits. These changes have come from legislation, the federal courts, and policy statements and enforcement actions by regulators of various types. However, at this juncture, we see a substantial gap persisting between the ability of some patent owners to monetize their patents and the contributions provided by the technology underlying those patents. With the “Internet of Things” poised to create economic growth, this is a problem worthy of further research and policy attention.

#### 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

### 2AC---AT: No Patent Holdup---Not Systemic

#### Reject indicts of systemic holdup:

#### 1---there’s no impact to winning this argument.

Cotter et al. 19, \*Thomas F. Cotter, Briggs and Morgan Professor of Law, University of Minnesota Law School; Innovators Network Foundation Intellectual Property Fellow; \*Erik Hovenkamp, Assistant Professor, USC Gould School of Law; \*Norman Siebrasse, Professor of Law, University of New Brunswick Faculty of Law; (2019, “Demystifying Patent Holdup”, https://scholarlycommons.law.wlu.edu/cgi/viewcontent.cgi?article=4667&context=wlulr)

B. Patent Holdup Is Not a Problem, Because It Is Not Systemic

A second, related argument is that there is no empirical evidence of patent owners engaging in pervasive, systemic patent holdup in the very industries holdup theorists are most concerned with (e.g., telecommunications).139 Indeed, according to the critics, if holdup were pervasive one would expect innovation and growth in the affected industries to “stagnate, wither, or die,”140 whereas if one looks “across human history, it is not clear that the commercialization of complex technologies has ever been faster than it is today in those industries that reform proponents point to as most plagued by the patent holdup ‘problem.’”141

Although we agree that whether, or to what extent, patent holdup occurs in the real world is ultimately an empirical matter, the implication that patent holdup is a problem only if it is “pervasive” or “systemic” is a non sequitur.142 If our analysis above is correct—that the ability to engage in patent holdup depends on path dependence, that settings conducive to patent holdup are not uncommon, and that the three components of a holdup royalty can exist independently of one another—patent holdup does not have to be systemic to be capable of reducing social welfare. Seeing how the empirical critiques of patent holdup do “not claim[ ] that individual firms never attempt to engage in behavior that can be characterized as holdup,”143 the conclusion that holdup is not systemic may well be accurate, for all we know, while still being of any limited relevance for purposes of determining whether injunctive relief should issue on the facts of any one particular case.144 If the choice were between always granting an injunction without tailoring or conditions, and never granting any form of injunctive relief, perhaps the question of whether holdup was systemic, at least in a particular industry, would be central. But the traditional approach to injunctive relief looks to the facts of the particular case.145

### 2AC---AT: Innovation DA---TL

#### *Every single* neg innovation claim is false---overdeterrence and “false positives” are wrong, FRAND-ly rates sufficiently motivate innovation, and holdup outweighs.

Leslie 20, \*Christopher R. Leslie, Chancellor’s Professor of Law, University of California Irvine School of Law; (2020,“The DOJ’s Defense of Deception:   
Antitrust Law’s Role in Protecting the Standard-Setting Process”, https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/25382/1\_Leslie\_FNL.pdf?sequence=1&isAllowed=y)

1. Innovation

In his speeches, Delrahim tries to create the specter of antitrust liability destroying innovation incentives if FRAND violations are treated as anticompetitive conduct.152 In particular, Delrahim argues that, even in the presence of FRAND commitments, courts should grant injunctions against alleged infringers in order to “optimize[] the incentive[s] to innovate for the benefit of the public.”153 At times, he asserts that allowing owners of FRAND-encumbered SEPs to enjoin manufacturers from making products is necessary to reward inventors.154 This is counterintuitive. Allowing patentholders to evade their contractual commitments made to SSOs does not “reward[] successful inventors,” as Delrahim argues.155 Rather, it distorts the competitive process through which the standard was initially adopted, which was based on the patentholders’ representations that they would charge FRAND royalties.156 Moreover, there is nothing in patent law that suggests—let alone mandates—that patentholders should be able to maximize their profits by any means they choose.157

Delrahim repeatedly describes FRAND violators as “innovators” and suggests that this characterization alone warrants antitrust immunity, lest liability deter or discourage inventors from inventing.158 But this is a red herring, a distraction. If a patentholder monopolizes a market solely through its innovation, and nothing else, the monopoly is legal. But no one is suggesting that monopolization through innovation should trigger antitrust liability. Rather, it is a patentholder’s deception and/or breach of relied-upon commitments that leads to antitrust scrutiny, because neither of these bad acts represents competition on the merits.159 Delrahim asserts that acquiring market power “as a result of a patent holder’s so-called ‘deception’ about its licensing obligations . . . is not the sort of market-power-enhancing conduct that Section 2 should reach because a cause of action for treble damages would impede the policies underlying the Sherman Act.”160 Delrahim never really explains why monopolization-through-deception is not conduct that violates Section 2. Instead, he expresses concern that patentholders may be liable for treble damages.161 But treble damages are easy to avoid: if the monopolist patentholder does not engage in deception and honors its FRAND commitments, then it will not be on the hook for any damages. In a similar vein, Delrahim notes that “the Supreme Court has cautioned against antitrust standards that would create an unacceptable risk of ‘false positives’ or condemnations of lawful pro-competitive conduct.”162 Invoking that concern, Delrahim asserts that holding innovators liable for their misconduct could deter innovation.163 That is absurd. Liability for misconduct deters misconduct. It does not deter any lawful behavior that is not the basis for liability in the first place. Delrahim offers no explanation for why holding patentees liable for breaking their FRAND commitments after having deceived an SSO into incorporating their patented invention into a standard would be likely to produce “false positives” against patentholders who have not engaged in such behavior.164

Delrahim consistently fails to appreciate how easy it is for an SEP owner to avoid antitrust liability: license the patent on FRAND terms. If there is a dispute about what constitutes a FRAND royalty, the patentholder can go to court and get a ruling on the FRAND rate, instead of suing for an injunction and threatening to drive a manufacturer from the market. Seeking and following judicial guidance on the FRAND rate immunizes the SEP owner against both antitrust liability and a breach of contract lawsuit. Some of Delrahim’s innovation arguments read like a defense of patent holdup writ large. For example, he asserts, “An antitrust duty to license on FRAND terms would also contravene the patent laws’ policy of promoting innovation by offering incentives for holders of valid patents to seek the greatest rewards possible for their inventions.”165 Taken at face value, this approach would eliminate antitrust liability for any patentholders’ anticompetitive conduct (tying, sham litigation, etc.) because such liability would reduce the maximum possible return they could earn on their patent.166 Delrahim’s statement ignores the fact that the patentholder acquired its monopoly power by legally promising not “to seek the greatest rewards possible for [its] invention[].”167

Furthermore, Delrahim is wrong to assert that antitrust liability for willful misconduct weakens incentives for innovation. The patentee is receiving just compensation under the FRAND regime.168 By bargaining to have its patent included in the industry standard, the SEP owner is locking in a steady stream of profits. Delrahim provides no evidence that these FRAND royalties are insufficient to reward and encourage innovation. And, in any event, the patentholder chose to pursue FRAND royalties rather than maintaining its patent outside the standard and retaining the right to set its own royalty rate for its patented technology. To make his innovation-based arguments, Delrahim describes a binary world in which firms are either innovators or implementers, and the “dueling interests of innovators and implementers always are in tension.”169 If this were a tug-of-war match, Delrahim would be loudly rooting for the innovators. Delrahim does not merely champion innovators; he affirmatively disparages implementers and the work of standard-setting organizations, which he accuses of having been “given too little scrutiny when they have acted as a forum to slow down, rather than to facilitate, the adoption of disruptive innovations.”170

The development of advanced technological goods, however, is not a zero-sum game in which one team wins and the other team loses. Delrahim’s description of the relationship between innovators and implementers is deeply flawed because no clear line separates these groups. In response to his first deception-forgiving speech, a group of leaders in the high-tech industry wrote to Delrahim, “We are not mere implementers of standards. Rather, we contribute technologies to standards and drive research, development, investment and innovation throughout the value chain.”171 Signatories to the letter included Apple, Audi, Cisco Systems, Dell, Hewlett Packard, Intel, Microsoft, and Samsung—all major players in the innovation game. In short, Delrahim is wrong to suggest that implementers are not innovators and that recognizing their legal rights would somehow hurt innovation.172

Moreover, Delrahim ignores an entire class of (undisputed) innovators—those inventors who own patented technology that was not included in the adopted standard. Unchosen standards are often rife with innovations. When a patent owner engages in deception to secure a particular standard, the innovators who own patents that would have been SEPs for an alternative standard that was not selected due to another patentee’s deceptive conduct suffer a loss of revenue that could constitute a form of antitrust injury.

Not only is Delrahim’s innovation analysis incorrect, it is counterproductive to its stated goals. The industry letter in response to Delrahim’s first speech explained that the Trump appointee’s approach would “instead threaten US industry and consumer interests, harm US innovation, and interfere with parties’ right to contract.”173 The Department of Justice used to recognize this, noting in its prior joint statement with the PTO that “F/RAND commitments may also contribute to increased follow-on innovation by allowing nondiscriminatory access to networks both to new entrants and to established market participants to introduce new generations of network-operable devices.”174 Patent holdup harms innovation by discouraging firms from participating in SSOs because “[w]here the danger of abuse undermines the collaborative process by threatening to extract supracompetitive prices from competitors, industry members are less likely to participate in SSOs in the future and, as a result, consumers are less likely to benefit from these organizations.”175 Douglas Melamed and Carl Shapiro have explained that “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.”176 Moreover, because Delrahim looks at the issue only through the eyes of the SEP owner that seeks to evade its FRAND obligation, he overlooks the fact that by delaying the implementation of the standard, the holdout who commits holdup hurts all the other innovators who have SEPs.177 Ultimately, because SSOs facilitate and reward innovation and because patent holdup can chill industry members from participating in the standard-setting process, the failure to deter and remedy patent holdup harms innovation.178 Former FTC Commissioner Terrell McSweeny explained that “[b]y protecting the integrity of the standard-setting process itself, sound antitrust enforcement actually strengthens market opportunities for new technologies, thus improving the incentive for valuable innovation.”179 Thus, while Delrahim is right to praise innovation, he is wrong to argue that permitting deception and FRAND violations is the correct way to encourage innovation.

## T---Prohibit

### 2AC---AT: T---Prohibit = Ban---TL

#### 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.

Our court reached that same conclusion, rejecting a similar argument, in Dejarlais. There the court stated, "nothing in the statute prevents drafting a protection order which allows some contact, for instance, by telephone or through a third party. There is no requirement that all contact be prohibited." State v. Dejarlais, 136 Wn.2d 939, 945, 969 P.2d 90 (1998).

RCW 26.50.110 does not apply only to orders that prohibit all contact. Accordingly, the statute was properly applied to Mr. Kimball's behavior.

#### 2---they don’t solve limits---antitrust prohibitions can include exemptions.

Frederick 89 (Donald A. Frederick-Attorney-Adviser. “MANAGING COOPERATIVE ANTITRUST RISK” , United States Department of Agriculture, Agricultural Cooperative Service, Cooperative Information Report 38, <https://www.rd.usda.gov/files/cir38.pdf>, 1989, date accessed 9/5/21)

This exposes farmers to considerable antitrust risk unless their joint marketing activity is conducted in a manner exempt from antitrust prohibitions. As one judge phrased it:

“It is clear that if individual agriculturalists, through the medium of a cooperative, jointly fixed prices, reasonably or otherwise, without statutory authorization, they would be subject to prosecution.” (emphasis added) 14/

## T---Whole Economy

### 2AC---AT: T---Private Sector = All---TL

#### Counter-interpretation---the private sector includes an industry.

The Law Dictionary N.D., (The Law Dictionary: Featuring Black's Law Dictionary Free Online Legal Dictionary 2nd Ed. “Private Sector” , <https://thelawdictionary.org/private-sector/> , date accessed 9/11/21)

What is PRIVATE SECTOR?

An industry that is composed of private companies. The corporate sector and the personal sector are encompassed in the private sector and they are responsible for the allocation of the majority of resources within the economy.

#### The private sector includes subsets---refers to many different actors.

Waler and Hofstetter 16 (Katharina Walker is Advisor for vocational skills development and Helvetas’ youth focal person. Sonja Hofstetter joined Swisscontact in Cambodia in July 2016. She is the Quality Assurance Manager and Deputy Team Leader of the Skills Development Programme. “ Study on Agricultural Technical and Vocational Education and Training (ATVET) in Developing Countries” Federal Department of Foreign Affairs FDFA, Swiss Agency for Development and Cooperation SDC, Global Programme Food Security, 25.1.2016, <https://www.shareweb.ch/site/Agriculture-and-Food-Security/focusareas/Documents/ras_capex_ATVET_Study_2016.pdf> , date accessed 7/19/21)

In many developing countries, the private sector1 [[BEGIN FOOTNOTE 1]] 1 The private sector is not perceived as a homogenous mass even though the terminology might suggest this to be the case. In this study, the term “private sector” is used to circumscribe the various actors such as small and medium sized companies, large companies, sectorial associations, business associations, chambers of commerce, etc.[[END FOOTNOTE 1]] faces challenges in finding adequately skilled employees. This also holds true for sectors linked to agriculture, e.g. processing, distribution, marketing, etc. The development of ATVET from a purely productivity-oriented approach to provide broader and more specialised skills sets along agricultural value chains is likely to raise the interest of private sector actors. This incentive can result in a stronger and more sustainable financial and conceptual engagement of employers in ATVET.

#### ‘By’ only requires anticompetitive practices resulting from private sector action.

Michigan Court of Appeals 10 (SAWYER, J. Opinion in DEQ. v. Worth Twp., 808 N.W.2d 260, 289 Mich. App. 414 (Ct. App. 2010). Google scholar caselaw. Date accessed 7/23/21).

Second, we look to the meaning of the phrase "by the municipality." This phrase is key because it answers plaintiffs' contention that MCL 324.3109(2) imposes responsibility for a discharge on a municipality without regard to the source of the discharge. That is, plaintiffs argue that any discharge of raw sewage within a municipality constitutes prima facie evidence of a violation by the municipality even if the municipality is not the source of the discharge. We disagree. The word "by" has many meanings. For its meaning as a nonlegal term, we look to a layman's dictionary rather than a legal one. Horace v. City of Pontiac, 456 Mich. 744, 756, 575 N.W.2d 762 (1998). We find these definitions from the Random House Webster's College Dictionary (1997) to be particularly helpful: "10. through the agency of" and "12. as a result or on the basis of[.]" Thus, MCL 324.3109(2) imposes responsibility on the municipality not when the violation merely occurs within the boundaries 264\*264 of the municipality, but when the violation occurs "through the agency of" the municipality or "as a result" of the municipality, that is to say, when it is the actions of the municipality that lead to the discharge.

## T---Courts

### 2AC---AT: T---Expand Scope =/= Courts---TL

#### We meet---the plan expands the scope of the Sherman Act to hold SSO’s liable for unreasonably restricting commerce.

Wright 9 (University Professor Joshua D. Wright is the Executive Director of the Global Antitrust Institute and holds a courtesy appointment in the Department of Economics. On January 1, 2013, the U.S. Senate unanimously confirmed Professor Wright as a member of the Federal Trade Commission (FTC), following his nomination by President Obama to that position. He rejoined Scalia Law School as a full-time member of the faculty in Fall 2015. “INTELLECTUAL PROPERTY, STANDARD SETTING, AND THE LIMITS OF ANTITRUST” , <https://laweconcenter.org/resource/intellectual-property-standard-setting-and-the-limits-of-antitrust/> , 22 OCTOBER 2009, date accessed 9/4/21)

One of the most significant challenges facing competition policy today is defining the appropriate role of antitrust law within the context of intellectual property right licensing by standard-setting organizations (“SSOs”). Many commentators believe it is necessary to apply the full force of the antitrust laws, and sometimes special rules that would increase the scope of antitrust, to the standard-setting process in order to adequately oversee what they perceive as a unique opportunity for anticompetitive behavior. Indeed, antitrust agencies both in the United States and around the world have expressed agreement with the notion that the standard setting process requires strong enforcement of antitrust liability rules in order to ensure efficient outcomes that benefit consumers. However, this view largely fails to consider the costs of antitrust. In particular, it fails to recognize the limits of antitrust when the marginal benefit of antitrust enforcement is slight and the potential for erroneous enforcement (“false positives”) and thus, the likelihood that procompetitive behavior will be deterred, is high. The Supreme Court itself has emphasized repeatedly that the scope of the antitrust laws should be responsive to such a cost-benefit analysis.

#### Counter-interp---court decisions change the scope of antitrust prohibitions.

Turner 90 (DONALD F. TURNER- was an American antitrust attorney, economist, legal scholar and educator who spent most of his career teaching at Harvard Law School. “The virtues and problems of antitrust law” , The Antitrust Bulletin/Summer 1990, Hein accessed online via KU Libraries , date accessed 9/6/21)

However, unsound interpretations of antitrust laws have adverse economic effects. Court-formulated rules have varied from time to time over the years since antitrust statutes were passed, and the scope of antitrust prohibitions were either enlarged or reduced. While there are extensive disputes as to what the precedents' defects have been and are, it is generally recognized that antitrust law has had and still has some undesirable features that the courts or Congress should correct.

#### Court decisions also change the law.

California Supreme Court 88 (PANELLI-judge. Opinion in Jolly v. Eli Lilly & Co., 751 P. 2d 923 - Cal: Supreme Court 1988. Google scholar caselaw, date accessed 9/13/21)

At a less legalistic but more fundamental level, plaintiff argues, with some persuasive force, that prior to Sindell she could not have prevailed on her 1116\*1116 suit. She notes that during the time that defendants argue her action would have been timely, McCreery v. Eli Lilly & Co., supra, 87 Cal. App.3d 77 (overruled by Sindell, supra, 26 Cal.3d 588), effectively barred her claim. In McCreery, the Court of Appeal held that a plaintiff who could not identify the precise manufacturer of the pills ingested by her mother did not allege a cause of action. Plaintiff undoubtedly fell into this group. (6a), (5b) The response to plaintiff's contention is that a change in the law, either by statute or by case law, does not revive claims otherwise barred by the statute of limitations.

#### The term ‘law’ alone includes court decisions.

Olson 18 (OLSON-judge. Opinion in Commonwealth v. Robertson, 186 A. 3d 440 - Pa: Superior Court 2018. Google scholar caselaw, date accessed 9/2/21).

Furthermore, the word "law" is generally regarded as including court decisions. The relevant definition of "law" in Black's Law Dictionary is, "The aggregate of legislation, judicial precedents, and accepted legal principles; the body of authoritative grounds of judicial and administrative action; esp[ecially], the body of rules, standards, and principles that the courts of a particular jurisdiction apply in deciding controversies brought before them[.]" Black's Law Dictionary, 1015 (10th ed. 2014) (emphasis added). Hence, "law" is not only "legislation" but also "judicial precedents." Birchfield was a judicial precedent which was the law of this Commonwealth at the time of Appellee's arrest. Cf. U.S. Const. art. VI, cl. 2 (the Constitution is the supreme law of our nation). Accordingly, the presumption that an individual is aware of the law includes not just statutory compilations but also judicial decisions. Thus, the trial court erred in finding that Appellee was presumed to believe she was subject to enhanced criminal penalties because of the unconstitutional provision of the Motor Vehicle Code.

#### Expand includes clarification, not amendment.

Washington Court of Appeals 4 (HOUGHTON, J. Opinion in State v. Cannon, 84 P. 3d 283 - Wash: Court of Appeals, 2nd Div. 2004. Google scholar caselaw. Date accessed 7/12/21).

In 2002, the House and Senate introduced two identical bills, House Bill 1512 and Senate Bill 6346, to alter the definition of "photograph." The Final Bill Report on House Bill 1512 states, "The term `photograph' in the child pornography statutes is expanded to include digital images and both tangible and intangible items." H.B. REP. on HB 1512, 57th Leg., Reg. Sess. (Wash.2002). Cannon argues that by using the word "expand," the Legislature indicates that it amended rather than clarified the statute. We disagree.

#### Overlimiting and predictability---like it or not, this is a courts topic---the role of lawmaking was been delegated to the courts.

Rosen 99 (Mark D. Rosen-Assistant Professor, Chicago-Kent College of Law. “Nonformalistic Law in Time and Space” , The University of Chicago Law Review, 66:622, 1999, <https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=5039&context=uclrev> , date accessed 9/3/21)

Consider antitrust law in this regard. The prohibitions found in the core antitrust statutes for the most part eschew formalistic expression; they essentially state policy goals and delegate the development of formalistic rules to the courts. 14 [[FOOTNOTE 14 BEGINS]] " This is recognized by virtually all antitrust scholars. See, for example, Phillip Areeda and Louis Kaplow, Antitrust Analysis: Problems, Text, Cases 5-6 (Little, Brown 4th ed 1988) (noting that "the [Sherman] Act may be little more than a legislative command that the judiciary develop a common law of antitrust"); William F. Baxter, Separation of Powers, Prosecutorial Discretion, and the "Common Law" Nature of Antitrust Law, 60 Tex L Rev 661, 663 (1982) (arguing that in antitrust "Congress in effect delegated much of its lawmaking power to the judicial branch"); Frank H. Easterbrook, Is There a Ratchet in Antitrust Law?, 60 Tex L Rev 705, 706 (1982) (arguing that the antitrust statutes "authorized the Supreme Court to invent and enforce a law of restraint of trade in the common law fashion"). [[FOOTNOTE 14 ENDS]] For example, the Sherman Act makes unlawful every "contract, combination... or conspiracy, in restraint of trade""15 and conduct to 'monopolize, or attempt to monopolize ... any part of ... trade."16 This central statutory provision thus does not identify concretely what actions are impermissible, but instead describes the prohibited acts in highly abstract terms that restate the statute's ultimate policy goals. 17 The fact that a few provisions of the antitrust statutes do employ formalistic rules 8 underscores the significance of Congress's decision to adopt, for the most part, nonformalistic antitrust law, for it establishes that Congress knew how to draft formalistic rules when it wanted to. But why did Congress elect to rely predominantly on broad standards in this field of law? A plausible answer is that Congress did not perceive itself as being capable of providing effective detailed rules because it had "little understanding of what the government could and ought to do to" achieve antitrust's policy goals. 9 Congress well could have believed that courts, by contrast, could function as "great laboratories of the law" where "[e]very new case is an experiment" such that "if the accepted rule which seems applicable yields a result which is felt to be unjust, the rule [can be] reconsidered."'20

## DA---Court

### 2AC---UQ---Legitimacy

#### Court is politicized and illegitimate now

Lubert 10/20

(Steven Lubet is a legal scholar and author. Lubet is the Edna B. and Ednyfed H. Williams Memorial Professor of Law at Northwestern University. “A politicized Supreme Court? That was the point” https://thehill.com/opinion/judiciary/577428-a-politicized-supreme-court-that-was-the-point)**AB**

If Supreme Court Justice Amy Coney Barrett had been better aware of that history, she might have chosen her words more carefully in a recent appearance at the University of Louisville. As it was, Barrett stood next to Senate Minority Leader Mitch McConnell (R-Ky.), who founded the university’s eponymous McConnell Center in 1991, and declared that her objective that day was to convince the audience that the Supreme Court “is not comprised of a bunch of partisan hacks.” Barrett’s protestation did not come out of nowhere. Just like Nixon, Clinton and Trump, she was responding to very pointed criticism in the press, in this case the many charges that the Supreme Court had become thoroughly politicized by Trump’s three appointments, which created a powerful 6-3 conservative super-majority. Nor was Barrett the only justice to embark on what has been called a “charm offensive” to shore up the Court’s newly-questioned legitimacy. Delivering the annual Tocqueville Lecture at Notre Dame, Justice Clarence Thomas told the audience that his colleagues do not rule on the basis of “personal preferences,” and he rebuked those who believe that a justice is “like a politician.” Also speaking at Notre Dame, Justice Samuel Alito denied that any of the Court’s recent rulings had been “sneaky or dangerous.” He took caustic aim at the Court’s critics, dismissing the "political talk [that] feeds unprecedented efforts to intimidate the court or damage it as an independent institution." Justice Stephen Breyer was only slightly less defensive – studiously avoiding any suggestion of hackery or sneakiness – in a series of interviews about his new book. Responding to calls for his retirement, while Joe Biden is president and Democrats still control the Senate, Breyer insisted that “a judge’s loyalty is to the rule of law, not the political party that helped to secure his or her appointment.” However much the Barrett/Thomas/Alito/Breyer attestations resonated with their friends and supporters, they did nothing to defuse the increasing claims of politicization. As Dahlia Lithwick and Mark Joseph Stern pointed out on Slate, **the Court has lately fulfilled a virtual Republican wish-list**, making it “harder for minorities to challenge **racist voter suppression laws**, harder for **unions to organize**, and harder to learn **who is contributing funds to political groups**,” while also allowing Texas’s bounty-hunting **anti-abortion law to take effect (in an unsigned opinion issued at midnight**). If it wasn’t a politicized court, it certainly had the appearance of one. Just last week, President Biden’s Presidential Commission on the Supreme Court of the United States released a lengthy set of “discussion materials” that undermined any meaningful attempts at depoliticization, or even balance, for the Court. Statutory expansion beyond the current nine justices – supported by a growing number of Democrats and clearly permissible under the Constitution – was essentially brushed off for its ostensibly “negative effects” on the Court’s “long-term legitimacy” that could “undermine its role in our legal system.” (At least five of the 34 commissioners have publicly disagreed with this supposition.) Republicans, of course, never had qualms about tinkering with the Supreme Court’s composition, having fashioned an eight-member court during the nearly year-long blockade of Merrick Garland’s nomination in 2016. But determining the Court’s size is evidently an exclusively Republican prerogative. The Commission did allow that term limits might be desirable, although Biden later said that he is opposed to the idea. In any case, that reform would likely require a Constitutional amendment, which would not be fully operative until somewhere between 21 and 46 years after ratification (depending on the details). Under most term limit proposals, a child born tomorrow could grow up, attend college, graduate from law school, and still be sworn into the Supreme Court bar by Justices Barrett, Kavanaugh and Gorsuch. Meanwhile, Mitch McConnell is surely smiling, delighted that he has masterminded the formation of a Republican-friendly Supreme Court that may endure for decades. If McConnell were asked whether the Court has been politicized, he might well quote then-candidate Barack Obama’s candid response to a question about his youthful marijuana use. Did he inhale? “That was the point.”

### 2AC---UQ---Sua Sponte

#### Sua sponte decision-making is the status quo---it’s non-unique at the federal level.

Shannon 12 (Bradley Scott, Professor of Law, Florida Coastal School of Law, “Some Concerns About Sua Sponte,” 2012, <https://kb.osu.edu/bitstream/handle/1811/75482/OSLJ_Furthermore_V73_027.pdf>, DOA: 11-13-2021) //Snowball //footnote included, denoted by brackets

Quietly, and without much fanfare, sua sponte2 decisionmaking has become de rigueur. The Supreme Court of the United States has shown a particular interest in sua sponte decisionmaking, having confronted this issue in a number of recent cases.3 [BEGIN FOOTNOTE 3] 3 See, e.g., Wood v. Milyard, 132 S. Ct. 1826, 1835 (2012) (reversing a court of appeals’ sua sponte dismissal of a habeas corpus proceeding for expiration of the applicable statute of limitations); Greenlaw v. United States, 128 S. Ct. 2559, 2562 (2008) (vacating a court of appeals’ sua sponte increase in a criminal defendant’s sentence); Day v. McDonough, 547 U.S. 198, 202 (2006) (affirming a district court’s sua sponte dismissal of a habeas corpus proceeding for expiration of the applicable statute of limitations). [END FOOTNOTE 3] Further evidence of its growing popularity can be found in Federal Rule of Civil Procedure 56, which was recently amended to expressly approve of sua sponte consideration of summary judgment.4 For the most part, this movement toward a greater use of sua sponte decisionmaking has generated little opposition or scholarly criticism.5

### 2AC---Test Case

#### Plan not sua sponte - the court can create a test case

Adamany 90 (David, Professor – Wayne State, The American Courts: A Critical Assessment, p. 9)

Since Congress adopted the Judges Bill of 1925, most cases on the appellate and miscellaneous dockets have been by writ of certiorari — a request for the justices to hear cases that they may, but are not required, to hear. Under Supreme Court Rule 17, which gives broad categories of cases that the Court may hear, at least four justices must agree to hear a case before it is considered by the Court. Some cases on the appellate docket have been “appeals by right,” certain cases involving the constitutionality of state or federal laws or state constitutional provisions. By law, the Court was required to hear these cases; but the justices developed broad discretion by rejecting cases that failed to pose a substantial federal question as defined by the justices. In 1988, Congress revised the law virtually to eliminate appeals by right, thus giving the justices almost complete choice about what cases to decide. With more than 5.000 cases pending annually, the Supreme Court can almost always find a case to raise any policy issue that the justices wish to decide. Chief Justice Earl Warren apparently asked his law clerks to fmd a case on the Court’s docket that would allow the justices to overrule a previous decision holding that there was no right for the poor to have an attorney in every criminal trial. The clerks found such a case, and the Court used it to announce a new constitutional rule guaranteeing the right to counsel (Danelski and Danelski 1989, 508). The Court has sometimes gone to great lengths to find the issue it wants to decide. In the landmark case of Mapp v. Ohio (367 U.S. 617 [1961]), the Court held that illegally seized evidence could not be used in state criminal trials. But the dissenting justices accused the majority of “reaching out” to find that issue in the brief of amicus curiae, because the jurisdictional statements, briefs, and oral arguments of the parties had all been devoted to First Amendment free speech issues. Where the Court cannot find an issue on its docket, it may order parties to argue an issue that the justices want to consider. Over the strong objection of four justices that the majority was raising “a question not presented” by the parties, five justices ordered the parties in Patterson v. McLean Credit Union (485 U.S. 617 [1988]) to reargue the case to determine whether the Court’s 1976 interpretation of a federal civil rights statute should be reconsidered and changed. The majority pointed out four previous cases within the past twenty years when the Court had also ordered reargument to determine whether an earlier decision should be reconsidered and changed.

#### Test cases can be EXTREMELY tangential – the court can find something

Perry 91 Associate Professor of Government at University of Texas [H.W. Deciding to decide, p. 11]

In studying how the Supreme Court sets its agenda, my assumption, of course, is that the court does in fact set its own agenda and that the only question is how. The “textbook” argument, however, asserts that the Court is a passive institution that can set its agenda in only the most limited sense. While it is true that a legitimate case or controversy must exist and be appealed, this requirement is not really much of a constraint if the Court does not want it to be. Virtually any issue the Court might wish to resolve is offered to it. 14 Indeed Tocqueville’s aphorism that all political questions turn into judicial ones is even more relevant today. Moreover, if a case does not arise naturally, the justices often invite cases via their written opinions and by various other means. 15 During the course of this project, however, I did not assume that the court was entirely free in its agenda-setting ability. Nevertheless, my research tends to bear out the common wisdom as opposed to the textbook notion, though as shall be seen, there are important caveats to this freedom.

### 2AC---LT---Precedent

#### Turn---the Ninth Circuit rejected well-established Supreme Court principles.

Shapiro & Lemley 20, \*Carl Shapiro is the Transamerica Professor of Business Strategy Emeritus at the Haas School of Business, University of California at Berkeley; \*Lemley is the William H. Neukom Professor at Stanford Law School and a partner at Durie Tangri LLP; (2020, “THE ROLE OF ANTITRUST IN PREVENTING PATENT HOLDUP”, https://faculty.haas.berkeley.edu/shapiro/patentholdup.pdf)

The Ninth Circuit reversed, making basic errors of both economics and law. 138 On the economics, the Ninth Circuit mistakenly concluded that “Qualcomm’s royalties are ‘chip-supplier neutral’ because Qualcomm collects them from all OEMs that license its patents, not just ‘rival’s customers.’”139 This is flatly incorrect, because the royalty surcharge reduces the gains from trade between an OEM and a rival modem-chip supplier but does not reduce the gains from trade between the OEM and Qualcomm.140 Based on this error, the Ninth Circuit states incorrectly: “The FTC identifies no such harm to competition.”141

On the law, the Ninth Circuit rejects the well-established principle that harming customers can be a way of harming competition: “[T]he primary harms the district court identified here were to the OEMs who agree to pay Qualcomm’s royalty rates—that is, Qualcomm’s customers, not its competitors. These harms were thus located outside the ‘areas of effective competition’—the markets for CDMA and premium LTE modem chips.”142 The notion that harms to customers in the relevant market are outside the scope of the antitrust laws is simply bizarre.

#### It blatantly disregarded Supreme Court precedent.

Errick 20, \*Kirsten Errick, a reporter at Law Street Media, an online legal newsfeed. Research, write, and edit stories; (October 29th, 2020, “Ninth Circuit Denies Rehearing En Banc In FTC v. Qualcomm Antitrust Suit”, https://lawstreetmedia.com/tech/ninth-circuit-denies-rehearing-en-banc-in-ftc-v-qualcomm-antitrust-suit/)

In September, the FTC filed a [petition](https://www.docketalarm.com/cases/US_Court_of_Appeals_Ninth_Circuit/19-16122/FTC_v._Qualcomm_Inc/256/) for a rehearing en banc. The FTC argued that the panel “disregarded precedent” by “elevating patent-law labels over economic substance,” “holding that facially ‘neutral’ fees cannot violate the antitrust laws,” and “holding that harms to Qualcomm’s customers are ‘beyond the scope of antitrust law’ and demanding a showing of ‘direct’ harm to competitors.” Specifically, the FTC claimed that the Supreme Court “repeatedly instructed that the Sherman Act ‘is aimed at substance rather than form’…and that court must look beyond labels to ‘the economic reality of the relevant transactions.’” As a result, the FTC asserted that the appellate court should have determined that the so-called patent royalties were not royalties, but rather to secure its chip monopoly, as Judge Lucy Koh in the Northern District of California found. Notably, the problem is that Qualcomm’s “royalties” conceal a chip-driven surcharge that is the economic equivalent of the fees in United Shoe and Caldera…Just like those fees, the surcharge is extracted through monopoly power and penalizes purchases of competing products,” which the FTC argued is anticompetitive. However, the FTC claimed that the Ninth Circuit the “panel declared that because Qualcomm has concealed its surcharge in a ‘patent royalty,’ the entire payment is subject to challenge only ‘in patent law, not antitrust law.’” Moreover, this contradicts the economic substance reasoning. Additionally, the FTC proffered that the Ninth Circuit mischaracterized the surcharge as “chip neutral” and that “‘by definition’ a facially ‘neutral’ charge cannot distort competition.” However, the FTC claimed that this is based “on an erroneous premise… that an OEM pays the same surcharge ‘whether an OEM buys Qualcomm’s chips or a rival’s chips,’” which, according to the FTC, is not true. Lastly, the FTC alleged that the appellate panel “seriously erred” when it dismissed the district court’s “findings about the harm to OEMs – including higher prices that are passed on to retail consumers – because OEMs ‘are Qualcomm’s customers, not its competitors.’” The FTC argued that the Ninth Circuit erroneously believed “that such harm is not cognizable because it ‘falls outside the relevant antitrust markets.’” However, the FTC claimed that this is a misstatement of the law. As a result, the FTC sought a rehearing en banc.

### 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.

## DA---Politics

### 2AC---Won’t Pass

#### Won’t pass---inflation concerns and CBO report

Antle 11-11-2021 (James, “Biden's big spending plans could sink if centrists jump ship,” *The Gazette*, https://gazette.com/news/bidens-big-spending-plans-could-sink-if-centrists-jump-ship/article\_c585a441-72ff-55b1-b3d7-e482c8c75631.html)

But if Sen. Joe Manchin of West Virginia and other centrists are looking for a reason to break with their party on the big spending bill, Wednesday's inflation numbers gave them yet another. "By all accounts, the threat posed by record inflation to the American people is not ‘transitory' and is instead getting worse," Manchin tweeted in response to the Labor Department's report. "From the grocery store to the gas pump, Americans know the inflation tax is real and DC can no longer ignore the economic pain Americans feel every day." The 6.2% spike in consumer prices for the year ending in October could enhance concerns that excessive federal spending is already overheating the economy before Democrats advance Biden's reconciliation measure. It is not, however, the only factor giving wary centrist lawmakers pause. Republicans swept the statewide offices in Virginia and made gains in the Legislature despite the fact Biden won the commonwealth by 10 points a year ago. The GOP also came close to upsetting Democratic New Jersey Gov. Phil Murphy and ousted the state Senate president, a Democrat, with a lightly funded challenger. These election results appear to confirm a raft of polling showing the president and the administration are unpopular. A USA Today/Suffolk University poll found Biden with a 38% job approval rating. Vice President Kamala Harris was even worse off at 28%. And Republicans led in the generic congressional ballot. Next year's midterm elections were always likely to be a struggle for Democrats. The president's party has lost seats in all but two midterm elections since 1938. Republicans gained 52 House seats and their first majority in 40 years in 1994, former President Bill Clinton's first midterm election. They picked up 63 House seats and another majority during former President Barack Obama's in 2010. Democrats don't need losses on that scale for Republicans to regain the majority next year. They hold just 222 seats in the House and the Senate is split 50-50, with Democratic control hinging on Harris's tiebreaking vote. In each of the previous elections, centrists were among the hardest hit. The 2022 contests figure to be no different because these Democrats tend to be the ones representing the reddest states and most competitive districts. Demonstrations of independence from Biden, Schumer, and Pelosi could save some of these Democrats, though it is not always enough. There is little evidence that the nearly $2 trillion American Rescue Plan Biden already signed into law after it was passed exclusively with Democratic votes through the reconciliation process helped the party at the polls. Manchin is more popular in West Virginia than Biden is. The same is true for Sen. Kyrsten Sinema, the other centrist holdout in the upper chamber, in Arizona. They have little incentive to capitulate to Biden unless they want to help his presidency succeed. Liberals worried that once the bipartisan infrastructure bill was passed, this would prove true of the party's centrists as a whole. But in the House, the surviving Blue Dogs agreed to vote on the bigger spending bill pending a Congressional Budget Office score. The CBO analysis could easily provide centrists with yet another reason to balk at Build Back Better, given some indications that the price tag will be scored as bigger than advertised. The most liberal Democrats in the House have always feared that whatever the CBO found, centrists would move the goalposts and find another reason to vote no. The same accusation has been leveled against Manchin and Sinema in the Senate, though Biden has attempted to assure Democrats they will both be there with them in the end. If this proves true, the centrists may already have all the ammunition they need to sink the bill. Unlike with infrastructure, no Republican defections are expected. Democrats can afford to lose no more than three votes in the House and zero in the Senate.

### 2AC---NL---Courts

#### 2---court action flies under the radar.

Lohier 16 - judge on the United States Court of Appeals for the Second Circuit and formerly an Assistant United States Attorney for the Southern District of New York (Raymond, “THE COURT OF APPEALS AS THE MIDDLE CHILD,” *Fordham Law Review*, Lexis)

In the meantime, almost all of the work of our circuit courts is off the congressional radar. Circuit opinions, with or without the intercession of the Supreme Court, so rarely prompt a ripple in Congress that it becomes memorable when they do. The few ripples more often arise in cases involving issues of national security. A recent example was our decision in ACLU v. Clapper,25 which stirred a vigorous debate in Congress in 2015 when we held that the text of section 215 of the USA PATRIOT Act did not plainly authorize the systematic bulk collection of domestic phone records by the National Security Agency.26 Even more recently, Senator Orrin Hatch of Utah cited our court’s decision in Microsoft Corp. v. United States,27 in which we held that the Electronic Communications Privacy Act (ECPA) did not authorize the government to obtain electronic communications stored outside the United States.28 Senator Hatch and other members of Congress pointed to both the majority opinion and a concurring opinion in that case to ask the Department of Justice to work with Congress on fixing the ECPA.29 On extremely rare occasions, specific congressional involvement arises in the context of a discrete case, as when individual Senators or Representatives seek to influence how we decide important legal issues, such as the indefinite detention provisions of the National Defense Authorization Act for Fiscal Year 2012, by submitting amicus briefs pressing their points of view.30 There also are continuing efforts to get Congress’s attention on broader issues of statutory language. Fairly recently, for example, the Judicial Conference of the United States sought to revitalize and readvertise an excellent project to promote communications between federal courts of appeals and Congress.31 Under the project, “courts of appeals identify opinions that point out possible technical problems in statutes [such as ambiguities and gaps] and send those opinions to Congress for its information and whatever action it wishes to take.”32 Yet, for whatever reason, only three opinions were submitted to Congress under this project in 2015 and only fifty-two altogether have been submitted since 2007.33 Of course, other ways to solicit legislative attention exist short of using this formal mechanism. An opinion that cries for congressional action or decries congressional inaction is one example. But, as I explain later, that opinion is apt to be ignored by Congress if it comes from a circuit court, rather than even a lone dissenter on the Supreme Court.

### 2AC---Soft Power

#### Soft power produces resentment and praise – means its neutral for diplomacy

**Kearn 11**. (David W. Kearn – Department of Government and Politics, St. John’s University. <KEN> “The hard truths about soft power,” Journal of Political Power Vol. 4, No. 1, 65–85. April 2011. DOA: 1/16/18. https://www.tandfonline.com/doi/abs/10.1080/2158379X.2011.556869?journalCode=rpow21)

Even accepting a relatively institutionalized context, where actors understand common goals and accept shared norms, and assuming minimal complexity for the purpose of discussion, presentations of soft power severely downplay the importance of interaction (Nye 2004b, p. 16). For every message or policy choice, it is necessary to understand not only the messenger but also the audience (Cortell and Davis 2000). However, as Brantly Womack (2005) argues, Nye’s depiction of soft power downplays the importance of the interaction between the messenger and the audience. At any point in time, the nature of the audience may be difficult to characterize, thus hindering our ability to develop probabilistic explanations or predictions about its likely responses to external signals. Nye (2004b, p. 16) highlights the importance of ‘willing interpreters and receivers.’ In fact, the nature of the interpreters and receivers is going to play a decisive role in determining the effectiveness of any given policy. For example, certain actions or policies that would be understood and interpreted in a positive light by similar liberal democratic states may be viewed negatively by autocratic states, and vice versa (Owen 2001). In contested states, with multiple groups vying for power or legitimacy, the effectiveness of a policy is likely to be determined by who is sitting in the leader’s chair at a given point in time (Holton 2000, Kinnvall 2004). National elites compete to capture the support of domestic mass audiences. Societal interest groups, based on class, ethnicity, religion, or any number of other factors, challenge national and supranational authorities (Varshney 2003, Moaddel et al. 2008). In short, there may be multiple key audiences for any policy, often with diverse interests and concerns. Thus, any single message may resonate differently with different groups in the same state and could ultimately work against the leading state’s interests, underscoring the central problem of subjectivity. Understanding the nature of the subject will be critical (Mattern 2007, p. 98). Moreover, if complexity assumes the generation of positive and negative feedback from a given policy choice or action, the ultimate result will be primarily determined by the reception of the target state (Jervis 1997b, pp. 96–97). It is quite possible that even a carefully constructed, diligently chosen policy will actually create both positive and negative feedback, depending on the diversity of interests and values within the

## CP---No Antitrust

### 2AC

#### The counterplan doesn’t solve. Patent infringers have attenuated incentives to cough up high royalties because SSO’s can profit in aggregate by passing costs onto consumers---that’s Melamed and Shapiro. That means widening the plaintiff pool beyond implementers is key---which the counterplan CANNOT do.

Cary et al. 11, \*Messrs. George Cary and Alex Sistla are members of the California and District of Columbia Bars. Mr. Mark Nelson is a member of the New York and District of Columbia Bars. Mr. Steven Kaiser is a member of the New Jersey and District of Columbia Bars; (2011, “THE CASE FOR ANTITRUST LAW TO POLICE THE PATENT HOLDUP PROBLEM INSTANDARD SETTING”, <https://www.clearygottlieb.com/~/media/organize-archive/cgsh/files/publication-pdfs/the-case-for-antitrust-law-to-police-the-patent-holdup-problem-in-the-standard-setting.pdf>)

2. Contract Law

The argument that antitrust should step aside because contract law “out-perform[s] antitrust when it comes to the successful identification and regulation of ex post opportunism associated with patent hold-up”127 fails for much the same reasons. A contract can only be enforced by its parties and by other to whom the parties clearly and explicitly intended to give enforcement rights.128 The victims of anticompetitive patent holdup, however, are also consumers and potential competitors who may not have been part of the SSO. Moreover, contracts can be modified and third parties generally have no enforcement rights as to the original contract. In implementing an industry-wide standard, the parties to the contract may actually prefer high royalty levels that hurt consumers. For example, if participants in the standard-setting process, who agreed collectively to support one technology over all others, mutually agree to license on FRAND terms but then, after the standard is adopted, each independently chooses to increase its royalty significantly, no party to the FRAND “contract” may have incentive to bring a breach of contract action, while implementers of the standard and users of standard-compliant products ultimately pay the bill. Antitrust should be available in such circumstances as a remedy for the parties harmed by the anticompetitive agreement.

## CP---Sunbursting

### 2AC---Solvency

#### CP doesn’t solve and links to the DA. [Kansas]

1NC Faure 14 – Michael Faure, Professor of International and Comparative Environmental Law at Maastricht University and Professor of Comparative Private Law and Economics at the Rotterdam Institute of Law and Economics (RILE), Erasmus School of Law, Morag Goodwin, Associate Professor in European and International Law, Tilburg Law School, and Franziska Weber, Junior Professor for Civil Law & Law and Economics at the Institute of Law and Economics, University of Hamburg, “THE REGULATOR'S DILEMMA: CAUGHT BETWEEN THE NEED FOR FLEXIBILITY & THE DEMANDS OF FORESEEABILITY. REASSESSING THE LEX CERTA PRINCIPLE”, Albany Law Journal of Science and Technology, 24 Alb. L.J. Sci. & Tech. 283, Lexis

Prospective overruling is a judicial technique in which a [\*349] previous precedent or authority is overruled without the new ruling having retrospective effect. n386 It thus represents a departure from the fundamental notion that judicial decisions that develop or change the law necessarily have retroactive effect. n387 It is, or has been, used by a court wishing to overturn or amend bad law, but is wary of the consequences of the retrospective application of their finding. Such consequences may include the inherent unfairness that would result to an individual who had relied on the existing law in good faith n388 or because of reasons of practicality, where the decision would have sweeping consequences for the operation of the judicial system. n389 Although appearing similar, prospective overruling differs from obiter dicta in two significant ways. Firstly, while judges can use obiter dicta to declare certain rules to be bad law or to comment on the likely direction of necessary legal reform, such comments do not entail that the decision in the case before them will be inconsistent with a future case. n390 Secondly, obiter dictum, while possibly highly influential, does not benefit from stare decisis and therefore is not binding. n391

There are a number of different ways in which a court can use prospective overruling. n392 Firstly, a court can announce a new rule or standards that will apply only to future cases, i.e., not to the case before it in the instant dispute. The old rule would also govern any cases that arose from action taken prior to the [\*350] announcement of the new rule but determined after it. n393 This has been called "pure" prospective overruling. n394 A second approach would be to announce a new rule that is only applicable to future cases that arise after the announcement but, as an exception, to apply it to the instant case. n395 A third alternative is to apply the new rule not only to the case at hand but to all other cases already pending at the time of announcement. This third approach excludes those cases in which the action that motivated them predates the announcement but where proceedings had not already been commenced at the moment of declaration of the new rule. n396 Finally, a fourth possibility would be for a court to announce a new rule not having retroactive effect but to suspend the entry into force of that new rule until a future date. n397 This technique is used to allow those actors likely to be affected by the change to adapt their behavior accordingly and to give the legislature the opportunity to enact a different rule should they so wish. n398 Traynor termed this form of prospective overruling "prospective-prospective overruling." n399 In this version of prospective overruling, the new rule does not apply to the case in which it is announced, or to any other cause of action that arises before the delayed entry into force of the new rule. n400 The Court of Justice of the European Union, for example, has accepted the need to place temporal limitations on its rulings in the interests of justice, although it has declared that it does so only in exceptional circumstances. n401 A variation on this form of [\*351] prospective overruling has been suggested by Advocate General Jacobs, whereby both the retrospective and prospective effect of a ruling of the Court of Justice of the European Union could be subject to a temporal limitation; in that case until the Member State concerned has had a reasonable opportunity to consider the introduction of amending legislation. n402

In addition to the European Union, a number of jurisdictions have used or accepted the possibility, if only in principle, of prospective overruling in exceptional circumstances, including the United States, n403 India, n404 New Zealand, n405 Canada, n406 the United Kingdom n407 and Germany. n408 The European Court of Human Rights has been understood to issue prospective rulings, n409 although there is some doubt as to whether its "dynamic" approach to convention interpretation is properly classified as such; n410 however, it certainly accepts such rulings in domestic courts as compatible with the rule of law. n411 At its apogee in the United States, the United States Supreme Court ruled in the case of Linkletter v. Walker, that in both criminal and civil cases, "the accepted rule today is that in appropriate cases the Court may in the interests of justice make the rule prospective." n412 However, since the 1970s, the use of retrospective overruling in the United States has been in retreat. While it remains unclear as to whether the use of "pure" prospective overruling (where the new rule does not apply to the case at hand) has been abandoned in civil cases, n413 the Supreme Court [\*352] has overturned its earlier enthusiasm and now prohibits prospective overruling in criminal cases n414 and the use of selective prospective overruling (i.e., "non-pure") in civil cases. n415 Yet, despite the discrediting of prospective overruling as a technique in the US more than twenty years ago, it continues to attract the interest of senior common law judges. n416 In a 2005 case, In re Spectrum Plus, the House of Lords found that it was theoretically possible to overrule a judgment with prospective effect only; n417 and in 2007, two members of the New Zealand Supreme Court accepted the same possibility. n418

3. The Pros and Cons of Prospective Overruling

Given that the heyday of prospective overruling has, until recently, been behind us, what reasons are there for being suspicious of the technique? There are, it seems, two main reasons for rejecting prospective overruling in its entirety. The first has been articulated by the Australian High Court in its emphatic refusal to countenance the use of prospective overruling and concerns an understanding of the nature of judicial interpretation. In the case of Ha v. New South Wales, the Court ruled that, "it would be a perversion of judicial power to maintain in force that which is acknowledged not to be the law." n419 In this reading, where a court determines that the rule they are required to apply is bad law, i.e., that the "real law" is actually now a different standard, it is simply untenable to continue to apply the wrong standard, even where it results in a manifest injustice to one of the parties before it. n420 The notion that prospective overruling is "a perversion of judicial power" gains further credence from the commonly accepted understanding that the role of the judiciary is to interpret the law in light of the case before it, where the primary function of the courts is to [\*353] adjudicate between parties; going beyond the particular case by making a general statement about the law is seen by some as "blatantly legislative." n421 While the legislature looks forward, the proper direction of the courts' attention is backwards, applying the existing law to situations that have already happened. This view was echoed by the United States Supreme Court in Griffith v. Kentucky, in which it ruled, concurring with earlier minority opinions by Justice Harlan, that the "failure to apply a newly declared constitutional rule to criminal cases pending on direct review violates basic norms of constitutional adjudication." n422

The second reason for critics to reject prospective overruling concerns the impact upon individuals of arbitrariness to which prospective overruling gives rise. In Griffiths v. Kentucky, the United States Supreme Court stated quite simply that "selective application of new rules violates the principle of treating similarly situated defendants the same." n423 Once a rule or practice has been declared bad law or unconstitutional, it violates the central notion of equality before the law if the new rule is applied to benefit one individual but not another. n424 These concerns can be somewhat alleviated by applying the new rule to all cases stemming from action arising at or after the time of the cause of action of the case in which the new rule is announced, i.e., by limiting the normal retrospective effect of rulings only marginally, but to do so would be to reduce considerably the possible benefits of prospective overruling. n425 In effect, those parties who had relied in good faith on the previous standard in such actions would be held to a new, stricter standard and thus their legitimate expectation of and right to legal certainty would [\*354] be compromised. n426

What, then, are the benefits? In particular, would other, less dramatic, techniques do the same job without encountering the hostility that prospective overruling can inspire? Obiter dicta could be used, for example, to indicate a likely direction of legal reform without actually introducing a new rule. n427 However, it is in large part the binding nature of a prospective decision that makes it such a useful technique in balancing flexibility and foreseeability. n428 While obiter dicta could be used in a similar way, although such statements lack the ability to bind future courts, they reduce the foreseeability of parties the same way incentives for operators to adapt their behavior are reduced. Operators may instead play a waiting game in which they fail to carry out adaptations in the hope that a different court will continue to apply the existing standard. Prospective overruling, we suggest, cannot be replaced by the less controversial tool of obiter dictum. Moreover, obiter dictum would obviously only provide a solution in those legal systems where it exists, which is not the case for many civil law systems. n429

The first main benefit of prospective overruling follows from the assertion that it is a perversion of judicial power to uphold a law that is understood to be unsound. n430 Courts are rightly reluctant to overturn a precedent, even where they are convinced of the unsoundness of the rule in question, where the harm caused by retrospective change is greater than the supposed benefits. n431 Thus, Justice Traynor suggested, in his classic article on the topic, that the main benefit of the technique of prospective overruling is that it enables courts to "change[] bad law without upsetting the ... expectations of those who [have] relied upon it." n432 For Traynor, prospective overruling, in direct contrast to its critics, is a necessary tool for the proper administration of justice. n433 Allowing bad law to stand simply to overturn a [\*355] precedent would entail unacceptable and unreasonable hardship for one of the parties concerned is an equally perverse understanding of the judicial role. n434

#### This CP isn’t a thing and doesn’t solve the aff and links to the NBs if it is.

Hammer, Harvard University JD candidate, 2018

[Stephen, “RETROACTIVITY AND RESTRAINT: AN ANGLO-AMERICAN COMPARISON” <http://www.harvard-jlpp.com/wp-content/uploads/2018/01/Hammer_FINAL.pdf>, accessed 3-24-19, TAP]

The history of prospective decisionmaking at the federal level traces a distinctive arc: the practice found acceptance in the 1930s, escalated in the 1960s, fell into disfavor in the 1980s, and was strictly curtailed in the 1990s. Although courts very occasionally accepted or used prospective decisionmaking in the nineteenth century,32 the common use of prospectivity in America only began in the early twentieth century. In the 1932 case of Great Northern Railway Co. v. Sunburst Oil & Refining Co.,33 the Supreme Court held that the federal Constitution does not prohibit prospective decisionmaking by state courts.34 Earlier that year, the Montana Supreme Court ruled that a previous case regarding railway tariffs was wrongly decided.35 Nevertheless, the court held that the previous rule was good law for all those who had acted on it before the 1932 decision.36 Going forward, it would no longer be law.37 In short, the Montana Supreme Court overruled itself purely prospectively.

The U.S. Supreme Court affirmed. The Court, per Justice Cardozo, held that “the federal constitution has no voice” on prospectivity, and that states have the option to decide cases prospectively or retroactively.38 The Court found that the Due Process Clause of the Fourteenth Amendment does not force a particular “juristic philosophy”39 of the common law on the states;40 they may choose for themselves “between the principle of forward operation and that of backward relation.”41 Thus prospective decisionmaking—which came to be known as “sunbursting”42—received the imprimatur of the Supreme Court.

Karl Llewellyn, an advocate of prospectivity as a tool of judicial craftsmanship,43 later stated that “I do not think many opinions gave [Cardozo] greater pleasure” than Sunburst Oil.44 Prospectivity had long been a subject of interest to Justice Cardozo. He has been described as a “pragmatic conceptualist,” who, in contrast to the Realists, thought that the law consists of meaningful concepts,45 yet also believed that judges should adapt those concepts to changing circumstances.46 In his 1921 lectures compiled as The Nature of the Judicial Process, Cardozo had approvingly noted the use of prospectivity in cases where retroactivity would cause great hardship.47 He suggested that the use of prospective decisionmaking in the future should be governed not by “metaphysical conceptions of the nature of the judge-made law, nor by the fetich [sic] of some implacable tenet, such as that of the division of governmental powers, but by considerations of convenience, of utility, and of the deepest sentiments of justice.”48 Just before his confirmation to the Supreme Court, then-Judge Cardozo advocated even more strongly for the use of prospectivity. In a 1932 address to the New York State Bar Association, Cardozo stated that he saw prospective decisionmaking as a prudent solution in cases where retroactivity would be “for any reason inexpedient.”49 Prospectivity appealed to Justice Cardozo’s pragmatism while not violating his sense of the necessary stability and predictability of the law,50 and under his opinion in Sunburst Oil, its use became widespread in America.

The Supreme Court began developing its own doctrine of prospectivity in the 1965 case of Linkletter v. Walker.51 In 1959, Linkletter was convicted of burglary based on evidence obtained from his home and business by the police.52 A 1961 Supreme Court case, Mapp v. Ohio,53 found for the first time that the Due Process Clause of the Fourteenth Amendment requires states to exclude evidence seized in violation of the Fourth Amendment.54 After Mapp, Linkletter sought a writ of habeas corpus in federal court to challenge his burglary conviction as based on unconstitutionally-obtained evidence.55 The Court held that Mapp did not operate retroactively on cases finally decided before it came down.56

Echoing Justice Cardozo in Sunburst Oil, the Court found that the Constitution “neither prohibits nor requires” retrospective effect for the application of new constitutional rules.57 The Court found that a change in law had to be given retroactive effect for a case on direct review, but that for a judgment being collaterally attacked, whether a change should have retroactive effect depended on an individualized consideration.58 Noting that there was no distinction in terms of retroactivity analysis between civil and criminal cases, the Court stated that “the accepted rule today is that in appropriate cases the Court may in the interest of justice make the rule prospective.”59 The Court then sketched a three-factor test for determining whether a new rule should be given retroactive effect on collateral review: (1) the purpose of the new rule; (2) the reliance placed upon the old rule; and (3) the effect on the administration of justice of a retroactive application of the new rule.60 Weighing the factors, the Court found that the Mapp rule should not be given retroactive effect on collateral review.61

Justice Black, in a dissent joined by Justice Douglas, called the Court’s use of selective prospectivity “arbitrary and discriminatory.”62 Linkletter, who received no relief under Mapp, had actually committed his crime after Mapp herself.63 When Mapp’s conviction was vacated by the new rule in her case, Linkletter was left in prison—a clear instance of unequal treatment under law.64 Justice Black reiterated his earlier assertion that the requirement of retroactivity formed “one of the great inherent restraints upon this Court’s departure from the field of interpretation to enter that of lawmaking.”65 Shortly after Linkletter, the Court decided that the case’s three-factor test could also be used to decide whether new rules should be given retroactive effect on direct review.66

In 1971, the Court addressed the prospective application of new rules of civil law in the case of Chevron Oil Co. v. Huson.67 The Supreme Court had previously decided Rodrigue v. Aetna Casualty & Surety Co.,68 which held that state law, not admiralty law, applies on oil rigs on the Outer Continental Shelf.69 The question in Chevron Oil was whether Rodrigue’s new rule should govern a claim that arose before it was decided. The Court identified three factors for determining whether a new rule of civil law should be applied prospectively: (1) whether the decision establishes a new principle of law; (2) whether retroactive application would further the purposes of the rule; and (3) whether retroactive application would produce inequitable results.70 Applying this test, the Court held that Rodrigue should not be applied retroactively.71

After a period of embracing prospective overruling, the Supreme Court came to develop grave doubts about the practice.

In a series of forceful dissents, Justice Harlan criticized the use of prospective overruling as contrary to the constitutional function of the federal courts. In 1967, Katz v. United States72 stated a new rule that a Fourth Amendment search and seizure does not require a physical intrusion into an enclosure.73 The next term, in Desist v. United States,74 the Court held that Katz did not apply retroactively to any cases involving searches conducted before the new rule was promulgated.75 In dissent, Justice Harlan declared, “‘Retroactivity’ must be rethought.”76 Though Justice Harlan had joined in previous opinions limiting the retroactive effect of new constitutional rules, he had done so to limit the impact of decisions that seemed to him “profoundly unsound in principle.”77 He further argued that the discretionary availability of prospective overruling in constitutional criminal law had yielded wide doctrinal confusion. Its use also “depart[ed] from th[e] basic judicial tradition”

of treating similarly situated defendants the same78—Katz had received the benefit of the new rule, while Desist had not. Justice Harlan would have applied Katz retroactively.79

Justice Harlan further developed his critique of nonretroactivity in the 1971 case of Mackey v. United States.80 In 1968, the Court established a new rule in Marchetti v. United States81 that the Fifth Amendment is a valid defense to a prosecution for failure to register as a gambler and pay a gambling tax.82 In Mackey, the Court held that Marchetti did not apply retroactively to a conviction that had occurred before that case and that was being heard on collateral review.83 Justice Harlan, concurring in the judgment, noted that the Court’s use of nonretroactivity had been seen by some members of the Court as a way of limiting unsound decisions, and by others as a “technique” for the “implementation of long overdue reforms, which otherwise could not be practicably effected.”84 Justice Harlan pointedly observed that although he did not subscribe to the Blackstonian declaratory theory, he believed that the decision whether to make a new constitutional rule retroactive had to be informed by the nature of the judicial function and its distinction from the legislative role.85 He contended that the Court is limited by Article III to deciding actual cases or controversies,86 and cannot apply one constitutional law to one case “fish[ed] . . . from the stream of appellate review . . . as a vehicle for pronouncing new constitutional standards,” and not apply the rule to similarly situated cases.87 He also noted that prospectivity tended to “cut th[e] Court loose from the force of precedent” and freed it to “restructure artificially” the expectations created by current law.88 Justice Harlan would have required retroactivity for all cases on direct review.89 Justice Harlan’s reasoning was finally adopted by the Court in the 1982 case of United States v. Johnson.90 Payton v. New York,91 an earlier case, held that the Fourth Amendment prohibits police from making a warrantless and nonconsensual entry into a suspect’s home to make a routine felony arrest.92 The question in Johnson was whether Payton should be applied retroactively to a case pending on direct appeal when that case was decided.93 The Court held that it should, expressly agreeing with Justice Harlan’s admonition that “‘[r]etroactivity’ must be rethought”94 and partially adopting his views in Desist and Mackey.95 But the Court limited its holding on retroactivity to the Fourth Amendment, and stated that it did not apply to civil rules, which would continue to be governed by the flexible test from Chevron Oil.96

In the 1987 case Griffith v. Kentucky,97 the Court overruled Linkletter’s three-factor test, holding that new rules of conduct for criminal prosecutions must be applied retroactively to all cases that are pending on direct review or not yet final.98 The case involved the application of Batson v. Kentucky,99 which prohibited racially discriminatory peremptory challenges,100 to a criminal conviction that was on petition for certiorari to the Supreme Court when Batson was decided.101 The Court held that Article III’s cases or controversies requirement prohibits the purely prospective application of new constitutional rules in criminal cases, because such decisionmaking is more akin to legislation than adjudication.102 Furthermore, the Court adopted Justice Harlan’s view that “the integrity of judicial review” requires that a new rule be applied not only to the case at hand, but to all similar cases pending on direct review103—a rejection of selective prospectivity in the criminal context.

Eventually, prospectivity in civil cases also came into question. In the 1991 case of James B. Beam Distilling Co. v. Georgia,104 the Court cast serious doubt on the endurance of Chevron Oil. In a 1984 case called Bacchus Imports, Ltd. v. Dias,105 the Court held that a Hawaii excise tax violated the Commerce Clause.106 After Bacchus, Jim Beam brought suit, seeking a refund of taxes it had paid under Georgia’s similar law.107 A state court declared Georgia’s law unconstitutional, but refused to apply its ruling retroactively, based on the test from Chevron Oil, and the Georgia Supreme Court affirmed.108 The U.S. Supreme Court reversed, finding that Bacchus applied retroactively.109

There was no majority opinion in the case. Justice Souter found that retroactivity is a choice of law for the Court to make when promulgating a new rule, and that Bacchus had been intended to apply retroactively.110 He rejected the use of selectively prospective decisionmaking as inherently inequitable, but did not address the propriety of pure prospectivity.111 Justice White concurred in the judgment, agreeing with Justice Souter on the choice of law question, but also defending Chevron Oil and the continued use of pure prospectivity.112 Justice Blackmun also concurred in the judgment but concluded that both selective and pure prospectivity violate the judicial function.113 Justice Scalia concurred in the judgment as well. Agreeing with Justice Blackmun, he found that both selectively and purely prospective decisionmaking are unconstitutional actions beyond the meaning of “[t]he judicial Power.”114 Echoing the earlier criticisms of Justices Black and Harlan, Justice Scalia described mandatory retroactivity as “one of the understood checks upon judicial law-making; to eliminate [it] is to render courts substantially more free to ‘make new law,’ and thus to alter in a fundamental way the assigned balance of responsibility and power among the three branches.”115 With Beam, the Court had taken a large step towards overruling Chevron Oil, but had not yet found a clear majority to do so.

In 1993, the Court found that majority, overruling Chevron Oil in the case of Harper v. Virginia Department of Taxation.116 In the 1989 case of Davis v. Michigan Department of Treasury,117 the Court declared a state tax on federal retirement benefits unconstitutional.118 The Supreme Court of Virginia, applying the Chevron Oil test, found that Davis did not apply retroactively to taxes imposed before it was decided.119 The U.S. Supreme Court reversed, holding that a rule of federal law, once announced and applied by the Court, must be given retroactive effect in all cases on direct review by all courts, except where the question has been expressly reserved.120 The Court reiterated the “two basic norms of constitutional adjudication” that opposed prospectivity: first, the nature of judicial review as distinct from legislation, and second, the need to treat similarly situated parties the same.121 To uphold these norms, the Court expressly extended Griffith’s ban on selective prospectivity to the civil context and intimated, without holding, that pure prospectivity might also be impermissible.122

In a concurring opinion, Justice Scalia elaborated on the criticism of prospectivity he had advanced in Beam. He called prospective decisionmaking “the handmaid of judicial activism, and the born enemy of stare decisis,” developed in the “heyday of legal realism” for the avowed purpose of making it easier to overrule prior precedent.123 On the other hand, fully retroactive decisionmaking is the tradition of the courts, and forms “a principle distinction between the judicial and the legislative power,” as recognized by Blackstone.124 Justice Scalia drew support from an observation of nineteenth-century Michigan Supreme Court Chief Justice Thomas Cooley: It is said that that which distinguishes a judicial from a legislative act is, that the one is a determination of what the existing law is in relation to some existing thing already done or happened, while the other is a predetermination of what the law shall be for the regulation of all future cases.125 Full retroactivity, Justice Scalia argued, is an inherent aspect of the judicial function.126

With Harper, the Supreme Court came virtually full circle in its approach to prospective decisionmaking. The Court has now decisively rejected selective prospectivity in both the criminal and civil contexts and indicated that pure prospectivity may also be forbidden. The two central reasons the Court has repeatedly cited for rejecting prospectivity are: (1) the nature of the judicial function, and (2) the need for the equitable treatment of litigants. The first reason is that the judicial role is one of deciding cases brought by the parties before the court; the court can say what the law is only in relation to an actual dispute before it. On this understanding, pure prospectivity, by which the court makes a change in the law for the future without applying it to the case at hand, is an illegitimate exercise of legislative power. The second reason is that treating similarly situated parties the same is a central requirement of justice. Selective prospectivity creates two classes of law for two individuals whose cases might have arisen at the same time: the party before the court gets the benefit of the new law, while the party waiting to be heard is shut out. This disparate treatment is in-herently inequitable, and makes selective prospectivity impermissible.127 The history of prospectivity at the federal level involves dueling accounts of fairness in adjudication. On the one hand, Justice Cardozo argued for prospectivity by pointing out that retroactive decisionmaking could create great hardship.128

Unanticipated legal changes that have retroactive effect create unpredictability, leaving individuals unable to conform their conduct to the law. It is chiefly on this account that retroactive criminal legislation has traditionally been seen as a severe abuse of power in Anglo-American legal history.129 Retroactive decisionmaking, particularly when it upsets reliance interests like those in property, contract, or tax cases, causes a similar kind of unfairness.

On the other hand, Justices Harlan and Scalia emphasized the unfairness inherent in prospectivity: that similarly situated litigants would be treated differently based on nothing more than the accident of whose case arrived in court first. For example, in the case of Molitor v. Kaneland Community Unit District 302,130 the Illinois Supreme Court used selective prospectivity to end school district sovereign immunity.131 The case involved a school bus that was driven off the road, hit a cul-vert, exploded, and burned, injuring the eighteen young students inside.132 The court’s use of selective prospectivity granted relief to the student who brought the suit while protecting the reliance interests of the state’s school districts, many of which had chosen not to take out insurance based on the protection afforded them by the immunity rule.133 Yet the court’s decision meant that the seventeen other youths in the very same bus crash would be barred from relief, simply because their cases would reach the court after their fellow student’s.134 This type of arbitrary distinction in the law is also deeply unfair.

The choice between prospectivity and retroactivity, then, appears to involve a choice between two kinds of unfairness. Of the two—(1) unforeseeability of what the law is at any given time, and (2) arbitrary treatment of similarly situated litigants135—the first initially seems more troubling. After all, there are few concepts more central to the rule of law than that the law should be known in advance so that citizens can conform their actions to it. Justice Scalia made this point himself when referring to Caligula’s practice of posting his pronouncements high on columns so that the people would be unable to read them and therefore easier to condemn for disobedience.136 Unforeseeability implicates the great mass of people, while selective prospectivity singles out only one individual for special—typically beneficial—treatment. Thus if a given change is to be implemented, prospective application appears to be the fairer path.

But this comparison presumes what is at issue: the inevitability of a given legal change. This was the point made by Justice Harlan in Mackey. While he had previously seen prospectivity as a way of limiting the harmful effects of changes in the law, others had seen it as a way of enacting changes that could never have been imposed retroactively, precisely because it would have been too harmful to do so.137 Though prospectivity may be a fairer way to implement a given legal change than retroactivity, a rule of mandatory retroactivity for that very reason prevents courts from undertaking disruptive legal changes. Like his fellow Realists, Chief Justice Traynor embraced prospectivity on just this account: A court usually will not overrule a precedent even if it is convinced that the precedent is unsound, when the hardship caused by a retroactive change would not be offset by its benefits. The technique of prospective overruling enables courts to solve this dilemma by changing bad law without upsetting the reasonable expectations of those who relied on it.138

As Traynor’s point makes clear, comparing the fairness of retroactive and prospective decisionmaking is largely missing the point of prospectivity. Under the traditional rule of retroactivity, the very unfairness of unforeseeable change acts as a restraint on judicial lawmaking and a prevention of the unfair consequences that would result from it.139 Meanwhile the unfair arbitrariness of prospectivity is a regular part of its operation. On this understanding, the Court has ultimately come to the right conclusion in describing prospectivity as the more unfair regime of the two. In Harper, the Court rejected prospectivity because it violates the nature of the judicial function and treats similarly situated litigants differently. While these two reasons for rejecting prospectivity are equally applicable to both federal and state courts, Harper’s holding applies only to rules of federal law— Sunburst Oil still recognizes the freedom of state courts to prospectively apply their own interpretations of state law.140 In the exercise of this freedom, state supreme courts have largely continued their use of prospectivity during the decades since Harper was decided.