# 1AC – Round the First

### Adv. – Innovation

#### Predatory innovation is huge threat to high tech markets – it can happen rapidly and SQ law doesn’t address it

Schrepel 17 [Thibault, Assoc Prof of Law at VU Amsterdam Univ, Faculty Affiliate at Stanford Univ CodeX Center, blockchain expert appointed to the World Economic Forum, “Predatory innovation: A response to Suzanne Van Arsdale & Cody Venzke,” Harvard Journal of Law and Technology, JCR]

Predatory innovation – which is defined as the alteration of one or more technical elements of a product to limit or eliminate competition – is arguably one of the most important subjects faced by antitrust law in the context of the New Economy. 1 Predatory innovation encompasses all practices that, under the appearance of genuine innovations, are anti-competitive strategies aimed at eliminating competition. The objective is to remove the compatibility of third party technologies with a dominant firm’s product, or to impair competing technologies’ operations. This could be done, for instance, when a company programs an operating system to bug when certain files related to a particular software are deleted from the computer. And yet, despite its importance, very few literature deals with predatory innovation. The importance that digital technologies have taken in our everyday life implies that related anti-competitive practices might affect a great number. Predatory innovation practices are particularly propitious to spread rapidly to the extent that they may appear with any updates, which sometimes are installed without the user's consent. Opportunities to implement predatory innovations are more numerous in high-tech markets than they are in non-digital sectors, as a large consumer group cannot be affected at the same moment, minutes after a company makes the decision to be anti-competitive. Accordingly, it seems that this type of anti-competitive practices must, more than ever because of the exponential growth of technological markets, be the subject of academic research. This assertion is reinforced by the fact that, for the time being, existing antitrust rules do not entirely apprehend practices of predatory innovation. 2

#### Software markets uniquely vulnerable to predatory innovation – decks interoperability across markets.

Van Arsdale & Venzke 15 [Suzanne, associate with Sidley Austin LLP, Cody, associate with Paul Hastings LLP, “Predatory Innovation in Software Markets,” *Harvard Journal of Law and Technology* 29.1, 244-5]

At its core, antitrust doctrine seeks to promote competition and, in turn, innovation. In theory, monopolists may run afoul of the Sherman Act' by altering their products to prevent competitors from entering the market - a violation of antitrust law known as predatory innovation. In practice, courts have refused to find liability as long as the market has accepted the changed product, "innovative" or not. This doctrine, which has generally been accepted as well-grounded, developed during a period predating the rise of the Internet. Consequently, the doctrine of predatory innovation (or rather, the one against it) depended on implicit assumptions about products that were primarily physical in nature. However, the rise of computing technologies and the emergence of the Internet have created a market in software products which defies these assumptions. This Note defines software to encompass all code-based, machine-intelligible instructions, including any nonphysical components of a computer system, such as operating systems, applications, websites, and social media platforms. Unlike many physical products subject to antitrust allegations stemming from predatory innovation, software products, especially web services, (1) are more likely to depend on network effects for success; (2) allow producers to effectively discontinue availability of and support for older products; and (3) can be changed with minimal or no effect on the user experience. Consequently, a dominant firm may harm competition by limiting the interoperability, or compatibility, of a dominant product with those of competitors. Interoperability is the ability of software to interact with other software or hardware by (1) exchanging information and (2) using the exchanged information; if software cannot interoperate with a depended-upon component, it may lose features or not work at all. Because of the nature of software products, breaks in interoperability may occur without users ever being aware that they are dealing with a new version of the product. This new software market calls for a reexamination of the applicability of existing predatory innovation doctrine to software products.

#### SQ tests can’t solve – need new standard

Van Arsdale & Venzke 15 [Suzanne, associate with Sidley Austin LLP, Cody, associate with Paul Hastings LLP, “Predatory Innovation in Software Markets,” *Harvard Journal of Law and Technology* 29.1, 276-84]

TESTS FOR TYING, UNILATERAL REFUSALS To DEAL, AND ESSENTIAL FACILITIES ARE INAPPLICABLE OR INSUFFICIENT.

Before elaborating a new test for predatory innovation products, it is necessary to address why software redesign may not be reached by other established tests for anticompetitive conduct: tying, unilateral refusals to deal, and essential facilities. Because our focus is on breaks in interoperability, it would seem that a monopolist would be liable under a theory of unilateral refusals to deal. Similarly, because several of the breaks of interoperability include efforts by a monopolist to introduce a new product, the product changes could plausibly raise concerns of tying. As described below, these theories may reach some breaks in interoperability, but not all. Ultimately, monopolization in software markets extends beyond either tying or unilateral refusals to deal and warrants a new test for predatory innovation.

A. Tying

A tying arrangement is when a firm with market powerl72 in one market attempts to force consumers to buy a related, nonmonopolized product by "tying" it to the dominant product.1 73 Tying arrangements limit free consumer choice by requiring them to purchase the tied product to gain access to the dominant tying product, such as when the manufacturer of a printer requires printer cartridges to be purchased from the same manufacturer. To prevail on a tying claim, a plaintiff must show (1) that the defendant has market power over the tying product, (2) that the consumer is forced to purchase a second product in order to procure the first, and finally (3) that the tie has foreclosed a "not insubstantial amount of commerce." 7 4 Courts have variously identified the test as having three or four elements, 7 5 the fourth being (4) that implicitly or expressly, the forced tie must be by contract.176 Consequently, a "technological tie" in which the dominant product in one market is designed to work only with a specific, peripheral product does not give rise to an unlawful tying arrangement. 7 7 Tying may not reach all cases where breaks in interoperability pose threats to competition for at least three reasons. First, predatory innovation in software markets may not even involve a second, tied product. Twitter's limitation of user tokens for third-party applications is an example of this. Twitter effectively barred third-party applications from competing for additional shares of the user base. 7 " The limitation on user tokens, however, did not tie two products together, even though it forced Twitter's user interface on consumers. Without tying two products together, breaks in interoperability that exclude competitors cannot give rise to a tying claim. Second, even if the break in interoperability serves to tighten the connection between two of the monopolist's products, the connection may not amount to a forced sale. Facebook's acquisition of and integration with Instagram highlights this. Prior to Facebook's acquisition of the photo sharing company, photos taken on the Instagram application could appear "in line" on Twitter. Following the acquisition, however, Facebook eliminated this feature for Twitter, while retaining it for the primary Facebook network. 179 Although Facebook made it far more appealing for users to post to Facebook rather than Twitter, the change seems unlikely to constitute a forced sale; Instagram users may still post links to their photos on Twitter, and - vitally - are not required to post their content to Facebook at all. Even Apple's manipulation of DRM and iTunes may not constitute tying per se, as users could use the iPod for music burned from compact discs or enjoy music purchased from the iTunes Store on their computers without an iPod. In both cases, the close tie between products plausibly discouraged, but did not foreclose, user choice among products; because there is no contractual obligation for the iTunes or Facebook users to use an iPod or Instagram, the scenarios here are unlikely to fulfill the contractual forced sale element of a tying claim. As described above, however, this type of conduct still poses a threat to competition, despite not meeting the requirements for a tying claim. Twitter, with complete control over its content network, limited third-party access to reduce competition on mobile platforms. Likewise, Facebook, recognizing the importance of photo sharing for social networking, precluded its chief competitor from accessing one of the most popular photo sharing applications available. The limited scope of tying claims, coupled with the weakness of current predatory innovation doctrine, makes it unlikely that similar efforts at exclusion will be subject to any antitrust scrutiny. Finally, the difficulty of reverse engineering software products is another reason why tying is insufficient to reach many breaks in interoperability. In traditional technological tying cases, competitors may use reverse engineering to work around the predatory design and, as noted above, courts have often relied on this in finding defendants not liable. This is especially true where the tied product is in a peripheral market. Courts considering peripheral product cases often characterize the dominant firm not as monopolistic, but simply as having a head start - the benefit of its investment in research and development. Software products, however, can be harder to reverse engineer, and may even explicitly block access by particular (or all) competitors. 180 Consequently, the rationale traditionally supporting deference to product changes is even less applicable in a software market, where breaks in interoperability are not a head start that may be engineered around, but an absolute bar to competition.

B. Unilateral Refusals To Deal

By their nature, breaks in interoperability exclude competitors from access to certain resources of the dominant firm, and such conduct seems to naturally give rise to claims of a unilateral refusal to deal. A unilateral refusal to deal is when a single monopolist refuses to cooperate with another company, usually a competitor.' 8 ' The bar for such a claim currently appears to be high, although the case law has varied over time in a myriad of factual situations. Courts generally presume that a monopolist's refusal to deal is justified,182 but there are exceptions. One, set forth in Lorain Journal, occurs when the refusal to deal serves no purpose but to exclude competition.1 83 One specific and oft-cited permutation of the Lorain exception is when a monopolist was previously engaged in a profitable arrangement with a competitor and then changed course, refusing to deal with no apparent purpose but to drive the competitor from the market.8 4 While refusal to license intellectual property rights has not been deemed an antitrust violation in the United States, courts have ordered antitrust violators to license those rights and disclose nonpublic information, such as interface specifications, to competitors. For example, the consent decree settling the antitrust case against Microsoft in the 1990s required Microsoft to disclose interface information and license intellectual property to firms developing interoperable technologies.1 8 6 The court imposed these terms as necessary to restore competition, despite the tenuous at best connection to illegal conduct - antitrust authorities had not charged Microsoft with misusing patents on interfaces or refusing to license intellectual property rights in those interfaces to competitors. 8 7 The European Commission also compelled Microsoft to disclose specifications that would allow competitors to create interoperable products with Windows technologies. 1 88 Because of the complexities of breaks in interoperability in software products, the logic behind exclusive dealing cases is likely to be inapplicable. In Aspen Skiing, for example, three independent ski companies operated the four ski areas in Aspen, Colorado.189 One of the companies, Ski Co., acquired three of the four resorts.1 90 With only one remaining competitor, Ski Co. discontinued the longstanding practice of all four ski areas to jointly issue an "all-Aspen" pass.191 In evaluating whether Ski Co.'s conduct violated section 2 of the Sherman Act, the Supreme Court noted that "[i]f a firm has been 'attempting to exclude rivals on some basis other than efficiency,' it is fair to characterize its behavior as predatory."192 Ski Co.'s conduct amounted to more than a refusal to deal with a rival, but rather eliminated a long-standing, profitable practice.1 93 Ski Co.'s change in the market eliminated a superior product preferred by consumers and hindered its competitors' ability to compete, and Ski Co. did not offer an efficiency-enhancing explanation for its conduct.1 94 Consequently, the Court held that a jury could reasonably infer that the elimination of the all-Aspen pass was exclusionary.1 95 Aspen Skiing, along with its predecessor Lorain Journal,196 marks the courts' willingness to curtail a monopolist's right to refuse to deal with a rival where that exclusion is "attempting to exclude rivals on some basis other than efficiency." 97 The complexities of breaks in interoperability suggest that a monopolist could always supply such a justification, especially when the dominant firm implements the break simultaneously with other changes.198 Consequently, defendants may readily point to a business justification to explain their actions. Further - and perhaps more importantly - if the dominant firm has copyright or patent protection for its product, courts generally presume that excluding rivals from the protected work is a valid business justification.200 The presumption of validity may be rebutted by showing that the patent or copyright was acquired in an "unlawful manner,"201 that the protection of the patent or copyright is a pretext, 202 or that the protection was obtained by "illegal tying, fraud in the Patent and Trademark Office, or sham litigation."203 In Data General Corp. v. Grumman System Support Corp., the First Circuit considered whether Data General's refusal to license its diagnostic software to "third-party maintainers" constituted exclusionary conduct. Data General had previously encouraged liberal use of its diagnostic tools by third parties before it began limiting access 204 in order to maximize profits in the service aftermarket. Because Data General denied the third parties access to its software under copyright law, the exclusion was presumably a valid business justification. Other courts have gone so far as to reject any rebuttal other than acquisition of the patent or copyright by fraud or illegal conduct before the relevant authority .206 Even Aspen Skiing did not apply to the facts here. "Apparently sensing the uphill nature of its allegation of an exclusionary refusal to license," the third-party maintainer argued that Data General's conduct was covered by Aspen Skiing. Even if an Aspen Skiing claim could have overcome the presumption of a valid copyright exclusion, the court rejected its application to the case.208 Noting that Aspen Skiing rested on a comparison of the monopolist's behavior in competitive and monopolized markets, the court rejected the analogy, as Data General had always been a monopolist.209 The protections afforded patent and copyright owners make it difficult to bring a successful unilateral refusal to deal claim. Software products are often protected by both patent and copyright. Under Data General and Xerox, these protections are likely to be recognized as valid business justifications for exclusion.210 Further, breaks in interoperability are not always accompanied by a change in the nature of the market to allow a comparison of the dominant firm's conduct in both competitive and monopolized markets.211 Given the courts' reluctance to find liability for refusals to license software in Data General and Xerox, such an argument seems unlikely to succeed against a monopolist breaking interoperability for software products.

C. Essential Facilities

Another exception to permissibility of a unilateral refusal to deal exists, albeit extremely rarely. Where a monopolist controls an "essential facility"212 one that is necessary for a competitor to enter and compete in the market - and the competitor cannot replicate the facility, a court may find that the monopolist has a duty to deal.213 The essential facilities doctrine works best as applied to historical and modern infrastructure not easily replicated by competitors, such as 214 railroad bridges, seaports, or telephone networks. The doctrine has more recently been invoked in Europe to analyze other types of facilities, including information products, software, and even interface specifications.215 However, it may not (easily) extend to non-physical 216 facilities in the United States, although commentators have encouraged its application to software products, such as unregulated software platforms. To bring an essential facilities challenge to a unilateral refusal to deal, a plaintiff must show four elements: (1) control of the essential facility by a monopolist; (2) a competitor's inability - practically or reasonably - to replicate the essential facility; (3) denial of the use of the facility to a competitor; and (4) feasibility of providing the facility.218 Courts have generally required that the facility in question be in an upstream market and that the monopolist deny access to the facility 219 solely to eliminate competition in the downstream market. When pursuing a claim of a break in interoperability against a dominant firm, it is especially difficult to establish the inability to replicate the facility. The bar for "inability practically or reasonably to replicate the essential facility" is high, often thought to be limited to "facilities that are a natural monopoly, facilities whose duplication is forbidden by law, and perhaps those that are publicly subsidized and thus could not practicably be built privately."220 Thus, successful essential facilities claims have generally involved extremely expensive facilities or those underlying natural monopolies such as entire power grids, mountains, or sports complexes.221 In other successful challenges, "the facility in question was more than dominant; it was effectively the only one in town." 222 In the software context, what would constitute an "essential facility" is unclear. Depending on how an essential facilities claim is framed, a court may not view a break in interoperability as an antitrust violation because the facility is replicable or not necessary to compete in the market. When Apple introduced its FairPlay DRM technology, competitors could argue that the lost facility was ability to play music purchased from their music stores; however, that function was clearly replicated, at least temporarily, when RealNetwork responded with its Harmony technology, which allowed RealNetwork music to be played 223 on Apple digital music players. Similarly, when Instagram ceased 224 to allow photos to be posted to Twitter in 2012, Twitter might have argued that the essential facility it lost was access to Instagram content and photo sharing; however, Twitter replicated the feature with its 225 own robust photo sharing features, and users could upload photos to both platforms. Although Twitter did not (and could not) reproduce the whole network, its own photo sharing features may indeed be a 226 sufficient replication of the lost facility. These examples suggest that in the software world, where readily understood physical limitations on replication are not present, facilities may not be "more than dominant." A court may rule that comparable "facilities" can be reproduced. A plaintiff challenging a break in interoperability may argue that, although it can create a similar software product, network effects prevent the new "facility" from having similar impact. Essential facilities claims are usually leveraged against natural monopolies, which have supply side economies of scale.229 These traditional essential facilities are usually marked by some physical or geological feature that makes entrance by new competitors cost prohibitive.230 Network effects, however, operate on the demand side, reflecting increased value to consumers with each additional user.231 New entrants cannot provide the same value as current firms, even with an identical product, because the user base is part of the value. Thus Twitter could instead argue that the lost facility was not just the Instagram photos themselves, but the entire Instagram community. A facility defined broadly to encompass this community of users could not simply be recreated by engineers; a community is not practical or reasonable to replicate, due in part to network effects acting as a barrier to entry. Nonetheless, because software is so readily distinguishable from the natural monopolies where the doctrine emerged, it is not clear that the essential facilities doctrine would apply to software products.

#### Dominant digital platforms restrict Application Programming Interfaces (APIs) to skew competition – this decks interoperability and start-up entry by causing the concentration of the Internet marketplace.

Sharma ’19 (Chinmayi; JD @ UVA Law; “Concentrated Digital Markets, Restrictive APIs, and the Fight for Internet Interoperability,” *University of Memphis Law Review*, 50(2), p. 441-508; \*Edited for Gendered Language)

II. APIs and an Interoperable Internet

Understanding how APIs operate can elucidate how they contribute to interoperability and why interoperability is important for a healthy online marketplace. APIs are neither the secret sauce that originally led to an online platform's rise to prominence, nor are APIs the bread and butter that drives a platform's continued success. Rather, they act as gatekeepers to the information bank account fueling all business activity, limiting access through their lock and key design. And as with banks, they allow the owner to benefit from opening access to this stockpile to others who would pay to use it. They represent a two-way dataflow: opening access to third parties to internal data and features, while receiving valuable user information from those third parties about their user activity. Essentially, the code reflects and fosters an organic, symbiotic relationship.

A. What is an API?

Over 1.5 billion websites are registered on the Internet, 32and all of them interact with each other to some degree to provide their unique services. For example, for a single web search, an Internet browser needs to access Bing. Bing then links to the websites in the search results, and these websites often rely on CAPTCHA to verify that the person conducting the search is not a robot. Each task is accomplished by a different entity, but each entity relies on information provided by the others information communicated through APIs. The Internet has been called an information highway, a digital infrastructure, or even a set of pipes. But ultimately, it is nothing more than a series of protocols designed to foster the creation and transfer of information, or data, as described above.

These protocols comprise the fabric of the Internet. They enable programming languages to build applications, enable data transfers necessary to connect with other Internet users, and enable shared access to public or proprietary tools to carve out new digital spaces. 33Previously, these protocols were born of necessity and expanded to achieve [\*451] greater efficiency and innovation among developers collaborating to realize the dream of a powerful open Internet. 34But, as with all good inventions, the Interne\t was quickly conquered by commercial entities that then used and created new protocols to further their business ends. 35 The collection of these protocols that broker interactions with a particular entity on the Internet are referred to as Application Programming Interfaces (APIs), or libraries of protocol layers. 36

APIs are the connective tissue that allow the various platforms in our digital economy to request and send information to each other. 37 Individuals utilize APIs when using their computers to interact with other computers by sending their information, in the form of an API call, to receive external information. For this to work, networked computers must be ubiquitously accessible and process the individual's request, or API call, in standard protocol to ensure communication. 38 To ensure that their APIs are openly accessible, companies publish documentation outlining how their API is designed, what kind of information third parties can access, the manner in which they have to make the call to receive a reply, and the terms of use for the API. 39

[\*452] In short, standardization feeds interoperability a feature that is not anomalous to the digital sphere. In fact, the vast majority of consumer products are aggregations of disparate patented technologies packaged together. They function because they have been built according to standards formally set by competitors in contracts. 40For example, the manufacture of a single laptop can necessitate adherence to between 250-500 interoperability standards. 41But, while a laptop is a discrete product with finite parties to invite to a standard-setting negotiation, the number of potential parties interacting with any given website can be near infinite. For example, Yelp as a platform needs to interact with Google and Apple Maps to provide directions, OpenTable and Resy to facilitate making a reservation, a phone's GPS to determine proximity, a phone's keyboard to allow users to post reviews, and thousands of advertising providers that pay to post commercials. With the multitude of players involved in any given digital interaction, formal standard-setting procedures common for market players like Dell and Apple are impractical for the digital market. 42Instead, websites like Yelp, Google, Apple, and the other aforementioned entities publish their APIs. 43

[\*453]

B. Interoperability Fosters Competition

The symbiotic relationships fostered by APIs enhances competition in the digital marketplace. Interoperability can have three types of effects on competitive markets:

(1) Direct, in which increased use increases the value of the product itself; (2) indirect, in which increased use leads to development of complementary products, such as applications for a specific platform, which in turn increases the value of the product; and (3) two-sided, in which increased use by one set of users increases the value of a complementary product and vice-versa. 44

Economists widely recognize the formidable hurdle of entering online markets as a feat that "requires either building up strong brand recognition to draw users to an independent site," a resource intensive route, "or using an existing platform," 45 an option made possible by permissive APIs. Innovative products and new startups built off existing platforms use permissive APIs to gain a foothold in a tumultuous market. In turn, the original platforms increase in value and experience an influx of new users. As the saying goes, "rising tides raise all ships."

Interoperability also lowers the barrier of entry to the online marketplace by encouraging the development of complementary platforms. 46At the early stages of the Internet, online platforms were united in their pursuit for active, loyal user bases and collaborated with [\*454] each other to accomplish these goals. 47APIs helped broker these cooperative, **pro-competitive strategies**. For example, Instagram has witnessed the advent of Instagram celebrities, or individuals who appear to have accumulated overnight fandom teaching people to "be yourself." 48In reality, they are the success stories of third-party apps that allow for planned posts, 49follower analytics, 50and trend-worthy Boomerangs. 51These third-party apps rely on Instagram's API to pull information about users and push information such as curated content. Instagram and these third-party apps mutually benefit from the traffic generated. Security apps have also flourished because platforms like Instagram are reliant on them, 52recognizing platforms sink when users feel unsafe.

The pro-competitive benefits of this "rising tides raise all ships" approach to API design extend beyond encouraging the development of complementary products. Platforms with more universally beneficial services or information can offer access to their APIs for a fee. 53 [\*455] This type of open access to platforms allows for more options to flood the market, theoretically driving out poor quality options that are unable to generate sufficient value to bear the cost of using the API. For example, Google provides its Maps product to developers at a price based on use. 54This allows developers to put Google Maps on their websites and enables users to get directions to a location directly from their app without going to Google. 55The developer pays for this use at a cost proportional to the traffic ~~his or her~~ [their] third-party product generates. 56 This has created an economy of map-based applications that detect potholes, warn of anomalous traffic, and suggest new restaurants, without the new companies having to recreate Google Maps from the ground up. 57

C. Shut Out of the "Walled Gardens"

**The concentration of the Internet marketplace in the hands of a few players removes incentives to maintain interoperability**, making the issue unlikely to self-correct. As online companies mature, the marginal utility of additional exposure via third-party applications becomes outweighed by the potential benefits of restricting open access to proprietary information to stifle future competition. 58Thus, dominant [\*456] players are shifting t o "walled garden" models, restricting API access and diminishing Internet interoperability. 59"Walled gardens" refer to platforms that, previously open, now substantially limit third-party access to their information and services with code-and contract-based barriers. 60Some deride this shift to "walled gardens" as the dystopian antithesis of open Internet goals, 61while others see "walled gardens" as the natural end point of company maturation and the development of a sustainable revenue model. 62Ideology aside, "walled garden" APIs definitively reduce interoperability by setting up formidable barriers to third-party access of platform data, **reducing innovation of platform-dependent app**s and equipping these dominant players with the ability to unilaterally alter API conditions. 63

An already concentrated online market engenders further concentration. For one, venture capitalists ("VCs") have driven market concentration. The tech sector contains many startups not projected to [\*457] turn a profit for years, entirely reliant on external investments. 64At first, VCs took gambles on nascent companies with potential, focusing on their "exit" potential (or acquisition by a dominant player). 65 Later on, VCs began concentrating their funding on a smaller number of more mature tech companies rather than spurring innovation by funding embryonic startups. 66And now, well-funded market players, either through VCs or through initial public offerings ("IPOs"), have the ability to buy out future competitors and acquire complementary products to internalize their features. 67After a major merger or acquisition, tech companies undergo massive reorganizations to accommodate the new company, including a transformation of APIs to begin the process of integrating the new addition's technology into a legacy system. 68 APIs [\*458] were designed to facilitate mutually beneficial information transactions between competitors, but when one company buys up Park Place and Boardwalk in Monopoly, they **no** longer have an **incentive to cooperate** with others.

Companies can reduce interoperability by restricting API access after an acquisition. For example, after Facebook acquired Instagram in 2012 for $ 1 billion, it immediately began integrating the platform into traditional Facebook features. 69Notably, it altered Instagram's API within months of the purchase to prevent users from cross-posting photos generated for Instagram onto Twitter, thereby preventing Twitter users from accessing Instagram content directly. 70Facebook's goal was to drive activity to Instagram's native platform directly rather than have users interact with Instagram content through other, and at the time more dominant, social media avenues. 71But in doing so, Facebook hurt Twitter's dynamism as a platform by reducing Twitter's access to high-quality, third-party content. 72In response, Twitter deleted its app from the Facebook ecosystem. 73 Instagram's newly restrictive API halted the trend of building one-off, third-party projects, such as hashtag driven campaigns or event promotion. 74

[\*459] In a concentrated market with a dearth of options, dominant players can further reduce interoperability by making the conditions of API access prohibitive. Although tech companies are notorious for evading profitability for unfathomably long periods of time, all companies ultimately seek revenue. Google Maps's API, one of the most dominant geolocation services available, has recently capitalized on the market's reliance on its services to increase the price associated with making API "calls" or discrete requests for information. 75When controlling for quantity and cadence of API calls, developers reported an over 1,400% increase in the costs for using the Maps platform. 76In addition to these increased costs, Google has required API users to hand over billing information regardless of whether or not they incur any costs. 77Most significantly, native Android app developers are protected from these changes because Google will not be implementing these new cost structures in its Mobile Native Static and Dynamic Maps APIs the unique APIs built for use by Android developers. 78Ergo, Google, through its APIs, demonstrates favoritism or exceptionalism for the mobile operating system it owns.

Restrictive APIs are by no means per se unreasonable or anticompetitive. Most online platforms generate revenue through advertising, and the "walled garden" model helps platforms curate more personalized, effective advertising schemes. 79Additionally, restricting [\*460] access to APIs limits the ability for low-quality third-party applications to dilute the company's brand by association. 80Finally, data security concerns have also driven decisions to fortify "walled gardens." 81Facebook and Facebook-owned Instagram responded to the Cambridge Analytica data leak and API-enabled data breach by severely curtailing third-party access to user information by putting restrictive conditions on their APIs. 82This move gave Facebook more control over who is accessing information, how much information they are accessing, what they plan to use it for, and whether they are complying with API use conditions. 83Users were duly indignant at the open and unmonitored nature of APIs, but the appropriately placed frustration has since evolved into the belief that there is an unavoidable zero-sum game between interoperability and information security. 84

Just as all monopolies are not per se injurious to competition or the public, 85not all API-restricted walled gardens are problematic. But, [\*461] as with monopolies, we rely on competition law to redress impermissible business practices. The question remains: can it?

#### Preserving interoperability maximizes digital innovation – antitrust as a mechanism avoids the risks of interoperability.

Hodapp and Hanelt 22 (Dr. Daniel Hodapp, Founder at SUYUH, André Hanelt Chair of Digital Transformation Management, School of Economics and Management, University of Kassel, February 2022, Interoperability in the era of digital innovation: An information systems research agenda. Journal of Information Technology. <https://doi.org/10.1177/02683962211064304>) MAM

The third research strand covers the outcomes of interoperability mechanisms and aims to better understand which benefits of increased interoperability have materialized, or not. Regarding the benefits, first, interoperability is linked to new and more unbounded innovation (Hanseth and Bygstad, 2015; Teece, 2018; Tilson et al., 2010; Yoo et al., 2012). Increased interoperability enables the modularization of software artifacts that interact through defined standards and can therefore be more easily combined and shared with other systems (Reuver et al., 2017; Yoo et al., 2012). Second, increased interoperability is associated with fostering competition by reducing lock-in effects and lowering barriers to entry (Mantovani and Ruiz-Aliseda, 2016; Teece, 2018). Third, higher levels of interoperability enhance autonomy. In interoperable systems, individuals and organizations are more likely to choose among competitive and complementary options that can be tested and mixed for specific purposes, without being restricted by previous technology lock-ins (Liu et al., 2011). Fourth, increased interoperability can facilitate access to information and reduce transaction costs (Zhao and Xia, 2014).

#### Antitrust is key to maximize quality follow-on innovations in software markets while preventing platform dominance.

Kwon and Marco 21 (Seokbeom, assistant professor of Dept. of Systems Management Engineering at Sungkyunkwan University, Korea; Dr. Alan Marco is Associate Professor at the Georgia Tech School of Public Policy, and former Chief Economist at the U.S. Patent and Trademark Office, Can antitrust law enforcement spur innovation? Antitrust regulation of patent consolidation and its impact on follow-on innovations, Research Policy Volume 50, Issue 9, November 2021, 104295, <https://www.sciencedirect.com/science/article/abs/pii/S0048733321000962>) MAM

Firms may seek monopolistic profit, in addition to the patent transfer, by consolidating patents through preemptive patenting (Gilbert and Newbery, 1982)—patenting new technology before their market competitors obtain them while not using the patented technology nor licensing. However, how preemptive patenting may affect “innovation” and its welfare implications remains somewhat ambiguous. From the Schumpeterian viewpoint, firms’ incentive for preemptive patenting could function as the driver for firms to engage more in R&D. Meanwhile, the presence of the preemptive patenting strategy may trigger the competitors to explore the new pathway of innovation while being agile in technology development. In contrast, the preemptive patenting on marginally improved technology or with overly broad/uncertain patent scope may discourage the competitor’s market operation and innovation in the short run. This could be particular in the sector where innovation is created cumulatively, as we have discussed above. This theoretical ambiguity calls for empirical studies on whether and how preemptive patenting affects innovation.

In the present study, we elucidated that the formation of a market monopoly can be prevented by antitrust intervention into patent consolidation while encouraging the development of follow-on innovation. Our conclusion suggests further elaboration on the modern understanding of the relationship between antitrust and patent laws, at least when it comes to innovation. The two laws become complementary conditioning when the right to access the substituting patents on an upstream technology is distributed across innovators; when the patents are owned by a single firm, complementarity between antitrust and patent law may not work. This implication echoes the ongoing policy and scholarly discussion on how the modern antitrust law should accommodate technological innovation (Katz and Shelanski, 2005; Khan, 2016; Sidak and Teece, 2009). Thus far, the discussion concerning the necessity of accommodating the Schumpeterian view on the relationship between market competition and innovation in antitrust law has been largely theoretical. Moreover, how the antitrust law plays a role in promoting technological innovation remains an open question. Our study suggests that firms’ patent consolidation through patent transfer is one of the venues where antitrust law enforcement can shape market competition and technological innovation. This implication further indicates the importance of **extending the scope of antitrust intervention** into “patent-only” transfers in cooperation with patent policymakers to promote market competition and technological innovation. This study has several limitations that we wish future studies to address. First, our empirical analysis was based on a single case of antitrust regulation of patent transfer. Although the case was useful for identifying the causal impact of the antitrust regulation, a comprehensive conclusion and understanding need analyses on more cases.

Second, we focused on examining the impact of antitrust regulation of a firm’s consolidation of patents on “substitute” technology. Yet, firms may acquire external patents on technology that is “complementary” to what they own. Here, the patent transfer may result in the generation of more innovation by improving the efficiency of the innovation process. In contrast, the aggregation of patents for complementary technology may concentrate more market power in the patent-aggregating firm by enabling the birth of a dominant “platform” (e.g., Haucap and Heimeshoff, 2014; Khan, 2016; Moore and Tambini, 2018), which has become a new issue in the antitrust policy domain. How the antitrust regulation of a firm’s consolidation of patents on “complementary technology” affects innovation and market competition is an interesting question worthy of future study.

#### Digital start-up entry prevents slow growth – only a competitive technology sector stimulates the economy.

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A growing role of science and state-of-the-art technology in ensuring sustainable economic growth has become obvious lately [1, 2]. The innovation type of development has placed a special emphasis on the use of the leading-edge technologies, the production of high-tech products, the implementation of progressive organizational and management decisions [3]. Technology has fundamentally and quickly changed the structure of the world economy and has become one of the primary factors in economic progress. The shifts have outlined the radically new global space, novel conditions for competition in world markets, and modern principles of interaction between enterprises. The role of technology in today’s economy has long been debated among researchers [4, 5]. However, there is still a lack of studies on the reasons behind technological inequality between countries. Currently, one can observe a new bipolar configuration of the global technological space forming, where the USA and China are taking the lead and all other countries are unable to close this gap in the short term [6, 7]. The spread of technological innovations is uneven, which causes technological inequality to emerge that represents a new challenge to sustainable economic development. The availability of technology and capital exacerbates the problem of economic differentiation. At that, the modern form of uneven development can no longer be represented using the common schemes, since it is widely manifested in various fields. Such indicators as labor productivity, living standards, GDP per capita, etc. characterize the overall state of national economies, but do not specify the factors which contributed to obtaining this position. Structural analysis highlights that the technological factor is among the most significant ones determining the objective pattern of uneven development [8]. However, the question remains about the constituent parts of the technological factor (its component base), methods and approaches to assessing the influence of this factor on economic growth. Researchers have different approaches to the selection of a set of technological factor indicators. This poses a problem of methodological consistency that precludes comparative research. For this reason, the topic of this study is becoming relevant, related to the study of the influence of the technological factor on differences in economic growth and inequality between countries. Thus, the relevant studies point to a distinctive primacy of manufacturability as the main factor in sustainable economic development. Then, we aim to clarify the role of the technological factor. However, even now one can argue that the aggravated cross-country competition implies the need for tools to assess and determine the key determinants of technological economic growth. The results are expected to confirm the significance of the technological factor, allow identifying its parameters and setting their priorities for improving economic policy aimed at sustainable development. These circumstances understood will open up opportunities for countries to narrow the technology gap. 2. Literature review on the technological factor of economic development Economic theory pays special attention to issues of development and sustainable growth, as well as the causes of differences and factor changes. The sources of economic growth through GDP were specified in [9–13]. These researchers agree that sustainable economic growth is driven by factors such as new technologies and globalization. However, with the availability and access to these factors, it becomes important to build optimal management. The dynamics of economic growth is believed to be based on the results of structural transformations, mastering new technological principles, the introduction of innovations and an increase in labor productivity. At that, the seemingly insignificant differences in the economic growth rates bring about the substantial divergence in countries’ economic potential. Determining these discrepancies becomes a relevant scientific task. It is becoming increasingly obvious that if the economy is not focused on technological innovation, it has no prospects for long-term development [14–17]. Some researchers, such as [14], focus on fundamentally new solutions (patents) that have commercial implementation potential. We can agree with this opinion, because it is innovation that should ensure accelerated economic growth at the expense of competitive advantages. A similar opinion is expressed by [15]. The publication [16] proves that renewed industrialization becomes an important condition for the development of technology. According to [17], entrepreneurial skills are needed to support industrialization. Numerous studies [18–20] demonstrate that there is a direct correlation between the technological preparedness of a country and its ranking in the global economy. Research results on this issue are coordinated. These trends, if underestimated, lead to the fact that some countries can find themselves lagging behind. Here, it is important to realize the essence and the role of the technological factor, as well as the opportunities for managing the level of technological effectiveness of the economy. However, in [18, 19] there are no clear indications of quantitative measures of the technological factor. We agree with [21], who claims that the technological factor is new technologies or their clusters that underlie the changes in the relative cost of production factors, stimulate the development of new industries and enhance the efficiency of traditional ones. Historical regularities in the emergence of fundamental technological innovations give impetus to structural changes in the economy [22]. Therefore, it is important to identify the determinants of economic growth that occurs against the background of technological structural changes. As practice shows, national economies, which for one reason or another were unable to independently create high-tech products, first applied imitation strategies within the country, and then entered foreign markets by occupying particular niches [23–25]. These researchers note the role of R&D spending and high-tech exports in economic growth. However, factor quantitative estimates are not given. The development of the USA and China are interesting cases here. For example, from a country that had mainly copied innovations, China turned into one of the leading innovation-generating nations leaving behind most other countries in terms of the level of technological development. In this context, the patterns of production, distribution, exchange and consumption of goods are largely predetermined by the peculiar nature of the technological processes [8]. At the same time, the observed temporal reduction of cycles is formed precisely due to the technical progress and the use of innovations [26]. The study of the reasons behind technological inequality is believed to lend some insight into the mechanisms that underlie economic changes. According to [27, 28], the choice of a model of economic growth should focus on mobilizing the potential to follow the technological path of evolution. Since the modern development of the theory of evolutionary economics is based, first of all, on the neo-Schumpeterian theory, which determines the need for structural technological changes in ensuring sustainable economic development, such changes provide for the formation of new industries with a high degree of processing of primary raw materials and an increase in the efficiency of traditional ones. Therefore, the issue of developing an integral strategic management system aimed at ensuring innovative structural changes becomes relevant. As we see it, these changes are of a technological nature. Thus, the literature review demonstrates that economic growth is significantly affected by the flows of developed and exported technologies [29], as well as R&D costs [30–32]. The presence of stable patterns for these factors allows us to use them in the assessment model. The indicators proposed by the researchers (the share of ideas with the potential for commercialization [33], the share of R&D funding in GDP [34], indicators of science, technology and innovation development [35], the number of patents [36]) often reflect the multidirectional dynamics of the technological factor’ financial aspects and its qualitative components. The review confirmed the significance of the technological factor for economic growth. At the same time, there is a clash of researchers’ opinions on key determinants. In the context of the literature review, the indicators of the technological factor need to be revised. The question about the approaches to assessing the impact of the technological factor on economic growth is left unanswered, which proves the relevance of the present research. 3. The aim and objectives of the study The aim of this study is to develop an integrated approach to assessing the impact of a technological factor on economic growth. This will provide an opportunity for a comparative analysis on the countries for technology gaps. To achieve the stated goal, we aim to fulfill the following objectives: – to determine the leading countries and outsiders in terms of digitalization of the economy; – to assess the dependence of economic growth on the technological factor. 4. Materials and methods In the present study, technological effectiveness refers to the ability of a country to implement structural reorganization in accordance with the model of innovation development and realize its scientific and technological potential. We evaluate the level of technological effectiveness of the economy using the relevant index that serves as the basis for ranking countries. The set of technological factor indicators that will be used in our approach will be adjusted taking into account the literature review. To calculate the Index (Ii), we use the indicators characterizing various aspects of technological development of the nations under review (Table 1), such as: – industrial production index (ai ); – the share of the production of machinery and equipment in total value added (bi ); – the share in global value added by the economic activity ‘Production of computing, electronic and optical equipment’ (ci ); – the share in global value added by the economic activity ‘Production of machinery and equipment’ (di ); – ICT development index (ei ); – domestic R&D costs, % in GDP (fi ). For empirical verification, we use official statistics. The frequency of data updating does not allow reflecting the most recent trends that affect economic processes (such as the impact of COVID-19). This is a research limitation. We also need to understand that some trends are short-term in nature, and their impact can be neglected. [Chart omitted] The method of Euclidean distances is used to rank the indicators’ values; normalization (Ixi ) is calculated by formula (1). The boundaries of normalized indicators are set in the range from 0 to 1. [Equation omitted] where Xi is the actual value of the indicator; Xmin is the minimum value of the indicator for the sample population; Xmax is the maximum value of the indicator for the sample population. The level of technological effectiveness is calculated using the cumulative method as a weighted mean: [Equation omitted] The closer the Index value is to 1, the higher the level of technological effectiveness of economy. To determine the econometric relationship between economic growth and indicators characterizing the technological factor, a linear multiple regression model was applied. [Equation omitted] where X1, X2, X3…, Xn denote factors; ɛ denotes error; β denotes a vector of the parameters under evaluation. The gross domestic income of the United States and China for the period of 1996–2019 was taken as dependent variables (Table 2). The independent variables were represented by the volume of electronics production (Elc), costs incurred in installation and maintenance of equipment/technologies (CTech), the volume of high technology exports (HTExp), and investment in R&D activities (RD). Data are given in Table 3. [Table omitted] Based on the purpose of the study, we put forward two hypotheses about the nature of the patterns observed: Н1. Growing R&D costs accelerate economic growth. Such an increase is expected to stimulate R&D in industries with comparative advantage. Consequently, this strengthens the country’s exports (foreign trade surplus). Н2. Arrested technological development adversely affects competitiveness and, as a result, economic growth, since outdated equipment results in higher resource intensity and low labor productivity. We test the hypotheses and the methodology for assessing the level of technological effectiveness using the sample of 30 countries. The aggregate of research objects embraces several developed countries, developing countries with high GDP, as well as developing countries not included in leading world economies. The selection is due to the need to cover a wide range of economies characterized by a wide variety of development conditions. 5. Results comparing technological effectiveness of economies 5. 1. Leading countries and outsiders in terms of technological innovation The global economy in the context of Industry 4.0 demonstrates a number of specific features that distinguish it from the previous development stages. Firstly, technological innovation is becoming increasingly expensive, which causes a significant increase in R&D costs [38]. Secondly, the rate of technological change has increased dramatically. The terms of development and implementation of new solutions were reduced in the first place [8]. Technological gap can now be measured exponentially [39]. Look at a range of indicators characterizing the level of technological effectiveness of national economies. The share of domestic R&D costs in GDP is one of them (Fig. 1). The highest level of R&D funding in GDP is observed in the Republic of Korea, Sweden, Japan, Germany, the United States, China and other countries leading in the Global Competitiveness Report. Analysis of the current changes in the global economy indicates that the importance of the comparative advantages of the lower order – cheap labor, basic production resources and the availability of raw materials – is decreasing [40]. At the same time, advantages of a higher order are gaining in significance, such as the ability of countries to develop high-tech industries, to manufacture and export products with a high intellectual component and in-depth processing [41]. For instance, the United States and China account for 90 % of the market capitalization value of the world’s 70 largest digital platforms, 75 % of all patents related to blockchain technologies, more than 75 % of the world market for public cloud computing, about 50 % of global spending on IoT, 40 % of world data centers, 36 % of the global value of e-commerce [42], and 69 % of supercomputers [43]. These areas are of significant potential and can have a serious impact on economic restructuring. Therefore, a special focus of the analysis is put on such indicator as the share of high-tech production (including computing, electronic and optical technology) (Fig. 2). China, Germany, Italy, the United States and Japan have the largest share in global value added in the production of computing, electronic and optical equipment. Norway, Canada, Australia, Sweden, Romania, Poland, etc. are relatively poorly represented in these world markets. High-tech industries focusing on domestic production can be viewed as sources of economic growth. Data on the share of machinery and equipment production in GDP show similar trends (Fig. 3). High-tech industries strongly stimulate the economic growth of the leading countries – the Republic of Korea, China, the United States, Germany, and Japan, – while countries with low competitiveness demonstrate poor results. [Table omitted] Analysis of the countries indicates that some of them did not demonstrate high values of the indicators reviewed, but the level of their technological effectiveness is much higher (the group of “backward” countries embraced Denmark, the Netherlands, Sweden, Norway, and Canada). To gain a comprehensive picture and rank the countries, we have calculated the integral index of the technological effectiveness that covers financial aspects of development, as well as qualitative characteristics of economic growth. The Index calculation methodology is presented in section 4 of the paper. The countries’ ranking is presented in Table 4. [Table omitted] 5. 2. Assessment of the dependence of economic growth on the technological factor As articulated earlier, an increase in GDP can result from various factors. To substantiate the relationship between economic growth and the technological factor, we construct a number of models. The parameters of the regression models for the USA and China are given in Tables 5, 6. The parameters of the multiple regression model were obtained using STATISTICA software. [Table omitted] We have obtained a model with good quality characteristics; in this case, the coefficient of determination R2=0.996, normalized R-squared=0.995, multiple R=0.998. [Table omitted] The model obtained for China is also characterized by good quality characteristics: the coefficient of determination R2=0.999, normalized R-squared=0.999, and multiple R=0.999. Checking of the model adequacy according to the F-test produced the following results: the calculated value F=10.09 at the level of significance p=0.01. Having analyzed the models’ data, we can conclude that there are no factors with a high probability of insignificance (t-Statistic for each model are greater than the critical value at a significance level of p=0.01), i.e. all regressions are significant. To evaluate the degree of adequacy of the constructed trend equation to the real process, the mean approximation error was computed. Its value (3.167 % for China and 1.54 % for the United States) indicates that the degree of the quadratic equation’s adequacy to the real conditions of the relationship between economic growth and the technological factor is high. Fig. 4 provides a visual distribution of actual and calculated values of the regression models. Analysis of the models for the United States and China allows us to deduce that R&D costs are significant regressants contributing to economic growth; the factor impact on GDP growth in the United States and China is 31.6% and 41.9%, respectively; export of high-tech products provides an increase in GDP by 2.7% and 4.7%, respectively. It is worth noting that the obtained negative coefficients in the regression models suggest a weak correlation between the effective feature (economic growth through GDP) and some factor variables. For China, the indicator “Costs incurred in installation and maintenance of equipment/technologies” reveals an inverse relationship with GDP. A similar trend is observed in the United States for the indicator “Production of electronics”. Our calculations confirm that the strongest relationship is observed between GDP and development costs, as well as the share of high-tech industries in global value added. [Chart omitted] The current research proves that countries with substantial R&D funding and a large share of high-tech products in GDP and total exports are characterized by sustainable economic growth. Thus, the H1 hypothesis was confirmed. The H2 hypothesis was partially confirmed: countries capable of using their innovative potential effectively are characterized by an elevated level of competitiveness. However, the use of outdated technologies does not always results in a decrease in global competitiveness, since these processes can be influenced by the institutional environment, which was beyond the scope of the present study 6. Discussion of the results comparing technological effectiveness of economies Testing the approach using the case studies of China and the United States makes it possible to extrapolate their experience to countries with a low level of technological effectiveness. For example, the China and USA lead the global market for technological innovation. The country’s competitiveness in this field is due to the highly dynamic nature of American business, strong institutional underpinnings, finance mechanisms and a powerful innovation ecosystem [1]. Index of the countries’ technological effectiveness (Table 4) confirms this trend. The calculated values of the Index indicate the leading positions of these countries. The rapid growth of the renewable energy sector is a testament to why China will continue to dominate the sectors in which it invests heavily [44]. Currently, the PRC accounts for 90 % of the world’s supply of mobile phones and personal computers. In 2018, the country’s share in global semiconductor consumption was 41 %; by 2024, it is forecasted to increase to 54 % [45]. Significant funds received from low- and medium-tech industries in China are directed to those economic sectors, which enjoy research, development and implementation of hightech solutions. It is noteworthy that in terms of the level of technological development, Kazakhstan, Brazil and Ukraine lag significantly behind some European nations (Romania, Poland, and Bulgaria), Turkey and Mexico. These countries do not exhibit sufficient potential to introduce innovations independently, but with regard to successful transfer and adaptation of foreign high technologies, they are significantly ahead of other countries with a similar development level. India is among the countries with high technological growth potential. India is now at a stage where machine learning tools are rapidly replacing entry-level programmers in the IT sector. So far, India is ranked 15th, but the situation may change soon. The comparison showed the advantage of the proposed methodological approach. We have been able to analyze the technicality of countries using universal data sets. The Index of the countries’ technological effectiveness can be a good alternative to other methods of assessment. During the research, we have confirmed the hypotheses put forward. Assessment of the dependence of economic growth on the technological factor showed a strong relationship between GDP and R&D costs (Tables 5, 6). These results prove that sustainable economic growth is explained in most cases by significant funding for R&D (the presence of a large share of high-tech products in the country’s GDP) and the export of high-tech products. Therefore, technologies determine competitive advantages of states at large. However, qualitative factors of economic growth prevail in a continuous innovation process. What determines additional limitations of our methodological approach. Special focus should be placed on a specific feature of the periods when changes occur, i.e. the periods of the so-called “technological gap” [46]. This is when the foundations of the future economy are set. Technological incentives crucial for growth are based on the ability to deliver better results. If technological inequality is excessively gross, it can jeopardize economic growth. Creating favorable conditions for the use of high technologies will not only support the competitiveness of production and attract investment in the economy, but also help resolve such issues as enhancing the efficiency of resource exploitation.

Hence, scientific and technological progress is the central stimulus for economic development, which in production processes is implemented through investment and innovation. At that, the dynamics of economic growth in the long run is dependent on a wide array of factors forming supply and demand for technological change: the current techno-logical capability of the national economy [19]; the development stage of financial institutions; companies’ awareness of R&D, and the effectiveness of technology transfer within the innovation infrastructure [47]; the nature of the state scientific and technical, scientific and technological, structural, and stabilization policy, and the level of state guarantees for the protection of intellectual property rights [25]; conditions of foreign economic activity, and competitiveness of products and services in the global market [48]. The characteristics of the listed factors vary significantly across countries, but the multicausality of the factors indicates that their combinations at certain time intervals can both reduce and boost the level of technological effectiveness.

#### Slow growth causes extinction.

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Four structural forces will shape the future of International Relations: globalization (but without liberal rules, institutions, and leadership)1; multipolarity (the end of American hegemony and wider distribution of power among states and non-states2); the strengthening of distinctive, national and subnational identities, as persistent cultural differences are accentuated by the disruptive effects of Western style globalization (what Samuel Huntington called the “non-westernization of IR”3); and secular economic stagnation, a product of longer term global decline in birth rates combined with aging populations.4 These structural forces do not determine everything. Environmental events, global health challenges, internal political developments, policy mistakes, technology breakthroughs or failures, will intersect with structure to define our future. But these four structural forces will impact the way states behave, in the capacity of great powers to manage their differences, and to act collectively to settle, rather than exploit, the inevitable shocks of the next decade.

Some of these structural forces could be managed to promote prosperity and avoid war. Multipolarity (inherently more prone to conflict than other configurations of power, given coordination problems)5 plus globalization can work in a world of prosperity, convergent values, and effective conflict management. The Congress of Vienna system achieved relative peace in Europe over a hundred-year period through informal cooperation among multiple states sharing a fear of populist revolution. It ended decisively in 1914. Contemporary neoliberal institutionalists, such as John Ikenberry, accept multipolarity as our likely future, but are confident that globalization with liberal characteristics can be sustained without American hegemony, arguing that liberal values and practices have been fully accepted by states, global institutions, and private actors as imperative for growth and political legitimacy.6 Divergent values plus multipolarity can work, though at significantly lower levels of economic growth-in an autarchic world of isolated units, a world envisioned by the advocates of decoupling, including the current American president.7 Divergent values plus globalization can be managed by hegemonic power, exemplified by the decade of the 1990s, when the Washington Consensus, imposed by American leverage exerted through the IMF and other U.S. dominated institutions, overrode national differences, but with real costs to those states undergoing “structural adjustment programs,”8 and ultimately at the cost of global growth, as states—especially in Asia—increased their savings to self insure against future financial crises.9

But all four forces operating simultaneously will produce a future of increasing internal polarization and cross border conflict, diminished economic growth and poverty alleviation, weakened global institutions and norms of behavior, and reduced collective capacity to confront emerging challenges of global warming, accelerating technology change, nuclear weapons innovation and proliferation. As in any effective scenario, this future is clearly visible to any keen observer. We have only to abolish wishful thinking and believe our own eyes.10

Secular Stagnation

This unbrave new world has been emerging for some time, as US power has declined relative to other states, especially China, global liberalism has failed to deliver on its promises, and totalitarian capitalism has proven effective in leveraging globalization for economic growth and political legitimacy while exploiting technology and the state’s coercive powers to maintain internal political control. But this new era was jumpstarted by the world financial crisis of 2007, which revealed the bankruptcy of unregulated market capitalism, weakened faith in US leadership, exacerbated economic deprivation and inequality around the world, ignited growing populism, and undermined international liberal institutions. The skewed distribution of wealth experienced in most developed countries, politically tolerated in periods of growth, became intolerable as growth rates declined. A combination of aging populations, accelerating technology, and global populism/nationalism promises to make this growth decline very difficult to reverse. What Larry Summers and other international political economists have come to call “secular stagnation” increases the likelihood that illiberal globalization, multipolarity, and rising nationalism will define our future. Summers11 has argued that the world is entering a long period of diminishing economic growth. He suggests that secular stagnation “may be the defining macroeconomic challenge of our times.” Julius Probst, in his recent assessment of Summers’ ideas, explains:

…rich countries are ageing as birth rates decline and people live longer. This has pushed down real interest rates because investors think these trends will mean they will make lower returns from investing in future, making them more willing to accept a lower return on government debt as a result.

Other factors that make investors similarly pessimistic include rising global inequality and the slowdown in productivity growth…

This decline in real interest rates matters because economists believe that to overcome an economic downturn, a central bank must drive down the real interest rate to a certain level to encourage more spending and investment… Because real interest rates are so low, Summers and his supporters believe that the rate required to reach full employment is so far into negative territory that it is effectively impossible.

…in the long run, more immigration might be a vital part of curing secular stagnation. Summers also heavily prescribes increased government spending, arguing that it might actually be more prudent than cutting back – especially if the money is spent on infrastructure, education and research and development.

Of course, governments in Europe and the US are instead trying to shut their doors to migrants. And austerity policies have taken their toll on infrastructure and public research. This looks set to ensure that the next recession will be particularly nasty when it comes… Unless governments change course radically, we could be in for a sobering period ahead.12

The rise of nationalism/populism is both cause and effect of this economic outlook. Lower growth will make every aspect of the liberal order more difficult to resuscitate post-Trump. Domestic politics will become more polarized and dysfunctional, as competition for diminishing resources intensifies. International collaboration, ad hoc or through institutions, will become politically toxic. Protectionism, in its multiple forms, will make economic recovery from “secular stagnation” a heavy lift, and the liberal hegemonic leadership and strong institutions that limited the damage of previous downturns, will be unavailable. A clear demonstration of this negative feedback loop is the economic damage being inflicted on the world by Trump’s trade war with China, which— despite the so-called phase one agreement—has predictably escalated from negotiating tactic to imbedded reality, with no end in sight. In a world already suffering from inadequate investment, the uncertainties generated by this confrontation will further curb the investments essential for future growth. Another demonstration of the intersection of structural forces is how populist-motivated controls on immigration (always a weakness in the hyper-globalization narrative) deprives developed countries of Summers’ recommended policy response to secular stagnation, which in a more open world would be a win-win for rich and poor countries alike, increasing wage rates and remittance revenues for the developing countries, replenishing the labor supply for rich countries experiencing low birth rates.

Illiberal Globalization

Economic weakness and rising nationalism (along with multipolarity) will not end globalization, but will profoundly alter its character and greatly reduce its economic and political benefits. Liberal global institutions, under American hegemony, have served multiple purposes, enabling states to improve the quality of international relations and more fully satisfy the needs of their citizens, and provide companies with the legal and institutional stability necessary to manage the inherent risks of global investment. But under present and future conditions these institutions will become the battlegrounds—and the victims—of geopolitical competition. The Trump Administration’s frontal attack on multilateralism is but the final nail in the coffin of the Bretton Woods system in trade and finance, which has been in slow but accelerating decline since the end of the Cold War. Future American leadership may embrace renewed collaboration in global trade and finance, macroeconomic management, environmental sustainability and the like, but repairing the damage requires the heroic assumption that America’s own identity has not been fundamentally altered by the Trump era (four years or eight matters here), and by the internal and global forces that enabled his rise. The fact will remain that a sizeable portion of the American electorate, and a monolithically proTrump Republican Party, is committed to an illiberal future. And even if the effects are transitory, the causes of weakening global collaboration are structural, not subject to the efforts of some hypothetical future US liberal leadership. It is clear that the US has lost respect among its rivals, and trust among its allies. While its economic and military capacity is still greatly superior to all others, its political dysfunction has diminished its ability to convert this wealth into effective power.13 It will furthermore operate in a future system of diffusing material power, diverging economic and political governance approaches, and rising nationalism. Trump has promoted these forces, but did not invent them, and future US Administrations will struggle to cope with them.

What will illiberal globalization look like? Consider recent events. The instruments of globalization have been weaponized by strong states in pursuit of their geopolitical objectives. This has turned the liberal argument on behalf of globalization on its head. Instead of interdependence as an unstoppable force pushing states toward collaboration and convergence around market-friendly domestic policies, states are exploiting interdependence to inflict harm on their adversaries, and even on their allies. The increasing interaction across national boundaries that globalization entails, now produces not harmonization and cooperation, but friction and escalating trade and investment disputes.14 The Trump Administration is in the lead here, but it is not alone. Trade and investment friction with China is the most obvious and damaging example, precipitated by China’s long failure to conform to the World Trade Organization (WTO) principles, now escalated by President Trump into a trade and currency war disturbingly reminiscent of the 1930s that Bretton Woods was designed to prevent. Financial sanctions against Iran, in violation of US obligations in the Joint Comprehensive Plan Of Action (JCPOA), is another example of the rule of law succumbing to geopolitical competition. Though more mercantilist in intent than geopolitical, US tariffs on steel and aluminum, and their threatened use in automotives, aimed at the EU, Canada, and Japan,15 are equally destructive of the liberal system and of future economic growth, imposed as they are by the author of that system, and will spread to others. And indeed, Japan has used export controls in its escalating conflict with South Korea16 (as did China in imposing controls on rare earth,17 and as the US has done as part of its trade war with China). Inward foreign direct investment restrictions are spreading. The vitality of the WTO is being sapped by its inability to complete the Doha Round, by the proliferation of bilateral and regional agreements, and now by the Trump Administration’s hold on appointments to WTO judicial panels. It should not surprise anyone if, during a second term, Trump formally withdrew the US from the WTO. At a minimum it will become a “dead letter regime.”18

As such measures gain traction, it will become clear to states—and to companies—that a global trading system more responsive to raw power than to law entails escalating risk and diminishing benefits. This will be the end of economic globalization, and its many benefits, as we know it. It represents nothing less than the subordination of economic globalization, a system which many thought obeyed its own logic, to an international politics of zero-sum power competition among multiple actors with divergent interests and values. The costs will be significant: Bloomberg Economics estimates that the cost in lost US GDP in 2019- dollar terms from the trade war with China has reached $134 billion to date and will rise to a total of $316 billion by the end of 2020.19

Economically, the just-in-time, maximally efficient world of global supply chains, driving down costs, incentivizing innovation, spreading investment, integrating new countries and populations into the global system, is being Balkanized. Bilateral and regional deals are proliferating, while global, nondiscriminatory trade agreements are at an end. Economies of scale will shrink, incentivizing less investment, increasing costs and prices, compromising growth, marginalizing countries whose growth and poverty reduction depended on participation in global supply chains. A world already suffering from excess savings (in the corporate sector, among mostly Asian countries) will respond to heightened risk and uncertainty with further retrenchment. The problem is perfectly captured by Tim Boyle, CEO of Columbia Sportswear, whose supply chain runs through China, reacting to yet another ratcheting up of US tariffs on Chinese imports, most recently on consumer goods:

We move stuff around to take advantage of inexpensive labor. That’s why we’re in Bangladesh. That’s why we’re looking at Africa. We’re putting investment capital to work, to get a return for our shareholders. So, when we make a wager on investment, this is not Vegas. We have to have a reasonable expectation we can get a return. That’s predicated on the rule of law: where can we expect the laws to be enforced, and for the foreseeable future, the rules will be in place? That’s what America used to be.20

The international political effects will be equally damaging. The four structural forces act on each other to produce the more dangerous, less prosperous world projected here. Illiberal globalization represents geopolitical conflict by (at first) physically non-kinetic means. It arises from intensifying competition among powerful states with divergent interests and identities, but in its effects drives down growth and fuels increased nationalism/populism, which further contributes to conflict. Twenty-first-century protectionism represents bottom-up forces arising from economic disruption. But it is also a top-down phenomenon, representing a strategic effort by political leadership to reduce the constraints of interdependence on freedom of geopolitical action, in effect a precursor and enabler of war. This is the disturbing hypothesis of Daniel Drezner, argued in an important May 2019 piece in Reason, titled “Will Today’s Global Trade Wars Lead to World War Three,”21 which examines the preWorld War I period of heightened trade conflict, its contribution to the disaster that followed, and its parallels to the present:

Before the First World War started, powers great and small took a variety of steps to thwart the globalization of the 19th century. Each of these steps made it easier for the key combatants to conceive of a general war.

We are beginning to see a similar approach to the globalization of the 21st century. One by one, the economic constraints on military aggression are eroding. And too many have forgotten—or never knew—how this played out a century ago.

…In many ways, 19th century globalization was a victim of its own success. Reduced tariffs and transport costs flooded Europe with inexpensive grains from Russia and the United States. The incomes of landowners in these countries suffered a serious hit, and the Long Depression that ran from 1873 until 1896 generated pressure on European governments to protect against cheap imports.

…The primary lesson to draw from the years before 1914 is not that economic interdependence was a weak constraint on military conflict. It is that, even in a globalized economy, governments can take protectionist actions to reduce their interdependence in anticipation of future wars.

In retrospect, the 30 years of tariff hikes, trade wars, and currency conflicts that preceded 1914 were harbingers of the devastation to come. European governments did not necessarily want to ignite a war among the great powers. By reducing their interdependence, however, they made that option conceivable.

…the backlash to globalization that preceded the Great War seems to be reprised in the current moment. Indeed, there are ways in which the current moment is scarier than the pre-1914 era. Back then, the world’s hegemon, the United Kingdom, acted as a brake on economic closure. In 2019, the United States is the protectionist with its foot on the accelerator. The constraints of Sino-American interdependence—what economist Larry Summers once called “the financial balance of terror”—no longer look so binding. And there are far too many hot spots—the Korean peninsula, the South China Sea, Taiwan—where the kindling seems awfully dry.

Multipolarity

We can define multipolarity as a wide distribution of power among multiple independent states. Exact equivalence of material power is not implied. What is required is the possession by several states of the capacity to coerce others to act in ways they would otherwise not, through kinetic or other means (economic sanctions, political manipulation, denial of access to essential resources, etc.). Such a distribution of power presents inherently graver challenges to peace and stability than do unipolar or bipolar power configurations,22 though of course none are safe or permanent. In brief, the greater the number of consequential actors, the greater the challenge of coordinating actions to avoid, manage, or de-escalate conflicts. Multipolarity also entails a greater potential for sudden changes in the balance of power, as one state may defect to another coalition or opt out, and as a result, the greater the degree of uncertainty experienced by all states, and the greater the plausibility of downside assumptions about the intentions and capabilities of one’s adversaries. This psychology, always present in international politics but particularly powerful in multipolarity, heightens the potential for escalation of minor conflicts, and of states launching preventive or preemptive wars. In multipolarity, states are always on edge, entertaining worst-case scenarios about actual and potential enemies, and acting on these fears—expanding their armies, introducing new weapon systems, altering doctrine to relax constraints on the use of force—in ways that reinforce the worst fears of others.

The risks inherent in multipolarity are heightened by the attendant weakening of global institutions. Even in a state-centric system, such institutions can facilitate communication and transparency, helping states to manage conflicts by reducing the potential for misperception and escalation toward war. But, as Waheguru Pal Singh Sidhu argues in his chapter on the United Nations, the influence of multilateral institutions as agent and actor is clearly in decline, a result of bottom-up populist/nationalist pressures experienced in many countries, as well as the coordination problems that increase in a system of multiple great powers. As conflict resolution institutions atrophy, great powers will find themselves in “security dilemmas”23 in which verification of a rival’s intentions is unavailable, and worst-case assumptions fill the gap created by uncertainty. And the supply of conflicts will expand as a result of growing nationalism and populism, which are premised on hostility, paranoia, and isolation, with governments seeking political legitimacy through external conflict, producing a siege mentality that deliberately cuts off communication with other states.

Finally, the transition from unipolarity (roughly 1989–2007) to multipolarity is unregulated and hazardous, as the existing superpower fears and resists challenges to its primacy from a rising power or powers, while the rising power entertains new ambitions as entitlements now within its reach. Such a “power transition” and its dangers were identified by Thucydides in explaining the Peloponnesian Wars,24 by Organski (the “rear-end collision”)25 during the Cold War, and recently repopularized and brought up to date by Graham Allison in predicting conflict between the US and China.26

A useful, and consequential illustration of the inherent challenge of conflict management during a power transition toward multipolarity, is the weakening of the arms control regime negotiated by the US and the Soviet Union during the Cold War. Despite the existential, global conflict between two nuclear armed superpowers embracing diametrically opposed world views and operating in economic isolation from each other, the two managed to avoid worst-case outcomes. They accomplished this in part by institutionalizing verifiable limits on testing and deployment of both strategic and intermediate-range nuclear missiles. Yet as diplomatically and technically challenging as these achievements were, the introduction of a third great power, China, into this twocountry calculus has proven to be a deal breaker. Unconstrained by these bilateral agreements, China has been free to build up its capability, and has taken full advantage in ramping up production and deployment of intermediate-range ground-launched cruise missiles, thus challenging the US ability to credibly guarantee the security of its allies in Asia, and greatly increasing the costs of maintaining its Asian regional hegemony. As a result, the Intermediate Nuclear Force treaty is effectively dead, and the New Start Treaty, covering strategic missiles, is due to expire next year, with no indication of any US–Russian consensus to extend it. The US has with logic indicated its interest in making these agreements trilateral; but China, with its growing power and ambition, has also logically rejected these overtures. Thus, all three great powers are entering a period of nuclear weapons competition unconstrained by the major Cold War arms control regimes. In a period of rapid advances in technology and worsening great power relations, the nuclear competition will be a defining characteristic of the next decade and beyond. This dynamic will also complicate nuclear nonproliferation efforts, as both the demand for nuclear weapons (a consequence of rising regional and global insecurity), and supply of nuclear materials and technology (a result of the weakening of the nonproliferation regime and deteriorating great power relations) will increase.

Will deterrence prevent war in a world of several nuclear weapons states, (the current nuclear powers plus South Korea, Iran, Saudi Arabia, Japan, Turkey), as it helped to do during the bipolar Cold War? Some neorealist observers view nuclear weapons proliferation as stabilizing, extending the balance of terror, and the imperative of restraint, to new nuclear weapons states with much to fight over (Saudi Arabia and Iran, for example).27 Others,28 examining issues of command and control of nuclear weapons deployment and use by newly acquiring states, asymmetries in doctrines, force structures, and capabilities between rivals, the perils of variable rates in transition to weapons deployment, problems of communication between states with deep mutual grievances, the heightened risk of transfer of such weapons to non-state actors, have grave doubts about the safety of a multipolar, nuclear-armed world.29 We can at least conclude that prudence dictates heightened efforts to slow the pace of proliferation, while realism requires that we face a proliferated future with eyes wide open.

The current distribution of power is not perfectly multipolar. The US still commands the world’s largest economy, and its military power is unrivaled by any state or combination of states. Its population is still growing, despite a recent decline in birth rates. It enjoys extraordinary geographic advantages over its rivals, who are distant and live in far worse neighborhoods. Its economy is less dependent on foreign markets or resources. Its political system has proven—up to now—to be resilient and adaptable. Its global alliance system greatly extends its capacity to defend itself and shape the world to its liking and is still intact, despite growing doubts about America’s reliability as a security guarantor. Based on these mostly material and historical criteria, continued American primacy would seem to be a good bet, if it chooses to use its power in this way.30

So why multipolarity? The clearest and most frequently cited evidence for a widening distribution of global power away from American unipolarity is the narrowing gap in GDP between the US and China. The IMF’s World Economic Outlook forecasts a $0.9 trillion increase in US GDP for 2019–2020, and a $1.3 trillion increase for China in the same period.31 Many who support the American primacy case argue that GDP is an imperfect measure of power, that Chinese GDP data is inflated, that its growth rates are in decline while Chinese debt is rapidly increasing, and that China does poorly on other factors that contribute to power—its low per capita GDP, its political succession challenges, its environmental crisis, its absence of any external alliance system. Yet GDP is a good place to start, as the single most useful measure and long-term predictor of power. It is from the overall economy that states extract and apply material power to leverage desired behavior from other states. It is true that robust future Chinese growth is not guaranteed, nor is its capacity to convert its wealth to power, which is a function of how well its political system works over time. But this is equally the case for the US, and considering recent political developments is not a given for either country.

As an alternative to measuring inputs—economic size, political legitimacy, technological innovation, population growth—in assessing relative power and the nature of global power distribution, we should consider outputs: what are states doing with their power? The input measures are useful, possibly predictive, but are usually deployed in the course of making a foreign policy argument, sometimes on behalf of a reassertion of American primacy, sometimes on behalf of retrenchment. As such, their objectivity (despite their generous deployment of “data”) is open to question. What is undeniable, to any clear-eyed observer, is a real decline in American influence in the world, and a rise in the influence of other powers, which predates the Trump administration but has accelerated into America’s free fall over the last four years. This has produced a de facto multipolarity, whether explainable in the various measures of power—actual and latent—or not. This decline results in part from policy mistakes: a reckless squandering of material power and legitimacy in Iraq, an overabundance of caution in Syria, and now pure impulsivity. But more fundamentally, it is a product of relative decline in American capacity—political and economic—to which American leadership is adjusting haphazardly, but in the direction of retrenchment/restraint. It is highly revealing that the last two American presidents, polar opposites in intellect, temperament and values, agreed on one fundamental point: the US is overextended, and needs to retrench. The fact that neither Obama nor Trump (up to this point in his presidency) believed they had the power at their disposal to do anything else, tells us far more about the future of American power and policy—and about the emerging shape of international relations—than the power measures and comparisons made by foreign policy advocates.

Observation of recent trends in US versus Russian relative influence prompts another question: do we understand the emerging characteristics of power? Rigorously measuring and comparing the wrong parameters will get us nowhere at best and mislead us into misguided policies at worst. How often have we heard, with puzzlement, that Putin punches far above his weight? Could it be that we misunderstand what constitutes “weight” in the contemporary and emerging world? Putin may be on a high wire, and bound to come crashing down; but the fact is that Russian influence, leveraging sophisticated communications/social media/influence operations, a strong military, an agile (Putin-dominated) decision process, and taking advantage of the egregious mistakes by the West, has been advancing for over a decade, shows no sign of slowing down, and has created additional opportunities for itself in the Middle East, Europe, Asia, Latin America, the Arctic. It has done this with an economy roughly the size of Italy’s. There are few signs of a domestic political challenge to Putin. His external opponents are in disarray, and Russia’s main adversary is politically disabled from confronting the problem. He has established Russia as the Middle East power broker. He has reached into the internal politics of his Western adversaries and influenced their leadership choices. He has invaded and absorbed the territory of neighboring states. His actions have produced deep divisions within NATO. Again, simple observation suggests multipolarity in fact, and a full explanation for this power shift awaiting future historians able to look with more objectivity at twenty-first-century elements of power.

When that history is written, surely it will emphasize the extraordinary polarization in American politics. Was multipolarity a case of others finding leverage in new sources of power, or the US underutilizing its own? The material measures suggest sufficient capacity for sustained American primacy, but with this latent capacity unavailable (as perceived, I believe correctly, by political leadership) by virtue of weakening institutions: two major parties in separate universes; a winnertake-all political mentality; deep polarization between the parties’ popular bases of support; divided government, with the Presidency and the Congress often in separate and antagonistic hands; diminishing trust in the permanent government, and in the knowledge it brings to important decisions, and deepening distrust between the intelligence community and policymakers; and, in Trump’s case, a chaotic policy process that lacks any strategic reference points, mis-communicates the Administration’s intentions, and has proven incapable of sustained, coherent diplomacy on behalf of any explicit and consistent set of policy goals.

Rising Nationalism/Populism/Authoritarianism

The evidence for these trends is clear. Freedom House, the go-to authority on the state of global democracy, just published its annual assessment for 2020, and recorded the fourteenth consecutive year of global democratic decline and advancing authoritarianism. This dramatic deterioration includes both a weakening in democratic practice within states still deemed on balance democratic, and a shift from weak democracies to authoritarianism in others. Commitment to democratic norms and practices—freedom of speech and of the press, independent judiciaries, protection of minority rights—is in decline. The decline is evident across the global system and encompasses all major powers, from India and China, to Europe, to the US. Right-wing populist parties have assumed power, or constitute a politically significant minority, in a lengthening list of democratic states, including both new (Hungary, Poland) and established (India, the US, the UK) democracies. Nationalism, frequently dismissed by liberal globalization advocates as a weak force when confronted by market democracies’ presumed inherent superiority, has experienced a resurgence in Russia, China, the Middle East, and at home. Given the breadth and depth of right-wing populism, the raw power that promotes it—mainly Russian and American—and the disarray of its liberal opponents, this factor will weigh heavily on the future.

The major factors contributing to right-wing populism and its global spread is the subject of much discussion.32 The most straightforward explanation is rising inequality and diminished intergenerational mobility, particularly in developed countries whose labor-intensive manufacturing has been hit hardest by the globalization of capital combined with the immobility of labor. Jobs, wages, economic security, a reasonable hope that one’s offspring has a shot at a better life than one’s own, the erosion of social capital within economically marginalized communities, government failure to provide a decent safety net and job retraining for those battered by globalization: all have contributed to a sense of desperation and raw anger in the hollowed-out communities of formerly prosperous industrial areas. The declining life expectancy numbers33 tell a story of immiseration: drug addition, suicide, poor health care, and gun violence. The political expression of such conditions of life should not be surprising. Simple, extremist “solutions” become irresistible. Sectarian, racial, regional divides are strengthened, and exclusive identities are sharpened. Political entrepreneurs offering to blow up the system blamed for such conditions become credible. Those who are perceived as having benefited from the corrupt system—long-standing institutions of government, foreign countries and populations, immigrants, minorities getting a “free ride,” elites—become targets of recrimination and violence. The simple solutions of course, don’t work, deepening the underlying crisis, but in the process politics is poisoned. If this sounds like the US, it should, but it also describes major European countries (the UK, France, Italy, Germany, Poland, Hungary, the Czech Republic), and could be an indication of things to come for non-Western democracies like India.

We have emphasized throughout this chapter the interaction of four structural forces in shaping the future, and this interaction is evident here as well. Is it merely coincidence that the period of democratic decline documented by Freedom House, coincides precisely with the global financial and economic crisis? Lower growth, increasing joblessness, wage stagnation, superimposed on longer-term widening of inequality and declining mobility, constitute a forbidding stress test for democratic systems, and many continue to fail. And if we are correct about secular stagnation, the stress will continue, and authoritarianism’s fourteen-year run will not be over for some time. The antidemocratic trend will gain additional impetus from the illiberal direction of globalization, with its growth suppressing protectionism, weaponization of global economic exchange, and weakening global economic institutions. Multipolarity also contributes, in several ways. The former hegemon and author of globalization’s liberal structure has lost its appetite, and arguably its capacity, for leadership, and indeed has become part of the problem, succumbing to and promoting the global right-wing populist surge. It is suffering an unprecedented decline in life expectancy, and recently a decline in the birth rate, signaling a degree of rot commonly associated with a collapsing Soviet Union. While American politics may once again cohere around its liberal values and interests, the time when American leadership had the self-confidence to shape the global system in its liberal image is gone. It may build coalitions of the like-minded to launch liberal projects, but there will be too much power outside these coalitions to permit liberal globalization of the sort imagined at the end of the Cold War. In multipolarity, the values around which global politics revolve will reflect the diversity of major powers, their interests, and the norms they embrace. Convergence of norms, practices, policies is out of the question. Global collective action, even in the face of global crises, will be a long shot. To expect anything else is fantasy

Unbrave New World and Future Challenges

At the outset of this chapter we described these structural forces as interacting to produce more conflict and diminished prosperity. We also predicted a world with shrinking collective capacity to address new challenges as they arise. What specifically will such a world look like? We address below three principal challenges to global problem solving over the next decade.

Interstate Conflict

In the world experienced by most readers of this volume, conflict is observed within weak states, sometimes promoted by regional competitors, by terrorist groups, or by great powers, acting through surrogates or by indirect means. Sometimes, as in Syria, this conflict spills over to contiguous states and contributes to regional instability, and challenges other regions to respond effectively, a challenge that Europe has not met. Much of this will continue, but the global significance of such local conflicts will be greatly magnified by increasing great power conflict, which will feed—rather than manage or resolve—local instabilities and will in turn be exacerbated by them. Great powers will jockey for advantage, support their local partners, escalate preemptively. Conflicts initially confined to failing states or unstable regions will be redefined by great powers as global in scope and significance.

This tendency of states to view local conflicts in the context of a zero-sum, global struggle for power is familiar to students of the Cold War, but now with the additional challenges to collective action, expanded uncertainty and worst-case thinking associated with the power transition to multipolarity. We can easily observe increased conflict in US–China relations, as we will in US–Russia relations as future US administrations try to make up for ground lost during the Trump presidency, especially in the Middle East. We can observe it among powerful states with mutual historical grievances, now with a weakening presence of the hegemonic security guarantor and having to consider the renationalization of their defense: Japan-South Korea, Germany-France. We can observe it among historical rivals operating in rapidly changing security landscapes: India-China. We can observe it within the Middle East, as internal rivalries are appropriated by regional powers in a contest for regional dominance. We can observe it clearly in Syria, where the regime’s violent suppression of Arab Spring resistance led to all-out civil war, attracted outside support to proxy forces by aspiring regional hegemons Saudi Arabia and Iran, enabled the rise of ISIS, and eventually to great power intervention, principally by Russia. In a world of effective great power collaboration or American primacy, the Syrian civil war might have been settled through power sharing or partition, or if not, contained within Syria. The collapse of Yugoslavia, occurring during a period of US “unipolarity” and managed effectively, demonstrates the possibilities. Instead, with the US retrenching, Middle East rivals unconstrained by great powers, and great power competition rising, the Syria civil war was fed by outside powers, then metastasized into the region, and—in the form of refugee flows—into Europe, fundamentally altering European politics. Libya may be at the early stages of this scenario.

This is not the end of the Syria story. Russia has established itself as a major player in Syria and the Middle East’s power broker, the indispensable country with leverage throughout the region. China is poised to reap the financial and power benefits of Syrian reconstruction. The US has just demonstrated, in its act of war against the Iranian regime, its willingness, without consultation, to put its allies’ security in further jeopardy, accentuating the risks of security ties with Washington and generating added opportunities for Russia and China. The purpose here is not to critique US policy, but to point out the dramatically shifting power balance in a critical region, toward multipolarity. The dangers of such a shift will become apparent as some future US president attempts to reassert US influence in the region and finds a crowded playing field.

Can a multipolar distribution of power among several states whose interests, values, and political practices are divergent, all experiencing bottom-up nationalist pressures, all seeking advantages in the oversupply of regional instability, be made to work? I think not. Will this more dangerous world descend into direct military confrontation between great powers, and could such confrontation lead to use of nuclear weapons? Here the question becomes, what will this more dangerous world actually look like; what instruments of coercion will be available to states as technology change accelerates; how will states employ these instruments; how will deterrence work (if at all) among several states with large but unequal levels of destructive capacity, weak command, and control, disparate— or opaque—strategies and simmering rivalries; can conflict management work in a world of weak institutions? The collapse of the Cold War era nuclear arms control regime, the threat to the Non-Proliferation Treaty represented by the demise of the JCPOA, and multiple indications of an accelerating nuclear arms race among the three principle powers, augurs badly. Given the structural forces at play, and without predicting the worst, we are indeed entering perilous times.

Global Poverty and Inequality

Despite the challenges of volatility and disruptive change inherent in globalization, the world under American liberal leadership has managed a dramatic reduction of extreme poverty. According to World Bank estimates, in 2015, 10 percent of the world’s population lived on less than $1.90 a day, down from nearly 36 percent in 1990.34 In fact, as of September 2018, half the world is now middle class or wealthier.35 The uneven success of the UN Millennium Development Goals (MDGs) exemplifies this achievement, and demonstrates what is possible when open markets are managed through strong global institutions, effective leadership and interstate collaboration. What this liberal hegemonic system did not achieve, however, was a fair distribution of the gains from globalization within states, and among those states that for various reasons were not full participants in this system.

This record of partial achievement leaves us with a full agenda for the next fifteen years, but without the hegemonic leadership, strong institutions, ascendant liberalism or robust global growth that enabled previous gains. There are powerful reasons to question the sustainability of these poverty reduction gains, leading to doubts about the realization of the Sustainable Development Goals, which have replaced the MDGs as global development targets.36 (See Jens Rudbeck’s chapter and Sidhu’s UN chapter for SDGs). Skeptics have pointed to slowing global growth, specifically in China, whose demand for imported commodities was a major factor in developing country growth and job creation; growing protectionism in developed country markets, fueled by bottom-up forces of nationalism, and from top-down by a weakened global trading regime and increased geopolitical rivalry; the effects of accelerating climate change on agriculture, migration and communal conflict in poor countries; and the growth burst among poor countries from the rapid transition to more efficient use of resources, a transition that is now slowing down.37

Perhaps the greatest concern in this scenario is a general deterioration in the developing country foreign investment climate. Foreign direct investment (FDI) has been a major contributor to growth, job creation, and poverty alleviation among poor countries. It has incentivized growthfriendly policies, reduced corruption, introduced technology and effective management practices, and linked poor countries to foreign markets through global supply chains.38 It has stimulated growth of indigenous manufacturing and service companies to supply new foreign investments.

It has been the major cause of economic convergence between rich and poor countries. From 2000 to 2009, developing economies’ growth rates were more than four percentage points higher than those of rich countries, pushing their share of global output from just over a third to nearly half.39 However, FDI flows into poor countries are imperiled by the structural forces discussed here. Political instability arising from slower growth and environmental stress will increase investors’ perception of higher risk, reinforcing their developed country bias. Protectionism among developed countries will threaten the global market access upon which manufacturing investment in developing countries is premised, causing firms to pare back their global supply chains. As companies retrench from direct investment in poor countries, the appeal to those countries of Chinese debt financed infrastructure projects, under the Belt-Road Initiative with little or no conditionality, but at the risk of “debt traps,” will increase.

Global Warming

The question posed at the beginning of this section is whether the international system, evolving toward multipolarity and rising nationalism, will find the collective political capital to confront challenges as they arise. Global warming is the mother of all challenges, and the weakness in the system’s capacity to respond is clear. With the two major political/economic powers and greenhouse gas emitters locked in deepening geopolitical conflict (and with one of them locked in climate change denial, possibly through 2024), the chances of significantly slowing global warming or even ameliorating its effects are very slim. We are reduced to the default option, nation-specific adaptation to climate change, which will impose rising human, political and economic costs on all, and will widen the gap between rich countries with adaptive capacity (of varying degrees), and the poor, who will suffer deteriorating economic, political, and social conditions. (For a contrary, optimistic view see Michael Shank’s chapter, which credits new actors—like cities—as playing a more constructive role in climate mitigation.) This would bring to a close liberal globalization’s greatest achievement; the raising of 1.1 billion people out of extreme poverty since 1990,40 with all its associated gains in quality of life (in the WHO Africa region, for example, life expectancy rose by 10.3 years between 2000 and 2016, driven mainly by improvements in child survival and expanded access to antiretrovirals for treatment of HIV).41

Several forces are at work here. The problem itself is graver—in magnitude and in rate of worsening—than predicted by climate scientists. The UN Intergovernmental Panel on Climate Change (IPCC), the major source of information on global warming, has consistently underpredicted the rate of climate deterioration. This holds true even for its “worst-case scenarios,” meaning that what was meant as a wake-up call has in fact reinforced complacency.42 (see Michael Shank’s chapter for further discussion of climate change). The IPCC, in its 2019 report, has tried to undo the damage by emphasizing the acceleration in the rate of warming and its effects, the only partially understood dynamic of climate change, and—given wide uncertainty—the possibility of unpleasant surprises yet to come. This strengthens the scientific case for urgency—to both severely limit greenhouse gas emissions, and to increase investment in ameliorating the effects.

Unfortunately, the crisis comes at a moment when the climate for collective action is ice cold. Geopolitical competition incentivizes states to out produce each other, regardless of the environmental effects. Multipolarity complicates collective action. Economic stagnation mandates job creation, making regulation politically toxic. Bottom-up nationalism/populism causes states to pursue “relative gains,” meaning that if the nation is seen as gaining in a no-holds-barred economic competition with others, the negative environmental effects can be tolerated. A post-Trump presidency would help, with the US rejoining the Paris Agreement, and lending its weight to tighter regulation, increased R and D, and stronger economic incentives to reduce carbon emissions. Keep in mind, however, that President Obama was fully behind such efforts, but in a deeply polarized America was unable to implement measures needed to fulfill the Paris obligations through legislation, and his executive orders to do this were swiftly overturned by Trump.

Conclusion

It may be tempting to hope that post-Trump, the US can regain its global leadership and exert its considerable power in a liberal direction, but with enough self-awareness of its relative decline to share responsibility with others. This was, I believe, the broad direction of the Obama strategy, evidenced by the JCPOA and the Trans-Pacific Partnership: liberal, collective solutions to global problems, as US dominance receded.

This would constitute an optimistic scenario, and it confronts two major problems: can US internal politics support it (can, for example, the country legislate controls on carbon, essential for the global credibility and durability of such commitments); and is the world ready to reengage with American leadership, given the damage to its reputation and the structural forces discussed in this chapter?

My educated guess is no, on both counts. The rot within is extensive, the concrete evidence clear in the economic inequality/immobility numbers, the life expectancy numbers, the deep political polarization, between the two major parties, between regions, between cities and rural areas. We are in fact a long way from fitness for global leadership, and the recognition of this by others will accelerate the decline of American influence. The rest of the world is well on its way toward adjusting to post-American hegemony, some by renationalizing their defense, or by cutting deals with adversaries, by building new alliances or by seizing new opportunities for influence in the vacuum left by American retrenchment. The evidence for this will accumulate. Observe the current and emerging Middle East, where all these post-hegemonic strategies are visible.

### Adv. – Data

#### Data localization high now

Cory and Dascoli 21 (Nigel Cory is an associate director covering trade policy at the Information Technology and Innovation Foundation, Luke Dascoli is an Economic & Technology Policy Research Assistant at ITIF, 7-19-2021, How Barriers to Cross-Border Data Flows Are Spreading Globally, What They Cost, and How to Address Them, ITIF, <https://itif.org/publications/2021/07/19/how-barriers-cross-border-data-flows-are-spreading-globally-what-they-cos>) MAM

THE EVOLUTION AND SPREAD OF DATA LOCALIZATION CONTINUES TO DEGRADE THE GLOBAL INTERNET ECONOMY

Data localization has evolved to target a growing range of data in more countries. The number of countries that have enacted data localization requirements has nearly doubled from 35 in 2017 to 62 in 2021. The total number of data localization policies (both explicit and de facto) has more than doubled from 67 in 2017 to 144 in 2021. Another 38 data localization policies have been proposed or considered in countries around the world. China (29), India (12), Russia (9), and Turkey (7) are world leaders in requiring forced data localization. Appendix A is a comprehensive and detailed list of explicit, de facto, and proposed or draft data localization measures around the world. There are three main kinds of data localization. First, some governments restrict the transfer of particular types of data outside their borders. These include personal data; health and genomic data; mapping and geospatial data; government data; banking, credit reporting, financial, payment, tax, insurance, and accounting data; the internal company data of publicly listed companies; data related to user-generated content on social media and Internet service platforms; subscriber data and communications content and metadata for traditional telecommunications and Internet-based communication services; and e-commerce operator data. Second, countries are increasingly restricting data in broad and vague categories involving data deemed “sensitive,” “important,” “core,” or related to national security, which often impacts a wide range of commercial data.6 Similarly, the EU and India are moving toward extending restrictions to a broad framework targeting nonpersonal data.7 Third, de facto localization is also growing. By making data transfers so complicated, costly, and uncertain, firms basically have no other option but to store the data locally, especially in the face of massive fines. For example, the European Union’s removal of data transfer mechanisms, failure to add new certifications and other new legal tools for data transfers, and ever-ratcheting up of restrictions and conditions for those remaining mechanisms (such as standard contractual clauses) have the potential to make the General Data Protection Regime (GDPR) the world’s largest de facto localization framework.8 Other examples include explicit consent requirements for personal data transfers and the need to submit data transfers for opaque and ad hoc authorization.

Governments enforce these requirements with at least five different types of rules. All these rules are bad, but their impact varies by their design, moving along a sliding scale of restrictiveness (from bad to worst):

Local data mirroring. Firms must first store a copy of data locally before transferring a copy out of the country. This may also involve keeping the most updated version of the data locally.

Explicit local data storage. Firms must physically locate data in the country where it originates. Some cases allow foreign processing of data (after which data must be stored locally).

De facto local storage and processing. Firms store data locally as stringent data transfer requirements (such as getting pre-approval for transfers and explicit consent) and legal uncertainty about data transfers, which, when combined with hefty fines and arbitrary enforcement, create unacceptable risk for firms.

Explicit local data storage and processing. Countries prohibit transfer to other countries.

Explicit local—and discriminatory—data processing, routing, and storage. Some countries use discriminatory licensing, certification, and other regulatory restrictions to require local data storage and exclude foreign firms entirely from managing and processing local data.

#### Data localization fractures the internet, shatters commerce models, and prevents global cooperation over emerging tech.

Taylor 20 (Richard D. Taylor, co-director emeritus of the Institute for Information Policy at Penn State, “Data localization”: The internet in the balance, Telecommunications Policy Volume 44, Issue 8, September 2020, 102003, <https://www.sciencedirect.com/science/article/abs/pii/S0308596120300951>) MAM

In addition, there are a number of critiques of Data Localization that suggest it would have a broad negative impact. The following examples are based on a thorough review of the relevant scholarly and commercial literature, news and corporate reports and related sources and are selected as most representatives of views which are widely adopted by others. Because there are many ways of implementing some kind and degree of Data Localization, it is uncertain to what extent they may apply in any given case. Even the leading advocates of strong Data Localization (China, Russia) have indicated no intention to withdraw from international data transmissions or global e-commerce, so that these are in cases subject to some accommodations and exceptions. Critics of Data Localization believe, among other things, that it has negative impacts on commerce, consumers, on the structure of the Internet, and on innovation. It is said to disproportionately benefit the largest companies, which are more likely to be able to comply with regulatory requirements, and have the resources to “game” the system. Smaller companies lack the personnel, financial and legal resources to develop compliance strategies. At the same time, administrative costs may be a heavy burden on SMEs (Bowman, 2017; Crichton, 2018).

It is also widely believed that Data Localization will impair electronic commerce. According to the Internet Governance Forum, Data Localization “Impairs electronic commerce, economic development, and many vital social processes that depend on an unfragmented Internet”. It reduces companies’ commercial ability to make full use of Internet assets. (Internet Governance Forum, 2019a) Directly related to this is the potential for disruption of cloud services. Data Localization can make it difficult or impossible for cloud service providers to take advantage of the Internet’s distributed infrastructure, and to use sharding and obfuscation on a global scale. (Ryan et al., 2013) (Sharding is the process in which rows of a database table are held separately in servers across the world – making each partition a “shard” provides enough data for operation but not enough to re-identify an individual) (Chander, 2014). Data sharding is less vulnerable to natural (or man-made) disasters. (Hill & Noyes, 2018; Ryan, 2013).

There is concern that Data Localization will encourages Corporate Avoidance/Non-Compliance to avoid use of the localization rules. Some enterprises may find it easier to switch to traditional telecommunications services for internal data transmission for intracorporate communications, avoiding the Internet altogether. This encourages development of private, parallel networks and increased use of VPNs (Mallory, 2018).

There is also concern that Data Localization will negatively impact the national and global Internet infrastructure and architecture, to the detriment of all users (Chander, 2014). It splits the global Internet into separate semi-sovereign networks. Policies that require providers to locate facilities in a given location may be left with the choice of selecting a suboptimal location or not serving the target market at all (Aaronson, 2016). Shared networks like those of China’s “One Belt, One Road” initiative depend on processing information about users, information that crosses borders from the users’ country to the service provider’s country. The costs of building unique, duplicative infrastructure in every jurisdiction might be prohibitive (Chander, 2014).

In the broader sense, there is concern that **widespread adoption of Data Localization will result in the loss of access to a global public good. “**Economists generally agree that information is also a global public good… When states restrict the free flow of information, they shrink access to information which can enhance **growth, productivity and innovation**.” (Aaronson, 2015; Maisog, 2015) Likewise, some fear it may impact innovation. Restricted data flows and localization results in companies that are less empowered to make smart business decisions. Moreover, data localization can significantly undermine many innovative information industries and applications such as the Internet of Things, Cloud computing, Big Data, and others (AmCham, 2015). Finally, it may affect a key component of future growth (see Sec. 3.4.3). Possibly the greatest underestimated cost and impact of Data Localization will be on the effectiveness and efficiency of data-based technologies that are only emerging (“Embedded Infosphere”) (Taylor, 2017). Further discussion of this follows below.

2.10.3. Impacts on emerging Embedded Infosphere technologies

There are several new technologies emerging which will form a vast, machine-to-machine data network, which will collect, process, analyze, interpret and apply data. This area is a high research priority for many nations including the U.S. and China. It is uncertain when this technology will all be functional. Data localization requirements may prevent access to global cloud computing services. The negative impacts on “cloud computing” are discussed in Sec. 2.5, above. (See also, Chander & Le, 2014). This could be a substantial burden on electronic commerce. Cloud computing is one of the key elements of an integrated, ubiquitous information network of the future. That network will connect the “Internet of Things” (“IoT”). As the world shifts to Internet-connected devices, Data Localization may require data flows to be stopped or held at national borders, requiring expensive and cumbersome national infrastructures for such capabilities. This erodes the promise of the so-called “Internet of Things” for both consumers and businesses (Chander, 2014).

The IoT provides the flow of raw data that flows through the network and is subject to analysis and interpretation to drive innovations (“Big Data”). Some analysts believe that data driven innovations will be a key basis of competition, innovation, and productivity in the years to come. They also note the importance of protecting privacy in the process of assembling ever larger databases. (Business Roundtable, 2015) Data localization threatens Big Data in at least two ways. First, by limiting data aggregation by country, it increases costs and adds complexity to the collection and maintenance of data. Second, Data Localization requirements reduce the size of potential data sets, eroding the informational value that can be gained by cross-jurisdictional studies. Large-scale global experiments, technically possible through Big Data analytics may have to give way to narrower, localized studies (Chander, 2014). The data collected by the IoT, and processed by Big Data, is also expected to be the primary source of data for machine learning in the context of artificial intelligence (“AI). AI is based on the ability of computers to learn, to analyze, and to identify complex patterns. AI learns from all the data it has available. The more data it has, the better developed its insights become. Another implication of access to cross-border data flows is that, because of the diverse data it can carry, there is a promising prospect for AI-based applications that aim to tackle international problems. The availability of international data can elevate AI from a national level to a regional or global one (Rizvi, 2018). This means that Data Localization measures that restrict global data transfers will affect AI directly, by providing less training data, and indirectly, by undercutting the building blocks on which AI is built (Meltzer, 2018).

#### Fracturing of the data-driven economy (DDE) causes protectionist geopolitical tensions, political cyber attacks and accusations, and decks technological leadership.

Ciuriak 21 (Dan, senior fellow at the Centre for International Governance Innovation, 12-6-21, Unfree Flow with No Trust: The Implications of Geoeconomics and Geopolitics for Data and Digital Trade, Project for Peaceful Competition. Retrieved from <https://www.peaceful-competition.org/pub/fkzqlozl>) MAM

Strategic behaviour in international relations can be broadly parsed out into two forms: geoeconomics and geopolitics.

The term “geoeconomics” is used in a number of senses (Schneider-Petsinger, 2016). One sense is the use of economic power for non-economic objectives. Examples include China using access to its markets to silence criticism of its domestic policies (Zhong and Deb, 2021) and the United States using its effective control over the SWIFT interbank clearing system to enforce compliance with its foreign policy on companies outside its formal jurisdiction (The Economist, 2019; Simon et al., 2020). Another sense is the use of economic power to achieve economic objectives. Examples include the United States using access to its markets to leverage “rebalancing” concessions from Canada and Mexico in the CUSMA and China using access to its market to leverage favourable terms for technology transfer.

Geopolitics involves strategic behaviour that is usually associated with political aims such as national security or national prestige; however, it can also include use of political and military leverage for economic benefits. In the early industrial era, this was commonplace – e.g., the Opium Wars to open up the Chinese market to European and American traders on favourable terms to the latter. More subtly, when then-US Presidential candidate Joe Biden said, “NATO is not a protection racket” in differentiating his approach to that institution from the Trump Administration’s (Caputo and Korecki, 2019), he intimated something that is not normally said out loud. As the saying goes, when they say it’s not about the money, it’s about the money.

In the DDE, there is a potentially **toxic blending of geoeconomics and geopolitics** in trade and investment policy. Technological superiority underpinned the strategic capabilities that established US hegemony in the unipolar moment that preceded the rise of China (see, e.g., Eaglen and Pollack, 2012; White House, 2017; 20). Today, the nexus of big data/ML/AI is central to technology-based strategic competition: for example, AI in military applications is well advanced including in fighter aircraft, weaponized drone swarms, and AI-assisted exoskeletons for solders (see, e.g., Ciuriak, 2021a). Economic leadership in this critical technological area is thus seen as central to national security. The Biden White House’s interim national security guidance has stated: “economic security is national security” (White House, 2021a; 15); there is discussion of aligning economic relations along political lines through “ally-shoring” (e.g., Dezenski and Austin, 2021) and of the formation of an economic club of “like-minded” democracies or a D-10 to counter “authoritarian economies” (China and Russia) to coordinate the buildout of 5G networks (e.g., Fishman and Mohandas, 2020; Wintour, 2020). For its part, the European Union has adopted “strategic autonomy” and “digital sovereignty” objectives (Michel, 2020). And China has adopted a “dual circulation” concept, which is interpreted as about “properly handling the relationship between openness and independence” (Sutter and Sutherland, 2021).

This overlap between geoeconomics and geopolitics creates an identification problem that should be of more than a little concern to trade policy. **National security claims are inherently dangerous** for trade disciplines. Once national security is invoked in economic matters, **the wheels tend to come off** a rules-based system.

For example, justiciability of national security claims is disputed. In the WTO proceedings in Russia—Measures Concerning Traffic in Transit (Russia—Transit), the Panel asserted the national security exception was justiciable and issued a ruling (WTO, 2019); the United States, however, argued that “the text and negotiating history of GATT 1994 Article XXI, as well as its place within the broader WTO framework, indicate that this provision is non-justiciable. That is, the text leaves its invocation to the judgment of a Member through the phrase ‘that it considers essential’ ” (USTR, 2018). For a discussion of how problematic this is, see, e.g., Heath (2020a and 2020b).

As well, the normal rules of evidence are likely to be thrown out the window. In Russia—Transit, Russia presented its case in the hypothetical: “…when asked by the Panel how closely the hypothetical situation described above reflected the actual situation on the ground, the Russian representative explained that Russia had referred to the hypothetical ‘in order not to introduce again some information that Russia cannot disclose’.” (WTO, 2019; at para. 7.115).

National security claims were rarely made in the GATT era, which is hardly surprising given the limited trade that took place across the Iron Curtain. As the KBE ushered in an era of rising rents, there was a growing use by GATT Members of power-based instruments such as the “grey area measures” (e.g., so-called “voluntary export restraints” and so forth; Ciuriak et al., 2013), as well as the use by the United States of the unilateral Super 301 tool (e.g., to leverage the Structural Impediments Initiative commitments from Japan; Matsushita, 1990). The Uruguay Round was in good part about banning the use of these instruments.

In recent years, these disciplines have been rendered in tatters as shown by the Section 301-driven US-China phase one forced trade agreement – which gives a new meaning to the acronym FTA – and the acquiescence of the EU in the US tariff rate quota arrangements on steel and aluminum to replace its Section 232 tariffs (White House, 2021b).

Things get problematic in the digital domain because of the nature of cyber intrusions. The attack landscape is huge and growing rapidly with the proliferation of smart devices and Internet of Things applications. The number of cyber attacks is in the billions per year, mostly automated and virtually impossible to attribute (on the “attribution problem”, see for example, Egloff, 2019; and Nye, 2017). Most attacks are private and criminal in nature. The costs of cybercrime are growing rapidly but are still on the order of only about 1% of GDP, which is small relative to other types of nefarious behaviour – so far, they are just part of the cost of doing business (Ciuriak, 2021b).

Meanwhile, the public attribution of cyber incidents to state actors is a political tool, hence strategic in nature, and by the same token **not to be taken at face value**. As writers from Sun Tzu to Philip Knightly (author of “The First Casualty”) have underscored, deception is an inherent part of conflict (Ciuriak, 2021c). Thus, Carroll (2019), reporting the revelation of US cyber actions against Russia’s power grid, raised the following questions: “Why was Russia being tipped off about supposedly important US assets in the Russian power grid? Had they been found? If the operation was real, how much did it represent a change in the normal state of affairs? And why was the news being broken now?”

**When national security claims are made with commercial consequences,** we therefore have an identification problem: is the claim part of commercial warfare for rent capture or is it legitimately national security? One may recall here Sweden’s invocation of GATT Article XXI(b), which addresses traffic in “goods and materials … for the purpose of supplying a military establishment”, to defend a quota regime for footwear imports, on grounds it needed to protect its domestic footwear industry to ensure the supply of boots for the military in time of war (WTO, n.d.). That claim was transparently trade protectionist and was rejected by the GATT panel, but what about the requirement imposed by the United States that Bytedance, the Chinese-owned startup whose TikTok app had gone viral in the US and other markets, divest its US operations? What about measures that knocked Huawei from world number one in cellphone sales to number six (with not a little benefit to Apple’s market share)?

#### Digital globalization prevents global war

Dr. Asma Iqbal & Muhammad Rafi Khan 21, Assistant Professor of Political Science, Government Graduate College for Women Samanabad; Lecturer/Research Officer at Minhaj University Lahore, “Power and Interdependence with Internet,” Pakistan Social Sciences Review, Vol. 5, No. 1, pgs. 1142-1153, 3/30/21, https://pssr.org.pk/issues/v5/1/power-and-interdependence-with-internet.pdf

Interdependence

Reflecting a softer image of power and extending its domains to global social structures, interdependence is a multidimensional term, that gained traction with the emergence of the concept of globalization. It refers to a state, or a condition, that compels two or more actors to seek cooperation. For such cooperation, the absence of enmity is not a requirement. There are many examples of interdependence between fierce enemies, like Pakistan and India, China and India, and Russia and the US. The goals of this interdependence are to fulfill domestic and international deficiencies for national interest, and sometimes, international interest. The presence of Russia and the US in the Security Council, where both take decisions together in international interest, and can also veto any move for their own or their ally’s national interest.

The world today has mostly been eradicating the threats of war and becoming increasingly interdependent. Their actions are mostly based on the cost- benefit ratio. For instance, if a state must choose between war and trade and applying the statistical models for a complete understanding of both before deciding, the trade will supersede in choice over the war in most cases. That is why even enemies are doing trade, while the war of words also gains traction. This is because the cost of war is higher, and the benefit of trade is higher. The democratic peace theory and the McDonald Peace theory exist in almost the same domains, where political relationship and economic connectivity, both are eradicating scenarios of a possible war.

As an effective tool of soft power, the interdependence has shattered the isolation of introverted peoples and merged them with vibrant, dynamic, and socially linked societies. It relies on multidimensional mediums to avoid conflicts, increase connectivity, and inculcates multilateralism. Among these, the Internet is the most obvious, effective and resourceful medium that “frees us from geographic fetters and brings us together in topic-based communities that are not tied down to any specific place. Ours is a networked, globalized society connected by new technologies” (Dentzel, 2014).

The internet, coinciding with matters related to power, is a world of unknown depth. It is the most effective tool of connectivity in this modern world. It can also be designated as a doorway between traditional unilaterality and a multilateral world. It boosted interdependence and opened new horizons of connectivity and cooperation. Therefore, the virtual age has cut the distances short and challenged the hardships of the physical world with a counterbalance, depicted in the figure below.

#### Preventing data localization enables new forms of cooperation – regulatory agencies give cooperation teeth

Cory and Dascoli 21 (Nigel Cory is an associate director covering trade policy at the Information Technology and Innovation Foundation, Luke Dascoli is an Economic & Technology Policy Research Assistant at ITIF, 7-19-2021, How Barriers to Cross-Border Data Flows Are Spreading Globally, What They Cost, and How to Address Them, ITIF, https://itif.org/publications/2021/07/19/how-barriers-cross-border-data-flows-are-spreading-globally-what-they-cost) MAM

The global digital economy is in dire need of new rules to protect digital trade and data flows. However, these rules are not sufficient given how fast technology and regulatory requirements change. Technology and associated business models outpace traditional trade agreements and domestic regulations related to data and digital trade. This mismatch in speed will continue.64 Digital trade needs early and ongoing engagement to ensure regulatory interoperability, both now and in the future. It is the reverse approach in Europe—rush to regulate and restrict and then consider international implications (when reforms to address barriers to trade are hard to do). Digital trade cannot be just one and done as in traditional trade negotiations. Digital economy agreements should be living agreements.65 Countries such as Canada, Japan, the United States, and others that support an open, innovative, and integrated global digital economy should join or emulate the digital economy agreements Australia, Chile, New Zealand, and Singapore have negotiated.66

Digital economy agreements combine legally binding and enforceable commitments on well-known digital trade issues (such as data localization) and soft commitments to cooperate on emerging regulatory issues (via memorandums of understanding (MOUs)). They can adjust to the changing nature of digital trade, technology, and regulation. This involves proactively bringing domestic regulatory agencies into trade discussions when they are only just starting to think about new rules for digital issues. The nonbinding nature of the cooperation enables experimentation and allows partners to address new problems quickly without getting distracted by the horse trading involved in traditional trade negotiations.

Digital economy agreements represent a flexible and accessible approach to building interoperability between digital economies at varying levels of development. In particular, the Chile-New Zealand-Singapore Digital Economy Partnership Agreement (DEPA) and its modular structure for its various issue (AI, e-identities, data flows, open data, fintech, e-invoicing, etc.) areas are open to all who can meet its ambitions.67 Canada and Korea have expressed interest in joining. Just as APEC’s early and ongoing digital economy discussions built the foundation for the ambitious digital rules in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), so too can these digital economy modules provide the basis for new norms and rules.68

Digital economy agreements raise different challenges to traditional trade negotiations. Mainly, **they require genuine buy-in from regulatory agencies** to work with their trade colleagues and their foreign counterparts. MOUs and soft commitments to cooperate in trade agreements are a dime a dozen. The benefits of digital economy agreements depend on parties bringing the commitment to cooperate to life. For example, Australia and Singapore have already done a joint study to identify ways to cooperate on new digital standards. They are also developing pilot projects for shared e-identify and e-invoicing policies.69

The benefits of digital economy agreements are harder to quantify than are the econometric modeling of tariff cuts in traditional trade agreements. **Firms benefit from the certainty** of knowing they can transfer data as part of cross-border digital trade and innovation. In the long term, firms **also benefit from early regulatory interoperability** by avoiding barriers to digital trade related to new laws. Regulatory engagement also **builds trust and confidence among regulators** (and consumers) that trade commitments on data do not impede regulatory responsibilities (for privacy, etc.) and can improve oversight as it allows information sharing and joint investigations.

#### Plan: The United States federal government should substantially increase prohibitions on anticompetitive business practices by the private sector by expanding the scope of its core antitrust laws to include predatory innovation.

#### Solves by distinguishing predatory innovations as anticompetitive

Van Arsdale & Venzke 15 [Suzanne, associate with Sidley Austin LLP, Cody, associate with Paul Hastings LLP, “Predatory Innovation in Software Markets,” *Harvard Journal of Law and Technology* 29.1, 284-90]

Under the current focus of predatory innovation on the "no business justification" standard, courts may too readily defer to defendants' alleged business justifications to address anticompetitive harm from software product design changes. The examples of Twitter and Apple demonstrate the ease with which a dominant firm may exclude competitors it once benefited from, without fear of antitrust liability. Software products have several characteristics that distinguish them from physical products and make them uniquely able to use product redesign to break interoperability. Firms can implement and distribute changes in software quickly, such as in response to competitor behavior. Further, the corresponding software product markets defy assumptions underlying predatory innovation analysis for physical product markets, rendering the doctrine of predatory innovation largely ineffective. Users may have no realistic opportunity to choose whether to adopt the new product. Consequently, the changes in a software product are particularly apt to exclude competition by avoiding the characteristic that assuaged courts in earlier cases: reverse engineering, the maintenance of older products, and the market's election of the new product (and the inference that it is indeed an "innovation"). Without these characteristics, producers of software products are able to exclude competitors to a degree not paralleled in markets for physical products. Antitrust law should carefully examine when software product redesign that results in non-interoperability constitutes anticompetitive conduct. We propose a framework for a test that addresses these differences: a structured rule of reason test for software products. A rule of reason analysis would emphasize weighing procompetitive and anticompetitive effects, rather than allowing a firm to escape liability for any degree of anticompetitive effect so long as there is some pro-competitive justification, as evidenced by market acceptance or shown by a business justification. The proposed test would (1) help prevent dominant firms from taking advantage of network effects to the detriment of partners who helped establish broad usage, in reliance on support statements; (2) consider whether the innovation necessarily led to the elimination of interoperability and the viability of other products; (3) address whether the change influenced the consumer experience and was meaningfully accepted by consumers; and (4) utilize the court's procedural rather than technical competence. In particular, this framework considers the competence of courts to scrutinize software and redesigns, while avoiding over-deference to market acceptance. The framework's guidance helps to weigh procompetitive and anticompetitive effects in this technical industry, where courts and agencies may be especially wary of the likelihood of errors in analysis and their potential consequences. The framework also bears in mind strong policy reasons to minimize interference with software product markets, where overactive judicial interference may inhibit innovation and competition. In doing so, it attempts to provide structure to make outcomes more predictable, to aid both courts in applying, and companies in complying with, the proposed standard. The test is sequential in nature, guiding courts through "easier" or more critical questions first, in order to dispose of predatory innovation challenges earlier in the analysis. This improves the predictability of outcomes by reserving the balancing factors and more technical analysis for later steps. Thus, we have refined the test as follows:

1. Was the product, despite a break in interoperability, still consistent with all (1) public documentation, (2) support statements about interoperability or documented behavior, and (3) long relied-upon dependencies or other behaviors that are or should have been known?

\* If not, move on to step 2.

\* If so, the break is presumed genuine and procompetitive.

2. Was the break in interoperability implemented simultaneously with purportedly procompetitive (i.e., genuine) innovations? 232

\* If not, the break is presumed anticompetitive.

\* If so, move on to step 3.

3. Was there a technical relationship between the break in interoperability and the genuine innovations? That is, did the break in interoperability technically enable the procompetitive change?233

\* If not, the break is presumed anticompetitive.

\* If so, move to step 4.

4. Was there a reasonable, less restrictive alternative available for implementing the change? That is, was the break in interoperability a necessary means of achieving the other changes, or was the break reasonable considering monetary, temporal, and other resource costs and benefits of alternatives?

\* If so, the break is presumed anticompetitive.

\* If not, move to step 5.

5. Were the other purportedly procompetitive changes accompanying the break in interoperability accepted by the market?

\* If not, the break is presumed anticompetitive.

\* If so, the break and the accompanying changes are presumed genuine and procompetitive.

The test embodies two basic principles. First, it avoids any mandate of interoperability234 by presuming anticompetitive conduct only if the non-interoperability differs from what the firm has promised to developers of complementary or competing products through documentation, support statements, or long held practice. In some sense, the sequential test here serves as a structured rule of reason. It guides the court through relevant considerations in determining whether the defendant's conduct was exclusionary, but allows the defendant to 235 provide an exculpatory justification outside its rigors. This recognizes the complexities of software markets in particular, providing structure to the court's reasoning without artificially ruling out an opportunity for the defendant to carry ~~her~~ [its] burden. Second, the test escalates in degree of technical sophistication necessary to answer each successive question. It is easier for a court to determine if a break in compatibility occurred at the same time as other changes than it is to determine if the break was "necessary" for the other changes, which would presumably be a battle of experts. The test here is designed to isolate the third factor that distinguishes software markets from physical ones: interoperability and other aspects of the product may be altered with minimal or no change to the experience for current users and advertisers, but with crippling effects for competitors. As described above, this characteristic means that courts cannot rely on the market to approve a change as a genuine innovation, as users and advertisers may be forced to migrate without seeing any corresponding change in the underlying product. This test helps courts determine whether the innovation was genuine in the software context, where the reason for the shift in the market (from third-party applications to Twitter, for example) may not be so obviously motivated by product features (as opposed to Berkey Photo, where users were presumably buying the new camera and film for the features of those new products).

The first step of the test considers that developers may rely on promises of support and established interoperability236 and protects firms whose redesign is consistent with past conduct and support statements. A plaintiff may argue, as in Aspen Skiing, that the elimination of a profitable business arrangement (interoperability) only after the defendant becomes dominant is likely to serve only exclusionary purposes. If the defendant has clearly stated how it will or will not support interoperability, such as with Facebook's public documentation and versioning for APIs, such a reliance argument is weak. Adherence to published or long-established standards suggests the defendant did not suddenly change its business practices, but instead was adhering to them. Consequently, adherence to documentation or industry standards establishes a presumption that the change was justified, leaving the plaintiff to establish exclusionary conduct by other means.

The second step focuses on whether the allegedly anticompetitive effect was contemporaneous with any procompetitive justification offered by the defendant. If the procompetitive improvement is far removed in time from the break in interoperability, it seems unlikely that the two are actually related. Thus, if Twitter limited user tokens 237 for mobile applications long before implementing any interface changes to improve the mobile experience, the court may presume that the justification is a sham and unrelated to the break. The burden would shift to the defendant to show that, despite the remoteness in time, the break in interoperability was tied to the procompetitive innovation.

Establishing the tie comes in the third step, where the court considers whether the break of interoperability was technically related to the procompetitive change or improvement. The focus here is not on whether the break was necessary for the procompetitive change, but on whether there is some technical connection linking the noninteroperability and procompetitive innovation. Again, the idea of the sequential test is rooting out undeniably exclusionary breaks with no procompetitive justification before reaching more difficult technical questions. If there is no apparent technical relation, the defendant would bear the burden of showing some other compelling procompetitive justification.

The final two steps embody the more technical questions. In step four, the court must determine whether the defendants had a reasonable and less restrictive alternative to implementing the procompetitive change. This step comprises two questions: First, was there a less restrictive alternative that would enable the procompetitive change without breaking interoperability? Second, would that alternative be reasonable to implement considering, among other things, technical complexity, impact on product release schedule, and maintainability?238 As pointed out by C. Scott Hemphill, the less restrictive alternative analysis often serves to "smoke out" anticompetitive effect.239 The assessment forces the defendant to explain why the break in interoperability - which may harm competition - is necessary for the purported procompetitive change implemented by the defendant.240 If the defendant cannot show that the break in interoperability is necessary to some procompetitive benefit, the court should presume the break is anticompetitive. If the defendant can show the break in interoperability is necessary, the court proceeds to step five. Admittedly, the step is technical and thus may require experts to determine whether a less restrictive alternative is available.24

In the final step, the defendant must demonstrate that the noninteroperability changes were indeed legitimate innovations. The test turns to whether the market accepted the change accompanying the break in interoperability. This may seem incongruous given our rejection of the market acceptance test espoused by the Second Circuit.242 The focus here, however, is no longer on the break in interoperability - which may indeed occur beneath the market's notice - and is instead on the accompanying procompetitive change offered by the defendants. The idea is that even if the break in interoperability is reasonably necessary for the change, that change is procompetitive only if accepted by the market. The goal is to preclude defendants from breaking interoperability and supplying a sham "improvement" visible to the market with the primary purpose of excluding competition. Thus, the final step of the test adopts the Second Circuit's test in Berkey Photo, but only for those purportedly procompetitive, marketvisible changes accompanying the break in interoperability.

This Note demonstrates how current antitrust doctrines fail to curb anticompetitive redesign of software products that break interoperability and suggests a new framework to evaluate those changes. While courts and agencies may be rightly concerned about in-depth technical analysis of each line of code and the reasons behind each change, the proposed framework provides a basis for analysis within their competence, creating a sequential structure beginning with bright-line questions and finishing with a more technical analysis. This framework allows courts to evaluate firm conduct and product changes in light of the unique characteristics of software markets.

# 2ac

## Innovation

## Data

## OFF

### 2AC – Expand

#### ‘Expand’ means to increase the extent.

Merriam-Webster’s 21 Online Dictionary, ‘expand’, https://www.merriam-webster.com/dictionary/expand

transitive verb

1: to open up : UNFOLD

2: to increase the extent, number, volume, or scope of : ENLARGE

#### ‘Scope’ refers to activity at the present time, not the abstract potential application of law.

Frank G. Clement 16 Jr, Judge on the Tennessee Court of Appeals, “Hamer v. Southeast Res. Group, Inc.”, Court of Appeals of Tennessee, At Nashville, 2016 Tenn. App. LEXIS 176, 3/3/2016, Lexis

When interpreting a contract, ordinary words typically have their ordinary meanings unless there is evidence [\*13] that the parties intended for the words to have a special meaning. Madson v. Madson, 636 So. 2d 759, 761 (Fla. Dist. Ct. App. 1994). The ordinary meaning of a word is often described as its meaning in the dictionary. See Siegle v. Progressive Consumers Ins. Co., 788 So. 2d 355, 360 (Fla. Dist. Ct. App. 2001); Beans v. Chohonis, 740 So. 2d 65, 67 (Fla. Dist. Ct. App. 1999). The ordinary meaning of a word or phrase is also described as "a natural meaning or the meaning most commonly understood when considered in relation to the subject matter and circumstances." See J.N. Laliotis Eng'g Constr. v. Mastor, 558 So. 2d 67, 68 (Fla. Dist. Ct. App. 1990) (quoting Granados Quinones v. Swiss Bank Corp., 509 So. 2d 273, 275 (Fla. 1987)).

If parties wish to depart from the ordinary meaning of common words and assign uncommon meanings to them, they must do so explicitly. See Madson, 636 So. 2d at 761. "One who would ascribe an exotic meaning to a term in a contract which otherwise has perfectly ordinary connotations must take pains to define the term either expressly or by express reference." E. Ins. Co. v. Austin, 396 So. 2d 823, 825 (Fla. Dist. Ct. App. 1981); see Russ v. State, 832 So. 2d 901, 907 (Fla. Dist. Ct. App. 2002) ("[W]here a statute does not specifically define words of common usage, such words are construed in their plain and ordinary sense." (alteration in original)); Koplowitz v. Imperial Towers Condo., Inc., 478 So. 2d 504, 505 (Fla. Dist. Ct. App. 1985) ("Whether they appear in a statute or in a declaration of condominium, words of common usage should be construed in their plain and ordinary sense.").

Here, this dispute exists because the parties' agreement does not define "scope" or "scope and purpose." Furthermore, the agreement does not identify the point in time when the "scope" of [\*14] Action's business is to be determined. Southeast contends that "scope and purpose" is ambiguous because it is susceptible to multiple reasonable interpretations. According to Southeast, "scope and purpose" means "at a minimum any business opportunity to be marketed to credit union members, including the telemedicine opportunity." However, the entirety of the parties' agreement and the "inconvenience, hardship, or absurdity" that would result from Southeast's proposed interpretation demonstrate that the agreement is not ambiguous and that the parties intended for the words "scope and purpose" to have their ordinary meanings. See Branscombe, 76 So. 3d at 948.

"Scope" and "purpose" are commonly-used words with commonly-understood meanings. Therefore, if the parties intended to ascribe an uncommon meaning to "scope" or "scope and purpose," they should have explicitly defined those terms. See E. Ins. Co., 396 So. 2d at 825. Instead of explicitly stating that these words have an uncommon definition, the agreement provides that its terms, covenants, and provisions "shall be construed simply and according to [their] fair meaning[s] . . . ." Consequently, the failure to specify a unique meaning for "scope and purpose" and the inclusion of the above-quoted section [\*15] indicate that the parties intended for these words to have their ordinary meanings. See id.; see also Russ, 832 So. 2d at 907; Koplowitz, 478 So. 2d at 505.

Under Southeast's interpretation, Plaintiff agreed to disclose and make available every business opportunity "to be marketed to credit union members." Such a broad definition appears to encompass every product or service imaginable, whether they have anything to do with Action or not. Under this interpretation, Plaintiff would be required to disclose an opportunity to sell cars to credit union members even though Action's business is not related to cars at all. The inconvenience, hardship, or absurdity that would result are weighty evidence that the parties did not intend for "scope and purpose" to have this meaning, especially when interpreting the agreement based on the ordinary meaning of "scope" avoids these difficulties. See Branscombe, 76 So. 3d at 948 HN9 ("The inconvenience, hardship, or absurdity of one interpretation of a contract or its contradiction of the general purpose is weighty evidence that such meaning was not intended when the language is open to an interpretation which is neither absurd nor frivolous and is in agreement with the general purpose of the parties.").

HN10 The ordinary meaning of words is found in the dictionary and is the most commonly understood meaning in relation to the subject matter of the parties' agreement. See Siegle, 788 So.2d at 360; Beans, 740 So. 2d at 67; J.N. Laliotis, 558 So. 2d at 68. According to one dictionary, "scope" means "1. The range of one's perceptions, thoughts, or actions. 2. Breath or opportunity to function. 3. The area covered by a given activity or subject." The American Heritage College Dictionary 1222 (3d ed. 1997). The operating agreement is concerned with the relationship of Action's members to each other and to Action, and the subject matter of section 6.6 is the duty to make certain business opportunities available to Action in order to avoid competition between Action and its members. [\*18] Based on the dictionary and the subject matter of the parties' agreement, "scope" most naturally refers to the range or breadth of the business that Action is engaged in at the relevant time.

Southeast contends this interpretation renders "purpose" redundant because "by definition, scope would always be within the purpose." We respectfully disagree. Contrary to Southeast's contentions, "scope" and "purpose" refer to different concepts. "Purpose" is aspirational and refers to what Action is capable of doing in the future (i.e. all lawful business for limited liability companies). In contrast, "scope" refers to what Action actually is doing or has done at the relevant point in time. Thus, an opportunity might be within Action's scope but not its purpose if, for example, Action had been organized for a limited purpose (e.g. to acquire real estate in Florida) but was in fact also engaged in the business of selling disposable mobile phones to college students. In this example, a business opportunity to sell mobile phones to college students would be within Action's scope but not its purpose.

Therefore, under the ordinary meaning of "scope," a member is required to disclose a business opportunity [\*19] if that opportunity (1) is within Action's aspirational goal — its purpose; and (2) is within the area that Action's business has or is actually covering at the relevant point in time. As a result, interpreting "scope" according to its ordinary meaning does not render any part of the agreement redundant.

Having concluded that "scope" refers to the breadth of the business Action is or has engaged in, we must turn our attention to determining when Action's "scope" should be assessed. The agreement does not specify whether Action's scope is to be determined as of the date of the agreement, the date of the discovery of an opportunity, or some other date. After reviewing the agreement, we conclude that the parties intended for Action's scope to be determined at the time when a member seeks to pursue the business opportunity in question.

#### “Anticompetitive practices” are practices that increase market position or profits.

Todd Wells, 2016, “Exploring the Space for Antitrust Law in the Race for Space Exploration,” Washington University Global Studies Law Review vol. 15(2), <https://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=1576&context=law_globalstudies>. ZKMSU

Antitrust law attempts to fight anti-competitive actions. “Anticompetitive practices refer to a wide range of business practices in which a firm or group of firms may engage in order to restrict inter-firm competition to maintain or increase their relative market position and profits without necessarily providing goods and services at a lower cost or of higher quality.” The Organization for Economic Cooperation and Development, Glossary of Statistical Terms, Anticompetitive Practices http://stats.oecd.org/glossary/detail.asp?ID=3145. Obviously, with such a broad definition of anticompetitive practices, many types of actions can fall under the regulation of anticompetitive law. This can cover forms of collusion, price fixing, bid rigging, bid suppression, complementary bidding, bid rotation, subcontracting, and market divisions. Price Fixing, Bid Rigging, and Market Allocation Schemes: What They Are and What to Look For, U.S. DEP’T OF JUSTICE, http://www.justice.gov/atr/ public/guidelines/211578.htm. An even broader approach would put patents under antitrust law. “All of these developments, in Congress and the Courts, are in the spirit of harmonizing patent and antitrust law, generally in the direction of subsuming patent law under antitrust law. From the perspective of providing clarity and certainty for those who are the targets of patent and antitrust suits, harmonization has much appeal.” Robin Feldman, Patent and Antitrust: Differing Shades of Meaning, 13 VA. J.L. & TECH. 1, 7 (2008)

### 2AC – States

#### Patents are preempted

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

V. ACTAVIS’S PREEMPTIVE EFFECT

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

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

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

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

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

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

CONCLUSION

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

#### Means the CP is rolled back -- Burdens interstate commerce.

Daniel A. Lyons 19, Professor at Boston College Law School, “State Net Neutrality”, Summer 2019, 80 U. Pitt. L. Rev. 905, Lexis

D. Dormant Commerce Clause

Independent of the Communications Act, state regulation of the Internet may also run afoul of the Dormant Commerce Clause. The Dormant Commerce Clause doctrine prevents states from imposing undue burdens on interstate commerce. It is a judge-made doctrine, derived from the negative implication of the Constitution's grant to Congress of the power to regulate commerce between the states. 245 Its "central rationale . . . is to prohibit state or municipal laws whose object is local economic protectionism." 246 Thus, state laws that explicitly discriminate against [\*941] interstate commerce face "a virtually **per se rule of invalidity**." 247 But even a facially nondiscriminatory state law may nonetheless run afoul of the doctrine **if it unduly burdens interstate commerce**. Courts evaluate such claims under the test announced in Pike v. Bruce Church: "Where the statute regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits." 248

#### FTC Section 5 proceedings solve best – most knowledgeable, most credible, most flexible. AND they avoid the need for formal complaint or litigation.

Sharma 19 [Chinmayi, practicing attorney specializing in telecommunications law and policy, “Concentrated Digital Markets, Restrictive APIs, and the Fight for Internet Interoperability,” *University of Memphis Law Review*, JCR]

The nature of restrictive APIs is that they are business decisions that possess but have not yet born out their risks of anticompetitive harm. It seems counterintuitive to have to wait for the death of competition by a thousand API alterations to address these practices legally. Luckily, Congress specifically anticipated and accounted for these scenarios in creating the FTC and authorized it to address anticompetitive practices and equipped it with the tools and flexibility to do so effectively.161 Section 5’s origin story contains all the ingredients to make it the ideal interoperability enforcement vehicle: a broad congressional mandate, consumer input, expert investigatory powers, and extrajudicial punitive measures. Congress, frustrated with the stagnant progress of antitrust enforcement under Sherman, wrote Section 5 with language intentionally more expansive than the Sherman and Clayton Acts162 to permit the FTC to address the changing economic landscape and to rectify threats to competition on a case-by-case basis.163 Specifically, Section 5 provides that “[t]he Commission is hereby empowered and directed to prevent persons . . . from using unfair methods of competition in or affecting commerce and unfair or deceptive acts or practices in or affecting commerce.”164 This broad mandate in conjunction with the FTC’s special norms-setting duties165 allows the FTC to respond to changing economic environments and to account for unique attributes of nuanced industries, like software development for the Internet.166 With the passage of Section 5, Congress signaled faith in the FTC’s singular ability to navigate complicated or frontier antitrust matters— although both the FTC and DOJ have the authority to bring cases under Sherman and Clayton Acts, only the FTC can enforce Section 5.167 Congress intentionally designed the FTC and its authorities to help it appropriately define the contours of “unfair methods of competition” and “unfair or deceptive acts or practices.” Congress imbued the FTC rulemaking and adjudicatory authority, granting broad discretion to make rules with the force of law or challenge impermissible conduct where deemed appropriate.168 This role was enhanced by the Commission’s design as a combination research, policy, and enforcement agency. It, in theory, enjoys the support of leading experts, originally in the field of economics but now increasingly in the fields of science and technology as well and is led by Commissioners who serve for seven years, which “give them an opportunity to acquire” the expertise needed to determine what constitutes a Section 5 violation.169 The Commission maintains one of the most extensive consumer protection complaint databases,170 crowdsourcing data to inform enforcement priorities from the very constituents competition law is intended to serve. When suspicious of a Section 5 violation, the FTC is granted “broader powers of investigation than almost any other department or agency in the federal government.”171 In sum, the FTC is a unique regulatory body and has several tools at its disposal to carry out its charge. Over the years, the FTC has interpreted Section 5 to establish two agency goals: protecting competitive structures and protecting consumers.172 Today, the FTC is divided into three major bureaus: the Bureau of Competition, the Bureau of Consumer Protection, and the Bureau of Economics. The Bureau of Competition (BC) and Bureau of Consumer Protection (BCP) are the enforcement arms for the FTC’s corresponding dual statutory mandate, while the Bureau of Economics consists largely of economists who provide the analytical basis for the legal theories of its counterparts.173 Both enforcement bureaus conduct investigations, consult experts, and make recommendations to the Commission as a whole regarding viable enforcement actions to pursue.174 They are well suited to seize the opportunity of regulating API design to disallow overly restrictive APIs that contravene the goals of competition law. Of the two enforcement tools the agency has been given—adjudication and rulemaking—adjudication is the only feasible avenue for effective regulation

. Rulemaking authority refers to the Commission’s ability to “define with specificity” which acts or practices are unfair through formal or informal rules that have the force of law.175 Although Congress technically handed the FTC rulemaking power in connection with Section 5 enforcement, it has since made rulemaking, whether for promoting permissive APIs or otherwise, essentially impracticable. Congress has limited, by statute, the industries and activities about which the FTC is permitted to pass rules176 and imposed requirements above and beyond those in the Administrative Procedures Act (APA).177 Even without rulemaking in its toolkit, the FTC can still rely on adjudicative proceedings to address overly restrictive API designs that it suspects violate principles of competition law and consumer protection. The Commission adjudicates cases involving competition harm and cases involving consumer protection,178 and API regulation can comfortably fit within each of the available enforcement avenues. First, restrictive APIs are especially pernicious examples of incipient anticompetitive behavior that often fall out of the reach of Sherman and Clayton challenges due to their nascence. There is already precedence for Section 5 activity in this space with the cases brought against Silicon Graphics and Intel challenging their breaks in technological interoperability.179 Second, the FTC has already relied on novel consumer protection theories to bring privacy cases, arguing that insufficient data security violates accepted norms and consumer expectations.180 Competition harm and consumer protection cases are distinguished based on the identity of the victim—whether the challenged activity predominantly injures competitors or end-users.181 But the Agency and courts have acknowledged that the line between the two has blurred in modern cases, both because of a renewed legislative emphasis on consumer interests182 and the recognition that the impact on competitors can be transferred downstream to directly injure consumers.183 Although FTC adjudication under novel theories was previously met with disdain from Congress and the courts, recent cases suggest a slightly heightened level of deference awarded to agency findings. Congress responded to periods of substantial FTC activity in consumer harm cases with restrictive action, limiting the Commission’s ability to interpret its broad mandate.184 Similarly, the Commission experienced appellate rebuke over a series of cases signaling a lack of deference given to the agency’s conclusions.185 Since Chevron, however, courts have shown the FTC a slightly enhanced level of deference regarding its decision-making.186 In the first judicial review of a Section 5 action since Chevron, the court was unable to review the question of deference given the suit’s posture,187 but in a Sherman-based FTC suit, the Supreme Court did acknowledge deference owed to the Commission’s finding of fact in language that was not cabined to just Section 1 and 2 claims.188 However, most lower courts still don’t give the FTC interpretations of Section 5 Chevron deference, using language that alludes to a lower Skidmore/Seminole Rock standard of deference.189 Either way, the FTC’s actions to encourage business behavior are practically immune, as seen in the Commission’s ability to motivate Google to alter its search result practices by conducting a full investigation but never filing a formal complaint.190 Practices that smell of antitrust but do not pass muster under traditional antitrust law’s stringent tests can fall within Section 5’s competition purview as long as they violate the spirit and policies of traditional antitrust laws.191 The FTC has consistently interpreted “unfair methods of competition” to “encompass[] not only those acts and practices that violate the Sherman or Clayton Act but also those that contravene the spirit of the antitrust laws and those that, if allowed to mature or complete, could violate the Sherman or Clayton Act.”192 This permits the FTC to bring actions against companies for beginning courses of action that have not yet manifested in substantial harm to competition, which can encompass the various theories of harm discussed earlier in Section II(c)(ii) that did not violate the letter of the law, but might be likely to mature into an outright violation. Incipient harm is a theory of enforcement that relies on the penumbras of antitrust law to halt anticompetitive practices and monopolies in their formative stages.19 Accordingly, the Agency brings enforcement actions under Section 5 that do not amount to Section 1 or 2 violations, using theories of invitations to collude and breach of agreements to disclose information critical to meeting an industry standard. Both theories constitute incipient instances of anticompetitive behavior that the FTC acts to restrict early on for their clear potential to injure the marketplace. Invitations to collude invoke many of the same theories of harm relevant to horizontal mergers but encompasses a greater range of transactions that are not merger specific. Failure to disclose information related to compliance with an industry standard appears similar to theories of harm found in vertical mergers, namely the flexing of market dominance by one company in denying competitors the opportunity to achieve interoperability with its product. These precedents suggest that the FTC may be able to bring actions against API redesigns that either act as collusive collaborations among competitors to the exclusion of others or as the unfair exertion of dominant influence by one player against others that relied on said APIs to achieve previously agreed upon interoperability standards. The FTC has challenged invitations to collude in shared monopolies not only when parties collaborate but also when they act in concert.194 In shared monopoly enforcement cases, the Commission did not require each player to possess a dominant market share (relevant under a Section 1 claim) or the existence of an agreement (relevant to a Section 2 claim) in challenging the unilateral action.195 Instead, the FTC asks whether “the practice in question unfairly burdened competition for a not insignificant volume of commerce.”196 For example, the FTC’s complaint in the 2000 Sony Section 5 enforcement action focused primarily on the collective shares of the five players alleged of passive collusion—which amounted to 85 percent of the total market— and whether the concurrent behavior had the “same practical effect” as a minimum price agreement.197 Similarly, eBay and Amazon comprise the vast majority of the domestic e-commerce marketplace, a shared monopoly.198 So, if they conditioned access to their APIs on receiving high commission rates, the FTC can argue that the platforms are restricting competition in a shared monopoly scheme, whether they overtly colluded or simply acted in parallel. Invitation to collude cases can also extend to business decisions by market dominant players to share high value information with a limited group of competitors.199 Exclusive access to confidential business information does not amount to exclusive dealings but does provide incredible competitive advantage to recipients that other players cannot bargain for in the marketplace, amounting to anticompetitive unilateral action.200 In the context of Internet businesses, companies with closed APIs can decide to interact with other large market players only, similarly denying the opportunity for smaller or newer members to the market to negotiate entry into the collaboration. Recently, The New York Times discovered that Facebook, a dominant market player but not a monopoly, gave Spotify, Microsoft, Amazon, and others exclusive access to user data through restrictive APIs, permitting these hand-selected companies to benefit from its sensitive business intelligence to the detriment of their competitors.201 The FTC has also challenged refusals by dominant players to abide by information-sharing agreements that foster interoperability. These cases are premised on the existence of standard-setting organizations (SSOs) and the protection of the information in question by a patent or other form of intellectual property right.202 SSOs are procompetitive entities that create structured, mutually beneficial relationships between interdependent businesses.203 For instance, camera companies who would otherwise keep the mechanics of their products secret enter into contracts with competitors to generate and abide by certain design standards to ensure that all cameras are compatible with the film available on the market. It is usually in a company’s best interest to protect trade secrets, but this is outweighed by the benefits of ensuring their product is compatible with as many complementary products on the market as possible.204 SSOs allow consumers to buy Canon, Nikon, or Fujifilm cameras and use the same standard Kodak film with all of them, to the benefit of all competitors. Similar to proprietary film design, APIs also constitute intellectual property that companies tend to withhold but can share to their advantage. The same “procompetitive potential of standard-setting activities” exists for designing permissive APIs and building third party reliance on them, and these APIs certainly develop “a standard [that] may displace the normal give and take of competition.”205 The FTC has the flexibility to expand its understanding of this claim to include refusals to disclose information without the existence of a formal agreement or patent, under theories akin to promissory estoppel or reliance interests built.206 The diffuse nature of the Internet marketplace frustrates the ability to enter formal contracts or form SSOs.207 However, the theory of harm underpinning these enforcement actions can extend to restrictive API redesigns that break interoperability between previously reliant third parties. In a case against Dell, the FTC focused on the harm of Dell’s refusal to share information relied on by third parties when designing their products to be interoperable with Dell as well as the potential chilling effect Dell’s actions could have on willingness to join SSOs.208 Holding API creators to the representations they make implicitly through API design or explicitly in documentation would prevent them from reneging after reaping the benefits of the representation. This may also act to deter designing APIs ex ante that are too permissive to maintain in the long term, avoiding the reliance interests before they attach.209 Finally, the FTC remains active in investigating anticompetitive behavior under theories akin to incipient tying,210 even if these suits do not always result in formal administrative action. Often, dominant players condition the use of their API on agreements not to engage in certain practices that would be detrimental to the dominant player. Incipient tying, unlike complete bars to entry, does not make a program wholly unavailable but rather “impose[s] . . . incremental cost[s] on customers who use rival” products.211 In United States v. Microsoft, the DOJ challenged the manner in which Microsoft used various methods to tie its middleware, Internet Explorer, to its operating system, Windows,212 in an API redesign that “lacked any technical or business justification.”213 But Section 5 claims need not satisfy traditional antitrust tests.214 Indeed, the FTC brought a Section 5 claim against Intel under similar API interoperability theories, arguing that the company’s software redesign that made complementary products prefer its CPUs over others on the market was intended solely to reduce competition with no consumer benefit justification.215 This theory could extend to cases of restrictive APIs that condition access on agreement to an unrelated term, such as the use of or refusal to use a separate product. For example, Uber conditions the use of its API on an agreement from the user not to use the API for applications providing real time price comparisons with competitors—a condition that “deprive[s] the public of the advantages that flow from free competition.”216 More recently, the FTC investigated Google’s potentially anticompetitive behavior, though no complaint was formally brought.217 The investigation evinced a continued concern with the company using its market dominance to its own benefit.218 Namely, Google allowed others to be listed in search results through an API but purportedly artificially curated the platform’s search results to benefit its own subsidiaries over organic results, practically tying successful use of the API with being financially tied to the company.219 Additionally, Google conditioned the use of its AdWords API on the refusal to use third party products that allow consumers to manage multiple ad campaigns with AdWords competitors through one streamlined interface.220 The inquiry considered the anticompetitive effects of these actions but primarily hinged on Google’s intent in API design—was its goal to injure competition or improve its platform for users?221 Ultimately, the Commission was able to apply such substantial pressure that Google agreed to alter both practices with more permissive APIs.222 The FTC can use its broad investigative powers to uncover these practices that would otherwise go unnoticed by most consumers and put pressure on the company to improve access without formally threatening enforcement.

#### CP decks innovation, regulatory certainty, and U.S. global standing in digital assets.

Goodman and Raghuveera 21 (Matthew Goodman, intern at the Atlantic Council GeoTech Center, and Nikhil Raghuveera is a nonresident fellow at the Geotech and GeoEconomic Centers, 8-24-2021, The case for a financial digital asset framework for cryptocurrencies, Atlantic Council, <https://www.atlanticcouncil.org/blogs/geotech-cues/the-case-for-a-financial-digital-asset-framework-for-cryptocurrencies/>) MAM

Clear regulation will create a more competitive digital asset environment that can provide better services to businesses and consumers, and promote financial inclusion. Few companies have the wherewithal to be compliant **in multiple states**, which maintain varying degrees of regulatory authority — to say nothing of variance in federal and international regulation. As a result, even when companies attempt regulatory compliance in good faith, they take on an inordinate amount of risk of **breaking the law.** Additionally, it is difficult to identify areas of potential misuse if the regulatory standards are not clear or consistent. This leaves consumers vulnerable and may prevent their entering the digital asset market altogether. A well-defined regulatory environment, alternatively, will facilitate consumer engagement and transparent company policies. Most critically, coherent digital asset regulation will enable the United States to guide global standards for blockchain innovation on the international stage at a critical point in their development. Nations are actively constructing their digital asset framework to boost their economy or advance geopolitical objectives. 81 countries, for example, are exploring a central bank digital currency. Given the lack of regulatory clarity in the United States, many creators of digital assets have avoided the U.S market altogether. To remain a hotspot for blockchain innovation, the United States should expand digital asset categorization

and create a principled framework. The result: a more robust and competitive digital ecosystem that features both centralized and decentralized options for businesses and individuals in the United States and on the global stage.

#### States fail – biases, lack of clarity to businesses, state enforcement interference.

Jacob P. Grosso 21. J.D. Candidate. “The Preemption Of Collective State Antitrust Enforcement In Telecommunications” University of Richmond School of Law. 02-11-21. https://lawreview.richmond.edu/files/2021/04/5-Grosso-552.pdf

Preemption would result in cognizable benefits to the regulatory and business spheres. These benefits would include **clear guidance**, **increased enforcement efficiencies**, and the ability to pursue nonenforcement agendas and broader policy goals.236 Businesses would receive clear guidance on the legality of their business choices. State antitrust enforcers would redeploy costs to state-specific issues. Federal enforcers would be able to effectively pursue broader policy goals. Consolidated enforcement and regulatory schemes would provide clarity to businesses through more uniform regulations and decreased litigation concerns. This consolidation, in turn, would reduce costs for the government and the competitors while encouraging competition and unnecessary compliance costs.237 Clear regulations serving a common goal, without the inherent biases of individual state interests, can provide clarity to businesses and preserve the balancing of consumer welfare with the aggregate social welfare. Individual states make decisions based on their individual needs, as seen in the T-Mobile-Sprint merger.238 When federal law conflicts with state law, federal law controls.239 Despite this standard, multistate task forces continue to come forward as the interpreters of federal law.240 This approach poses problems because of the inherent state biases that underlie the enforcement actions. **Preemption could decrease the effects of individual state biases on the guidance given to competitors**. Antitrust analysis considers geographic differences in determining the concentration of a market, meaning a one-size-fits-all approach does not work for aggregating individual state markets.241 This restructuring would reduce the effects of an individual state’s interests on collective action.242 While any individual state may be best served by one plan, the economy as a whole might suffer for that decision.243 “Divergent approaches to the exercise of enforcement discretion are not just possible, they are likely.”244 States likely face pressure from several groups that can influence their enforcement decisions, as well as the selfish motivation to protect their consumers regardless of the cost to national welfare.245 **Uniform, clear guidance at the federal level**, **without state interference, will reduce opportunities for the individual motivations of states to negatively impact a clear enforcement scheme**. Adding states as parties to a telecommunications antitrust lawsuit complicates the suit by increasing the number of parties that must agree to a settlement.246 The effects of the preemption and resulting enforcement system will create efficiencies for federal and state enforcers, as well as for businesses. For telecommunications antitrust enforcement actions, this will limit costs to the federal agencies, prevent the duplication of effort (in reviewing transactions), and eliminate the costs of coordination that NAAG multistate enforcement teams face.247 Extending even beyond telecommunications, this results in a net positive for the antitrust sections of state attorneys general offices to redeploy resources to monitor and combat anticompetitive behavior in the state-specific areas that these sections were designed to handle.248

### 2AC – Regulate CP

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#### Internet regs destroy clarity and get circumvented

Steven Semeraro 2, Associate Dean & Associate Professor of Law at the Thomas Jefferson School of Law, “Regulating Information Platforms: The Convergence to Antitrust”, Telecommunications & High Technology Law, Volume 1, p. 178-180

IV. INDUSTRY-SPECIFIC REGULATION

Industry-specific regulation is believed to be needed where cooperation among competitors is necessary in order to maximize consumer welfare and where the public interest demands consideration of goals other than short-run consumer welfare. Antitrust is generally thought to be incapable of achieving these results because it rarely imposes duties to cooperate.121 As explained in Section I, however, antitrust has proven quite adept at requiring cooperation when it is really essential.122 And Sections II and III explained how antitrust may incorporate long-run consumer welfare and free speech values. There is thus no inherent need for specifically tailored legislative pronouncements when the general body of antitrust law is seen as flexible enough to reach all threats to consumer welfare.

Nevertheless, industry-specific consumer-welfare regulation arguably could provide substantial benefits by clearly identifying ex ante the rights and obligations of the competitors in a way that the general antitrust laws cannot. But that theoretical benefit is unlikely to be realized. Congress has demonstrated a singular inability, or at least an unwillingness, to draft regulatory legislation that is clear enough to obtain this benefit. As Justice Scalia wrote in his opinion for the Court in Iowa Utilities:

It would be a gross understatement to say that the 1996 [Telecommunications] Act is not a model of clarity. It is in many important respects a model of ambiguity or indeed even self contradiction. That is most unfortunate for a piece of legislation that profoundly affects a crucial segment of the economy worth tens of billions of dollars.123

In the absence of industry-specific regulation, litigation would often be necessary to resolve particular disputes. Given the inherent uncertainties in the antitrust laws, the notion that private parties could often settle differences in the shadow of those laws is unlikely.124 But industry specific regulation may be no better. The 1996 Telecommunications Act produced an explosion of litigation that remains unresolved five years later.125

Even when industry-specific regulation is interpreted in a way that provides clear rules to govern competitive behavior in information platform markets, the antitrust laws may remain a substantively better regulatory device. By their nature, industry- specific rules intended to enhance consumer welfare would necessarily require both (a) costly conduct to conform to the rules that in some situations would have no measurable consumer welfare benefit, and (b) permit some conduct that reduced consumer welfare but did not violate an ex ante rule.126 The problem would likely worsen over time as firms learned to walk the line along the rule, figuring out ways to comply with the letter of the law without providing the intended consumer welfare benefits. 127 For example, firms may learn the maximum permissible delays in the implementation of a rule-required behavior. All this is not to say that clear rules are never useful. But the resistance to using clear rules in antitrust doctrine generally should lead us to think twice before assuming that industry-specific legislation is a superior alternative to antitrust as a regulator of competition among information platforms.

### 2AC – Enforcement

#### Traditional antitrust analysis doesn’t work when applied to software markets – 3 reasons

Van Arsdale & Venzke 15 [Suzanne, associate with Sidley Austin LLP, Cody, associate with Paul Hastings LLP, “Predatory Innovation in Software Markets,” *Harvard Journal of Law and Technology* 29.1, 269-76]

Software product markets1 38 do not reflect the three characteristics underlying antitrust analyses in physical product markets. First, software product markets are more likely to exhibit strong network effects, which dominant firms may use for competitive advantage. This is particularly true due to the difficulties in reverse engineering and the ability to deny access to resources. Second, there is effectively no market for used software products because users often purchase a software license but not ownership, and product updates often overwrite or modify an existing product. Third, a developer may distribute an update for a software product with minimal impact on user experience, so users may not be aware of the nature of changes. 1. Strong Network Effects Software product markets often exhibit and depend on network effects, the positive externalities that accrue as use increases, discussed above.139 These network effects are not only stronger in many software product markets, but they also have a greater impact. Once a firm has achieved dominance by benefitting from complementary third-party products, it can completely restrict interoperability with competitors. In United States v. Microsoft Corp., for example, the court found that developers will only create applications for an operating system if other developers have already done so to attract consumers.1 40 This "chicken-and-egg" relationship between applications for an operating system and its number of users created a barrier to entry that allowed the court to infer market power. Network effects are stronger if connection to others in the network is inherently valuable;142 a user may derive inherent value from using the product as well as network value from others' use of the product. Products designed for users to interact with each other, such as social networks and chat clients, require widespread adoption among users to maximize both inherent and network value: a user can derive value from these products only because other users exist, and a larger user base increases that inherent value while also offering value by virtue of their use (e.g., through contributions and posts on social networking websites). Thus, young companies often open the APIs of their products to competitors to allow interoperability and extend their reach and adoption.1 43 When a dominant firm subsequently breaks interoperability, that break can have a decisive impact on smaller competitors. Different types of network effects exist, among them (1) direct, in which increased use increases the value of the product itself; 144 (2) indirect, in which increased use leads to development of complementary products, such as applications for a specific platform, which in turn increases the value of the product; ' 4 5 and (3) two-sided, in which increased use by one set of users increases the value of a complementary product and vice-versa. 4 6 In other words, the structure of the network influences who benefits from whom. 4 7 Network effects can act like a ratchet, allowing firms to become increasingly dominant: the more valuable it is for consumers to share a network implicated by the product, the more complementary products that will be created for it and the greater their value, which in turn increases the product's value. This cycle of network effects can create substantial barriers to entry and exit, wherein consumers may be reluctant to use software that is not already popular or widely used, despite comparable or even superior functionality.148 Market power may also be obtained and maintained via lock-in, namely specific configurations of hardware and/or operating systems and platform-specific software that make it costly to switch platforms despite some increased price.149 The Electronic Frontier Foundation and the Free Software Foundation have objected to the use of DRM technologies as a similarly anticompetitive practice, designed to lock consumers into a platform, device, or other technology by preventing export to another.150 One argument is that its use can create a "horizontal lock-in" that encourages or requires the consumer to continue using a given technology.151 Not only is the consumer locked in for that specific content, but he or she also grows familiar and comfortable with the platform, device, software, and compatible products another benefit to the producer.152 However, they argue that this restriction lowers consumer valuation without distributing any benefit to the copyright holder. 153 Network effects, combined with limitations on interoperability, can mirror the foreclosure of consumer choice and exclusionary effects of traditional tying arrangements " and unilateral refusals to deal.15 5 This is because such arrangements further incentivize consumers to remain with the monopolist, as emerging competitors do not have access to the same content or share the same widespread use. Physical products are less likely to depend on network effects in order to be operable and consequently, refusals to deal are less likely to deny access to essential content or other resources. Further, some software changes can absolutely deny a competitor access to content or products that cannot be remedied by reverse engineering. The harm of network effects in software markets, then, is more than a mere head start or first-mover advantage for the monopolist. Robert Cass describes the unique nature of software product markets and the implications for antitrust enforcement based on conduct that may not be readily distinguishable from permissible competitive conduct: In rapidly changing high-technology industries, the problems can be especially acute and can threaten innovation as well as competition.

High-technology industries are often characterized by large up-front investments in research and development, intense competition for breakthrough innovations, large economies of scale, and potential "network effects" that produce big gains over some time period for the most successful innovators. These are the characteristics of "winner-take-all" or "winner-take-most" markets. 156 Despite the implications of network effects, motivated software consumers can often switch from one provider or technology to another at minimal or zero cost, and may opt to use more than one that serve similar functions. ' 5 7 Social networking websites and computer applications (e.g., web browsers or games available in app stores) are often freely available, as they derive revenue from advertisements and other user-dependent streams. 5 8 This may counter in part some of the lock-in network effects, but only where competing products have emerged despite barriers to entry. 2. Elimination of Older Products by Licensing and Overwriting As discussed above, the continued availability of older products - and thus, consumers' ability to choose - is crucial to courts' assessments of anticompetitive conduct by market acceptance.1 59 Producers of software products can prevent a used good market from emerging by (1) providing users with a software license, rather than ownership; (2) controlling software use with DRM technologies; and (3) having product updates overwrite or modify an existing product, rather than providing concurrent support and licenses for an old and new version of the product. Software is a durable good, arguably more durable than physical products because it wears out only due to technological change and planned obsolescence.1 60 Firms have avoided the Coase Conjecture drive toward selling products at marginal cost in part by licensing (rather than selling) software, with terms that restrict the consumer's ability to transfer or resell the product. 1 Software products also use DRM technologies to control their use - such as installation, access, and copying content - after sale.162 DRM can take many forms: Origin, the digital distribution platform for Electronic Arts, requires users to authenticate with an online server to limit the number of installations per twenty-four hours,1 63 while Blizzard's Diablo III employs always-online DRM that requires an Internet connection to play, even when using local content during single-player mode. 16 Because the first sale doctrine may not apply to software licensees, 65 these constraints together prevent emergence of a robust used goods market for software products. Some software products, such as websites and social networking platforms, are provided remotely and thus can be completely overwritten when updated; even if a backup of a prior version is saved, it is not hosted in the same location and may not be accessible to third-party developers. 1 Similarly, when many software products are updated, or when a new version is installed, only the newest version of the product continues to be available. 16 A firm may even prevent a user who updates or installs a new version of the product from reverting to or continuing to use an earlier version on the same machine.16 8 Because the update merely patches or completely replaces the existing software, there is no old product to use in the alternative or resell. 3. Changes Can Have Little User or Consumer Impact While users may be capable of switching products in response to a redesign, they may not even be aware that any changes were made. A dominant firm may implement changes that have minimal or no impact on the user experience for its current users, but that restrict or completely break interoperability with a competing firm's product, leading users to turn to that dominant firm. Current users may not even realize that the change has been made - after redesign, the product update may be distributed by automatic updates for application and system software or simply by updating the web service with the changes.1 69 For example, when Twitter changed its API to limit user tokens for third-party applications, the changes did not affect current users of those applications and of the official Twitter application, although the media criticized the decision. 170 In this way, monopolists of software products may evade competitors' efforts to gain access to essential content or products without interfering with their own users' experience or producing new generations of products that require users to make a switch from older models. This is vital because it frustrates the courts' market-preference test designed to identify bona fide innovation. Users of a competitor's product that pulls heavily from information accessed through the API of a dominant firm's product may not have the opportunity to assess whether they prefer the dominant firm's new product. Instead, consumers are forced to use the dominant firm's product instead of the one they had been using, with no discernable change in the content or presentation that consumers consider when choosing which product to use. Thus, software products differ markedly from the cases involving physical products that gave rise to current predatory innovation law. Unlike markets in physical products, software markets are more likely to be defined by network effects, allow for the elimination of older products, and permit anticompetitive innovation without any userfacing changes. These factors suggest that the existing law of predatory innovation - which largely depends on gauging market acceptance - may not apply easily to software products.

### 2AC – Tort

**CP expands the scope of antitrust laws because it defines anticompetitive sham petitioning**

**Ünal 13** (LERZAN KAYIHAN ÜNAL, Ph.D., Turkish Competition Authority, INTERNATIONALIZATION OF COMPETITION: IS CONVERGENCE OF COMPETITION LEGISLATION ENOUGH TO DEAL WITH INTERNATIONAL ANTICOMPETITIVE PRACTICES?

LERZAN KAYIHAN ÜNAL, <https://www.rekabet.gov.tr/Dosya/akademik-calismalar/24-pdf>)

**The US Antitrust Laws** and Their Global Reach

The overriding policy of the federal antitrust laws is to protect competition in the US markets. In an increasingly internationalized and intertwined global economy, both domestic and foreign activities potentially threaten competition in the US markets. The US realized the importance and the necessity of extending the scope of application of its antitrust rules beyond a narrowly interpreted principle of territoriality at a very early stage of enforcement in order to cover anticompetitive practices that take place across border but have a restrictive effect within its domestic markets. The Sherman Act87, the landmark federal statute, for instance applies to conduct that restrains trade or commerce “among the several States, or with foreign nations”. The US Congress, however, did not speak out the extent to which the federal antitrust laws were to reach anticompetitive activities occurring outside the US. Moreover, neither the statutory language nor the legislative history of the antitrust laws provided any guidance as to the meaning of “commerce…with foreign nations”. This **ambiguity** has left the task of **determining** the extraterritorial **scope of the antitrust laws to federal courts**. Within this context, **the effects doctrine** was developed in time by the US Courts as an extension of territoriality principle. Antitrust laws generally **define anticompetitive practices** by referring to their **effects** since the **effect** is a **constituent** part of the law. By granting jurisdiction to the national competition agencies where the effects are felt, the effects doctrine can be considered to be in conformity with the territoriality principle. The EU was also among the first and prominent actors that realized the significance of effects doctrine as a fundamental instrument to address international restrictive practices (Zanettin 2002, 8). The innovation of US antitrust laws and policy has been followed extensively by most of the competition agencies worldwide. In other words, the US antitrust enforcement in all respects has been benchmarked by many jurisdictions worldwide.

**Antitrust liability is key---it’s the only remedy that sufficiently deters**

**Zain 14** (Saami Zain, J.D., LLM (Antitrust); Assistant Attorney General, New York State Attorney General's Office, Antitrust Bureau. The views expressed here are those of the author and do not reflect those of the New York State Department of Law or the Antitrust Bureau, ANTITRUST LIABILITY FOR MAINTAINING BASELESS LITIGATION, 54 Santa Clara L. Rev. 729, y2k)

IV. Analysis

As evidenced by the cases discussed, **filing** and **maintaining baseless lawsuits** may have **anticompetitive** [\*756] effects. And while the cases focused primarily on initiation of litigation, it was recognized that maintaining the actions was also improper. Indeed, where maintaining baseless litigation has anticompetitive effects, there is no compelling rationale for creating a legal distinction between the filing and maintaining of a baseless action. 145 And in situations where a litigant is able to offer a questionable but potentially legitimate basis for filing an action (thereby making the suit unlikely to qualify as a sham), the greater need for imposing liability for continuing to litigate after it becomes clear that the action is meritless. Consequently, this section provides the argument for **antitrust liability** for maintaining baseless litigation.

A. Antitrust Sham Litigation for Maintaining Baseless Litigation is Good Policy

There are several justifications for imposing **antitrust** liability for continuing to litigate a baseless action for anticompetitive purposes. And where such litigation may cause anticompetitive effects - such as in Hatch-Waxman litigation - the potential for incurring antitrust liability may be an important deterrent.

First, **antitrust liability** is needed because laws **prohibiting** frivolous and bad faith litigation (such as Section 285 or Rule 11), are **inadequate deterrents** in many situations. Granting fees under Section 285 is largely within [\*757] a court's discretion, and thus a court may decline to impose fees in even egregious circumstances. 146 Similarly, Rule 11 is not only discretional, but several courts have interpreted it as only governing the filing of litigation and thereby rejected its application to conduct done in the course of litigation (including continuing to maintain a baseless action). 147 Moreover, **the remedies available** under these provisions - mostly **payment** of defendant's **fees** and **costs** - are **not** particularly **onerous** and thus not likely to **discourage frivolous litigation**. As **monopoly profits** may be quite **large**, a firm may well be quite **content** risking having to **pay fees** and **even sanctions** (in contrast to the risk of **treble damages**

**---**

**for antitrust violations**).

Second, to the **extent** that **continuing** to litigate a **baseless** action is **anticompetitive**, there is no rational basis for **only** imposing liability on the **filing** of the action but not on **maintaining** it. And where the litigation circumvents legislative policies, such as those created by the Hatch-Waxman Act, it should be prevented to the fullest extent possible. Thus, imposing liability on **both** filing and maintaining baseless, anticompetitive litigation would likely have the **favorable** effect of further **deterring** such deleterious conduct.

### 2AC – Bizcon

#### Small business confidence is tanked – inflation, Ukraine, uncertainty.

Reuters, 3-8-2022, U.S. small business sentiment drops to lowest in over a year, https://www.reuters.com/world/us/us-small-business-sentiment-drops-lowest-year-survey-2022-03-08/

U.S. small business confidence fell to the lowest in over a year in February in the face of a wave of inflation that is forcing a record percentage of establishments to raise prices and denting their outlook for the economy, a survey showed on Tuesday. The National Federation of Independent Business said its Small Business Optimism Index dropped 1.4 points to 95.7 last month from 97.1 in January. It was the lowest reading since January 2021. More than a quarter of businesses cited inflation as their largest problem, the highest since 1981, while a record 68% said they were pushing through price increases of their own. But higher prices weren't feeding through to bottom-line profit improvements in many cases, with a larger share of businesses reporting weaker earnings and more than 60% complaining of lost sales opportunities. “Inflation continues to be a problem on Main Street, leading more owners to raise selling prices again in February,” said NFIB Chief Economist Bill Dunkelberg. “Supply chain disruptions and labor shortages also remain problems, leading to lower earnings and sales for many.” Supply chain ructions have been a consistent issue as the economy has rebounded from the short but historically deep recession two years ago caused by the COVID-19 pandemic. With demand - for goods in particular - far outstripping supply, inflation has surged to a four-decade high. The inflation outlook has only worsened in March, with Russia's invasion of Ukraine pushing up prices for everything from fuel to food, dashing the hopes of policymakers like those at the Federal Reserve for a leveling off in price pressures. Tuesday's survey release made no mention of the war, which started in late February. The Fed is expected to start raising interest rates next week by at least 25 basis points to tame high inflation, but the war in eastern Europe has raised uncertainty about just how far and fast the central bank will be able to go in removing the extraordinary accommodation it put in place two years ago at the start of the coronavirus pandemic..

### 2AC – Tradeoff

#### Non-unique: sweeping antitrust action thumps the aff.

Arends et al. 2/24 (Wendy Arends is an Antitrust Attorney at Husch Blackwell, Julia Banegas is an Associate at Husch Blackwell, Mark B. Tobey Senior Counsel, 2-24-2022, Biden Antitrust Enforcers Take Aim at Mergers and Acquisitions, JD Supra, https://www.jdsupra.com/legalnews/biden-antitrust-enforcers-take-aim-at-8223350/)

President Biden’s top antitrust cops, Jonathan Kanter at the U.S. Department of Justice Antitrust Division (DOJ) and Lina Khan at the Federal Trade Commission (FTC), are putting more arrows in their quiver to take aim at perceived consolidation in a variety of industries. Their changes to **long-standing tenets of U.S. merger review** policy fall in line with the Biden Administration’s whole-of-government approach to ferreting out concentration in a wide variety of industries. The FTC also cited a significant increase in mergers in the last year and over the past decade as the impetus for some of these reforms. While more change is expected, the recent pronouncements by the FTC and DOJ are likely to lead to increased scrutiny of reportable transactions under the Hart-Scott-Rodino Act (HSR), more uncertainty about the process, and a broader view of whether a transaction harms competition.

Increased scrutiny of transactions

HSR changes. Among the FTC’s announcements are changes to the HSR Act premerger notification process. The FTC indefinitely suspended early terminations of the 30-day HSR waiting period. Previously, the agency would grant early terminations upon request and the deal could be reviewed before the 30 days had run, allowing the parties to close prior to the expiration of the waiting period. Since the start of the Biden Administration, the FTC is no longer granting early terminations—for the time being, all deals will have to wait at least the full 30 days after filing the HSR notification before the parties can close.

In addition, the FTC also reversed course on well-established guidance regarding retirement of debt in connection with acquisitions—parties can no longer subtract the amount paid to retire debt when calculating the HSR size of transaction value. This will likely increase the number of HSR reportable transactions.

Prior approval policy is reinstated. The FTC voted to change its Prior Notice policy and turned back the clock to again require prior approval in settlement agreements. This means if the parties settle a merger investigation with the FTC, the FTC will require a consent decree provision requiring that the parties receive prior FTC approval of future acquisitions for the term of the decree. This will likely result in more acquisitions being subject to FTC scrutiny

. Whether DOJ adopts this stance remains to be seen

Second requests—broader in scope and duration. Additionally, the FTC has announced other changes to merger review that will lead to increased scrutiny. In particular, the FTC changed its procedures for Second Requests. A Second Request may be issued if the FTC or DOJ continue to investigate a transaction beyond the 30-day HSR waiting period, and it generally consists of a very lengthy request for documents and information. The FTC announced that the Second Request process will be more demanding by heightening the requirements to request a modification to limit the scope of a Second Request, the effect of which may be to give the FTC more time and leverage to challenge a deal. The FTC also noted that a Second Request “may factor in additional facets of market competition that may be impacted,” including labor markets, cross-market effects and market incentives following investment firm involvement.

More unpredictable merger review process

FTC warning letters. In addition to the increased scrutiny outlined above, the FTC has also introduced reforms that will increase the uncertainty of the process. For instance, for deals in which the HSR waiting period has expired but the FTC has not completed its review, the FTC may decide to send warning letters advising the parties that the investigation remains open and that they will close the transaction at their own risk. Some practitioners report that the FTC is reaching out prior to the parties’ receipt of a warning letter, although this does not seem to be occurring in every instance.

FTC informal opinions. The FTC announced that it is reviewing its informal opinions of HSR rules. Many HSR attorneys utilize these informal opinions to confirm the FTC’s view as to the applicability of the HSR rules to various situations. The FTC cites concerns that some parties may be misguided in their reliance on prior opinions that are not applicable (or are misconstrued) with respect to their specific transaction.

Overhaul of merger guidelines. The FTC and DOJ have also requested comments on merger enforcement to determine whether and how to overhaul the agencies’ Horizontal and Vertical Merger Guidelines (Guidelines). The Guidelines (which have been updated over the years) provide practitioners and parties with an analytical framework within which to determine whether a transaction complies with antitrust law. The agencies are seeking input to help “modernize antitrust enforcement laws” relating to the following topics: the scope of review, anticompetitive presumptions, market definition, threats to potential and nascent competition, impacts of monopsony (buyer) power, and unique qualities of digital markets. The practical effect of these revisions is expected to increase the number of transactions that are found to be illegal by the agencies, although it remains to be seen whether courts take the same approach.

DOJ’s preference is to litigate, not settle. DOJ’s Kanter recently stated that merger review settlements should be “the exception, not the rule,” because divestitures and other remedies are not sufficient to protect consumers. That said, DOJ will need to choose its litigation battles wisely given resource constraints and the current state of the law.

A broader view of harm to competition

DOJ and FTC have signaled they are open to a variety of theories regarding a transaction’s harm to competition and are not tied to the consumer welfare standard established over decades of economic analysis and judicial precedent. Chair Khan declared that the FTC will investigate a transaction’s potential effects on employees and small business, not just consumers. DOJ’s Kanter questioned the necessity of defining the market in a given case, and both agencies have signaled ramped-up enforcement of transactions in banking and finance, food and agriculture, healthcare, technology, and transportation, among other industries.

The agencies are also taking a closer look at transactions that may not present traditional horizontal overlap issues, but instead raise vertical concerns, such as the denial of access to a key supplier or purchaser or harm to a rival. Examples of current transactions that were or are being investigated for vertical issues include:

Microsoft/Activision. It is reported that the FTC is investigating Microsoft’s proposed $69 billion acquisition of Activision (creator of Call of Duty and Candy Crush) and is likely to scrutinize how the acquisition could harm rivals by limiting their access to content, among other issues.

NVIDIA/Arm. In December 2021, the FTC filed suit to block U.S. semiconductor chip supplier Nvidia Corp.’s $40 billion acquisition of UK-based semiconductor design firm Arm Ltd. The FTC alleged that the transaction would harm competition in markets for computer chips used in datacenters and in automotive advanced driver assistance systems. Arm is a critical technology supplier to most of NVIDIA's competitors. It is reported that the parties are abandoning the transaction.

Lockheed Martin/Aerojet. The FTC is suing to block Lockheed Martin’s $4.4 billion acquisition of Aerojet Rocketdyne. Aerojet supplies critical components for the missiles made by Lockheed and other defense prime contractors. The FTC’s complaint alleges that if the deal is allowed to proceed, Lockheed will use its control of Aerojet to harm rival defense contractors and further consolidate multiple markets critical to national security and defense.

Amazon/MGM. It is reported that the FTC continues to investigate Amazon’s proposed $8.45 billion acquisition of MGM.

Penguin Random House/Simon & Schuster. DOJ filed a complaint in November 2021 to block the proposed acquisition by Penguin Random House of Simon & Schuster, two of the “Big Five” U.S. publishers. The complaint alleges not only elimination of head-to-head competition between the two, but also potential harm to best-selling authors by lessening incentives to give competitive pre-publication advances.

#### FTC adjudicatory proceedings uniquely suited to regulate anticompetitive APIs

Sharma 19 [Chinmayi, practicing attorney specializing in telecommunications law and policy, “Concentrated Digital Markets, Restrictive APIs, and the Fight for Internet Interoperability,” *University of Memphis Law Review*, JCR]

The competition law toolkit comprises of traditional antitrust causes of action and more flexible regulatory enforcement actions. The Sherman and Clayton Acts comprise traditional antitrust, while Section 5 of the FTC Act represents a novel, still not fully realized, potential authority to hold anticompetitive practices accountable. Together, they aspire “to protect the process of competition for the benefit of consumers.”86 When antitrust laws work, they ensure “there are strong incentives for businesses to operate efficiently, keep prices down, and keep quality up.”87 But competition is not an end goal, an outcome that can be objectively measured against a rubric; rather, competition is the existence of certain conditions considered ideal for the effective functioning of market forces.88 These conditions include maintaining dispersion of economic power89 and preserving fair and open access to competition. 90 Although each of the three statutes promotes competition, traditional antitrust authorities remain ill-suited to provide the oversight required to identify potentially anticompetitive APIs. Section 5 authorities, however, are uniquely positioned to take up the mantle.

Traditional antitrust authorities include statutes prohibiting restraints on trade and monopolization. First, the Sherman Act was passed in 1890 to prohibit “every contract, combination, or conspiracy in restraint of trade” (Section 1) and any “monopolization, attempted monopolization, or conspiracy or combination to monopolize” (Section 2).91 In 1911, the Supreme Court interpreted the Sherman Act to function through an implicit “rule of reason” that did not prohibit all restraints of trade, or all monopolies, but only unreasonable restraints.92

Second, Congress passed the Clayton Act in 1914 to address specifically the market implications of mergers and acquisitions.93 Section 7 of the Clayton Act prohibits mergers and acquisitions when the effect “may be substantially to lessen competition, or to tend to create a monopoly”94 in an effort to address incipient anticompetitive practices before the harm fully matures.95 Subsequent amendments to the Clayton Act served to ban discriminatory prices, services, and allowances in dealings between competitors in a market to preserve dispersion of economic power.96

### 2AC- Jackson

#### Uq overwhelms the link NO chance Manchin and Sinema defect – and the more GOP pushes back, the more unified Dems will become

Benen 2-25-22 (Steve Benen, MSNBC political contributor, producer for The Rachel Maddow Show, and editor of MaddowBlog, “Why Ketanji Brown Jackson is very likely to be confirmed,” MSNBC, 2-25-2022, https://www.msnbc.com/rachel-maddow-show/maddowblog/ketanji-brown-jackson-likely-confirmed-rcna17694)

As for how she’ll be greeted on Capitol Hill, the public may be accustomed to some brutal confirmation fights, but Jackson’s odds of being confirmed are quite high. For one thing, she probably won’t need any votes from the Senate Republican minority: Filibusters for judicial nominees are a thing of the past.

For another, Jackson may well very well enjoy at least some GOP backing: Last June, her appellate court nomination came to the Senate floor, and while the vast majority of Senate Republicans voted against her, three GOP senators — Maine’s Susan Collins, Alaska’s Lisa Murkowski, and South Carolina’s Lindsey Graham — voted to confirm her.

It’s possible, of course, that these Republicans would support her in 2021, only to oppose her in 2022 — if recent history has taught us anything, it’s that senators like Graham are not concerned about being accused of inconsistencies — but the fact that Jackson enjoyed bipartisan support in her last confirmation vote increases the likelihood that she’ll fare well in her next confirmation vote.

The key will be unanimity among Senate Democrats, which seems like a relatively safe bet. Yes, senators such as West Virginia’s Joe Manchin and Arizona’s Kyrsten Sinema have demonstrated a willingness to buck their party, but since Biden has become president, these center-right Democrats have balked at exactly zero judicial nominees

from the Biden White House. Literally, none.

It's difficult to imagine the duo breaking the trend now.

The coming confirmation process will probably offer at least some drama and attacks from ambitious Republicans eager to show their base how “tough” they are, but if these offenses materialize, they won’t just fail — they’ll backfire. The Democratic base is likely to back Jackson enthusiastically, and the more the GOP tries to tear her down, the more Democrats will be motivated ahead of the midterm elections in the fall.

In October 2020, the Republican majority acted with great speed and efficiency to confirm a conservative nominee. Don’t be surprised if this year’s Democratic majority follows a similar timeline.

#### No link – Confirmation doesn’t require a single GOP vote and there is no evidence that any Democratic Senator will flip their confirmation vote because of the plan - No Democrat wants to be the reason the first black woman’s nomination failed – it would be political suicide

#### Confirmation inevitable – Collins and Murkowski will gap-fill any Dem defections – AND their votes will be compartmentalized – about qualifications NOT ideology

Hulse 2-25 (Carl Hulse, chief Washington correspondent at The New York Times, over three decades of reporting in the capital, “Few Republicans are likely to back Biden’s nominee.” The New York Times, 2-25-2022, https://www.nytimes.com/2022/02/25/us/republicans-ketanji-brown-jackson-supreme-court.html)

The Senate could confirm President Biden’s Supreme Court nominee without a single Republican vote, but Mr. Biden and Democrats would like to avoid that outcome if possible — and Judge Ketanji Brown Jackson has drawn some G.O.P. support in the past.

Even before Judge Jackson was chosen, the president and Senator Richard J. Durbin, Democrat of Illinois and chairman of the Judiciary Committee, began reaching out to Republicans they saw as potentially open to supporting a Biden nominee, including Senators Susan Collins of Maine and Mitt Romney of Utah.

Democrats say that bipartisan backing for the nominee helps build her credibility and that of the court. They also hope that some Republicans will welcome the opportunity to support the first Black woman to join the high court and be willing to put aside any ideological differences if they consider the nominee qualified for the job.

As long as all 50 Democrats back the nominee, support from at least one Republican would also avoid the spectacle of Vice President Kamala Harris having to break a tie to seat a new justice, which would be a first in Supreme Court confirmation history.

But chances for a significant bipartisan vote appeared minimal.

Ms. Collins, along with the Republican Senators Lisa Murkowski of Alaska and Lindsey Graham of South Carolina, were the only Republicans to vote for Judge Jackson when she was confirmed to the U.S. Court of Appeals for the District of Columbia Circuit last June.

While additional Republicans could still decide to back her for the Supreme Court, it would be unusual for a senator who opposed a nominee for a lower court to then support her for a higher judicial position.

And on Friday, Mr. Graham, who had pressed for Mr. Biden to choose Judge J. Michelle Childs of South Carolina for the vacancy, cast substantial doubt on his willingness to support Judge Jackson’s confirmation.

Senators Murkowski and Collins have both shown a willingness to support the judicial nominees of Democratic presidents, and Ms. Murkowski has new political incentive to do so. She is seeking re-election in Alaska under a new election system and could benefit from the support of independents and Democrats supportive of Mr. Biden’s choice.

Ms. Collins issued a statement on Friday in which she complimented Judge Jackson’s qualifications and suggested she was undecided about how to vote.

“Ketanji Brown Jackson is an experienced federal judge with impressive academic and legal credentials.” Ms. Collins said. “I will conduct a thorough vetting of Judge Jackson’s nomination and look forward to her public hearing before the Senate Judiciary Committee and to meeting with her in my office.”

In an attempt to nail down their backing, Democrats have told the senators they would provide requested materials and set up meetings with the nominee so they could have whatever they needed to reach a decision.

Taking a seat on the court without the support of any senator from across the aisle would not be a first. Justice Amy Coney Barrett was confirmed in October 2020 with no Democratic votes after her nomination by President Donald J. Trump.

#### No impact - Politicization inevitable and no impact to it

Martin 21 [Michel Martin, NPR host, interviewing Stephen Feldman, a constitutional law professor at the University of Wyoming College of Law, 9-5-201 https://www.npr.org/2021/09/05/1034494416/the-case-for-court-packing-as-a-way-to-promote-democracy]

MARTIN: There are those who believe - who continue to believe that the Supreme Court should be above politics. But this seems to have become a very political debate. I mean, the fact - the reality seems to be that these arguments center on people getting the kinds of outcomes that people want from the court. It seems that the people who want to expand the court at the moment are angry at the decisions that the court is making and those who created the conditions that allow the court to be as dominated by conservatives as it now is by refusing to consider the nomination of Merrick Garland, for example, during the Obama term. Well, you know, I think their point of view is that they're getting the outcomes that they want now. So I guess the question is, is the argument that the court should be above politics - what do you say to that?

FELDMAN: I think that is simply untrue. The court has always been political in multiple ways. No. 1, Congress has changed the size of the court

multiple times during history, often for political reasons. No. 2, the nomination and confirmation process has always been partly political. So, you know, because of polarization today, sometimes the political fights are more stark, but if you go back in history, confirmations have quite often been vigorous political battles.

And then finally, the actual decision-making process of the court is always political in part. I call it a law-politics dynamic. So this notion that the justices should decide apolitically or neutrally I think is just false. Constitutional interpretation in particular - if we look at constitutional cases, it's never mechanical. It's never two plus two equals four. The justices' political backgrounds, their cultural views always influence how they interpret the relevant text, whether it's the constitutional text or a statute.

So, for instance, if you compare like Justice Alito on the far-right and Justice Sotomayor, who's more progressive, they'll look at the same constitutional language, and they'll interpret it differently. And it's not because one is lying or being disingenuous or doesn't know how to interpret the constitutional language. It's because they're interpreting from different political perspectives.

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## ADV 1

### Innovation

#### API interoperability will have far-reaching and long-lasting effects on the internet that will ossify and be impossible to reverse. Regulations now are needed.

Sharma 19 [Chinmayi, practicing attorney specializing in telecommunications law and policy, “Concentrated Digital Markets, Restrictive APIs, and the Fight for Internet Interoperability,” *University of Memphis Law Review*, JCR]

The Internet’s honeymoon phase, if there ever were one, is coming to an end. In its wake, we are left to answer questions about the expectations we can and should have from the digital network that connects individuals and communities globally.30 To be clear, the question is not whether we want these technologies—that answer is a resounding “yes”—but rather, what are our demands of the companies at the helm of this digital revolution. The stakes are high because, while code is easier to recall than physical products, structural changes to the makeup of the Internet by redesigning its “connective tissue,”31 APIs, have far reaching effects that we cannot anticipate. The Internet is like an organic content generation machine, constantly expanding. Far from nascent, many consider the Internet too far gone to be “unmade” or even substantially altered. Therefore, the decisions we make now will ossify principles and norms into Internet design and behavior with inertia that would be hard to reverse. This Article will focus specifically on the question of whether, when, and how Internet interoperability should be regulated.

## ADV 2

## Data

## CP- Enforce/Regs

#### Many mechanisms allow for firms to obfuscate enforcement – this allows for continued and widespread anticompetitive practices.

Van Arsdale & Venzke 15 [Suzanne, associate with Sidley Austin LLP, Cody, associate with Paul Hastings LLP, “Predatory Innovation in Software Markets,” *Harvard Journal of Law and Technology* 29.1, 265-9]

Implementing changes in software products may be faster and less conspicuous than in physical products. For software products, changes may be distributed in the form of automatic software updates, prompts to update when using the product, or the release of a new version. Other products, in particular for web-based platforms and services, may simply change the user or application interfaces; because they are hosted remotely and accessed through the web browser or another application, the interfacing user or application is forced to use the updated version of the web-based technology.120 Because distribution to users is relatively painless and unlikely to require special marketing, software products may have more rapid and frequent, smaller-scale redesigns. Firms may be transparent about how redesigns will affect interoperability, with support statements that specify a duration for supportl21 or that generally encourage development of interoperable, complementary products.122 To facilitate a transition, services may support multiple versions of an API and provide guidance about how long old versions will be supported after a newer version has been released. For example, Facebook typically supports an API version for one year following the introduction of a new API version.123 Thus, Facebook stopped supporting its vl.0 API on April 30, 2015, one year after its v2.0 API was introduced.124 The new API made several changes, including removing the ability to look at the data of users' friends and implementing a new login system.125 While some applications were 126 unaffected, others shut down due to the lost functionality. Support statements are important because, relative to physical products, software products can be redesigned to more reliably and completely preclude interoperability. Physical products may be inspected, taken apart, and reverse engineered. While there are also methods to reverse engineer information about software - by the developer or developers of complementary products, in order to compensate for poor documentation or nondisclosure - they are limited.1 27 **A firm can make its product a black box**. Using software antitamper technology, a firm can deliberately **obfuscate code** to make it difficult to understand or use an obfuscator to transform the code with various techniques.128 Those firms that do make limited information available may also prohibit reverse engineering under the terms of use. A closed source or limited API, for example, may allow a producer to maintain a commercial advantage over third-party software.129 Finally, software products may be technically prevented from accessing and using other components on which they depend. If a firm controls use of and access to interfaces facilitating interoperability, it may sever that use or access by reference to a specific product or by restricting or barring all competing product interactions.1 30 In addition to an explicit denial of resources, a change in functionality may lead to a break in interoperability. For example, when Google dropped support of XMPP, an open messaging protocol, the Electronic Frontier Foundation criticized the break in interoperability with free and open source chat clients and servers.131 Google, however, appeared to justify the change as being necessary due to the new features and technical demands of a "unified messaging platform." 32 Software engineering strives to develop modular code that is well understood and documented. Still, a developer may write software that depends on "ill-understood, immature code," especially when the benefits, such as short-term development time and application running speed, outweigh the expected costs of future modification and debugging. 133 Similarly, when firms choose to develop products that depend on a third-party platform or other code, they choose what those dependencies are. If there is no contractual obligation for the third party to maintain support for, or even availability of, that platform or other code, the firm can anticipate the risk that the software will later be closed to outside parties. It is worth noting that product redesign is possible even for firmware, which is traditionally thought of as being more tightly coupled to the hardware for which it is produced, and thus as having less flexibility to change because the underlying hardware must be able to support any features. Typically, the hardware vendor produces the firmware and the operating system vendor writes a device driver that provides an interface for other software to communicate with the hardware.134 Firmware is sometimes discussed as if it were readonly,135 but it can be updated to fix bugs or add features.136 For example, a recent firmware update for Nikon cameras enables continuous shooting and unlimited exposure time - functionalities that were physically possible before the update, but could not be accessed by software.1 37 Similarly, a firmware update could break interoperability or provide a competitive advantage; a solid-state drive ("SSD") producer could revise firmware and introduce a new instruction to improve performance, but only disclose or allow access to select software producers. Given the many variables, it may be difficult to characterize how or why a product redesign breaks interoperability. Noninteroperability may result from changes to dependencies documented in support statements, or to behavior that is undocumented but still relied upon. These changes may explicitly restrict access to resources or otherwise change a behavior (e.g., to provide new functionality) in a way that no longer satisfies dependencies. The developer may not be aware that the change will result in non-interoperability, or explicitly decide to no longer support interoperability (e.g., because the party providing it decides the cost to continue providing it is too high). A break in interoperability may also be unintentional (e.g., due to a disaster impacting the physical location at which the dependency was running and a failure on the part of the provider to have made a backup).

## Torts

## DA- BIZ CON

### UQ-

#### - Ukraine thumps hugely.

Roubini 2/25 (Nouriel Roubini, Professor Emeritus of Economics at New York University's Stern School of Business, 2-25-2022, Putin's war promises to crush the global economy with inflation and much slower growth, MarketWatch, https://www.marketwatch.com/story/putins-war-promises-to-crush-the-global-economy-with-inflation-and-much-slower-growth-11645803074)

The economic and financial fallout from the war, and the resulting stagflationary shock, will of course be largest in Russia and Ukraine, followed by the European Union, owing to its heavy dependence on Russian gas. But the U.S. will suffer, too. Because world energy markets are so deeply integrated, a spike in global oil prices—represented by the Brent BRN00, +0.47% benchmark—will strongly affect U.S. crude oil (West Texas Intermediate) prices. Yes, the U.S. is now a minor net energy exporter; however, the macro-distribution of the shock will be negative. While a small cohort of energy firms will reap higher profits, households and businesses will experience a massive price shock, leading them to reduce spending. Given these dynamics, even an otherwise strong U.S. economy will suffer a sharp slowdown, tilting toward a stagflationary growth recession. Tighter financial conditions and the resulting effects on **business, consumer, and investor confidence** will exacerbate the negative macro consequences of Russia’s invasion, both in the U.S. and **globally.** Likewise, the coming sanctions against Russia—however large or limited they turn out to be, and however necessary they are for future deterrence—inevitably will hurt not only Russia but also the U.S., the West, and emerging markets.

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