# Meadows Quarters Neg vs Ayala AM

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### 1

#### Interp – the aff must only defend that the member nations of the World Trade Organization ought to reduce intellectual property protections for medicines.

#### Intellectual property is

Brewer 19 [(Trevor, advises clients on business structuring and sale transactions, regulatory compliance, third-party contracts, liability protection and general matters facing small business owners. His focus extends beyond legal advice and includes business strategy and wealth preservation.) “WHAT ARE THE FOUR BASIC TYPES OF INTELLECTUAL PROPERTY RIGHTS?” Brewer Long, 5/16/19. <https://brewerlong.com/information/business-law/four-types-of-intellectual-property/>] RR

There are four types of intellectual property rights and protections (although multiple types of intellectual property itself). Securing the correct protection for your property is important, which is why consulting with a lawyer is a must. The four categories of intellectual property protections include:

TRADE SECRETS

Trade secrets refer to specific, private information that is important to a business because it gives the business a competitive advantage in its marketplace. If a trade secret is acquired by another company, it could harm the original holder.

Examples of trade secrets include recipes for certain foods and beverages (like Mrs. Fields’ cookies or Sprite), new inventions, software, processes, and even different marketing strategies.

When a person or business holds a trade secret protection, others cannot copy or steal the idea. In order to establish information as a “trade secret,” and to incur the legal protections associated with trade secrets, businesses must actively behave in a manner that demonstrates their desire to protect the information.

Trade secrets are protected without official registration; however, an owner of a trade secret whose rights are breached–i.e. someone steals their trade secret–may ask a court to ask against that individual and prevent them from using the trade secret.

PATENTS

As defined by the U.S. Patent and Trademark Office (USPTO), a patent is a type of limited-duration protection that can be used to protect inventions (or discoveries) that are new, non-obvious, and useful, such a new process, machine, article of manufacture, or composition of matter.

When a property owner holds a patent, others are prevented, under law, from offering for sale, making, or using the product.

COPYRIGHTS

Copyrights and patents are not the same things, although they are often confused. A copyright is a type of intellectual property protection that protects original works of authorship, which might include literary works, music, art, and more. Today, copyrights also protect computer software and architecture.

Copyright protections are automatic; once you create something, it is yours. However, if your rights under copyright protections are infringed and you wish to file a lawsuit, then registration of your copyright will be necessary.

TRADEMARKS

Finally, the fourth type of intellectual property protection is a trademark protection. Remember, patents are used to protect inventions and discoveries and copyrights are used to protect expressions of ideas and creations, like art and writing.

Trademarks, then, refer to phrases, words, or symbols that distinguish the source of a product or services of one party from another. For example, the Nike symbol–which nearly all could easily recognize and identify–is a type of trademark.

While patents and copyrights can expire, trademark rights come from the use of the trademark, and therefore can be held indefinitely. Like a copyright, registration of a trademark is not required, but registering can offer additional advantages.

#### A one-and-done approach affects orphan drug designations – their solvency advocate card

Feldman 3 Robin Feldman 2-11-2019 "‘One-and-done’ for new drugs could cut patent thickets and boost generic competition" <https://www.statnews.com/2019/02/11/drug-patent-protection-one-done/> (Arthur J. Goldberg Distinguished Professor of Law, Albert Abramson ’54 Distinguished Professor of Law Chair, and Director of the Center for Innovation)//SidK + Elmer

I believe that one period of protection **should be enough**. We should make the legal changes necessary to prevent companies **from building patent walls** and piling up mountains of rights. This could be accomplished **by** a “one-and-done” approach for patent protection. Under it, a drug would receive just one period of exclusivity, and no more. The choice of which “one” could be left entirely in the hands of the pharmaceutical company, with the election made when the FDA approves the drug. Perhaps development of the drug went swiftly and smoothly, so the remaining life of one of the drug’s patents is of greatest value. Perhaps development languished, so designation as an orphan drug or some other benefit would bring greater reward. The choice would be up to the company itself, based on its own calculation of the maximum benefit. The result, however, is that a pharmaceutical company chooses whether its period of exclusivity would be a patent, an orphan drug designation, a period of data exclusivity (in which no generic is allowed to use the original drug’s safety and effectiveness data), or something else — but not all of the above and more. Consider Suboxone, a combination of buprenorphine and naloxone for treating opioid addiction. The drug’s maker has extended its protection cliff eight times, including obtaining an orphan drug designation, which is intended for drugs that serve only a small number of patients. The drug’s first period of exclusivity ended in 2005, but with the additions its protection now lasts until 2024. That makes almost two additional decades in which the public has borne the burden of monopoly pricing, and access to the medicine may have been constrained. Implementing a one-and-done approach in conjunction with FDA approval underscores the fact that these problems and solutions are designed for pharmaceuticals, not for all types of technologies. That way, one-and-done could be implemented through **legislative changes to the FDA’s drug approval system**, and would apply to patents granted going forward. One-and-done would apply to both patents and exclusivities. A more limited approach, a baby step if you will, would be to invigorate the existing patent obviousness doctrine as a way to cut back on patent tinkering. Obviousness, one of the five standards for patent eligibility, says that inventions that are obvious to an expert or the general public can’t be patented. Either by congressional clarification or judicial interpretation, many pile-on patents could be eliminated with a ruling that the core concept of the additional patent is nothing more than the original formulation. Anything else is merely an obvious adaptation of the core invention, modified with existing technology. As such, the patent would fail for being perfectly obvious. Even without congressional action, a more vigorous and robust application of the existing obviousness doctrine could significantly improve the problem of piled-up patents and patent walls. Pharmaceutical companies have become adept at maneuvering through the system of patent and non-patent rights to create mountains of rights that can be applied, one after another. This behavior lets drug companies keep competitors out of the market and beat them back when they get there. We shouldn’t be surprised at this. Pharmaceutical companies are profit-making entities, after all, that face pressure from their shareholders to produce ever-better results. If we want to change the system, we must change the incentives driving the system. And right now, the incentives for creating patent walls are just too great.

#### Orphan drug designation goes beyond IP

FDA “Designating an Orphan Product: Drugs and Biological Products” No Date <https://www.fda.gov/industry/developing-products-rare-diseases-conditions/designating-orphan-product-drugs-and-biological-products> SM

Supporting the development and evaluation of new treatments for rare diseases is a key priority for the FDA. The FDA has authority to grant orphan-drug designation to a drug or biological product to prevent, diagnose or treat a rare disease or condition. Orphan drug designation qualifies sponsors for incentives including:

Tax credits for qualified clinical trials

Exemption from user fees

Potential seven years of market exclusivity after approval

#### Reducing orphan drug designation standards is widely extra-topical – it affects companies’ abilities to obtain tax credits, grants, regulatory assistance, fee waivers, and more. Market exclusivity is just one aspect.

Nuventra 4/21 Nuventra Pharma Sciences [Our consultants translate complex data into actionable insights across the entire drug development spectrum. With more than 1,000 years of combined experience in pharmaceutical development, we enable our clients to make better strategic decisions and improve their clinical and nonclinical studies.] “FDA Orphan Drug Designation for Rare Diseases” April 21, 2021 <https://www.nuventra.com/resources/blog/orphan-drug-products/> SM

Incentives of Orphan Drug Designation

One of the biggest challenges for companies developing drugs for rare diseases is that due to the small target population size, sponsors are unlikely to recoup the cost of research, development, and approval from the orphan drug product. In response to this, the FDA has created multiple incentives to make orphan drug development more financially possible for companies to pursue. Some of the incentives include:

7-year marketing exclusivity to sponsors of approved orphan products

25% federal tax credit for expenses incurred in conducting clinical research within the United States

Tax credits may be applied to prior year or applied over as many as 20 years to future taxes

Waiver of Prescription Drug User Fee Act (PDUFA) fees for orphan drugs

A value of approximately $2.9 million in 2021

Ability to qualify to compete for research grants from the Office of Orphan Products Development (OOPD) to support clinical studies for orphan drugs

Eligibility to receive regulatory assistance and guidance from the FDA in the design of an overall drug development plan

#### Vote neg for limits – allowing extra topicality explodes the prep burden to every possible incentive granted to pharma companies – reciprocal prep burdens are key to engagement

#### DTD – anything else encourages reading extra topical offense every round bc the NC is forced to read a shell just to get back to the resolution

#### No RVIs – illogical – you shouldn’t win for being fair – stock issues are a litmus test for engaging in substance

### 2

#### CP:

#### The United States Court of Appeals for The Seventh Circuit should rule in favor of AbbVie Inc, in UFCW Local 1500 Welfare Fund v. AbbVie Inc.

#### The Supreme Court of The United States should request and accept an appeal, and reverse the decision, ruling that as per the Sherman Antitrust Act, series of pharmaceutical patents should be subject to the sham litigation standard established in Cal. Motor Transport Co. v. Trucking Unlimited. Relevant Courts should uphold this precedent.

#### All other member nations of the World Trade Organization besides the United States should reduce intellectual property protections for medicines by implementing a one-and-done approach for patent protection.

#### The CP applies Cal Motor Transport precedent to antitrust and patent law which revitalizes the judicial fight against monopolies and solves the aff by making legal defenses of patent thickets impossible.

Vaheesan et al 20 “Brief of Amicus Curiae Open Markets Institute in Support of Plaintiffs‐Appellants” 10/20/2020 Sandeep Vaheesan [OPEN MARKETS INSTITUTE], Adam J. Levitt [Counsel of Record], John E. Tangren [DICELLO LEVITT GUTZLER LLC] <https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5f85c2b9e2770d320d2b53de/1602601658675/Humira+Amicus+Brief+%28file-stamped%29.pdf> SM

Corporations can abuse administrative and judicial proceedings to exclude rivals and maintain market dominance. Through a series of indiscriminate regulatory or judicial filings not made to assert legitimate legal rights, monopolists and other powerful corporations can impose exorbitant costs and overwhelming burdens on rivals and thereby preserve their market control. This abuse of government process is an unfair form of competition that can “build[] up one empire and destroy[] another.” Cal. Motor Transport Co. v. Trucking Unlimited, 404 U.S. 508, 515 (1972). A series of petitions or litigation targeting a rival—without consideration for the underlying merits—is “costly, distracting and time‐consuming” and can “inflict a crushing burden on a business.” USS‐POSCO Indus. v. Contra Costa Cnty. Bldg. & Constr. and Trades Council, AFL‐CIO, 31 F.3d 800, 811 (9th Cir. 1994).

As a concrete example of regulatory abuse, corporations that indiscriminately apply for patents can deter prospective rivals and protect their monopolistic positions. A series of meritless patent filings can create the threat of potentially ruinous patent infringement liabilities. Out of many patent applications filed without consideration for the patentability of the claim, one or even a small number of applications may yield enforceable patents. See id. at 811 (“[E]ven a broken clock is right twice a day.”). In the face of this possibility, would‐be competitors may be unwilling to take the risk of a devastating judgment for patent infringement. See Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1928 (2016) (“Section 284 of the Patent Act provides that, in a case of infringement, courts ‘may increase the damages up to three times the amount found or assessed.’”). Accordingly, a thicket of patents and pending patents, even if they are all ultimately found to be invalid and unenforceable, can serve as a powerful barrier to new entry. See, e.g., I‐MAK, Overpatented, Overpriced: How Excessive Pharmaceutical Patenting Is Extending Monopolies and Driving Up Drug Prices 5 (2018) (hereinafter “I‐ MAK Report”) (“Today, drugmakers are filing dozens or even hundreds of patents, resulting in nearly double the length of protection, blocking competition and keeping cheaper versions of medicines off the market.”).

While the Supreme Court generally placed speech aimed at governmental actors outside the scope of the antitrust laws, E. R.R. Presidents Conference v. Noerr Motor Freight, Inc., 365 U.S. 127 (1961), United Mine Workers of Am. v. Pennington, 381 U.S. 657 (1965), the Court established limits on what constitutes petitioning protected by the Noerr‐Pennington doctrine. The Court noted that protection may be lost—and the antitrust laws would apply—if the government petition is “a mere sham to cover what is actually nothing more than an attempt to interfere directly with the business relationships of a competitor.” Noerr, 365 U.S. at 144. Without mentioning Noerr‐ Pennington, the Court, in a 1965 decision, established limits on petitioning the U.S. Patent and Trademark Office and held that the fraudulent procurement of a patent can give rise to liability under the Sherman Act. Walker Process Equip., Inc. v. Food Mach. & Chem. Corp., 382 U.S. 172, 177 (1965).

Building on these decisions, the Supreme Court ruled that a series of petitions filed to administrative bodies, without consideration of the underlying merits, is not entitled to Noerr‐Pennington protection. Specifically, “a pattern of baseless, repetitive claims . . . which leads the factfinder to conclude that the administrative and judicial processes have been abused” does not receive Noerr‐Pennington protection. California Motor Transport, 404 U.S. at 513; see also City of Columbia v. Omni Outdoor Adver., Inc., 499 U.S. 365, 380 (1991) (“A classic example [of sham petitioning] is the filing of frivolous objections to the license application of a competitor, with no expectation of achieving denial of the license but simply in order to impose expense and delay.”). In a 1993 decision, the Court, in adopting a new test for what constitutes a single sham petition, did not change the standard for a series of sham petitions. Prof’l Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc., 508 U.S. 49, 60–61 (1993); see also USS‐POSCO, 31 F.3d at 810 (“Far from criticizing or limiting California Motor Transport, the Professional Real Estate Investors majority cited it with approval.”).

Given controlling Supreme Court case law, four courts of appeals formally adopted a “pattern of petitioning” exception to Noerr‐Pennington. These courts synthesized Professional Real Estate Investors and California Motor Transport and held that the two decisions apply to different circumstances. Whereas the Professional Real Estate Investors test applies to a single petition, the California Motor Transport standard applies to a series of petitions made to an administrative agency or court. Waugh Chapel South, LLC v. United Food and Commercial Workers Union Local 27, 728 F.3d 354, 364 (4th Cir. 2013); Primetime 24 Joint Venture v. Nat’l Broad. Co., 219 F.3d 92 (2d Cir. 2000); USS‐POSCO, 31 F.3d at 810–11; see also Hanover 3201 Realty, LLC v. Village Supermarkets, Inc., 806 F.3d 162, 180 (3d Cir. 2015) (“[W]hen a party alleges a series of legal proceedings, we conclude that the sham litigation standard from California Motor should govern.”).

Whereas a single petition should be judged retrospectively to determine whether it constitutes a sham, a series of petitions are a sham if they were prospectively baseless. Hanover 3201, 806 F.3d at 180. Under this standard, a court must determine whether the petitions were filed “pursuant to a policy of starting legal proceedings without regard to the merits and for the purpose of injuring a market rival.” USS‐POSCO, 31 F.3d at 811. Were the petitions filed to harm and exclude rivals without any consideration of the strength of the underlying claims? The policy of petitioning and the series of petitions should be evaluated in their totality. Hanover 3201, 806 F.3d at 180; Waugh Chapel, 728 F.3d at 364. The fact that one or a few petitions were successful in a series of petitions does not automatically immunize the whole pattern of petitioning, because “even a broken clock is right twice a day.” USS‐POSCO, 31 F.3d at 811.

The district court should have applied California Motor Transport to the plaintiffs‐ appellants allegations of serial sham petitioning by AbbVie. Indeed, it was bound to apply this decision. See Rodriguez de Quijas v. Shearson/Am. Express, Inc., 490 U.S. 477, 484 (1989) (“If a precedent of this Court has direct application in a case, yet appears to rest on reasons rejected in some other line of decisions, the [lower court] should follow the case which directly controls, leaving to [the Supreme] Court the prerogative of overruling its own decisions.”).

#### That revitalizes antitrust enforcement. It’s also terminal defense to the aff – antitrust laws banning patent extensions won’t be enforced in the courts because no one will file the hundreds of expensive distinct litigations necessary to beat back patent thickets – weak laws aren’t the problem.

Ferguson et al 20 “BRIEF FOR AMICI CURIAE STATES OF WASHINGTON, CALIFORNIA, COLORADO, CONNECTICUT, DELAWARE, IDAHO, ILLINOIS, MAINE, MARYLAND, MASSACHUSETTS, MICHIGAN, MINNESOTA, NEBRASKA, NEW MEXICO, NEW YORK, NORTH CAROLINA, OREGON, RHODE ISLAND, VIRGINIA, AND WISCONSIN SUPPORTING PLAINTIFFS-APPELLANTS AND REVERSAL” Ferguson et al (List of Counsel in document) 10/30/2020 <https://oag.ca.gov/sites/default/files/Humira_States_Amicus.pdf> SM

2. The district court’s approach will further embolden pharmaceutical companies to fashion illegal settlements to more creatively evade scrutiny.

Pharmaceutical companies responded to years of enforcement efforts by the States and other enforcers by fashioning new settlement forms to evade scrutiny while continuing to compensate generic rivals with shared monopoly profits in exchange for delaying competition. Today, large cash payments to a generic rival are unusual. See Michael A. Carrier, Solving the Drug Settlement Problem: The Legislative Approach, 41 Rutgers L.J. 83, 98 (2009). Instead, settlement terms are more likely to include complex and difficult-to-detect exchanges. See Robin C. Feldman & Prianka Misra, The Fatal Attraction of Pay-for-Delay, 18 Chi.-Kent J. Intell. Prop. 249, 273 (2019). For example, the cases highlighted above considered challenges to settlement agreements featuring “no-authorized-generic” commitments, releases of large damages claims for nominal payment, below-market royalties, most-favored entry terms, and a supply agreement for a separate product. These and other potentially harmful forms of payment may both delay initial entry and also discourage follow-on competitors, and continue to proliferate. See Laura Karas, Gerard F. Anderson, & Robin Feldman, Pharmaceutical “Pay-for-Delay” Reexamined: A Dwindling Practice or a Persistent Problem?, 71 Hastings L.J. 959, 965–66 (2020). Indeed “there is good reason to believe that anticompetitive pay-fordelay agreements continue to be reached in the United States post-Actavis” and in increasingly creative guise. Id. at 966.

It is therefore imperative that courts reject formalistic interpretations of Actavis. Altering the form of an anticompetitive reverse-payment agreement does not lessen its harmful impact. Categorically immunizing some settlements from antitrust scrutiny will only encourage further artful collusion among drug companies without generating any procompetitive benefits. If “companies could avoid liability for anticompetitive reverse payments simply by structuring them as two separate agreements . . . Actavis would become a penalty for bad corporate lawyering instead 13 of anticompetitive conduct.” AbbVie, 2020 WL 5807873, at \*19. This court should avoid this illogical result by applying the functional analysis Actavis demands and reversing the decision below.

B. Procompetitive effects do not justify dismissal here because they depend on disputed facts and are not linked to the restraint alleged.

The district court committed a second analytical misstep by prematurely concluding that AbbVie’s Humira settlements created procompetitive effects. The effects it highlighted all derive from the market entry dates the agreements granted AbbVie’s rivals. The district court identified no “avoided litigation costs or fair value for services” that might justify AbbVie’s payments. See Actavis, 570 U.S. at 156. Instead, it declared variously that the agreements “deliver value to consumers,” “increased competition,” or at worst “preserved an anticompetitive status quo” because they allowed AbbVie’s rivals to enter in the United States and Europe before AbbVie’s patents expired. In re Humira, 2020 WL 3051309, at \*20–21; see also id. at \*21 (declaring that “consumers won and the market for Humira (and its generics) became more competitive” because of the challenged agreements).

1. The district court erred in concluding that procompetitive effects justified the challenged agreements at the pleading stage.

Relying on purported procompetitive effects to dismiss the complaint was error for two reasons. First, “Actavis does not require antitrust plaintiffs to come up with possible explanations for the reverse payment and then rebut those explanations in response to a motion to dismiss. The Supreme Court clearly placed the onus of explaining or justifying a large reverse payment on antitrust defendants.” Lipitor, 868 F.3d at 256–57. Plaintiffs can meet their pleading burden “without describing in perfect detail the world without the reverse payment . . . or preempting every possible explanation for it.” AbbVie, 2020 WL 5807873, at \*17. Simply identifying potential justifications for the agreements is not a basis for dismissing the complaint because defendants bear the burden on that issue.

Second, these specific conclusions rested on disputed facts that cannot be resolved as a matter of law on a motion to dismiss. See Appellants’ Br. 24–25. The court was required to accept the alleged facts as true and draw all reasonable inferences in the Plaintiffs-Appellants’ favor. Ashcroft v. Iqbal, 556 U.S. 662, 678 (2009). An antitrust complaint “does not need detailed factual allegations” to survive a Fed. R. Civ. P. 12(b)(6) motion. Bell Atlantic Corp. v. Twombly, 550 U.S. 544, 555 (2007); see also In re Lipitor, 868 F.3d at 254–55 (reversing dismissal of a reverse-payment claim because the district court wrongly applied a “heightened pleading standard” contrary to Twombly and Iqbal). A complaint is plausible and raises “a reasonable expectation that discovery will reveal evidence of an illegal agreement” even if the district court believes “that actual proof of those facts is improbable, and that a recovery is very remote and unlikely.” Twombly, 550 U.S. at 556 (quotation marks omitted). The district court overstepped its role at this stage of the case by making factual findings in the defendants’ favor, as its decision characterizing the agreements as net beneficial demonstrates. The PlaintiffsAppellants deserve an opportunity to disprove these purported justifications through discovery.

2. None of the procompetitive effects the district court identified offset the harm alleged.

Even if the effects the court identified were substantiated, courts cannot credit procompetitive effects unless the defendant can “articulate the specific link between the challenged restraint and the purported justification.” Polygram Holding, Inc., 136 F.T.C. 310, 347 (2003), aff’d Polygram Holding, Inc. v. FTC, 416 F.3d 29 (D.C. Cir. 2005). The district court erred because the procompetitive effects it identified are neither cognizable nor linked to the harm alleged.

Actavis forecloses the district court’s conclusion that the challenged agreements are procompetitive (or competitively neutral) simply because they allow AbbVie’s rivals to enter the U.S. market before AbbVie’s patents expire. Reverse-payment agreements harm competition by eliminating the risk that the patent holder may face competition well before its patent’s expiration date. Actavis, 570 U.S. at 157– 58. In other words, even if an agreement allows pre-expiration market entry, it can still be anticompetitive because the rival may have entered the market even sooner in the absence of the agreement, generating competition far earlier. Courts therefore cannot assume that patents justify an absolute monopoly extending to the expiration of a disputed patent and automatically credit entry before that as procompetitive. See AbbVie, 2020 WL 5807873 at \*19. Thus, the U.S. entry dates themselves do not create cognizable procompetitive effects.

The European entry dates fare no better. The district court claims that its holding did not depend on justifying harm in one market with benefits in another. In re Humira, 2020 WL 3051309, at \*21; see also United States v. Topco Assocs., 405 U.S. 596, 611 (1972) (“If a decision is to be made to sacrifice competition in one portion of the economy for greater competition in another portion this too is a decision that must be made by Congress and not by private forces or by the courts.”). But its decision turned on finding that the agreement terms granting entry in Europe were “permissible under Actavis,” because they “deliver[ed] value to consumers.” In re Humira, 2020 WL 3051309, at \*20–21. Likewise, the district court’s basis for distinguishing the agreements here from the reverse-payment agreements in King Drug was that “consumers won and the market for Humira . . . became more competitive” when AbbVie agreed to let its rivals to enter “European and U.S. markets earlier than they might have been able to otherwise.” Id. at \*21.

Here, the complaint identified Humira sold in the United States as the relevant antitrust market. Id., at \*7. And for good reason: regulatory barriers prevent AbbVie or its rivals from selling their European biologics to U.S. consumers. See id. at \*3–4 (describing the FDA approval process for biologics). As a result, the alleged competition in Europe cannot have benefitted consumers in the United States. The district court thus failed to link this ostensible benefit to the restraint at issue: delayed competition in the United States securing AbbVie’s U.S. monopoly and guaranteeing U.S. consumers pay more for Humira for many years. Indeed, the U.S. market remains monopolized today. According to the complaint, the “cost of Humira to treat arthritis in the U.S. remains 50% more expensive than the cost of the same treatment in Spain.” Id. at \*7. Since the complaint was filed, AbbVie has continued to ratchet up the price of Humira in the United States. This year it increased prices 7.4%, following a 6.2% increase in 2019. Noam N. Levey, Vaccine maker got $1 billion from taxpayers. Now it’s boosting drug prices, L.A. Times (Sept. 14, 2020), https://www.latimes.com/politics/story/2020-09-14/drugmaker-got-1-billion-from-taxpayers-boosting-prices.

AbbVie’s public financial disclosures likewise show that AbbVie’s U.S. Humira revenues continue to grow in the absence of biosimilar competition. In 2017, the year before AbbVie entered into the Humira agreements, it reported approximately $12.4 billion in Humira revenue in the United States. AbbVie Inc., Annual Report (From 10-K) at 31 (Feb. 21, 2020), https://investors.abbvie.com/secfilings?items\_per\_page=10&page=9. At the time, that accounted for 67% of its total Humira revenue. Id. As of February 2020, AbbVie’s U.S. revenues had grown to $14.9 billion annually, now over 77% of its total Humira revenue. Id. AbbVie attributes its declining international Humira revenue to “direct biosimilar competition in certain international markets.” Id. at 32; see also AbbVie Inc., Quarterly Report (Form 10-Q) at 36 (Aug. 4, 2020), https://investors.abbvie.com/secfilings?items\_per\_page=10&page=0. In recent quarters, growth in AbbVie’s U.S. Humira revenue has roughly made up for revenue lost to biosimilar competitors abroad. Id. at 35 (showing only 0.7% decline in total Humira revenue year-over-year for the quarter ending June 30, 2020). This suggests AbbVie’s alleged willingness to share its European profits with rivals to forestall U.S. competition was not only plausible—it has succeeded at enriching AbbVie at the expense of consumers in the United States.

C. Contrary to the Supreme Court’s directive in Actavis, the decision below gave undue weight to the desirability of encouraging settlement and wrongly shifted the burden of proof to plaintiffs.

Amici States address one final error in the district court’s Actavis analysis: its improper emphasis on pro-settlement policy as an alternative reason to uphold the challenged Humira agreements. After describing its reasons for concluding that Actavis immunizes AbbVie’s agreements from rule-of-reason scrutiny, the court identified “a broader reason to uphold these agreements under antitrust review: encouraging patent litigants to settle worldwide patent disputes.” In re Humira, 2020 WL 3051309, at \*21. This was wrong for two reasons.

First and more importantly, the Supreme Court specifically rejected elevating “the desirability of settlements” over competition concerns when assessing patent settlements. Actavis, 570 U.S. at 158. Under Actavis, a policy of encouraging settlement cannot justify an otherwise anticompetitive agreement. If the agreements were anticompetitive reverse-payment deals, deference to that policy concern cannot save them. The district court overstepped its role by substituting its own view on the policy balance struck by federal antitrust law for that of the Supreme Court.

Second, the district court improperly placed the burden of disproving this justification on the plaintiffs. Because the court conceded that the complaint alleged “particular circumstances” taking these agreements “outside the norm,” such that “worldwide patent disputes” in general would not become unworkable, it was error to discredit those allegations and require the complaint to “elaborate.” In re Humira, 2020 WL 3051309, at \*21. Requiring the complaint to anticipate and plead allegations to negate the defendants’ defenses contradicts established precedent placing the burden on defendants to prove procompetitive justifications. See Ohio v. Am. Express Co., 138 S. Ct. 2274, 2284 (2018).

II. The Seventh Circuit Should Join the Majority of Courts of Appeals in Applying California Motor Transport to Serial Sham Petitioning.

Plaintiffs-Appellants alleged that AbbVie asserted “swaths of invalid, unenforceable, or noninfringed patents” in adjudicative proceedings with the intent and effect of imposing costs and delays on its biosimilar rivals. In re Humira, 2020 WL 3051309, at \*9. It sought exclusion not through recognition of legitimate patent rights but through raising its rivals’ costs by forcing them to invest time and money rebutting allegedly worthless arguments. Id. Rather than considering the overall exclusionary effects of this conduct, the district court limited its analysis to a subset, concluding that the rest was protected by Noerr-Pennington immunity. See In re Humira, 2020 WL 3051309, at \*14. This Court should join the majority of circuits and conclude that allegations of serial sham petitioning in adjudicative settings adequately plead a Sherman Act § 2 violation, without requiring allegations that every claim was objectively baseless.

The Noerr-Pennington doctrine immunizes from antitrust liability “mere attempts to influence the Legislative Branch for the passage of laws or the Executive Branch for their enforcement.” Cal. Motor Transport Co. v. Trucking Unlimited, 404 U.S. 508, 510 (1972). Because abusing government processes offers a monopolist a cheap, effective tool for excluding rivals, the Supreme Court has long recognized that attempts to “interfere directly with the business relationships of a competitor” hidden beneath a pretextual attempt to influence the government deserve no immunity. E.R.R. Presidents Conf. v. Noerr Motor Freight, Inc., 365 U.S. 127, 144 (1961).

Where the antitrust defendant allegedly brought several repetitive petitions in adjudicative proceedings, most Courts of Appeals continue to employ the flexible, holistic analysis established by the Supreme Court in California Motor Transport. 4 There, the Court held “a pattern of baseless, repetitive claims” could show that “administrative and judicial processes have been abused” such that Noerr-Pennington immunity does not apply. Cal. Motor Transport, 404 U.S. at 513. The alternative approach exempts from Noerr-Pennington immunity only those specific petitions shown to be objectively baseless, such that “no reasonable litigant could realistically expect success on the merits.” Prof’l Real Estate Invs., Inc. v. Columbia Pictures Indus., Inc., 508 U.S. 49, 60 (1993) [“PRE”].

Although the Supreme Court left some ambiguity about reconciling the existing California Motor Transport standard with PRE, the better view limits PRE to cases alleging a single sham suit and maintains California Motor Transport as the standard for evaluating serial sham petitioning. As the Ninth Circuit has explained, the two cases apply to “different situations” and deal with different levels of potential competitive harm. USS-POSCO, 31 F.3d at 810–11 (9th Cir. 1994). For one thing, “the filing of a whole series of lawsuits and other legal actions without regard to the merits has far more serious implications than filing a single action, and can serve as a very effective restraint on trade.” Id. at 811. The cost of “filing an additional sham complaint is negligible, but the cost of defending against the complaint is high in comparison.” Susan A. Creighton et al., Cheap Exclusion, 72 Antitrust L.J. 975, 993 (2005).

For another, serial petitioning involves a “more complex fact sets.” Hanover 3201 Realty, 806 F.3d at 180. In a single suit case, the court must decide whether a single petition constituted an abuse of process. Thus the objective merit of that single action allows the court to conclude that the “action is perforce not a sham.” USSPOSCO, 31 F.3d at 811. But in a serial petitioning case, the court is presented with more information and therefore “sits in a much better position to assess whether the defendant has misused the government process to curtail competition.” Hanover 3201 Realty, 806 F.3d¶ at 180. The California Motor Transport approach properly directs courts to weigh this broader range of evidence in identifying an anticompetitive abuse of process.

Finally, the Seventh Circuit’s decision in U.S. Futures Exchange LLC v. Board of Trade of the City of Chicago, Inc. does not foreclose applying California Motor Transport to the type of conduct challenged here. U.S. Futures Exchange LLC v. Board of Trade of the City of Chicago, Inc., 953 F.3d 955 (7th Cir. 2020). That case addressed “a single legislative proceeding,” not a “wide-ranging ‘pattern.” Id. at 965. By contrast, the conduct alleged here “involves adjudicative proceedings” including “patent infringement actions in federal district court.” In re Humira, 2020 WL 3051309, at \*11. Further, the complaint alleges that “some of the assertions AbbVie made . . . were objectively baseless.” Id. at \*13. U.S. Futures thus addresses significantly different conduct and should not govern here. See Appellants’ Br.41-44. Applying the PRE test in cases like this one inappropriately constrains the analysis and invites anticompetitive abuse of process.

Maintaining the flexibility afforded under California Motor Transport is particularly important in the pharmaceutical context. The complex regulatory schemes that govern generic and biosimilar drug approvals, and the patent system, present incumbent monopolists with many opportunities to cheaply impose burdensome proceedings on their rivals. As this case demonstrates, the growth of the biologics market will exacerbate this problem because of the staggering number of patent filings claiming some of these drugs. The adverse consequences of immunizing such repeated petitioning activity and enforcement actions short of adjudicative decisions on the merits are already known and will only exponentially increase. AbbVie’s petitioning and subsequent settlements have allowed it to continue aggressively increasing prices making Humira one of the “most expensive medications for patients, consumers, and taxpayers in the United States.” Rep. Carolyn B. Maloney, H. Comm. on Oversight & Reform, 116th Cong., Notice of Intent to Issue a Subpoena to AbbVie Inc. 1 (Sept. 1, 2020).5 This Court should heed these risks and clarify that district courts may assess the full range of evidence of abusive conduct in cases alleging serial adjudicative petitioning in accord with California Motor Transport.

CONCLUSION

Decisions like the one below threaten to undermine effective antitrust enforcement against collusive agreements in the pharmaceutical industry by exempting anticompetitive agreements from judicial review. Many of the same companies paying their rivals to delay entry also routinely abuse government processes by using serial sham petitions to deter competitive entry. These anticompetitive practices persist despite years of antitrust enforcement effort, limiting incentives to innovate and costing the States and their residents dearly in overcharges.

For the reasons described above the States urge this Court to reverse the decision below.

#### It's already illegal to extend a patent on an old drug or a slight variant while barring production of generics but companies still evergreen – the problem has to be enforcement because the aff basically isn’t inherent

**Holman 2020** (Christopher, Professor of Law, University of Missouri-Kansas City School of Law; J.D., University of California, Berkeley; Ph.D., University of California, Davis “Congress should decline ill-advised legislative proposals aimed at evergreening of pharmaceutical patent protection” *University of the Pacific Law Review*, 51(3), 493-524)DR 21

When critics of the pharmaceutical industry initially began talking about "evergreening," the discussion often seemed to imply that pharmaceutical companies were literally re-patenting the same product. However, those more familiar with patent law have responded by pointing out that, as a general matter, pharmaceutical companies are not simply re-patenting a product, and that various doctrines of patent law work in conjunction to prevent a company from obtaining new patents on a product that is **already on the market**. For example, at a May 7 Congressional Hearing entitled Intellectual Property and the Price of Prescription Drugs: Balancing Innovation and Competition, Professor David Olson of the Boston College Law School explained to lawmakers that:

It is axiomatic patent law doctrine that a later-filed patent (other than a continuation) cannot cover an earlier invention. Thus, no patent that covers an earlier composition or biologic is valid. To the extent that a patent owner says that a later-filed patent, with a later priority date and expiration date covers the same subject matter as an earlier-filed patent, that person is plainly wrong .... New patents can be filed on different formulations of a previous drug, on different manufacturing processes, and on new uses of previous drugs. Although some may call this "evergreening," new uses of drugs and new ways of producing them are the kinds of innovations that the patent system is designed to encourage. It would be a very significant change in patent law to change the law to not allow these kinds of patents in the pharmaceutical field.

If, on the other hand, a patent owner files new method patents and then asserts that a competitor cannot make the originally-claimed drug without infringing the new method, **the new patent** is either **invalid** or being asserted too broadly. If the patent owner uses trade secret methods to produce its drug, and later seeks to patent those trade secret methods, then the patent owner is seeking an invalid patent and can be liable for fraud on the patent office if the patent owner did not disclose that the method was used as a trade secret for more than a year before filing. 9

#### If the aff somehow does stop companies from filing more than one patent, then the perm definitely fails because extending Cal Motor precedent to series of pharma patents is incoherent if the aff stops any series of pharma patents from existing

#### Biden is reviving antitrust now, but a judicial pivot is key – single cases have broader signaling effects.

Posner 7/21 “The Antitrust War’s Opening Salvo” Jul 21, 2021 ERIC POSNER [a professor at the University of Chicago Law School] <https://www.project-syndicate.org/commentary/biden-antitrust-executive-order-what-it-does-by-eric-posner-2021-07> SM

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

Nonetheless, it would be a mistake to dismiss the order’s tentative language as mere rhetoric. Antitrust is the main body of law governing market competition in the US, and it has been the object of sustained attack by business interests and conservative intellectuals for more than 50 years. Biden is the first president since Harry Truman to take a strong public anti-monopoly stand, and he has backed it up by appointing ardent anti-monopoly advocates to his government.

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

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

Still, the Biden administration’s antitrust agenda will face significant judicial obstacles. Over the past 40 years, an increasingly business-friendly Supreme Court has gutted antitrust law. In ruling after ruling, it has weakened the standards used to evaluate anti-competitive behavior; raised the burden of bringing an antitrust case; limited the types of antitrust victims who are allowed to bring cases; allowed businesses to use arbitration clauses to protect themselves from class action lawsuits; and much else.

On top of that, the Supreme Court has disseminated throughout the judiciary a generalized suspicion of antitrust claims. Judges at all levels have absorbed an academic skepticism about antitrust law that is now 30 years out of date. Accordingly, business plaintiffs are usually seen as sore losers who have resorted to the law because they were beaten in the marketplace. Consumer cases are attributed to the machinations of trial lawyers. The pretexts businesses offer for their anti-competitive practices are swallowed whole.

So, while Biden is right that “federal government inaction” is partly to blame for the decline in antitrust enforcement, there is little that his (or any) administration can do unless it has the courts on its side. This probably accounts for the order’s careful language. Agencies like the DOJ and the FTC would surely like to enforce antitrust laws more vigorously than in the past, but they are not going to commit resources to bringing cases that will fail in court.

#### This case spills over

Roin et al 20 “Assessing The Novel Antitrust Claims In Humira Case” Benjamin Roin, Taylor Rubinato and Andrew Tepperman [Benjamin Roin is an associate principal, Taylor Rubinato is a senior associate and Andrew Tepperman is avice president at Charles River Associates.], May 29, 2020 <https://media.crai.com/wp-content/uploads/2020/09/16164743/Assessing-The-Novel-Antitrust-Claims-In-The-Humira-Case.pdf> SM

The plaintiffs' complaint states that AbbVie obtained and enforced its Humira-related patents as part of an anti-competitive scheme to delay biosimilar entry beyond the 2016 expiration of Humira's original compound patent. According to the plaintiffs, AbbVie spent years cultivating its patent thicket, knowing most of the patents are "weak," in that they are likely invalid and/or not infringed by biosimilars. AbbVie then asserted these patents against biosimilar applicants, allegedly without regard to the merits. The "sheer volume" of those patents purportedly deterred biosimilar companies from litigating to conclusion AbbVie's infringement claims by increasing the expected costs, duration and risk of litigation. This allegedly gave AbbVie undue leverage in its settlement negotiations with biosimilar companies, resulting in later entry dates for biosimilars than would have occurred but for the alleged anti-competitive scheme.

The litigation is in the pre-discovery stages, with a motion to dismiss pending before the court. A decision on that motion is expected soon.

Broader Relevance

Even if their applicability is limited to biologics, the plaintiffs' antitrust theories have significant implications. Biologics accounted for seven of the ten top-selling drugs in the U.S. and over 20% of novel FDA approvals in 2019.[8] Biologics tend to involve many distinct, patentable inventions; accordingly, sizable patent portfolios are the norm.[9] Settlements are also commonplace in biosimilar patent litigation, as is generally true in litigation.[10]

If courts recognize the plaintiffs' theories, allegations of anti-competitive patent thickets on biologics could become routine. The FTC and the FDA are said to be watching this litigation closely.[11] Depending on the outcome of the case, these agencies may start their own enforcement efforts targeting patent thickets.[12] Finally, a broader ruling that patent thickets can constitute monopolization could affect other industries, especially in the high-tech sectors, where companies often accumulate large patent portfolios.

#### Antitrust enforcement is key to innovation and competition in the tech sector

Arnav Jagasia 17. “TRUST BUSTING IN SILICON VALLEY: ANALYZING THE ROLE OF ANTITRUST REGULATION IN THE TECHNOLOGY INDUSTRY.” Wharton Public Policy Initiative. December 15, 2017. <https://publicpolicy.wharton.upenn.edu/live/news/2246-trust-busting-in-silicon-valley-analyzing-the-role> TG

Those wary of the growing power of certain technology firms often seek stricter antitrust regulation for the technology industry. Looking at precedents like the breakup of the Bell System or Judge Jackson’s ruling in United States v. Microsoft Corporation, there are many different remedies and policies that can address abuse of monopoly power. It is important to understand, however, that these tactics need only, and should only, be used if there is demonstrable proof of an abuse of monopoly power or clearly anticompetitive actions. As demonstrated by the breakup of the Bell System, splitting one firm that monopolized a market can make the market more competitive and reduce barriers to entry. One AEI scholar argues that splitting the Bell System into separate companies put more telecom companies on the same playing field; for example, Sprint and MCI grew as long-distance fiber-optic firms that could feasibly compete against [[19]](https://publicpolicy.wharton.upenn.edu/live/news/2246-trust-busting-in-silicon-valley-analyzing-the-role#_edn19).

Furthermore, some legal experts argue that antitrust policy itself was crucial for spurring innovation in the technology industry over the last half century. When the Bell System was broken up, AT&T agreed to license all of its patents to American firms for free, which helped spur further innovation based on Bell’s patents for the next decade [[20]](https://publicpolicy.wharton.upenn.edu/live/news/2246-trust-busting-in-silicon-valley-analyzing-the-role#_edn20). In the 1970’s, after more than a decade of litigation, IBM agreed to only focus on producing PC hardware and let others develop PC software, which gave way to the rise of software companies like Microsoft. Moreover, when Microsoft itself faced antitrust legislation, it had to let other internet browsers share the market, allowing for more competition in the rapidly developing internet browser market [[21]](https://publicpolicy.wharton.upenn.edu/live/news/2246-trust-busting-in-silicon-valley-analyzing-the-role#_edn21). These case studies show ensuring that the market remains competitive – through antitrust legislation or otherwise – is a crucial factor promoting for innovation in the technology sector.

#### US tech innovation is key to prevent flashpoint escalation and US-China war

Heath and Thompson 18 [Timothy R. Heath is a RAND Senior Defense and International Analyst, William R. Thompson is a Political Science Professor Emeritus at Indiana University] “Avoiding U.S.-China Competition is Futile: Why the Best Option is to manage Strategic Rivalry,” Asia Policy, Vol 13, No 2, pg 91-120, April 2018. TG

This article argues that the structural drivers of U.S.-China competition are too deep to resolve through cooperative engagement and that policymakers must instead accept the reality of strategic rivalry and aim to manage it at a lower level of intensity. main argument Rising tensions between China and the U.S. have spurred fears that the two countries could end up in conflict or recreate the Cold War. To avoid these outcomes, analysts have proposed ways to defuse competition and promote cooperation. However, because these arguments do not address the structural drivers underpinning U.S.-China competition, such proposals are unlikely to end the rivalry. Conflict is not inevitable, however, and aggressive strategies that unnecessarily aggravate the sources of rivalry are likely to prove dangerously counterproductive. The best option at this point is, paradoxically, for the U.S. to accept the reality of the growing strategic rivalry and manage it at a lower level of intensity. policy implications • Maintaining a technological edge is critical for the U.S. to successfully manage the rivalry with China. Policies should be pursued to ensure that the U.S. continues to attract and nurture the best science and technology talent and retains its status as the global leader in technology. • To compete with China’s narrative about leading regional integration, the U.S. should both put forth a compelling vision for the region that encompasses widely held economic, security, and political values and continue to bolster its diplomatic and military positions in Asia. • To maintain the U.S.-China rivalry at a stable level, policymakers in both countries should prioritize measures that discourage the mobilization of popular sentiment against the other country and encourage cultural exchanges. • U.S.-China competition will likely become increasingly entwined with rivalries between China and U.S. allies and partners such as Japan and India. U.S. policymakers will need to take into account the independent dynamics of those separate rivalries when managing relations with China. The United States and China find themselves increasingly enmeshed in a strategic rivalry, the basic nature of which remains poorly understood in the United States. To be sure, disagreements between the two countries have gained widespread attention. Disputes involving Chinese confrontations with U.S. allies and partners such as Japan, the Philippines, and Taiwan have frequently grabbed the headlines. At other times, disagreements over Chinese trade practices and U.S. military activities in the South China Sea have occasioned discord. All these sources of conflict are genuine, but they mask the main drivers of rivalry, which are twofold. First, the United States and China are locked in a contest for primacy—most clearly in Asia and probably globally as well. The United States has been the dominant power, and China seeks to eventually supplant it. By definition, two different states cannot simultaneously share primacy at either the regional or global level. Second, economic, demographic, and military trajectories suggest that China has the potential to contend in a significant way for leadership at the global systemic level. At this level, the most decisive competition will be for technological leadership. Should China supplant the United States as the world’s premier country in terms of technology, its claim to regional and global supremacy will be difficult to deny. And once it has gained that supremacy, China will be well positioned to restructure institutional arrangements to privilege itself and disadvantage the United States. Although this competition is occurring simultaneously at both levels, observers have focused primarily on the struggle for primacy at the regional level and overlooked or downplayed the competition at the global systemic level.1 To counter China’s pursuit of regional primacy, the United States has bolstered its alliances in Asia (albeit inconsistently), expanded diplomatic outreach to China and rising powers in Southeast Asia, and revised its military posture—efforts captured by President Barack Obama’s “rebalance to Asia.” President Donald Trump may have abandoned the rebalance, but many of the related initiatives remain more or less in place.2 China’s challenge at the global systemic level, especially in the field of technology, has received less attention. Confidence in the proven U.S. ability to produce new technologies and facile assumptions about the difficulties China will face in promoting innovation in new industries have led many to dismiss the challenge posed by China. But the contest for technological leadership is actually even more consequential than that for regional primacy. Should China succeed in surpassing the United States as the world’s technological leader, U.S. diplomacy and military power will not suffice to hold the line either in Asia or around the globe. Under those conditions, countries throughout the world, including U.S. allies in Asia, will be forced to come to terms with the new leading economy. Military power projection could be far less relevant as China moves to consolidate its leading status at both the regional and global levels in such a scenario. Accordingly, although the United States cannot abandon its efforts to bolster its diplomatic and military position in Asia, the country must step up its efforts to strengthen its faltering lead in new technology development. While China clearly grasps the stakes, it is not clear that the United States does. For example, China’s government has promoted R&D into quantum computing. The investment appears to be paying off, as the country has leaped ahead of the United States in developing quantum communications.3 Similarly, the U.S. Congress has proposed to dispense with subsidies for the purchase of electric vehicles, even as China pushes ahead in its plan to become the lead producer of this technology.4 And while the U.S. government seeks to restrict immigration and discourage foreign students from attending U.S. universities (and staying after they receive their advanced training), China has revised its policies to welcome foreigners, prioritizing those with science and technology expertise. Moreover, Chinese investment in basic R&D is rapidly catching up to that of the United States.5 Studies have also noted a shrinking U.S. lead in science and technology as such investment is beginning to bear fruit.6 Similarly, the United States has lost its once-undisputed lead in the per capita number of engineers and scientists.7 Understanding the nature of the U.S.-China rivalry at the regional and global systemic levels, as well as how these two levels interact with one another, is essential if the United States is to successfully manage the challenge posed by China in a manner that avoids war. This study aims to contribute to that understanding. The article is organized into the following sections: u pp. 95–102 provide an overview of the growing rivalry between China and the United States, including a discussion of the meaning and role of strategic rivalry in interstate conflict and a comparison with the U.S.-China rivalry during the Cold War. u pp. 102–4 review the dynamics of the rivalry at the regional systemic level. u pp. 104–10 analyze the dynamics of the rivalry at the global systemic level. u pp. 110–15 examine why proposals to avoid rivalry through cooperation or aggressive competition are unlikely to succeed. u pp. 115–19 discuss the idea of strategic rivalry management and offer recommendations on ways to sustain the rivalry at a lower level of intensity the growing rivalry between the united states and china Strains between China and the United States have deepened in the past few years over a proliferating array of issues. President Trump has stepped up accusations against China of unfair trade practices and inadequate pressure on North Korea. He also provoked controversy early in his term when he floated the idea of increasing official contacts with Taiwan, which Beijing considers a renegade province.8 These disputes add to tensions that had expanded under President Obama, who moved to strengthen U.S. alliances in Asia, promote a regional trade pact, criticize Chinese behavior in the cyber and maritime domains, and shift more military assets to the Asia-Pacific as part of the rebalance to Asia strategy.9 China has in turn dismissed U.S. concerns about the construction of artificial islands in the South China Sea, intensified its criticism of U.S. security leadership in Asia, and tightened its grip on disputed maritime territories.10 The baleful state of bilateral relations has spurred plenty of finger-pointing. On the Chinese side, officials denounce the United States’ “Cold War mindset” and warn of conflict if Washington does not adjust its policies.11 A 2015 defense white paper described an “intensifying competition” between the great powers.12 Military officials and many Chinese analysts regard increasing tension between the two countries as unavoidable, although they do not regard war as likely. People’s Liberation Army (PLA) deputy chief of staff Qi Jianguo commented that “no conflict and no confrontation does not mean no struggle” between China and the United States.13 According to Chinese official media, polls in China suggest a large majority believes that the United States intends to pursue a containment policy.14 Reflecting this point of view, Niu Xinchun, a scholar at the China Institutes of Contemporary International Relations, argued that the “greatest obstacle to the further integration of emerging countries such as China into the international system comes from the United States.”15 Western officials and commentators tend to blame China for current strains. Senior U.S. leaders have criticized “assertive” Chinese behavior, while some analysts blame Xi Jinping for pushing a more confrontational set of policies.16 Other Western observers worry that a further souring of relations could lead to conflict.17 But even if war remains unlikely, the deepening tensions increase the risks of miscalculation, crises, and potential military clashes involving the world’s two largest powers. Echoing a view widely held among U.S. foreign policy experts and officials, former CIA director General Michael Hayden has warned that mishandling the U.S.-China relationship could be “catastrophic.”18 Rivalry at the Heart of the U.S.-China Relationship This widespread concern reflects a realistic appraisal of the dangers inherent in the U.S.-China relationship. But developing successful policies to manage an increasingly sensitive and complex situation requires an accurate assessment of the phenomenon of interstate rivalry that lies at the heart of that relationship. Rivalry is a concept that, while widely acknowledged, remains poorly understood. To be sure, most experts take for granted the idea that powerful nations compete for status and influence, and they acknowledge the danger posed by a rising power’s challenge to a status quo power. Yet investigation into the phenomenon of rivalry too often stops at these well-trodden findings. Less often discussed are the conclusions regarding the dynamics of rivalry that experts on conflict studies have arrived at within the past few years. Much of this scholarship draws from improvements to the analyses and data regarding interstate crisis and conflict.19 This research has generated useful and interesting insights regarding the start and conclusion of rivalries, crises, and war, although these remain largely unexplored outside academic circles. Analysts have established, for example, that rivalry is perhaps the most important driver of interstate conflict. As defined by political scientists, “rivals” are states that regard each other as “enemies,” sources of real or potential threat, and as competitors. At the root of rivalries thus lie disputes over incompatible goals and perceptions that countries possess both the ability (real or potential) and the intention to harm each other. Wars have historically tended to be fought by pairings of these states and their allies. Rivals have opposed each other in 77% of wars since 1816 and in over 90% of wars since 1945.20 Not only are rivals more likely to fight than non-rivals, but rivals also have a tendency to be recidivists because they are unable to resolve their political differences on the battlefield. Yet that does not always discourage them from trying to do so repeatedly. Rivals that cannot prevail due to parity frequently compete for advantage by building internal strength through arms racing or by leveraging external power through the strengthening of alliances and partnerships. Rivals are also prone to serial militarized crises. Mutual perceptions of each other as hostile enemies and the inconclusive outcome of previous militarized disputes typically fuel a pattern of recurrent crises characterized by deepening resentment, distrust, and growing willingness to risk escalation. Studies have also established that the risk of conflict increases sharply after three episodes of militarized crises.21 Rivalries do not progress in a linear direction, however. Their intensity can wax and wane in response to shocks and other important developments. Periods of relative stability can alternate with turbulent periods of tension and conflict. Similarly, cooperative activities can be interspersed with periods of acute tension and hostility. Nevertheless, the link between rivalry, crises, and interstate conflict is pervasive. Drawing from these sources, one can describe the Sino-U.S. relationship as a rivalry characterized as a competition between two major powers over incompatible goals regarding their status, leadership, and influence over a particular region—in this case principally the Asia-Pacific. The dynamics of this type of strategic rivalry differ in significant ways from the far more numerous rivalries over territory that have characterized conflict between so many countries, especially weaker and poorer ones. In contrast with rivalries over territories, strategic rivals do not necessarily share borders, although allies of one power may be engaged in a territorial dispute with the other major power. Strategic rivalries among major powers tend to be especially long-lived, with the average enduring for about 55 years.22 Strategic rivalries are incredibly complex phenomena that include overlapping and often reinforcing layers of disputes over leadership, status, and territory between the principal rivals and their allies. Such rivalries are almost always multilateral affairs that also involve allies and partners, some of which have their own rivalries with the other side. Competition in the economic, political, and military domains can serve as expressions as well as drivers of rivalry, as can sports and cultural competition. Strategic rivalries can be confined to one region, with the basic conflict reducible in some respects to which rival will occupy the top rung of the regional hierarchy. In other cases, however, a rivalry can span regional and global domains either sequentially or simultaneously. The U.S.-China rivalry, for instance, is already both a regional and, to a lesser extent, a global rivalry, but there is still considerable room for competition to expand. The complex and overlapping nature of the disputes makes strategic rivalries extremely crisis- and conflict-prone. Strategic rivalries come in a grim package deal that includes strained and hostile relations, serial crises, and in some cases wars. The comprehensive and multifaceted nature of the disputes also explains why such rivalries have proved so durable and why their wars have been so devastating. Conflict between strategic rivals has historically occasioned the most destructive wars, of which World Wars I and II are the most recent examples. The fact that experts at the time of each historic episode of systemic conflict consistently underestimated the duration or extent of war offers cold comfort to analysts today who seek to predict the trajectory of any conflict that might involve China and the United States. Comparisons of the Current Environment with the U.S.-China Rivalry during the Cold War How did the two countries arrive at this position? The most widely accepted narrative argues that China’s rapid economic growth has provided the resources with which it can press demands on long unresolved issues such as unification with Taiwan. China and the United States may have enjoyed stable relations in the 1980s when they cooperated on a limited basis against the Soviet Union, but that foundation of cooperation eroded considerably once the Soviet bloc dissolved in the early 1990s. Moreover, China’s rapid growth in economic power has given the country fresh resources to press its own demands on the United States and U.S. allies. By 2010, China’s economy had outpaced that of Japan to become the second-largest in the world.23 The persistence of long-standing sources of antagonism, such as the U.S. security partnership with Taiwan, has both reflected and aggravated a broader competition for leadership. For its own reasons, Washington has resisted Beijing’s demands, and the result has been growing fear and distrust.24 The intensifying rivalry between the rising power and the status quo leader is as old as antiquity itself. Indeed, Graham Allison coined the term “Thucydides trap” to describe such a situation, a term that he subsequently applied to the current U.S.-China situation.25 The popular narrative is not entirely incorrect, yet in some ways it remains incomplete. A closer look at history reminds us that antagonism between China and the United States is not unprecedented. In the 1950s and 1960s, the two countries engaged in an intense strategic competition for status and influence in Asia, one that occasionally burned hot, as it did when they clashed on the Korean Peninsula or more indirectly in Vietnam. This Cold War–era rivalry saw a complex network of competing alliances and partnerships, principally in Asia. The United States supported Taiwan and South Korea in bitter disputes with China and its allies, North Korea and the Soviet Union. This rivalry terminated in the 1970s primarily due to Beijing’s decision to counter a growing Soviet menace and the United States’ decision to pursue China as a potential partner for its own rivalry with the Soviet Union. But the existence of a period of intense U.S.-Chinese tension and competition provides a helpful baseline of comparison. What requires explanation is not the fact that the United States and China are engaged in a rivalry but the difference between today’s rivalry and that of the Cold War. What distinguishes the rivalry today from that of the earlier period is both the closer parity in relative power—albeit still more potential than real—between the two countries and the comprehensiveness, complexity, and systemic nature of the disputes between them. Paradoxically, these features make the current rivalry potentially far more threatening to the United States, despite the fact that so far U.S.-China relations have remained peaceful, and even though the U.S. and Chinese militaries fought each other in the Korean War. The dangerous potential of the current rivalry ultimately owes to the risk that China could rise to the position of global system leader and subordinate the United States accordingly. As has happened in previous power transitions, China as a system leader could exploit existing arrangements to its benefit and to the detriment of the outgoing leader, the United States. Due to the enormous rewards that accrue to a systemic leader and the high costs for the state that loses this position, struggles for global leadership have historically proved to be especially destructive. The possibility that China and the United States could find themselves in a similar struggle, while unlikely at this point, cannot be ruled out given the reality of the relative decline in U.S. power and the concomitant increase in Chinese comprehensive national power. At the most basic level, this fact may be measured superficially by the U.S. share of world GDP, which eroded from 40% in 1950 to 16% in 2014, adjusted for purchasing power parity. Over the same period, China’s share expanded from around 5% to 17%.26 An important consequence of the narrowing of the gap in comprehensive power has been an intensifying competition for leadership in the international economic and political order. In this way, the popular discussion of the Thucydides trap correctly recognizes the dangers of the U.S.-China competition. This feature contrasts sharply with the previous episode of rivalry. In the 1950s and 1960s, the asymmetry in power meant that the United States and China competed for influence and even clashed militarily in countries along China’s borders, but rarely elsewhere. As a largely rural, impoverished country, China had little stake in the system of global trade promoted by the industrialized West. Excluded from the United Nations, Maoist China also lacked the institutional ability to influence geopolitics and project power much beyond its immediate environs—and even that capability was sorely handicapped. Outside Asia, the United States faced minimal competition from China and generally regarded the Soviet Union as a more pressing threat. By contrast, the current competition features a China fully enmeshed in a political and economic order led by the United States. While generally supportive of this order, China is also seeking to revise aspects of the regional and international order that it regards as obstacles to the country’s revitalization as a great power. The main theater of this competition for influence and leadership is the Asia-Pacific, as it was in the Cold War, but U.S.-China rivalry increasingly is expanding globally. Moreover, unlike the largely military, regional, and ideological Cold War competition, the current contest is far more multifaceted and comprehensive in nature; it includes military, economic, technological, and political dimensions. The following two sections review the state of the competition at both the regional and the global systemic levels. the u.s.-china rivalry at the regional level At the regional level, U.S.-China competition spans the political, economic, and military realms. Politically, the two countries have feuded over the role of liberal values and ideals, a dispute that widened after the 1989 Tiananmen Square massacre. However, the 1996 Taiwan Strait crisis elevated the potential threat of conflict between the two countries and may therefore be regarded as the starting point of the current rivalry. Coinciding with impressive gains in China’s economic and military power following two decades of market reforms, the standoff saw Washington and Beijing deploy military assets to back up their respective positions regarding Taiwan’s right to hold a presidential election, elevating the risk of a clash. Since then, the competition for political influence and leadership has intensified. In 2011, the United States announced its rebalance to Asia, which was aimed in part at shoring up U.S. alliances, partnerships, and influence.27 Although on the surface Washington has abandoned the effort, the Trump administration has reintroduced a vision for Asia’s economic and security order premised on values favorable to U.S. interests.28 The 2017 National Security Strategy stated, for example, that the United States upholds a “free and open Indo-Pacific.”29 Beijing, by contrast, has increased its efforts to advance a vision for a regional order premised on Chinese leadership. In recent years, China has promoted major economic and geostrategic initiatives to deepen Asia’s economic integration through the Belt and Road Initiative, Asian Infrastructure Investment Bank (AIIB), and other initiatives.30 In 2017, China for the first time issued a white paper that outlined the government’s vision for Asia-Pacific security. The paper stated that China takes the advancement of regional prosperity and stability “as its own responsibility.”31 These policies build on directives issued by Xi Jinping in 2013, when he called for policies to bolster China’s attractiveness as a regional leader.32 Economically, the two countries are competing over the evolution of Asia’s economic future—a region anticipated to drive global growth in coming decades. Both countries are also competing to shape the terms of trade. President Trump may have abandoned the Trans-Pacific Partnership (TPP), but his advisers have advocated other measures to shape favorable trade terms.33 Meanwhile, China has stepped up advocacy of the Regional Comprehensive Economic Partnership, a proposed free trade agreement for the region that excludes the United States.34 China also has promoted the AIIB, while the United States and Japan continue to instead support the Asian Development Bank.35 Militarily, the growing arms race and the establishment of rival security institutions stand among the most obvious manifestations of an increasing competition in this domain. China and the United States have designed an array of military capabilities and doctrines partly aimed at each other. The PLA has developed weapons systems to counter potential U.S. intervention in any contingency along China’s periphery, which the United States has in turn sought to counter with its own innovations, such as the Joint Operational Access Concept.36 U.S. secretaries of defense Chuck Hagel and Ashton Carter outlined a “third offset” strategy to compete with China and Russia in military technology.37 To promote regional security, the United States has strengthened its military alliances and partnerships, while China has strengthened ties with Russia and argued that regional security is best protected through the Shanghai Cooperation Organisation, the Conference on Interaction and Confidence Building Measures in Asia, and other Chinese-led institutions. In 2014, Xi indirectly rebuked the United States for seeking to bolster its security leadership in the region, stating that “it is for the people of Asia to uphold the security of Asia.”38

#### US-China war goes nuclear

Talmadge 18, Caitlin [**PoliSci PhD from MIT**, Government BA from Harvard, Prof of Security Studies at Georgetown’s Walsh School of Foreign Service.] “Beijing’s Nuclear Option.” Foreign Affairs. October 15, 2018. <https://www.foreignaffairs.com/articles/china/2018-10-15/beijings-nuclear-option> TG

As China’s power has grown in recent years, so, too, has the risk of war with the United States. Under President Xi Jinping, China has increased its political and economic pressure on Taiwan and built military installations on coral reefs in the South China Sea, fueling Washington’s fears that Chinese expansionism will threaten U.S. allies and influence in the region. U.S. destroyers have transited the Taiwan Strait, to loud protests from Beijing. American policymakers have wondered aloud whether they should send an aircraft carrier through the strait as well. Chinese fighter jets have intercepted U.S. aircraft in the skies above the South China Sea. Meanwhile, U.S. President Donald Trump has brought long-simmering economic disputes to a rolling boil.

A war between the two countries remains unlikely, but the prospect of a military confrontation—resulting, for example, from a Chinese campaign against Taiwan—no longer seems as implausible as it once did. And the odds of such a confrontation going nuclear are higher than most policymakers and analysts think.

Members of China’s strategic com­munity tend to dismiss such concerns. Likewise, U.S. studies of a potential war with China often exclude nuclear weapons from the analysis entirely, treating them as basically irrelevant to the course of a conflict. Asked about the issue in 2015, Dennis Blair, the former commander of U.S. forces in the Indo-Pacific, estimated the likelihood of a U.S.-Chinese nuclear crisis as “somewhere between nil and zero.”

This assurance is misguided. If deployed against China, the Pentagon’s preferred style of conventional warfare would be a potential recipe for nuclear escalation. Since the end of the Cold War, the United States’ signature approach to war has been simple: punch deep into enemy territory in order to rapidly knock out the opponent’s key military assets at minimal cost. But the Pentagon developed this formula in wars against Afghanistan, Iraq, Libya, and Serbia, none of which was a nuclear power.

China, by contrast, not only has nuclear weapons; it has also intermingled them with its conventional military forces, making it difficult to attack one without attacking the other. This means that a major U.S. military campaign targeting China’s conventional forces would likely also threaten its nuclear arsenal. Faced with such a threat, Chinese leaders could decide to use their nuclear weapons while they were still able to.

As U.S. and Chinese leaders navigate a relationship fraught with mutual suspicion, they must come to grips with the fact that a conventional war could skid into a nuclear confrontation. Although this risk is not high in absolute terms, its consequences for the region and the world would be devastating. As long as the United States and China continue to pursue their current grand strategies, the risk is likely to endure. This means that leaders on both sides should dispense with the illusion that they can easily fight a limited war. They should focus instead on managing or resolving the political, economic, and military tensions that might lead to a conflict in the first place.

#### 1AR theory is skewed towards the aff – a) the 2NR must cover substance and over-cover theory, since they get the collapse and persuasive spin advantage of the 3min 2AR, b) their responses to my counter interp will be new, which means 1AR theory necessitates intervention, c) they have a 7-6 advantage on all 1AR offs. Implications – a) drop the arg to minimize the chance the round is decided unfairly, b) use reasonability with a bar of defense or the aff always wins since the 2AR can line by line the whole 2NR without winning real abuse, c) condo and PICs – they set the terms of debate and know the plan better than us, so multiple options ensures the neg doesn’t auto lose after the 1AR, d) multiple shells bad – they can collapse to one and generate a 3:1 skew in ballot access

### 3

#### CP: The member nations of the World Trade Organization should allow exclusivity to be extended indefinitely for antimicrobial drugs per Salmieri. The member nations of the World Trade Organization should reduce intellectual property protections for all other medicines by implementing a one-and-done approach for patent protection.

Salmieri 18 “INTELLECTUAL PROPERTY AND THE FREEDOM NEEDED TO SOLVE THE CRISIS OF RESISTANT INFECTIONS” 2018 Gregory Salmieri [Ph.D., Philosophy, 2008, University of Pittsburgh; B.A. 2001, The College of New Jersey. Fellow, The Anthem Foundation for Objectivist Scholarship; Lecturer, Philosophy Department, Rutgers University] <http://georgemasonlawreview.org/wp-content/uploads/2019/04/26-1_7-Salmieri.pdf> SM

This Article suggests another sort of solution, which might be described as a way of incentivizing, by means of a single policy change, both the development of new antimicrobials and the responsible stewardship of these drugs. In its simplest form, the solution is to make the patent terms on these drugs extremely long. The solution has been proposed in this form by Professor John Horowitz and Brian Moehring32 as well as Professor Eric Kades,33 and it is occasionally mentioned in the existing literature.34 However, the case for this broad sort of solution has not been adequately articulated or appreciated. The next part develops the case for a solution of this sort and proposes an alternative version of the solution that is better tailored to the problem and better situated within a theory of IP. Finally, Part III addresses some concerns faced by any solution of this sort.

II. THE RIGHT TO THE VALUE CREATED BY RESPONSIBLE STEWARDSHIP

Consider how the two-fold problem of growing resistance to our current antimicrobial drugs and the dearth of new antimicrobials under development looks once the specifics are omitted. Forget for a moment that the subject is drugs and microbes—or even inventions as opposed to other sorts of property—and just focus on the structure of the predicament.35 There is a resource of immense value that is being used myopically in a way that destroys existing stocks of the resource, and little is being done to find or develop new stocks of it.

This is a pattern one expects to see with unowned resources, but not with owned ones. It is the classic “tragedy of the commons.” When a patch of grazing land is owned in common by everyone—which is just to say it is unowned—everyone has an incentive to make what use of it he can, leading to its overuse and destroying its value. By contrast, an owner can use land judiciously in ways that preserve its value or even to invest in improving the land. This is possible because the owner has exclusive control of the land in the present and therefore can control its uses, and because the owner expects to reap the benefit of the land’s future value. If deeds to land expired after twenty years, with the land reverting to the commons, land owners would have no financial incentives to preserve or enhance the land’s value past the twenty-year window. In this scenario, they could not afford to forgo shortterm gains that came at the expense of the land’s later value. Nor could they afford to invest in long-term improvement projects, such as clearing new land for grazing. This is the predicament with antimicrobial drugs. The profligate use of such drugs in the present destroys their value in a future in which they are unowned.

This suggests the simple solution of extending the patent terms for antimicrobial drugs. So long as the drug remains under patent, the patent holder has both an interest in preserving its usefulness and the ability to control its use so as to preserve its value. How long should the patent term be extended? The five years of extra market exclusivity offered by the GAIN Act is calculated with a view to incentivizing companies to invest in developing new drugs. The aim of the present proposal is different. It is to enable the creators of drugs to profitably exercise their rights over the drugs in a manner that preserves the drugs’ effectiveness over time—ideally into the indefinite future. This requires extending the term of exclusivity not just a few years or decades, but as far into the future as there is reason to hope that the drugs’ effectiveness can be maintained.

There are various ways in which this suggestion could be further developed; perhaps the most promising is simply to allow patents on antimicrobial drugs to be renewed indefinitely, so long as the drugs’ continued effectiveness can be demonstrated. (How exactly continued effectiveness should be demonstrated is a matter of detail, but likely by showing resistance to be below a certain threshold—perhaps 20 percent—in clinical isolates of interest.36) This would allow for a potentially infinite patent term. “Perpetual patents” have occasionally been proposed, 37 but the lack of a fixed term may do violence to the notion of a patent, so it may be better to conceive of this as a proposal for a new type of IP right that combines features of patents and trademarks. Conceptualizing the relevant right in this way highlights its basis. Like a patent, the right would pertain to an invention and would confer market exclusivity; like a trademark, however, it would be renewable in perpetuity on the grounds that the continued value of the property depends on the owner taking continuous action to maintain it. In the case of the right under consideration, the relevant actions would be those of stewarding the drug in such a manner as to prolong its continued effectiveness in the face of resistance.

This new sort of property right could, in principle, be applied to drugs that are already off patent or otherwise ineligible for patent protection. The Chatham House Working Group proposes granting “delinkage rewards” to “firms registering a new antibiotic without patent protection (such as new uses for old drugs),”38 and it may be that the sort of IP protection proposed here would be applicable in such cases as well. If so, the right would be justified by the discovery of the new use for the drug and by the fact that intelligent management of this use is required for it to retain its value. A more difficult case is granting such rights to already known antibiotics that have gone off patent and are now available as generics. Removing these drugs from the commons would make it possible for an owner to profit by stewarding them responsibly. The difficulty here is determining who would own them. Professor Kades considers the possibility of granting a new patent to the original patent holder, but suggests “auctioning the patent rights [to such drugs] to the highest bidder.”39 Both are plausible solutions. Another option, in light of the issue of cross-resistance (which will be discussed in Part III) would be to apportion the IP rights to the relevant drugs among the owners of other drugs with similar mechanisms of action.

Instituting the sort of property right described here (whether or not it is extended to drugs that are currently unpatentable and/or in the public domain) would create an environment in which pharmaceutical companies and other private entities can compete to develop new policies and business models that maximize the total value derived from antimicrobial drugs over time. An important advantage of this proposal is that it does not require policymakers (or authors of law review articles) to know in advance which specific practices would have this auspicious effect. However, some obvious possibilities suggest themselves.

Pharmaceutical companies could sell new antimicrobials at a price high enough to make it prohibitive to use them as anything other than treatments of last resort. In addition to extending the drugs’ useful lives, the high prices would compensate for the lower initial volume of sales, and the drugs could eventually be repriced for wider use as second- and then first-line treatments. This repricing would have to be paced both to the growth of the resistant bacterial population and to the development of new antimicrobial drugs to take their predecessors’ place as treatments of last resort. One can imagine many variations of this strategy with different price points and development cycles.

Pharmaceutical companies could also extend the effective lifespan of their antimicrobials through contractual arrangements with healthcare providers, which restrict the latter’s use of the drugs to certain protocols or best practices. Imagine the new business practices whereby pharmaceutical companies might profit from drugs that are never or hardly ever used. Licensing plans like the one proposed by Commissioner Gottlieb might be employed in innovative ways.40 For example, healthcare providers or insurance companies might pay a monthly fee for the right to use these drugs should it ever become necessary to do so. Or the various parties might negotiate a system whereby a pharmaceutical company (or an entity that has licensed drugs from multiple companies) charges a fixed price for treatment in accordance with a proprietary antimicrobial protocol that makes use of several of their drugs, specifying which drugs can used under which conditions.

The suggestions in the last paragraph all amount to ways in which revenues from the creation of a new drug might be “delinked” from sales volume. In principle, this delinkage could occur simply through market forces, without any additional policy interventions, but since governments and multinational organizations account for most of the spending in the healthcare sector in much of the world, their adopting policies favoring delinkage would likely stimulate the development of these sorts of business models under an IP regime of the sort suggested. Indeed, such delinkage–promoting policies would likely fare better under the proposed IP regime than under the current IP system because, as The Chatham House Working Group observes, “patent expiry” creates some difficulties for such policies.

Obligations for responsible use can be carefully crafted and functional when monopoly rights are in place, but are likely to fail once generic antibiotics are introduced upon the termination of the period of exclusivity. Generic manufacturers ordinarily rely on volume-based rewards, and low prices and large volume of sales without appropriate measures to conserve the antibiotics may be an important driver of indiscriminate use and resistance. A sustainable system will require controls on market entry after termination of the patent, and regulation of the way the generic products are marketed and prescribed.41

It bears emphasizing at this point that the best stewardship policies for antimicrobial drugs remain to be discovered. The Chatham House Working Group report (quoted several times above) represents the cutting edge of research on this issue, and it offers precious few details about the new “delinked” business model it says “needs to be developed.” Successful business models are rarely if ever specified from on high by public policy makers. Securing a long-range IP right to antimicrobial drugs would create the conditions in which the healthcare industry as a whole could invest the resources required to discover the practices, protocols, and business models that maximize the value of these substances. In addition, the ability to capture this value as profit would create an incentive to develop new drugs as needed.

IP rights, and patents in particular, are sometimes understood as bargains between creators and society. The proposal under consideration grants a lot more to the developers of any new antimicrobial drugs than they are granted under current law, but it asks a lot of these developers in return—for it requires them to become good stewards of their drugs by discovering and implementing the means necessary to preserve the drugs’ value over time, so that the maximum potential benefit from them is realized.42 This is work that needs to be done by someone, and the sort of IP regime proposed here would enable those people and firms most qualified to do this work to profit by doing it.

This leads to a deeper point. Although IP rights are often understood as special privileges granted by government and justified on utilitarian grounds, the dominant strand in early American jurisprudence, taking its inspiration from John Locke, regards all property rights as securing to a creator the fruits of his productive work.43 Among the reasons why patents and copyrights are finite in duration, whereas rights to chattels or land can be passed on from generation to generation indefinitely, is that chattels and land generally need to be maintained in order to retain their economic value over time, whereas this is not true of the economic value of an artwork or a method.44 But the case under consideration reveals that the continued economic value of certain methods does depend on an ongoing process of intelligent management by which one uses the method sparingly. It is this very fact that (according to the argument of this Part) justifies extending the IP right to the drug indefinitely. This raises the question of whether there are structurally similar cases in other fields, where the continued commercial value of a potential invention depends on its judicious use. If so, it may be that there are other values being destroyed (or never created) because of tragedies of the commons that could be rectified by policies analogous to the one suggested here.

#### Even if the aff incentivizes innovation they cannot incentivize innovation in anti-microbial research – the problem right now is lack of profit incentives for innovation and responsible stewardship.

Salmieri 18 “INTELLECTUAL PROPERTY AND THE FREEDOM NEEDED TO SOLVE THE CRISIS OF RESISTANT INFECTIONS” 2018 Gregory Salmieri [Ph.D., Philosophy, 2008, University of Pittsburgh; B.A. 2001, The College of New Jersey. Fellow, The Anthem Foundation for Objectivist Scholarship; Lecturer, Philosophy Department, Rutgers University] <http://georgemasonlawreview.org/wp-content/uploads/2019/04/26-1_7-Salmieri.pdf> SM

According to a 2013 report by the Center for Disease Control (“CDC”), two million people in the United States annually contract infections that are “resistant to one or more of the antibiotics designed to treat those infections”; the result is at least 23,000 deaths and (direct and indirect) economic losses that have been estimated at $55 billion (in 2008 dollars).2 The United Kingdom’s Antimicrobial Resistance Review estimates that, worldwide, there will be as many as ten million deaths annually from such infections by 2050.3 A 2017 report by the World Bank Group anticipates the financial toll:

In the optimistic case of low AMR [antimicrobial resistance] impacts, the simulations found that, by 2050, annual global gross domestic product (GDP) would likely fall by 1.1 percent, relative to a base-case scenario with no AMR effects; the GDP shortfall would exceed $1 trillion annually after 2030. In the high AMR-impact scenario, the world will lose 3.8 percent of its annual GDP by 2050, with an annual shortfall of $3.4 trillion by 2030.4

There are two related aspects to this crisis: (1) bacterial populations are evolving resistance to the antimicrobial drugs currently in use, and (2) there are few new drugs in the developmental pipeline that promise to be effective against these bacteria.5 It is widely understood that both aspects are caused or exacerbated by the economic incentives faced by the pharmaceutical industry and the healthcare industry more broadly.6

The eventual obsolescence of any conventional antimicrobial drug is inherent in its use, but it is hastened when the drug is liberally prescribed.7 Such liberal prescription is driven by incentives for both physicians and pharmaceutical companies. Patients’ expectations for prompt treatment sometimes lead doctors to prescribe broad-spectrum antibiotics in cases where it would be more prudent to await testing and prescribe a more targeted antimicrobial—or to prescribe antibiotics for viral infections where they are ineffective. 8 Pharmaceutical companies have an incentive to sell as much volume as possible in the period between the drug’s Food and Drug Administration (“FDA”) approval and the end of its twenty-year patent term.

The problem of liberal prescription of antibiotics has been much discussed in medical and policy circles. 9 It is widely agreed that an important part of the solution is antimicrobial stewardship, which the Infectious Diseases Society of America defines as follows:

Antimicrobial stewardship refers to coordinated interventions designed to improve and measure the appropriate use of antimicrobials by promoting the selection of the optimal antimicrobial drug regimen, dose, duration of therapy, and route of administration. The major objectives of antimicrobial stewardship are to achieve optimal clinical outcomes related to antimicrobial use, to minimize toxicity and other adverse events, to reduce the costs of health care for infections, and to limit the selection for antimicrobial resistant strains.10

The most dramatic outcome thus far of the policy discussion, in the United States at least, is that the Centers for Medicare and Medicaid Services updated its “Conditions of Participation.”11 These updated “Conditions of Participation” (issued as a result of an executive order by President Obama in 2014) require all hospitals participating in Medicare and Medicaid to establish and maintain “antibiotic stewardship programs.”12 These conditions are already in effect for acute care hospitals and are expected to go into effect generally by the end of 2018.13

An additional incentive for too liberal use of antibiotics comes from outside of the healthcare industry. These drugs are useful as a growth promoter for livestock, and it has been shown that this use can lead to the growth of resistant bacteria, which can then infect human beings. 14 Such use of most antibiotics is now banned in the European Union member states, Mexico, New Zealand, and South Korea.15 In the United States and Canada, regulatory agencies have issued guidelines against this use of antibiotics that are deemed medically important.16

The second aspect of the crisis is the dearth of new antimicrobial drugs in development. A 2017 World Health Organization report projects that approximately ten new antibiotics and biologicals will be approved in the next ten years but warns that “these new treatments will add little to the already existing arsenal” because most of them will be “modifications of existing antibiotic classes,” which are “only short term solutions as they usually cannot overcome multiple existing resistance mechanisms and do not control the growing number of pan-resistant pathogens.”17

Few new antimicrobial drugs are in development because there is a low return on the investment needed to discover such drugs and shepherd them through the approval process. This is the reason why Aventis, Bristol-Myers, Squibb, Eli Lilly, Glaxo SmithKline, Proctor and Gamble, Roche, and Wyeth all “greatly curtailed, wholly eliminated or spun off their antibacterial research” between 1999 and 2003.18 The already low return on investment will dwindle as stewardship guidelines are adopted and the drugs are prescribed more judiciously.19

The Chatham House Working Group on New Antibiotic Business Models summarizes the situation thusly:

Today, few large pharmaceutical companies retain active antibacterial drug discovery programmes. One reason is that it is scientifically challenging to discover new antibiotics that are active against the antibiotic-resistant bacterial species of current clinical concern. Another core issue, however, is diminishing economic incentives. Increasingly, there are calls to conserve the use of truly novel antibiotics, which might limit sales severely and discourage greater investment in R&D. Meanwhile, unless they see evidence of superiority, healthcare payers are unwilling to pay prices that would directly support the cost of development, provide a competitive return on investment and reflect the value to society of maintaining a portfolio of antibiotics adequate to overcome growing resistance.

A principal reason for this is the mismatch between the current business model for drugs and combating resistance. The current business model requires high levels of antibiotic use in order to recover the costs of R&D. But mitigating the spread of resistance demands just the opposite: restrictions on the use of antibiotics. Economic incentives play a key role in the global resistance problem, leading to overuse of these precious drugs at the same time as companies are abandoning the field; and the increasing restrictions on inappropriate use of antibiotics make them relatively unprofitable compared with other disease areas.20

#### If they win a disease impact, the counterplan turns it

### 4

#### Bipartisan antitrust bills passing now but continued PC needed to pacify republicans.

Perlman 9/3 [Matthew; 9/3/21; “*Interest Groups Back Big Tech Antitrust Bills In House,*” LAW360, <https://www.law360.com/competition/articles/1418789/interest-groups-back-big-tech-antitrust-bills-in-house>] Justin

Law360 (September 3, 2021, 7:25 PM EDT) -- A contingent of public interest groups are urging leaders of the U.S. House of Representatives to advance a package of legislation aimed at reining in Big Tech companies through updates and changes to antitrust law, though free market advocates have been jeering many of the bills. A total of 58 public interest and consumer advocacy groups signed on to a letter Thursday asking House leaders to swiftly pass the package of six antitrust bills that the Judiciary Committee approved in late June after a marathon markup session. The proposals include legislation prohibiting large platform companies from acquiring competitive threats, preferencing their own services and using their control of multiple business lines to disadvantage competitors in other ways. The proposals would also impose interoperability and data portability requirements on large tech platforms, increase merger filing fees and boost enforcement by state attorneys general. Charlotte Slaiman, competition policy director for Public Knowledge, which signed on to the letter, said in a statement Thursday that the package charts a path toward putting "people back in control of the digital economy." "The broad range of groups supporting this package shows just how widespread the problem of Big Tech dominance is, and that these bills deserve a full vote in the House imminently," Slaiman said. The letter contends that America has a monopoly problem that is resulting in lower wages, reduced innovation and increased inequality, while also undermining the free press and perpetuating "racial, gender and class dominance." "Big Tech monopolies are at the center of many of these problems," the letter said. "Reining in these companies is an essential first step to reverse the damage of concentrated corporate power throughout our economy." The proposals followed a 16-month investigation by the House antitrust subcommittee into Amazon, Apple, Facebook and Google that resulted in a sprawling report from Democratic members calling for a range of reform measures to rein in the dominance of the companies. While consumer advocacy groups have largely supported the measures, the tech companies themselves and other interest groups have been highly critical, including a coalition of more than 25 right-leaning groups that sent a letter to Congress ahead of the markup hearing. The letter called the bills a "Trojan horse package" aimed at cynically using conservative anger over Big Tech, particularly at perceived censorship by social media platforms, to seek bipartisan support for "European-style over-regulation." For its part, Facebook has called the proposals a "poison pill for America's tech industry at a time our economy can least afford it" and said the bills underestimate the fierce competition the U.S. companies face from abroad. Apple and Google also raised concerns about the impact the bills would have on innovation, as well as on privacy and security. And Amazon has warned about the potential consequences of the proposals for both small businesses that sell on its platform and the consumers who use it to shop. Ending Platform Monopolies Act Thursday's letter said that the Ending Platform Monopolies Act would address "the most problematic aspects of the Big Tech companies" by allowing enforcers to break-up or separate pieces of the businesses when they create conflicts of interest that give the platforms an advantage over potential competitors and business users. A fact sheet from Public Knowledge accompanying the letter said that the bill is an important tool to help the antitrust agencies "protect consumers from mammoth platforms and to ensure compliance with other parts of the package." But during the markup hearing, ranking Republican committee member Rep. Jim Jordan of Ohio blasted the bill as a regulatory overreach, calling it "quite literally central planning" and arguing that it has significant ambiguities, which is bad for business. The Competitive Enterprise Institute argued in a June statement that the bill "kills the goose that lays the golden egg," and would actually result in small businesses being unable to access the large platforms, which in turn would focus on their own offerings instead. The Chamber of Progress has warned that the proposal could bar Amazon from offering its Prime services and its Amazon Basics private label products, since they would compete against other sellers on the platform. Other groups have also warned it could also force tech companies to divest popular apps, including Google's Maps and YouTube, Facebook's WhatsApp and Instagram and Apple's iMessage and FaceTime. American Innovation and Choice Online Act The American Innovation and Choice Online Act is aimed at barring the platform companies from preferencing their own products and services over those of rival businesses and from excluding or discriminating against rivals. Thursday's letter said this proposal would "promote innovation and competition" by preventing the platforms from protecting their monopolies. The right-leaning think tank American Enterprise Institute and others have argued that the bill could prevent Apple from pre-installing certain apps on its mobile phones, since that would advantage it over competing app developers. It could also prevent Google from integrating maps or customer reviews into search results, among other things. "At a minimum, the act would significantly disrupt these platforms' business models in ways that undermine consumer value," Daniel Lyons, a senior fellow for the group wrote in a blog post in June. Platform Competition and Opportunity Act The Platform Competition and Opportunity Act is aimed at preventing platform companies from acquiring potential or nascent competitors and its supporters argued in Thursday's letter that it would prevent the tech giants from enhancing or maintaining their market power. The bill would presumably have blocked Facebook's purchases of WhatsApp, Instagram and other services it has acquired, as well as a slew of deals by Google over the past two decades. Detractors have contended that this bill would limit investments in startups because it restricts their ability to be acquired by the larger technology firms, which they say is a key way for founders to benefit from their success. An American Enterprise Institute blog post from June argues that "opportunities for acquisition have been important drivers of innovation in tech" and also said the bill would prevent the tech companies from entering new areas of business to compete with each other. ACCESS Act The Augmenting Compatibility and Competition by Enabling Service Switching, or ACCESS Act, imposes requirements for the tech companies to make user data portable and able to be used by competing services. The bill's supporters argued in Thursday's letter that this prevents the tech giants from locking users into their services, since users can take their data with them and use it on other networks. Privacy and security implications have been flagged as potential problems for the proposal, with the Competitive Enterprise Institute saying in a statement in June that it's an "anti-privacy bill" that forces companies to turn over private user information to others. The group also said the bill would try to micromanage "complex, dynamic, and highly competitive markets" that are beyond understanding for most politicians and regulators. The American Enterprise Institute has also contended that the requirements would actually make rivals even more dependent on the incumbent platforms. Filing fees and state enforcement Of the antitrust bills approved by the House Judiciary Committee, the ones with the most bipartisan support appear to be the Merger Filing Fee Modernization Act and the State Antitrust Enforcement Venue Act, though it took a day of debate before the committee passed them. A Senate version of the filing fee bill passed that chamber in June as part of the U.S. Innovation and Competition Act. It would raise the fees merging parties pay when reporting large transactions, while lowering fees for smaller deals, in order to raise more resources for the antitrust agencies. Information Technology & Innovation Foundation argued in an August blog post that the legislation does not give Congress enough oversight over how the agencies will use the funds that it raises and called for the bill to include provisions requiring the money be used to hire more staff dedicated to antitrust enforcement. The Competitive Enterprise Institute also raised concerns about congressional oversight and contended that the bill would increase the cost of doing business at a time when the economy is sputtering. "U.S. consumers need innovative services and affordable products, not higher prices passed onto them by businesses avoiding new, unnecessary regulatory compliance costs," the group said in a June blog post. The state enforcement bill would prevent antitrust cases brought by state attorneys general from being transferred to a different venue by the Judicial Panel on Multidistrict Litigation, similar to protections afforded to federal enforcers. The bill is intended to prevent companies targeted by state-led enforcement actions from trying to move the cases to more favorable venues, and it also has an analog in the Senate. Information Technology & Innovation Foundation acknowledged in their August post that having cases included in multidistrict litigation can handicap state enforcers, but contended the changes should only apply to criminal matters and that the current version is wrong to block transfers of civil cases too. Thursday's letter from supporters of the bills said the proposals were carefully crafted to address the abusive practices of Big Tech, informed by the House antitrust subcommitee's sprawling investigation and "historic" 450-page report. "We believe that these bills will bring urgently needed change and accountability to these companies and an industry that most Americans agree is already doing great harm to our democracy," the letter said.

#### Aff requires negotiations that saps PC.

Pooley 21 [James; Former deputy director general of the United Nations’ World Intellectual Property Organization and a member of the Center for Intellectual Property Understanding; “Drawn-Out Negotiations Over Covid IP Will Blow Back on Biden,” Barron’s; 5/26/21; <https://www.barrons.com/articles/drawn-out-negotiations-over-covid-ip-will-blow-back-on-biden-51621973675>] Justin

The Biden administration recently announced its support for a proposal before the World Trade Organization that would suspend the intellectual property protections on Covid-19 vaccines as guaranteed by the landmark TRIPS Agreement, a global trade pact that took effect in 1995.

The decision has sparked furious debate, with supporters arguing that the decision will speed the vaccine rollout in developing countries. The reality, however, is that even if enacted, the IP waiver will have zero short-term impact—but could inflict serious, long-term harm on global economic growth. The myopic nature of the Biden administration’s announcement cannot be overstated.

Even if WTO officials decide to waive IP protections at their June meeting, it’ll simply kickstart months of legal negotiations over precisely which drug formulas and technical know-how are undeserving of IP protections. And it’s unthinkable that the Biden administration, or Congress for that matter, would actually force American companies to hand over their most cutting-edge—and closely guarded—secrets.

As a result, the inevitable foot-dragging will cause enormous resentment in developing countries. And that’s the real threat of the waiver—precisely because it won’t accomplish either of its short-term goals of improving vaccine access and facilitating tech transfers from rich countries to developing ones. It’ll strengthen calls for more extreme, anti-IP measures down the road.

Experts overwhelmingly agree that waiving IP protections alone won’t increase vaccine production. That’s because making a shot is far more complicated than just following a recipe, and two of the most effective vaccines are based on cutting-edge discoveries using messenger RNA.

As Moderna Chief Executive Stephane Bancel said on a recent earnings call, “This is a new technology. You cannot go hire people who know how to make the mRNA. Those people don’t exist. And then even if all those things were available, whoever wants to do mRNA vaccines will have to, you know, buy the machine, invent the manufacturing process, invent creation processes and ethical processes, and then they will have to go run a clinical trial, get the data, get the product approved and scale manufacturing. This doesn’t happen in six or 12 or 18 months.”

Anthony Fauci, the president’s chief medical adviser, has echoed that sentiment and emphasized the need for immediate solutions. “Going back and forth, consuming time and lawyers in a legal argument about waivers—that is not the endgame,” he said. “People are dying around the world and we have to get vaccines into their arms in the fastest and most efficient way possible.”

Those claiming the waiver poses an immediate, rather than long-term, threat to IP rights also misunderstand what the waiver will—and won’t—do.

The waiver petition itself is more akin to a statement of principle than an actual legal document. In fact, it’s only a few pages long.

As the Office of the United States Trade Representative has said, “Text-based negotiations at the WTO will take time given the consensus-based nature of the institution and the complexity of the issues involved.” The WTO director-general predicts negotiations will last until early December.

That’s a lot of wasted time and effort. The U.S. Trade Representative would be far better off spending the next six months breaking down real trade barriers and helping export our surplus vaccine doses and vaccine ingredients to countries in need.

#### Cross apply antitrust impacts

### Case

#### Defense - no extinction from disease:

#### 1] Burnout and geographical isolation check – milett assumes bioterrorism but they’ve only won natural pandemics coming now

Consiglio 17 [Dave, Community College Professor of Chemistry and Physics, 12/7/17, “Could a Disease Wipe Out Humans Entirely?”, <https://www.forbes.com/sites/quora/2017/12/07/could-a-disease-wipe-out-humans-entirely/#387c2f308203> Accessed 2/8/28] BBro

What scenarios seem like they should kill everyone but actually won't? Disease. Everyone seems worried about a killer disease, be it HIV or Ebola or Flu or some unknown pathogen. But humans are going to be really hard to wipe out via disease. Why? Well, we have several things going for us: We have a massive population. **We are geographically widespread**. We are capable of eating nearly anything. We are reasonably diverse as a species. **There are geographically** and genetically **isolated** pockets of our **population. Diseases require** a **vector** to spread. Let’s say the perfect disease arose tomorrow: It kills two weeks after you get it, shows no symptoms until the last minute, is really easy to transmit, and we have very little immunity to it. It still doesn’t kill everyone. Native Greenlanders and the people in Antarctica and people on Navy submarines and the few random people who are immune, and park rangers all either never come into contact with an infected person or else are spared by a genetic fluke. We even have the International Space Station as a potential place to hide and wait for the epidemic to die down. In fairness, nearly everyone is dead in short order, but **once** the **disease has run its course, the pathogen** that causes it **is also** likely to be **dead.** The vast majority of pathogens don’t survive for long outside of their hosts. As such, once nearly everyone is dead and the survivors wait a bit, they’re **unlikely to encounter live pathogen**. As an added bonus, the few surviving people include many of the most naturally immune members of the (now mostly dead) population. Now, don’t get me wrong, this scenario would be catastrophic for humanity. 99.9% of us could die in this way. And it’s possible that the remaining humans would be so isolated as to be unable to find one another for the purposes of reproduction. But I doubt it. Humans are nothing if not fecund, and we have those submarines, boats, airplanes, etc. We will eventually come out from hiding, find that special someone, and breed our way out of trouble. It’s why we’re still around as a species - nothing stops us from making more humans.

**2] Intervening actors check**

Zakaria 9—Editor of Newsweek, BA from Yale, PhD in pol sci, Harvard. He serves on the board of Yale University, The Council on Foreign Relations, The Trilateral Commission, and Shakespeare and Company. Named "one of the 21 most important people of the 21st Century" (Fareed, “The Capitalist Manifesto: Greed Is Good,” 13 June 2009, http://www.newsweek.com/id/201935)

Note—Laurie Garrett=science and health writer, winner of the Pulitzer, Polk, and Peabody Prize

It certainly looks like another example of crying wolf. **After bracing ourselves for a global pandemic, we've suffered** something more like **the usual seasonal influenza**. Three weeks ago the World Health Organization declared a health emergency, warning countries to "prepare for a pandemic" and said that the only question was the extent of worldwide damage. **Senior officials prophesied that millions could be infected** by the disease. **But as of last week, the WHO had confirmed only 4,800 cases** of swine flu, with 61 people having died of it. Obviously, these low numbers are a pleasant surprise, but it does make one wonder, what did we get wrong? **Why did** the **predictions of a pandemic turn out to be so exaggerated**? Some people blame an overheated media, but it would have been difficult to ignore major international health organizations and governments when they were warning of catastrophe. I think **there is a** broader **mistake in the way we look at the world.** Once we see a problem, we can describe it in great detail, extrapolating all its possible consequences. But **we** can **rarely anticipate the human response to that crisis. Take** **swine flu. The virus** **had crucial characteristics** **that led researchers to worry that it could spread far and fast**. They described—and the media reported—what would happen if it went unchecked. **But it did not go unchecked**. **In fact, swine flu was met by an extremely vigorous response at its epicenter**, **Mexico. The Mexican government reacted quickly** and massively, quarantining the infected population, testing others, providing medication to those who needed it. **The noted expert on this subject,** Laurie **Garrett, says, "**We should all stand up and scream, **'Gracias, Mexico**!' because the Mexican people and the Mexican government have sacrificed on a level that I'm not sure as Americans we would be prepared to do in the exact same circumstances. They shut down their schools. They shut down businesses, restaurants, churches, sporting events. **They** basically paralyzed their own economy. They've suffered billions of dollars in financial losses still being tallied up, and thereby **really brought transmission to a halt." Every time one of these viruses is detected**, writers and **officials bring up the Spanish influenza** epidemic **of 1918** in which millions of people died. Indeed, during the last pandemic scare, in 2005, President George W. Bush claimed that he had been reading a history of the Spanish flu to help him understand how to respond. **But the world we live in today looks nothing like 1918. Public health-care systems are far better** and more widespread than anything that existed during the First World War. **Even Mexico, a developing country, has a first-rate public-health system**—far better than anything Britain or France had in the early 20th century.

#### Disease outbreaks will be defeated with quarantines

**Szalai 7/26** [(Jennifer Szalai - author for the NYT) “The Extradordinary History (and likely busy future) of quarantine” The New York Times. 7-26-2021]

**Quarantine can be lifesaving**; it can also be dangerous, an exercise of extraordinary power in the name of disease control, a presumption of guilt instead of innocence.

In “Until Proven Safe,” a new book about quarantine’s past and future, Geoff Manaugh and Nicola Twilley do an impressively judicious job of explaining exactly why fears of quarantine are understandable and historically justified, while also showing how in coming years “we will almost certainly find ourselves more dependent on quarantine, not less.” Quarantine has to do with risk and uncertainty, and its logic is simple: “There might be something dangerous inside you — something contagious — on the verge of breaking free.”

**While medical advances have made some diseases more diagnosable** and less deadly, newfound knowledge can also accentuate the depths of our ignorance. The more we know, the more we know how much we don’t know — not to mention that **modern life, with escalating numbers of people and goods churning** their way **around the world**, has **increased the opportunities for contagion.**

Quarantine is distinct from isolation, even if the terms are often used interchangeably. Someone is isolated when they are known to be sick; **someone is quarantined when they might be but we cannot be sure**. Manaugh, an architecture and technology blogger, and Twilley, the co-host of a podcast about the science and history of food, bring an impressively wide range of interests to bear on a subject that involves not only infectious disease but also — in their ambitious yet seamless narration — politics, agriculture, surveillance and even outer space.

#### Quarantines solve climate change – COVID was responsible for the largest drop in emissions ever

**Alexander 20** [(Kurtis, a general assignment reporter for The San Francisco Chronicle, frequently writing about water, wildfire, climate and the American West. His recent work has focused on the impacts of drought, the widening rural-urban divide and state and federal environmental policy. Before joining the Chronicle, Alexander worked as a freelance writer and as a staff reporter for several media organizations, including The Fresno Bee and Bay Area News Group, writing about government, politics and the environment.) "Coronavirus has altered the global warming trajectory. But for how long?" San Francisco Chronicle, 5/20/20, https://www.sfchronicle.com/health/article/Greenhouse-gas-emissions-on-track-for-record-drop-15279312.php] TDI

The disruption caused by the coronavirus has been so profound that it’s altered the trajectory of global warming.

Not since World War II — and perhaps never before — have the emissions of heat-trapping gases dropped as much around the planet as they have during the COVID-19 outbreak.

The latest and most detailed study yet on the pandemic’s impact on climate pollution, published Tuesday and authored by the research group Global Carbon Project chaired by Stanford University’s Rob Jackson, finds that the Earth will see up to a 7% decrease in carbon dioxide this year. The dip is five times the decline in emissions in 2009, when the recession choked the world’s economy, and double what it was in 1992, after the fall of the Soviet Union.

The paper’s findings mirror other reports that have similarly found sharp drops in greenhouse gases recently. The emerging research also is in agreement that the lull will likely be short-lived and, at best, buy time before the most devastating effects of climate change take hold. The lockdown that has halted factories, energy plants and automobiles during the pandemic is already lifting, and without deliberate action, carbon-intense activities are bound to resume.

“That’s the danger here,” said Jackson, a professor of earth system science and senior fellow at Stanford Woods Institute for the Environment. “We’ve decreased emissions for the wrong reasons. Will they jump back up starting this fall, or could the virus allow us to rethink transportation and other parts of the economy?”

The answer to the question, say Jackson and others, may not be so straightforward. Greenhouse gases could rebound in some areas, and there could be lasting decreases in others.

Measuring heat-trapping gas emissions, for which carbon dioxide is a proxy, is not easy to do, especially in real time. The researchers at the Global Carbon Project analyzed daily economic activity in 69 countries from January through April and modeled the carbon pollution that likely resulted, then compared it to last year. The countries included have historically produced almost all of the world’s carbon dioxide.

The researchers found that China, the largest polluter, reduced emissions by nearly 24% on some days in mid-February. The United States, the second-largest polluter, cut emissions by nearly 32% for almost two weeks in mid-April. The European Union, including Great Britain, trimmed emissions by about 27% during the first week of April.

The dates of peak reductions varied in different parts of the globe because each locked down at a different time. The biggest cumulative drop in carbon dioxide was on April 7 and measured about 17%, according to the study.

While a variety of activity explains the declines, fewer people driving was the largest contributor worldwide. Less industrial pollution was also a big contributor.

Based on the observed drops in emissions, the researchers estimate that going forward, carbon dioxide will fall between 4% and 7% for the year worldwide, depending on how quickly countries end their lockdowns.

Jackson said the amount of the decline can be viewed as both considerable, given that it’s the largest ever seen, and humbling because it’s the minimum needed annually to put the planet on track to meet the Paris climate agreement — enough of a drop to prevent the global temperature from rising 2 degrees Celsius above preindustrial levels.

“We would need to do this every year,” he said.

The International Energy Agency recently projected an 8% dip in greenhouse gases for the year while the International Monetary Fund came up with an estimate closer to 6%. Both organizations said carbon pollution would likely rise again in 2021.

After the decline in emissions in 2009 of about 1.4%, the following year saw an increase of 5.1%.

The Global Carbon Project says there’s reason to think that at least some parts of the globe will try to prevent heat-trapping gases from bouncing back. Stimulus programs aimed at developing clean energy and new carbon-friendly ways of living adopted during the pandemic, such as working from home, could help limit emissions.

“Cities from Seattle to Milan are keeping roads closed to cars and letting them stay open to bikes and pedestrians even after the shelter-in-place,” Jackson said. “And maybe COVID-19 and stimulus funding will jump-start electric cars.”

#### Short-term action to mitigate climate change solves extinction and nuclear war

**Pester 8/30/21** (Patrick, staff writer for Live Science. His background is in wildlife conservation and he has worked with endangered species around the world. Patrick holds a master's degree in international journalism from Cardiff University in the U.K. and is currently finishing a second master's degree in biodiversity, evolution and conservation in action at Middlesex University London. Citing **Luke Kemp, a research associate at the Centre for the Study of Existential Risk at the University of Cambridg**e in the United Kingdom AND **Michael Mann, PhD, distinguished professor of atmospheric science at Penn State**. “Could climate change make humans go extinct?” [https://www.livescience.com/climate-change-humans-extinct.html August 30](https://www.livescience.com/climate-change-humans-extinct.html%20August%2030), 2021)DR 21

According to Mann, a global temperature increase of 5.4 degrees Fahrenheit (3 degrees Celsius) or more could lead to a collapse of our societal infrastructure and massive unrest and conflict, which, in turn, could lead to a future that resembles some Hollywood dystopian films.

One way climate change could trigger a societal collapse is by creating food insecurity. Warming the planet has a range of negative impacts on food production, including increasing the water deficit and thereby reducing food harvests, [Live Science previously reported](https://www.livescience.com/58891-why-2-degrees-celsius-increase-matters.html). Food production losses can increase human deaths and drive economic loss and socio-political instability, among other factors, that may trigger a breakdown of our institutions and increase the risk of a societal collapse, according to a study published Feb. 21 in the journal [Climatic Change](https://go.redirectingat.com/?id=92X1590019&xcust=livescience_us_1191050396230939400&xs=1&url=https%3A%2F%2Flink.springer.com%2Farticle%2F10.1007%2Fs10584-021-02957-w&sref=https%3A%2F%2Fwww.livescience.com%2Fclimate-change-humans-extinct.html).

Related: [Has the Earth ever been this hot before?](https://www.livescience.com/65927-has-earth-been-this-hot-before.html)

Past extinctions and collapses

Kemp studies previous civilization collapses and the risk of climate change. Extinctions and catastrophes almost always involve multiple factors, he said, but he thinks if humans were to go extinct, climate change would likely be the main culprit.

"If I'm to say, what do I think is the biggest contributor to the potential for human extinction going towards the future? Then climate change, no doubt," Kemp told Live Science.

All of the major [mass-extinction events](https://www.livescience.com/mass-extinction-events-that-shaped-Earth.html) in Earth's history have involved some kind of climatic change, according to Kemp. These events include cooling during the Ordovician-[Silurian](https://www.livescience.com/43514-silurian-period.html) extinction about 440 million years ago that wiped out 85% of species, and warming during the [Triassic](https://www.livescience.com/43295-triassic-period.html)-[Jurassic](https://www.livescience.com/28739-jurassic-period.html) extinction about 200 million years ago that killed 80% of species, Live Science previously reported. And more recently, climate change affected the fate of early human relatives.

While [Homo sapiens](https://www.livescience.com/homo-sapiens.html) are obviously not extinct, "we do have a track record of other hominid species going extinct, such as [Neanderthals](https://www.livescience.com/28036-neanderthals-facts-about-our-extinct-human-relatives.html)," Kemp said. "And in each of these cases, it appears that again, climatic change plays some kind of role."

Scientists don't know why Neanderthals went extinct about 40,000 years ago, but climatic fluctuations seem to have broken their population up into smaller, fragmented groups, and severe changes in temperature affected the plants and animals they relied on for food, according to the [Natural History Museum](https://www.nhm.ac.uk/discover/who-were-the-neanderthals.html) in London. Food loss, driven by climate change, may have also led to a tiny drop in Neanderthal fertility rates, contributing to their extinction, [Live Science previously reported](https://www.livescience.com/65594-neanderthal-fertility-led-to-extinction.html).

Climate change has also played a role in the collapse of past human civilizations. A [300-year-long drought](https://www.livescience.com/38893-drought-caused-ancient-mediterranean-collapse.html), for example, contributed to the downfall of ancient Greece about 3,200 years ago. But Neanderthals disappearing and civilizations collapsing do not equal human extinction. After all, humans have survived climate fluctuations in the past and currently live all over the world despite the rise and fall of numerous civilizations.

Homo sapiens have proven themselves to be highly adaptable and able to cope with many different climates, be they hot, cold, dry or wet. We can use resources from many different plants and animals and share those resources, along with information, to help us survive in a changing world, according to the [Smithsonian’s National Museum of Natural History](https://humanorigins.si.edu/research/climate-and-human-evolution/climate-effects-human-evolution).

Related: [How would just 2 degrees of warming change the planet?](https://www.livescience.com/58891-why-2-degrees-celsius-increase-matters.html)

Today, we live in a global, interconnected civilization, but there's reason to believe our species could survive its collapse. A study published on July 21 in the journal [Sustainability](https://www.mdpi.com/2071-1050/13/15/8161/htm) identified countries most likely to survive a global societal collapse and maintain their complex way of life. Five island countries, including New Zealand and Ireland, were chosen as they could remain habitable through agriculture, thanks to their relatively cool temperatures, low weather variability and other factors that make them more resilient to climate change.

New Zealand would be expected to hold up the best with other favorable conditions, including a low population, large amounts of good quality agricultural land and reliable, domestic energy. So, even if climate change triggers a global civilization collapse, humans will likely be able to keep going, at least in some areas.

Turning on ourselves

The last scenario to consider is climate-driven conflict. Kemp explained that in the future, a scarcity of resources that diminish because of **climate change could** potentially create conditions for wars that threaten humanity. "There's reasons to be concerned that as water resources dry up and scarcity becomes worse, and the general conditions of living today become much, much worse, then suddenly, the threat of potential nuclear war becomes much higher," Kemp said.

Put another way, climate change impacts might not directly cause humans to go extinct, but it could lead to events that seriously endanger hundreds of millions, if not billions, of lives. A 2019 study published in the journal [Science Advances](https://advances.sciencemag.org/content/5/10/eaay5478) found that a nuclear conflict between just India and Pakistan, with a small fraction of the world's nuclear weapons, could kill 50 million to 125 million people in those two countries alone. Nuclear war would also change the climate, such as through temperature drops as burning cities fill the atmosphere with smoke, threatening food production worldwide and potentially causing mass starvation.

What's next?

While avoiding complete extinction doesn't sound like much of a climate change silver lining, there is reason for hope. Experts say it isn't too late to avoid the worst-case scenarios with significant cuts to greenhouse gas emissions.

"It is up to us," Mann said. "If we fail to reduce carbon emissions substantially in the decade ahead, we are likely committed to a worsening of already dangerous extreme weather events, inundation of coastlines around the world due to melting ice and rising sea level, more pressure on limited resources as a growing global population competes for less food, water and space due to climate change impacts. If we act boldly now, we can avoid the worst impacts."

#### No war impact - economic decline increases cooperation.

Christina L. **Davis &** Krzysztof J. **Pelc 17**, Christina L. Davis is a Professor of Politics and International Affairs at Princeton; Krzysztof J. Pelc is an Associate Professor of Political Science at McGill University, “Cooperation in Hard Times: Self-restraint of Trade Protection,” Journal of Conflict Resolution, 61(2): 398-429

Conclusion Political economy theory would lead us to expect rising trade protection during hard times. Yet empirical evidence on this count has been mixed. Some studies find a correlation between poor macroeconomic conditions and protection, but the worst recession since the Great Depression has generated surprisingly moderate levels of protection. We explain this apparent contradiction. Our statistical findings show that under conditions of pervasive economic crisis at the international level, states exercise more restraint than they would when facing crisis alone. These results throw light on behavior not only during the crisis, but throughout the WTO period, from 1995 to the present. One concern may be that the restraint we observe during widespread crises is actually the result of a decrease in aggregate demand and that domestic pressure for import relief is lessened by the decline of world trade. By controlling for product-level imports, we show that the restraint on remedy use is not a byproduct of declining imports. We also take into account the ability of some countries to manipulate their currency and demonstrate that the relationship between crisis and trade protection holds independent of exchange rate policies. Government decisions to impose costs on their trade partners by taking advantage of their legal right to use flexibility measures are driven not only by the domestic situation but also by circumstances abroad. This can give rise to an individual incentive for strategic self-restraint toward trade partners in similar economic trouble. Under conditions of widespread crisis, government leaders fear the repercussions that their own use of trade protection may have on the behavior of trade partners at a time when they cannot afford the economic cost of a trade war. Institutions provide monitoring and a venue for leader interaction that facilitates coordination among states. Here the key function is to reinforce expectations that any move to protect industries will trigger similar moves in other countries. Such coordination often draws on shared historical analogies, such as the Smoot–Hawley lesson, which form a focal point to shape beliefs about appropriate state behavior. Much of the literature has focused on the more visible action of legal enforcement through dispute settlement, but this only captures part of the story. Our research suggests that tools of informal governance such as leader pledges, guidance from the Director General, trade policy reviews, and plenary meetings play a real role within the trade regime. In the absence of sufficiently stringent rules over flexibility measures, compliance alone is insufficient during a global economic crisis. These circumstances trigger informal mechanisms that complement legal rules to support cooperation. During widespread crisis, legal enforcement would be inadequate, and informal governance helps to bolster the system. Informal coordination is by nature difficult to observe, and we are unable to directly measure this process. Instead, we examine the variation in responses across crises of varying severity, within the context of the same formal setting of the WTO. Yet by focusing on discretionary tools of protection—trade remedies and tariff hikes within the bound rate—we can offer conclusions about how systemic crises shape country restraint independent of formal institutional constraints. Insofar as institutions are generating such restraint, we offer that it is by facilitating informal coordination, since all these instruments of trade protection fall within the letter of the law. Future research should explore trade policy at the micro level to identify which pathway is the most important for coordination. Research at a more macro-historical scope could compare how countries respond to crises under fundamentally different institutional contexts. In sum, the determinants of protection include economic downturns not only at home but also abroad. Rather than reinforcing pressure for protection, pervasive crisis in the global economy is shown to generate countervailing pressure for restraint in response to domestic crisis. In some cases, hard times bring more, not less, international cooperation.

#### No explanation in McLennan of how middle powers solve any of the problems isolated – haven’t won a uq argument that they’re on track to solve climate change or state collapse now which would be disrupted by decline

#### No terminal to hotspot escalation – ev is about conflict in central asia, not US china war