# 1

#### Interpretation: Affirmatives must defend only that **The member nations of the World Trade Organization ought to reduce intellectual property protections for medicines.**

#### IP protections cover patents, industrial design, trademarks, geographical indications, and copyright/related rights.

WIPO 20 [World Intellectual Property Organization, an agency of the UN; “What is Intellectual Property?”] [DS]

1 IP covers a vast range of activities, and plays an important role in both cultural and economic life. This importance is recognized by various laws which protect intellectual property rights. IP law is complicated: there are different laws relating to different types of IP, and different national laws in different countries and regions of the world as well as international law. This booklet introduces the main types of IP and explains how the law protects them. It also introduces the work of the World Intellectual Property Organization (WIPO), the United Nations agency dedicated to making IP work for innovation and creativity. Intellectual property (IP) refers to creations of the mind – everything from works of art to inventions, computer programs to trademarks and other commercial signs. What is IP? What 2 is IP? Why does IP matter? The progress and well-being of humanity depend on our capacity to come up with new ideas and creations. Technological progress requires the development and application of new inventions, while a vibrant culture will constantly seek new ways to express itself. Intellectual property rights are also vital. Inventors, artists, scientists and businesses put a lot of time, money, energy and thought into developing their innovations and creations. To encourage them to do that, they need the chance to make a fair return on their investment. That means giving them rights to protect their intellectual property. IP rights Essentially, intellectual property rights such as copyright, patents and trademarks can be viewed like any other property right. They allow the creators or owners of IP to benefit from their work or from their investment in a creation by giving them control over how their property is used. IP rights have long been recognized within various legal systems. For example, patents to protect inventions were granted in Venice as far back as the fifteenth century. Modern initiatives to protect IP through international law started with the Paris Convention for the Protection of Industrial Property (1883) and the Berne Convention for the Protection of Literary and Artistic Works (1886). These days, there are more than 25 international treaties on IP administered by WIPO. IP rights are also safeguarded by Article 27 of the Universal Declaration of Human Rights. Creativity and inventiveness are vital. They spur economic growth, create new jobs and industries, and enhance the quality and enjoyment of life. What is IP?3 Striking a balance The intellectual property system needs to balance the rights and interests of different groups: of creators and consumers; of businesses and their competitors; of high- and low-income countries. An efficient and fair IP system benefits everyone – including ordinary users and consumers. Some examples: •The multibillion-dollar film, recording, publishing and software industries – which bring pleasure to millions of people worldwide – would not thrive without copyright protection. •The patent system rewards researchers and inventors while also ensuring that they share their knowledge by making patent applications publicly available, which helps stimulate more innovation. •Trademark protection discourages counterfeiting, so businesses can compete on a level playing field and users can be confident they are buying the genuine article. Different types and categories of IP IP is often divided into two main categories: Industrial property includes patents for inventions, industrial designs, trademarks and geographical indications. Copyright and related rights cover literary, artistic and scientific works, including performances and broadcasts. Different types and categories of IP IP is often divided into two main categories: Industrial property includes patents for inventions, industrial designs, trademarks and geographical indications. Copyright and related rights cover literary, artistic and scientific works, including performances and broadcasts. Patents 4 Patents were one of the first types of intellectual property to be recognized in modern legal systems. Today, patented inventions pervade every aspect of life, from electric lighting (patents held by Edison and Swan) to the iPhone (patents held by Apple). Patents By patenting an invention, the patent owner gets exclusive rights over it, meaning that he or she can stop anyone from using, making or selling the invention without permission. The patent lasts for a limited period of time, generally 20 years. In return, the patent owner has to disclose full details of the invention in the published patent documents. Once the period of protection has come to an end, the invention becomes off patent, meaning anyone is free to make, sell or use it. In this way, the patent system aims to benefit everyone: • Firms and inventors can maximize profits from their inventions during the patent protection period. •This rewards them for their effort and so encourages more innovation, which in turn benefits consumers and the general public. • Disclosure of the invention adds to the body of public knowledge, enabling and inspiring further research and invention. Patents What can be patented? An invention can be defined as a product or process that offers a new way of doing something, or a new technical solution to a problem. To qualify for patent protection, an invention must be of some practical use and must offer something new which is not part of the existing body of knowledge in the relevant technical field (what lawyers call the prior art). But these requirements of utility and novelty are not enough; the invention must also involve an inventive step – something non-obvious that could not just have been deduced by someone with average knowledge of the technical field. Furthermore, the invention must not fall under non-patentable subject matter. Patent laws in many countries, for example, exclude scientific theories, mathematical methods, plant or animal varieties, discoveries of natural substances, commercial methods and methods of medical treatment (as opposed to medical products) as not generally patentable. 5 Patents 6 Obtaining a patent Like most IP rights, patents are territorial: protection is granted within a country under its national law. Different countries have somewhat different laws, but generally in order to gain protection, an inventor or firm will need to file an application with a patent office describing the invention clearly and in sufficient detail to allow someone with an average knowledge of the technical field to use or reproduce it. Such descriptions usually include drawings, plans or diagrams. The application also contains various claims, that is, information to help determine the extent of protection to be granted by the patent. The application will then be examined by the patent office to determine if it qualifies for protection. Patent rights and enforcement Patent owners have the exclusive right to commercially make, sell, distribute, import and use their patented inventions within the territory covered by the patent during the period of protection. They may choose to make, sell or use the invention themselves, let someone else make or use it for a fee (known as licensing), or sell the patent outright to someone else who then becomes the patent owner. Or they may decide not to use the patented invention themselves, but to stop their competitors from using it during the patent period. If someone else uses a patented invention without the patent owner’s permission, the patent owner can seek to enforce the rights by suing for patent infringement in the relevant national court. Courts usually have the power to stop infringing behavior and may also award financial compensation to the patent owner for the unauthorized use of the invention. But a patent can also be challenged in court, and if it is judged to be invalid, for example because the court decides it is insufficiently novel, it will be struck down and the owner will lose protection in that territory. Patents 7 National, regional and international protection Inventors and firms must decide in which territories they want patent protection. Each patent office usually charges fees for filing and processing applications, plus periodic fees for maintaining a patent once it has been granted. The cost of dealing with different national legal systems can be high, as laws and practices can vary widely and applicants will usually need to pay for representation by an authorized patent agent in each country. Several groups of countries have developed regional patent systems that help reduce these costs, for example the African Regional Intellectual Property Organization (ARIPO). Under most of these systems, an applicant requests protection for an invention in one or more countries in the group, and each country then decides whether to offer patent protection within its borders. WIPO administers the PCT System, an international system that allows applicants to request protection under the Patent Cooperation Treaty in as many signatory states as they wish through a single application. Industrial designs 8 These aesthetic aspects can be hugely important in the modern economy. Nowadays consumers face an enormous choice of products, including many that offer the same basic functionality. So they will tend to choose the one with the design they find most attractive within their price range. Industrial designs are applied to a wide variety of industrial products and handmade goods: cars, telephones, computers, packaging and containers, technical and medical instruments, watches, jewelry, electrical appliances, textile designs, and many other types of goods. Industrial design rights cover those elements of a product that are aesthetic or ornamental – the way it looks and feels. Industrial design designs9 What designs can be protected? Industrial design law only protects those aspects of a product that are ornamental; its technical features may be protected by patent, if they meet the requirements for patent protection. A design may consist of three-dimensional features, such as the shape or surface of an article, or twodimensional features such as patterns, lines or color. To qualify for protection as an industrial design under most national laws, the design must be new and show a degree of originality or individuality, meaning that it is not identical or very similar to any previous design. Moreover, it must be capable of being produced industrially, so unique artworks are not covered. designs Industrial 10 Industrial design rights Industrial design rights entitle the right holder to control the commercial production, importation and sale of products with the protected design. As with most other forms of IP, owners can exploit design rights themselves, or license or sell them to others, and can sue in the relevant national court to prevent infringem™ent of their rights. This means that owners have a fair chance to recoup their investment in design, encouraging such investment. Industrial design rights last for a limited period. This varies among countries, but the maximum period of protection in a country will be at least ten years. In many countries, owners need to renew their registration every few years if they want to keep the design protected for the maximum possible period. Different national design laws Industrial designs are protected in different ways in different countries. In most cases, a firm or designer will need to register their design in order to protect it, but some countries also give limited protection to unregistered designs, and in some countries protection is by means of “design patents”. In certain countries, some industrial designs may be regarded as artistic works covered by copyright. This can be advantageous to the right holder because the term of protection for copyright is much longer than for a registered design. In some countries it may also be possible to protect designs using national laws against unfair competition. designs Industrial 11 Obtaining protection Industrial design rights are territorial, so designers or firms may need to deal with many different national systems if they want protection in many countries. However, regional systems exist for some groups of countries. WIPO administers the Hague System. Under the Hague Agreement Concerning the International Registration of Industrial Designs, applicants can file a single international application covering up to 100 designs in as many signatory states as they choose. Trademarks 12 Trademarks Trademarks have been around for many years. In ancient times, artisans would sign or mark their work to prove they had made it. Gradually, laws evolved to protect such marks. These days, trademarks are essential to business. They take many forms and identify a huge array of goods and services. Enterprises spend enormous amounts of time and money developing their brands and trademarks. Legal protection allows the owner of a mark to control who uses it. This means that enterprises can develop and promote their goods and services without having their reputation undermined by counterfeiters, and consumers can rely on trademarks being genuine. A trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. Trademarks 13 Different types of trademark All sorts of signs may be used as trademarks – words, letters, numbers, symbols, colors, pictures, three-dimensional signs such as shapes and packaging, holograms, sounds, even tastes and smells. To be eligible for registration, the basic principle is that a trademark must be distinctive, so it cannot just be a generic description of the product or service. Nor can it be identical (or very similar) to a trademark already registered or used for that type of product or service. Trademarks are not just used to identify the goods and services of a particular enterprise. There are also collective marks, each owned by an association and used by its members. For example, professional associations of accountants, engineers and architects often use this kind of mark. And there are certification marks which show that a product or service complies with certain standards, such as Ecolabels for products with reduced environmental impacts. Trademarks 14 Protecting trademarks The best way of protecting a trademark is to register it. Owners of a registered mark have the exclusive right to control who uses it: they can use it to identify their own goods or services, or license or sell it for someone else to use. To register a mark in a territory, the applicant needs to submit a reproduction of it to the trademark office plus a full list of the goods or services to which it would apply. As well as being sufficiently distinctive and not conflicting with any existing mark, the mark must not be misleading or deceptive or violate public order or morality. Once a trademark has been granted, the owner can sue in the relevant national court if it is infringed by someone else. Equally, a trademark owner could face a legal challenge from a third party arguing that it is too similar to their own mark. A trademark will only be granted for a limited period – in most countries, ten years – but the mark can be renewed as many times as the owner wishes on payment of additional fees, provided it is still being used, so in practice a trademark can be protected indefinitely. Trademarks15 National, regional and international protection Like most IP law, trademark protection is territorial. However, regional and international systems have developed to make it easier to obtain trademark protection in many countries. WIPO offers international registration under the Madrid System. By filing a single application, users can obtain trademark protection in as many of the countries that have joined the System as they wish. There are also online tools that allow users to search trademark registers and help them manage renewal of their marks in different territories. Geo graphical 16 Geographical indications A geographical indication is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin. There are lots of examples of geographical indications – often food and drink, such as Roquefort cheese from France, Darjeeling tea from India and Tequila liquor from Mexico. Consumers buying products with geographical indications want to know that the goods do indeed come from the place in question and conform to relevant standards, so there need to be some controls on the use of geographical indications to protect their valuable reputation. There are different laws protecting geographical indications and different systems of recognition in different countries, so international law is developing ways to strengthen protection across national boundaries. Geo graphical indica tions 17 Different types of geographical indication In order to function as a geographical indication, a sign must identify a product as originating in a given place, and the qualities, characteristics or reputation of the product should be essentially due to that place of origin. This is often the case for agricultural products, because they are influenced by their local climate and environment, but geographical indications may also be used for industrial products where a region has a strong manufacturing tradition and reputation, for instance Swiss watches. Appellations of origin are a type of geographical indication. In some jurisdictions, appellations of origin are protected more strongly than other geographical indications. Geo graphical Protecting geographical indications There are three main ways to protect a geographical indication: • through special on geographical indications laws – so-called sui generis systems; • using collective or certification marks; and • methods focusing on business practices, including administrative product approval schemes. Countries often use more than one of these different approaches, and different approaches may involve differences with respect to important questions, such as the conditions for protection or the scope of protection. However, sui generis systems and collective or certification mark systems are similar in that both set up rights for collective use by those who comply with defined standards. Essentially, such rights allow legitimate producers – those whose products come from the area in question and meet all relevant standards – to use the law to stop a geographical indication being used on goods produced elsewhere, or to a different standard. 18 Geographical indications and trademarks In some respects, geographical indication rights are similar to trademarks. Right holders can prevent infringing use of the geographical indication, and potentially the right lasts forever – although periodic re-registration of collective or certification marks may be required. However, there are also important differences between these two types of sign. A trademark is used by a company to distinguish its goods and services from those produced by others, and the owner can prevent anyone else from using the mark. Furthermore, a trademark can be sold or licensed. Geo graphical indica tions 19 International protection As with other types of IP, international law has developed to complement and reinforce the protection offered in different national and regional jurisdictions. International recognition of appellations of origin and “indications of source” dates back to the Paris Convention of 1883. More recently, the agreement on Trade-Related Aspects of Intellectual Property (TRIPS) included some further provisions to prevent the misuse of GIs. In addition, WIPO administers the international Lisbon System. This used to apply only to appellations of origin, but the Geneva Act of the Lisbon Agreement on Appellations of Origin and Geographical Indications, adopted in 2015, extended the System to make it possible to register other geographical indications internationally too. A geographical indication guarantees to consumers that a product was produced in a certain place and has certain characteristics that are due to that place of production. It may be used by all producers in the relevant place who make products that share certain qualities relating to that place, and it cannot change ownership. Copyright 20 Copyright covers an enormous range of works – not just books, music, paintings, sculpture and films, but also computer programs, databases, advertisements, maps and technical drawings, among other things. There are also rights related to the copyright of the creators that protect the interests of those closely associated with copyrighted works, including performers, broadcasters and producers of sound recordings. Copyright is protected by a mixture of national and international laws. These recognize the cultural and social importance of creative endeavor as well as its considerable economic value. The underlying aim of copyright law is to strike the right balance between the interests of content creators, developers and investors and the public interest in being able to access and use creative content. Copyright and related rights Copyright, or authors’ right, is a legal term used to describe the rights that creators have in their literary, artistic and scientific works. and related rights 21 What works does copyright cover? Copyright applies to the creative expression of ideas in many different forms – text, still or moving pictures, sound works, three-dimensional shapes such as sculptures and architecture, reference works and collections of data. National copyright laws rarely provide an exhaustive list of everything that is covered. However, copyright does not generally cover ideas themselves, procedures, methods of operation, or mathematical concepts. Copyright 22 What rights does copyright provide? Copyright includes both economic and moral rights. Essentially, economic rights involve the right to control the distribution of a work. In other words, a copyright owner can stop anyone from copying or using a work without permission – including, for example, by translating it, reproducing it, performing it or broadcasting it. Exactly how the owner enforces these rights will depend on the national laws of the country concerned, but countries often provide a mixture of civil and criminal penalties for copyright infringement. Copyright also includes certain moral rights of the creator – including, among others, the right to be acknowledged as the author of a work and to prevent it from being altered in a way that might damage the creator’s reputation. Transferring and trading copyright Generally, economic rights can be transferred and divided. A right owner may agree to let someone use a work under certain conditions (licensing), or they may give or sell the rights to someone who then becomes the new owner (assignment). And if a copyright owner dies, their heirs or successors will inherit their economic rights. It is very common for rights to be transferred. For example: • Book authors, music composers and recording artists often license or assign rights to publishers in exchange for payments known as royalties. • In many countries, creators can license or assign their rights to collective management organizations which will monitor how works are used and collect payments from users on the creator’s behalf. • Copyright owners may choose to give away their work for free, or to let other people use it freely based on certain conditions. For example, they may allow use based on standard Creative Commons licenses. and related rights 23 In many countries, moral rights cannot be traded or transferred, but a creator may sometimes agree to waive or refrain from exercising them. Copyright and the public interest Copyright serves the public interest by helping to ensure that creators can earn a fair reward for their work, thus encouraging further creative endeavor, and by making sure that works are properly acknowledged and respected. The law also recognizes that in certain circumstances, known as copyright limitations and exceptions, copyright restrictions should not apply. For example, many countries allow for copyrighted books to be adapted without the rights owner’s permission to create versions that are accessible to people with visual impairment or other physical disabilities that make it difficult for them to use ordinary printed copies. There is now support for this exception under international law through the Marrakesh Treaty of 2013, administered by WIPO, which also provides for the crossborder exchange of accessible books. Furthermore, the economic rights within copyright only last for a limited period, the so-called term of copyright. Once this term has expired, a work enters the public domain, meaning it is free for anyone to use. Moral rights are term-limited in some countries and perpetual in others. National and international copyright law There are different national laws on copyright in different territories, as with other forms of intellectual property. However, international law establishes certain minimum standards of protection: • Copyright arises as soon as a work is created. There is no need for a creator to register a work or complete any other formalities in order to gain protection (though some countries do operate voluntary copyright registration schemes). • Countries are required to protect most copyrighted works throughout the life of the creator and for at least 50 years after the creator’s death. Copyright and related rights 24 • International law means that copyrighted works are generally protected in most countries, not just the country in which they were created. These minimum standards are guaranteed by a series of international treaties administered by WIPO. States that have joined these treaties can provide more than the minimum protection – for example, a longer copyright term – but they cannot provide less. Related rights The law also protects the rights of certain people or groups who are involved in creative work but do not qualify for copyright protection in many jurisdictions, including performers such as singers and actors, broadcasting organizations, and organizations such as record companies that produce sound recordings. These are known as related rights or neighboring rights, because they are related to copyright. The protection offered is similar to copyright. Generally, right owners can stop people from recording, communicating or broadcasting their work without their permission. However, the term of protection is usually shorter than copyright; in most countries, it lasts for 50 years from the date of the performance, recording or broadcast. New challenges Copyright law has to evolve to deal with new technologies and cultural practices. For example, digital technologies make it possible to make and transmit near-perfect copies of works at little cost. In 1996, two new international agreements, the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT), were concluded in order to help protect copyright and related rights in the Internet age. And in 2012 the Beijing Treaty on Audiovisual Performances was adopted to protect the related rights of audiovisual performers. But other challenges remain. How can the traditional cultural expressions of people in developing countries best be protected in a globalizing economy? Is 3D printing adequately covered by copyright law? What is the best way of ensuring that musicians and artists receive proper payment when their works can be accessed online anywhere in the world? WIPO helps countries develop common responses to the evolving challenges. The World Intellectual Property Organization WIPO is the global forum for intellectual property services, policy, information and cooperation. It was founded in 1967 and became a specialized agency of the United Nations in 1974. There are four main elements of WIPO’s work. Shaping international rules WIPO helps to develop and implement international law on intellectual property. As we have seen, most IP law is limited to a particular national jurisdiction. International law is crucial to facilitate protection across national boundaries. There are now more than 25 international IP treaties administered by WIPO, and negotiations are ongoing to deal with new challenges. WIPO provides a neutral environment in which different countries can come together to negotiate new rules, striking a fair balance between different interests. Delivering global services WIPO delivers international filing and registration services. We have mentioned many examples in this booklet: international patent filing under the PCT System, international trademark registration under the Madrid System, industrial design registration under the Hague System and registration of geographical indications under the Lisbon System. WIPO also provides arbitration and mediation services to help resolve IP disputes. WIPO charges fees for these services. In fact, it earns more than 90% of its income through such fees. This is unusual for an international organization. Most international organizations are funded by their member states – in other words, by those countries’ taxpayers – whereas most of WIPO’s budget is paid for by the people and businesses who use its services. Cooperating with countries and partners to make IP work for development An important part of WIPO’s mission is to help all countries use and benefit from IP laws and protection systems. Many of WIPO’s member states already have very sophisticated and longstanding national IP systems, but some developing countries are working to build this capacity. Providing information and shared infrastructure WIPO aims to be a comprehensive and impartial source of information on global IP issues. This booklet is just one of many WIPO publications – there are also books, magazines, economic studies, statistics and many other reference works. WIPO has also developed infrastructure for accessing and sharing knowledge, including enormous databases of patents, brands, trademarks, appellations of origin and IP legislation. Visit the WIPO website to access a wealth of information: www.wipo.int. World Intellectual Property Organization 34, chemin des Colombettes P.O. Box 18 CH-1211 Geneva 20 Switzerland Tel: +41 22 338 91 11 Fax: +41 22 733 54 28 For contact details of WIPO’s External Offices visit: www.wipo.int/about-wipo/en/offices © WIPO, 2020 First published 2004 Attribution 3.0 IGO (CC BY 3.0 IGO) The CC license does not apply to non-WIPO content in this publication. Photos: Getty Images WIPO Publication No. 450E/20 ISBN 978-92-805-3176-3

#### Violation: The aff does all the highlighted mechanisms of the solvency card - I’ve listed are all the planks that violate – doing these actions doesn’t reduce anything listed above.

* Strengthen technical capacity to ensure patent examiners apply strict patentability criteria and screen out unmerited applications
* Apply strict patentability criteria for vaccine and vaccine technologies in patent examination and judicial proceedings.
* Increase transparency of patent office filings to enable third parties to better understand the IP landscape
* Encourage and accelerate follow-on development and competition of vaccines
* Implement robust pre- and post-grant opposition procedures in national patent law systems that allow greater public scrutiny

None of these are reductions, giving patent offices better computers doesn’t reduce IP rights. These are the mechanisms they specified as being part of the plan

Standards

Ground – the resolution is chosen for a fair division of ground on both sides. Allowing them to add stuff to resolution allows them to just read truisms like do the res and combat racism, or add planks to skirt solvency deficits and moot disad links. That makes the debate impossible because they can just delete any substantive argument we can make by adding to the plan

Predictability – they can add anything to the aff, and its impossible for the neg to predict and prepare for the infinite affs they can read. The resolution is a stasis that informs the neg on what to prepare for, but they get to skirt that and just deck preparation.

Predictability and ground kill fairness and education – I explained how it kills fairness, and making it impossible for the neg to debate the aff means there’s no substance – if they remove all my ground then I cant pose a substantive objection to the aff then theres no education in the round

Education – it’s the only reason that schools fund debate and it’s the only impact unique to debate as opposed to basketball

Fairness – it’s the only reason debatesr compete – no one will join an unfair game and if they win fairness bad vote neg unfairly just to spite them

c/I reasonability is judge intervention and ci is key to create the best model of debate

# 2

#### The Debt Ceiling expansion gives Democrats two months to finalize and pass Biden’s spending package – every moment is necessary to resolve intraparty disputes

Cochrane 10/7 Cochrane, Emily. Emily Cochrane is a correspondent based in Washington. She has covered Congress since late 2018, focusing on the annual debate over government funding and economic legislation, ranging from emergency pandemic relief to infrastructure. "Senate Leaders Agree to Vote on Short-Term Debt Ceiling Increase." N.Y. Times, 7 Oct. 2021, www.nytimes.com/2021/10/07/us/politics/debt-ceiling-senate.html.

Senator Chuck Schumer of New York, the majority leader, announced that he reached an agreement with Senator Mitch McConnell of Kentucky, the minority leader, to raise the federal borrowing limit through early December. “We have reached agreement to extend the debt ceiling through early December, and it’s our hope that we can get this done as soon as today.” “Republican and Democratic members and staff negotiated through the night in good faith. The pathway our Democratic colleagues have accepted will spare the American people any near-term crisis.” Video player loading Senator Chuck Schumer of New York, the majority leader, announced that he reached an agreement with Senator Mitch McConnell of Kentucky, the minority leader, to raise the federal borrowing limit through early December.CreditCredit...T.J. Kirkpatrick for The New York Times Oct. 7, 2021Updated 3:17 p.m. ET WASHINGTON — Top Senate Democrats and Republicans said on Thursday that they had struck a deal to allow the debt ceiling to be raised through early December, temporarily staving off the threat of a first-ever default on the national debt after the G.O.P. agreed to temporarily drop its blockade of an increase. Senator Chuck Schumer, Democrat of New York and the majority leader, announced that he had reached an agreement with Senator Mitch McConnell of Kentucky, the minority leader, to clear the way for a vote as early as Thursday on a short-term extension, with potentially as few as 11 days left before a possible default. The movement came the day after Mr. McConnell partly backed down from his refusal to allow any such increase to move forward, offering a temporary reprieve as political pressure mounted to avoid being blamed for a fiscal calamity. “It’s our hope that we can get this done as soon as today,” Mr. Schumer said on Thursday morning on the Senate floor. But one day after Mr. McConnell indicated that Republicans would stand aside and allow the short-term increase to advance, he and his top deputies were laboring on Thursday to ensure his members will put aside their objections and clear the path for a vote. “We gotta see if the deal is done,” President Biden told reporters during a trip to Illinois. “I’m not sure of that yet.” The agreed-upon bill would boost the legal debt cap by $480 billion, which the Treasury Department estimates would be enough to allow the government to continue borrowing through at least Dec. 3. The current debt limit was reinstated at $28.4 trillion on Aug. 1, and the Treasury Department has been using so-called extraordinary measures to delay a breach of the borrowing cap since then. The agency estimated that the government would no longer be able to pay all of its bills by Oct. 18, once those fiscal accounting maneuvers were exhausted. Without congressional action before then, economists and lawmakers have warned of catastrophic economic consequences, including the U.S. government having to choose between making payments on the interest on its debt or sending out Social Security checks and other crucial assistance. The legislation under consideration on Thursday did not offer a hard deadline for when cash would run out, and it would not restart the Treasury Department’s ability to employ extraordinary measures, such as curbing certain government investments, a Treasury official said. Some Republicans said they thought the set dollar figure would ensure the limit would not be reached again until at least January. The actual “X-date” will be determined by tax revenues that the government receives and expenditures that it must make near the end of the year. Making such projections has been especially difficult this year because the pandemic relief programs that are in place have made it harder to predict when money is coming and going. “There is no way to predict with any precision exactly how much you would need to increase the debt limit by to get to a certain date,” said Shai Akabas, the director of economic policy at the Bipartisan Policy Center, an independent think tank. But in aiming for Dec. 3, the deal may position the next debt limit fight to overlap once again with negotiations over avoiding a government shutdown, as funding is set to lapse on that same day if Congress does not approve new spending legislation beforehand. Democrats hope nearly two additional months will give them space to focus on finalizing and enacting most of President Biden’s domestic agenda, including hammering out an array of intraparty disagreements over an expansive multi-trillion-dollar social safety net and climate change package. In raising the prospect of a stopgap extension on Wednesday, Mr. McConnell had said that Republicans would allow Democrats to use normal procedures to consider it. But that commitment appeared in doubt on Thursday afternoon, as Republicans privately objected and leaders toiled to line up the votes needed. Should even one senator demand a recorded vote, at least 10 Republicans would be needed to join every Democrat to muster the 60 votes needed to move the bill forward. Image The movement on debt ceiling negotiations came the day after Senator Mitch McConnell backed down partially from his refusal to allow any such increase to move forward. Credit...T.J. Kirkpatrick for The New York Times “We’re having conversations with our members and kind of figuring out where people are, but, as you might expect, this is not an easy one to whip,,” said Senator John Thune of South Dakota, the No. 2 Republican. He added that, “in the end we’ll be there, but it will be a painful birthing process.” Some Republicans were wary of angering their base by allowing the bill to move forward, especially after former President Donald J. Trump issued a statement on Wednesday that attacked Mr. McConnell for “folding to the Democrats.” Mr. Trump seemed to be pressuring Republicans to force a showdown in the face of a looming default, saying that Mr. McConnell had “all of the cards with the debt ceiling, it’s time to play the hand.” Even if Republicans clear the way to allow the measure to pass, it does nothing to address the crux of the partisan stalemate over the debt. Most notably, Republicans have not dropped their demand that Democrats ultimately use an arcane and time-consuming budget process known as reconciliation to lift the debt ceiling into next year. Democrats are currently using that process to steer around Republican opposition and push through a sprawling domestic package that would address climate change, expand the social safety net with more health care and education benefits, and increase taxes on the wealthy and corporations. “The pathway our Democratic colleagues have accepted will spare the American people any near-term crisis,” Mr. McConnell said on the Senate floor. The extension, he added, also means “there’ll be no question they’ll have plenty of time” to use the reconciliation process to approve a long-term increase.

#### Pushing a WTO takes time, energy, and political capital away from domestic legislation – big pharma and EU allies

Bhadrakumar 5/9 M K Bhadrakumar is a former Indian diplomat. "Biden’s talk of vaccine IP waiver is political theater." Asia Times, May 9, 2021, asiatimes.com/2021/05/bidens-talk-of-vaccine-ip-waiver-is-political-theater.

On the other hand, Biden, whose political life of half a century was largely spent in the US Congress, is well aware of the awesome clout of the pharmaceutical companies in American politics. From that lobby’s perspective, the patent waiver “amounts to the expropriation of the property of the pharmaceutical companies whose innovation and financial investments made the development of Covid-19 vaccines possible in the first place,” as a senior scholar at the Johns Hopkins Center for Health Security puts it. The US pharmaceutical industry and congressional Republicans have already gone on the offensive blasting Biden’s announcement, saying it undermines incentives for American innovation. Besides, the argument goes, even with the patent waiver, vaccine manufacturing is a complex process and is not like simply flipping a switch. Senator Richard Burr, the top Republican on the US Senate Health Committee, denounced Biden’s decision. “Intellectual property protections are part of the reason we have these life-saving products,” he said. “Stripping these protections only ensures we won’t have the vaccines or treatments we need when the next pandemic occurs.” The Republican senators backed by Republican Study Committee chairman Jim Banks propose to introduce legislation to block the move. Clearly, Biden would rather spend his political capital on getting the necessary legislation through Congress to advance his domestic reform agenda rather than spend time and energy to take on the pharmaceutical industry to burnish his image as a good Samaritan on the world stage. Conceivably, Biden could be counting on the “text-based negotiations” at the WTO dragging on for months, if not years, without reaching anywhere. The US support for the waiver could even be a tactic to persuade pharmaceutical firms to back less drastic steps like sharing technology and expanding joint ventures to boost global production quickly. So far Covid-19 vaccines have been distributed primarily to the wealthy countries that developed them, while the pandemic sweeps through poorer ones such as India, and the real goal is, after all, expanded vaccine distribution. Biden is well aware that there will be huge opposition to the TRIPS waiver from the United States’ European allies as well. The British press has reported that the UK has been in closed-door talks at the World Trade Organization in recent months along with the likes of Australia, Canada, Japan, Norway, Singapore, the European Union and the US, who all opposed the idea.

#### Infrastructure package is sufficient, necessary, and the last opportunity to solve climate change – extinction

Leber 10/7 Leber, Rebecca. Rebecca Leber covers climate change for Vox. Before joining Vox, she was an environmental reporter at Mother Jones, where her investigations exposed government corruption and fossil fuel industry disinformation. She has worked as a staff writer at Grist, The New Republic, and ThinkProgress. A dozen more outlets have published her work over her decade as a climate journalist. "A last chance for US climate action: Democrats’ Build Back Better and infrastructure bills." Vox, 7 Oct. 2021, www.vox.com/22685920/democrats-infrastructure-build-back-better-climate-change.

The United States — the largest carbon polluter in history — is closer than it’s ever been to taking sweeping and lasting action on the climate crisis. The bad news is that if Democrats can’t pull it off, they may never get another opportunity like this — and the planet certainly won’t. Democratic leaders are trying to pass two major pieces of legislation — the $1 trillion bipartisan infrastructure bill and the up to $3.5 trillion Build Back Better Act — that they say can slash US pollution by up to 45 percent in the coming decade. In the outlined Build Back Better Act, Congress would flex its power to transform the electricity sector so that it runs on mostly clean energy, steer the transportation sector toward electric vehicles, and finally take action on methane pollution, one of the most harmful greenhouse gases. But there have been many recent moments when the precarious dealmaking in Congress seemed close to falling apart. One of the biggest sticking points has been with West Virginia Sen. Joe Manchin, who has questioned the party’s approach to passing both bills simultaneously. “What’s the urgency that we have?” Manchin asked on CNN’s State of the Union in late September. In part because of Manchin’s opposition, even progressive leaders have begun to manage expectations, signaling the ultimate bill will be less ambitious. Sen. Bernie Sanders of Vermont suggested that the $3.5 trillion figure would see some “give and take.” The package is likely to shrink to $2.3 trillion or less, the New York Times reported on Wednesday. So what is the urgency? Democrats only have one year before midterm elections could take away their narrow majorities in the House and Senate. That would leave them powerless to pass any legislation without help from Republicans. At the same time, the planet faces a rapidly closing window to avert the worst catastrophes of global warming. Every fraction of a degree will translate into lives and livelihoods lost. The world can’t afford another decade of American inaction, and what Congress does next will help determine the future of the climate. A last chance for Democrats Historically, the president’s party loses seats in Congress in midterm elections. Next November, Democrats could lose their narrow control of Congress if they lose even one Senate seat or more than a few House seats. “The middle of that Venn diagram — when we have leaders who care about science and we still have that window of opportunity — is now,” said Lena Moffitt, campaign director at the climate advocacy group Evergreen Action. Democrats in Congress are also relying on a roughly once-a-year process, known as budget reconciliation, to try and push the Build Back Better Act through the Senate. Reconciliation allows them to pass a budget with a simple majority, instead of the 60 votes that are usually required in the Senate. There might not be time or political will to make a similar move in 2022. And some Democrats remain unwilling to eliminate the Senate filibuster, which is the other way they could pass progressive policies. In short, if the historical pattern holds, Democrats may not get another chance under President Biden — or even this decade — to take serious action on climate. Some Republicans have been hinting at taking climate change more seriously, but much of the party’s leadership continues to downplay and deny climate science. The next time the US has an opening like this, climate change will likely be dramatically worse — and that much harder to stop. A flooded street of shops at night reflecting the lights in the water. Hurricane Ida caused record flooding in New Jersey in September. Climate change is already intensifying extreme weather such as tropical storms and heat waves. Anadolu Agency via Getty Images The best chance for the global climate Climate scientists have warned that once the atmosphere warms more than 1.5 degrees Celsius, we will live in a drastically changed world. If countries, corporations, and individuals don’t take immediate action to reduce pollution, the world may hit that grim milestone in just 10 years. Over the long term, if the world continues on its current polluting path, the world will warm more than double that amount, risking catastrophes humanity has never had to confront. The window to chart a new course is rapidly closing. And the world’s “last, best chance” to take decisive collective action is less than a month away, as John Kerry, who serves as President Biden’s climate envoy, has said. In early November, world governments will gather in Glasgow for the United Nations climate conference, COP26. Following up on the Paris climate accord, countries will pledge more ambitious pollution targets and tackle the challenge of financing a worldwide transition to clean energy. The US bears the most responsibility of any country for global warming, having released 20 percent of the world’s greenhouse pollution since 1850. Today, the country ranks second in emissions behind China. But the US also has the power to magnify its impact if it leads by example, or if it flexes its influence on the global economic system, for example by affecting global prices of fossil fuels by ending government subsidies. Climate experts say progress at the COP26 conference depends on the United States proving it can do its part, for symbolic as well as practical reasons. This is the first year the US officially returns to global negotiations after former President Donald Trump withdrew the country from the Paris climate accord. Now, Biden has to lead by example by showing that the country can swiftly change direction for good, demonstrating progress on its national pledge of cutting emissions 50 to 52 percent by 2030. “There is this sense of exhaustion about how long is it going to take for one of the biggest emitters in the world to do its fair share,” said Rachel Cleetus, the clean energy policy director at the Union of Concerned Scientists. It’s unclear whether Congress will deliver on climate-change legislation by the time the international community meets in Glasgow. But any steps forward would send “a very important signal that can really help catalyze more ambition from other countries,” Cleetus said.

# 3

#### The biopharmaceutical industry is uniquely reliant on IP protections – undermining them would kill innovation by making an already expensive process completely unfeasible.

Kristina M. Lybecker, PhD, 17 [PhD Economics, Associate Professor of Economics @ Colorado College], “Intellectual Property Rights Protection and the Biopharmaceutical Industry: How Canada Measures Up,” Fraser Institute, January 2017, <https://www.fraserinstitute.org/sites/default/files/intellectual-property-rights-protection-and-the%20biopharmaceutical-industry.pdf> C.VC

The unique structure of the innovative biopharmaceutical industry necessitates a variety of intellectual property protection mechanisms. In particular, the industry is characterized by a research and development (R&D) process that is lengthy, expensive, uncertain, and risky. According to DiMasi and colleagues, the estimated cost of developing a new medicine is US$2.6 billion (DiMasi, Grabowski, and Hansen, 2016).2 In addition, the time required to develop a new drug is also significant, averaging 10 to 15 years without any guarantee of success (PhRMA, n.d.). While these figures are highly controversial, biopharmaceutical innovation is unquestionably an expensive and lengthy undertaking.3 For the biopharmaceutical industry, innovation and its protection are essential and the source of both profits and growth. As such, patent protection is disproportionally more important for ensuring that the innovator appropriates the returns to R&D for the biopharmaceutical industry than virtually any other. Extending the findings of the 1987 “Yale Survey” (Levin, Klevorick, Nelson, and Winter, 1987), the “Carnegie Mellon Survey” established that while patents are again considered “unambiguously the least effective appropriability mechanisms,” the drug industry and other scholars regard them as strictly more effective than alternative mechanisms (Cohen, Nelson, and Walsh, 1996). The industry’s disproportionate reliance on patents and other forms of intellectual property protection is confirmed in numerous other studies.4 In essence, IPR protections provide innovative biopharmaceutical firms with an assurance of some return on their investment, thus creating incentives for the development of new technologies that could otherwise be easily replicated and sold by competitors. Due to the tremendous fixed costs required to develop new treatments and cures, a significant potential exists for free riding by follower firms, a market failure that would prevent investment in innovation were it not for the patents and other forms of intellectual property protections that provide a limited period of market exclusivity or other such incentives. Fundamentally, patents amount to an efficiency tradeoff. Society provides innovators with a limited period of market exclusivity to encourage innovation in exchange for public access to this knowledge. In exchange for the temporary static loss from market exclusivity, society gains complete knowledge of the innovation through disclosure, a permanent dynamic gain. Through this tradeoff, the existing patent system corrects the market failure that would stymie innovation. In its Apotex Inc. v. Wellcome Foundation Ltd. finding, Justice Binnie wrote for the Supreme Court of Canada, “A patent, as has been said many times, is not intended as an accolade or civic award for ingenuity. It is a method by which inventive solutions to practical problems are coaxed into the public domain by the promise of a limited monopoly for a limited time. Disclosure is the quid pro quo for valuable proprietary rights to exclusivity which are entirely the statutory creature of the Patent Act” (para. 37). The biopharmaceutical industry is characterized by a number of legal and economic issues that distinguish it from other research-intensive industries. Danzon (1999) describes three features that are particularly noteworthy. First, given that the biopharmaceutical industry is characterized by an unusually high rate of R&D, intellectual property protection provides for the potential for significant market power and monopoly pricing that raises numerous public health policy questions surrounding prices and profits. Second, virtually every aspect of the industry is heavily regulated, from safety and efficacy to promotion and advertising, to pricing and reimbursement. Danzon describes the impact of these regulations as “profound and multidimensional even within a single country, affecting consumption patterns, productivity, R&D and hence the supply of future technologies” (Danzon, 1999: 1056). Lastly, while research and development costs are borne solely by the innovator, the resulting product is a global public good. “Each country faces an incentive to adopt the regulatory policies that best control its pharmaceutical budget in the short run, free-riding on others to pay for the joint costs of R&D and ignoring cross-national spillovers of national regulatory policies through parallel trade and international price comparisons” (Danzon, 1999: 1056). The combination of these characteristics defines a set of unique economic and legal challenges for the innovation of new drugs and the public health policies that surround their production, marketing, and distribution. Innovative companies make far greater investments in time, resources, and financial support than do generic firms. Notably, innovation-based companies spend more than 200 times that which generic companies spend on the development of a particular drug (CIPC, 2011: 10). In addition, the investment of time, from laboratory to market, is also close to double for innovative companies relative to generic producers. Table 1 highlights the differences in the drug development processes of innovative and generic companies. For innovative biopharmaceutical companies, the development process is expensive, risky, and time consuming, all of which points to the need for strong IP protection to encourage investment and ensure companies are able to recover their investments. The risk involved in biopharmaceutical development is starkly illustrated in a recent report by Biotechnology Innovation Organization (BIO), which reports that less than one of every 10 drugs that enter clinical trials is ultimately approved by the Food and Drug Administration in the United States. The report finds a success rate of merely 9.6%, a calculation that is significantly smaller than the widely-cited 11.8% figure from a 2014 study by the Tufts University’s Center for the Study of Drug Development.5 The International Federation of Pharmaceutical Manufacturers and Associations (2012) estimates that more than 3,200 compounds were at different stages of development globally in 2011, but only 35 new medicines were launched (Dawson, 2015). Fundamentally, research-based biopharmaceutical companies incur greater expenses and risk in the development of their products than do generic manufactures. These investments of time and financial resources should be recognized and the effective patent life should be sufficient to recoup these investments. Continued investment and innovation are contingent upon strong, effective intellectual property protection and the ability of innovative firms to recoup their investments. Patents and other forms of intellectual property protection are disproportionally important to the research-based biopharmaceutical industry. Consequently, the legal architecture necessary to foster a robust innovation-based industry is multifaceted and is a powerful force shaping the biopharmaceutical industry, its profitability, productivity, and innovative future.

#### Pharmaceutical innovation is accelerating now – new medicines are substantially better than existing treatments.

Wills, MBA, and Lipkus, PhD, 20 – Todd J. Wills [Managing Director @ Chemical Abstracts Service, MBA from THE Ohio State University] and Alan H. Lipkus [Senior Data Analyst @ Chemical Abstracts Service, PhD Physical Chemistry from the University of Rochester], “Structural Approach to Assessing the Innovativeness of New Drugs Finds Accelerating Rate of Innovation,” ACS Medicinal Chemistry Letters, Vol. 11, 2020, <https://pubs.acs.org/doi/pdf/10.1021/acsmedchemlett.0c00319> C.VC

Despite recent concerns over an innovation crisis, this analysis shows pharmaceutical innovation has actually increased over the last several decades based on the structural novelty of approved NMEs. The higher proportion of Pioneers over the most recent decade is a sign that innovation within the industry is accelerating rather than slowing. It is also an encouraging sign for the state of innovation in drug discovery that these Pioneers are significantly more likely to be the source of promising new therapies that are expected to provide substantial clinical advantages over existing treatments. Drug hunters are discovering Pioneers in newer and less explored regions of chemical space as they are increasingly found on scaffolds first reported in the CAS REGISTRY five or less years prior to their IND year or on scaffolds populated with 50 or less other compounds at the time of IND. As scale becomes less of a strategic advantage, Big Pharma’s share of Pioneers has decreased even though the number of Big Pharma originated Pioneers has increased. This has created a structural innovation gap between Big Pharma and the Rest of Ecosystem which has widened over the last two decades as the Rest of Ecosystem is now responsible for originating almost 3 out of every 4 Pioneers. Pioneers originated by the Rest of Ecosystem are increasingly on new scaffolds, while a majority of Big Pharma originated Pioneers have historically been on new scaffolds. The work presented here was intended as a study of drug innovation at a macro level. As a result, it included substances of various sizes with different degrees of complexity belonging to a range of functional and drug classes. Even though it was outside the scope of the present work to study specific subsets, such focused studies could yield additional insights into how innovation at a more micro level has changed over time. Other interesting subsets of our data set are the shapes and scaffolds of the Settlers and Colonists. Many of these shapes and scaffolds are privileged in the sense that they are seemingly capable of serving as ligands for a diverse array of target proteins. A separate study of the Settlers and Colonists as well as their side chains could provide insights into possible target-specific innovation trends. As it often takes more than 10 years after initial discovery for an experimental drug to gain FDA approval, any measure of drug innovation that relies on the time of approval incorporates a significant time lag between initial discovery and ultimate approval. However, characterizing drug innovation based on structural novelty provides a means to assess the forward-looking innovation potential of an experimental drug at the time of initial discovery by comparing its framework information (at the scaffold and shape level) with prior FDA-approved drugs. Therefore, a separate study of drug candidates with publically disclosed structures currently in clinical development could provide additional insights into innovation trends at an FDA regulatory review level and serve as a leading indicator of innovation trends at an FDA approval level. Given the tremendous opportunity represented by the vast amount of chemical space yet to be explored, drug-hunters of all types will continue pushing the boundaries to find promising new therapies in previously unexplored areas of chemical space. The race to discover these new drugs will be fueled by further advancements in screening approaches and in-silico methods (including innovations related to machine learning algorithms and molecular representations). However, comprehensive data on known shapes and scaffolds can fast track the identification of meaningful open areas of chemical space (shapes or scaffolds that are potentially important but have never been used as the basis for a molecule) to further explore.

# Case

## Fwk

#### You should on-face reject the 1acs arguments to emotion – them saying how could you let this happen has no substance or reason, so don’t vote on it

#### Its especially true because extinction encompasses their impacts – every person that dies from a lack of affordable medicine will also die by the climate change and bioterror that the aff causes.

#### Also, all of their args against extinction assumes that they are low probability – an assertion they don’t justify. If I read a strong disad and they don’t contest the links, its high probability

#### Extinction is the rule not the exception – we must make it a public issue to prevent it

Khan 18 [Risalat, activist and entrepreneur from Bangladesh passionate about addressing climate change, biodiversity loss, and other existential challenges. He was featured by The Guardian as one of the “young climate campaigners to watch” (2015). As a campaigner with the global civic movement Avaaz (2014-17), Risalat was part of a small core team that spearheaded the largest climate marches in history with a turnout of over 800,000 across 2,000 cities. After fighting for the Paris Agreement, Risalat led a campaign joined by over a million people to stop the Rampal coal plant in Bangladesh to protect the Sundarbans World Heritage forest, and elicited criticism of the plant from Crédit Agricolé through targeted advocacy. Currently, Risalat is pursuing an MPA in Environmental Science and Policy at Columbia University as a SIPA Environmental Fellow, “5 reasons why we need to start talking about existential risks,” https://www.weforum.org/agenda/2018/01/5-reasons-start-talking-existential-risks-extinction-moriori/]

Infinite future possibilities I find the story of the Moriori profound. It teaches me two lessons. Firstly, that human culture is far from immutable. That we can struggle against our baser instincts. That we can master them and rise to unprecedented challenges. Secondly, that even this does not make us masters of our own destiny. We can make visionary choices, but the future can still surprise us. This is a humbling realization. Because faced with an uncertain future, the only wise thing we can do is prepare for possibilities. Standing at the launch pad of the Fourth Industrial Revolution, the possibilities seem endless. They range from an era of abundance to the end of humanity, and everything in between. How do we navigate such a wide and divergent spectrum? I am an optimist. From my bubble of privilege, life feels like a rollercoaster ride full of ever more impressive wonders, even as I try to fight the many social injustices that still blight us. However, the accelerating pace of change amid uncertainty elicits one fundamental observation. Among the infinite future possibilities, only one outcome is truly irreversible: extinction. Concerns about extinction are often dismissed as apocalyptic alarmism. Sometimes, they are. But repeating that mankind is still here after 70 years of existential warning about nuclear warfare is a straw man argument. The fact that a 1000-year flood has not happened does not negate its possibility. And there have been far too many nuclear near-misses to rest easy. As the World Economic Forum’s Annual Meeting in Davos discusses how to create a shared future in a fractured world, here are five reasons why the possibility of existential risks should raise the stakes of conversation: 1. Extinction is the rule, not the exception More than 99.9% of all the species that ever existed are gone. Deep time is unfathomable to the human brain. But if one cares to take a tour of the billions of years of life’s history, we find a litany of forgotten species. And we have only discovered a mere fraction of the extinct species that once roamed the planet. In the speck of time since the first humans evolved, more than 99.9% of all the distinct human cultures that have ever existed are extinct. Each hunter-gatherer tribe had its own mythologies, traditions and norms. They wiped each other out, or coalesced into larger formations following the agricultural revolution. However, as major civilizations emerged, even those that reached incredible heights, such as the Egyptians and the Romans, eventually collapsed. It is only in the very recent past that we became a truly global civilization. Our interconnectedness continues to grow rapidly. “Stand or fall, we are the last civilization”, as Ricken Patel, the founder of the global civic movement Avaaz, put it. 2. Environmental pressures can drive extinction More than 15,000 scientists just issued a ‘warning to humanity’. They called on us to reduce our impact on the biosphere, 25 years after their first such appeal. The warning notes that we are far outstripping the capacity of our planet in all but one measure of ozone depletion, including emissions, biodiversity, freshwater availability and more. The scientists, not a crowd known to overstate facts, conclude: “soon it will be too late to shift course away from our failing trajectory, and time is running out”. In his 2005 book Collapse, Jared Diamond charts the history of past societies. He makes the case that overpopulation and resource use beyond the carrying capacity have often been important, if not the only, drivers of collapse. Even though we are making important incremental progress in battles such as climate change, we must still achieve tremendous step changes in our response to several major environmental crises. We must do this even while the world’s population continues to grow. These pressures are bound to exert great stress on our global civilization. 3. Superintelligence: unplanned obsolescence? Imagine a monkey society that foresaw the ascendance of humans. Fearing a loss of status and power, it decided to kill the proverbial Adam and Eve. It crafted the most ingenious plan it could: starve the humans by taking away all their bananas. Foolproof plan, right? This story describes the fundamental difficulty with superintelligence. A superintelligent being may always do something entirely different from what we, with our mere mortal intelligence, can foresee. In his 2014 book Superintelligence, Swedish philosopher Nick Bostrom presents the challenge in thought-provoking detail, and advises caution. Bostrom cites a survey of industry experts that projected a 50% chance of the development of artificial superintelligence by 2050, and a 90% chance by 2075. The latter date is within the life expectancy of many alive today. Visionaries like Stephen Hawking and Elon Musk have warned of the existential risks from artificial superintelligence. Their opposite camp includes Larry Page and Mark Zuckerberg. But on an issue that concerns the future of humanity, is it really wise to ignore the guy who explained the nature of space to us and another guy who just put a reusable rocket in it? 4. Technology: known knowns and unknown unknowns Many fundamentally disruptive technologies are coming of age, from bioengineering to quantum computing, 3-D printing, robotics, nanotechnology and more. Lord Martin Rees describes potential existential challenges from some of these technologies, such as a bioengineered pandemic, in his book Our Final Century. Imagine if North Korea, feeling secure in its isolation, could release a virulent strain of Ebola, engineered to be airborne. Would it do it? Would ISIS? Projecting decades forward, we will likely develop capabilities that are unthinkable even now. The unknown unknowns of our technological path are profoundly humbling. 5. 'The Trump Factor' Despite our scientific ingenuity, we are still a confused and confusing species. Think back to two years ago, and how you thought the world worked then. Has that not been upended by the election of Donald Trump as US President, and everything that has happened since? The mix of billions of messy humans will forever be unpredictable. When the combustible forces described above are added to this melee, we find ourselves on a tightrope. What choices must we now make now to create a shared future, in which we are not at perpetual risk of destroying ourselves? Common enemy to common cause Throughout history, we have rallied against the ‘other’. Tribes have overpowered tribes, empires have conquered rivals. Even today, our fiercest displays of unity typically happen at wartime. We give our lives for our motherland and defend nationalistic pride like a wounded lion. But like the early Morioris, we 21st-century citizens find ourselves on an increasingly unstable island. We may have a violent past, but we have no more dangerous enemy than ourselves. Our task is to find our own Nunuku’s Law. Our own shared contract, based on equity, would help us navigate safely. It would ensure a future that unleashes the full potential of our still-budding human civilization, in all its diversity. We cannot do this unless we are humbly grounded in the possibility of our own destruction. Survival is life’s primal instinct. In the absence of a common enemy, we must find common cause in survival. Our future may depend on whether we realize this

Linebylining

* Singer 72 on the advantage says when there’s no moral tradeoff, we’ve isolated a moral tradeoff
* a point on ethics is an appeal to emotion – no ones rationalizing the killing of children, we’re saying the aff causes more harm than that
* B point Compound probability – sure, but if we win every link is high risk then it doesn’t matter, and our disads aren’t very long link chains – its one or 2 at best
* C point on causal direction – their example of a butterfly might not have causal direction, but debate creates causal direction. It flows in the direction of the debater that read the argument unless a turn is read
* D point on complexity – this is true of every issue, but you cant evaluate confounding factors unless they tell you what those confounding factors are – vaguely referencing what could be wrong about the disad without explaining it is insufficient

#### The complexity thesis is wrong - predictions are possible and must prioritize high magnitude impacts – turns their mindset

Michael J. Gallagher 12, Captain in the US Marine Corps, Fellow in the Junior Officer Strategic Intelligence Program, and Ph.D. student in international relations at Georgetown University, “The Complexity Trap,” *Parameters*, Volume 42, Number 1, Spring 2012

These competing views of America’s national security concerns indicate an important and distinctive characteristic of today’s global landscape: prioritization is simultaneously very difficult and very important for the United States. Each of these threats and potential threats—al Qaeda, China, nuclear proliferation, climate change, global disease, and so on—can conjure up a worstcase scenario that is immensely intimidating. Given the difficulty of combining estimates of probabilities with the levels of risk associated with these threats, it is challenging to establish priorities. Such choices and trade-offs are difficult, but not impossible. 30 In fact, they are the stock-in-trade of the strategist and planner. If the United States is going to respond proactively and effectively to today’s international environment, prioritization is the key first step—and precisely the opposite reaction to the complacency and undifferentiated fear that the notion of unprecedented complexity encourages. Complexity suggests a maximization of flexibility and minimization of commitment; but prioritization demands wise allotment of resources and attention in a way that commits American power and effort most effectively and efficiently. Phrased differently, complexity induces deciding not to decide; prioritization encourages deciding which decisions matter most. Today’s world of diverse threats characterized by uncertain probabilities and unclear risks will overwhelm us if the specter of complexity seduces us into either paralysis or paranoia. Some priorities need to be set if the United States is to find the resources to confront what threatens it most. 31 As Michael Doran recently argued in reference to the Arab Spring, “the United States must train itself to see a large dune as something more formidable than just endless grains of sand.”32¶ This is not to deny the possibility of nonlinear phenomena, butterfly effects, self-organizing systems that exhibit patterns in the absence of centralized authority, or emergent properties. 33 If anything, these hallmarks of complexity theory remind strategists of the importance of revisiting key assumptions in light of new data and allowing for tactical flexibility in case of unintended consequences. Sound strategy requires hard choices and commitments, but it need not be inflexible. We can prioritize without being procrustean. But a model in which everything is potentially relevant is a model in which nothing is.

* E point on decision gridlock – there’s a reasonable brightline of probability on what actions we should take. And if both actions have a probability of causing extinction, you should choose the one with a lower probability (duh)
* F point on it being a vi – this card is saying why apocalyptic rhetoric that is fake causes harm. If we win that the disad is high risk, then we aren’t spouting fake apoc rhetoric, its real. And, the impacts of extinction outweigh the impacts of this card so we just ow even if their right

#### High magnitude, low probability scenario planning is pedagogically productive and makes IR theories more accurate and reflexive

Timothy Junio 13, cybersecurity postdoctoral fellow at CISAC, PhD in political science from the University of Pennsylvania, and Thomas Mahnken, Naval War College, “Conceiving of Future War: The Promise of Scenario Analysis for International Relations”, September, International Studies Review Volume 15, Issue 3, pages 374–395

This article introduces political scientists to scenarios—future counterfactuals—and demonstrates their value in tandem with other methodologies and across a wide range of research questions. The authors describe best practices regarding the scenario method and argue that scenarios contribute to theory building and development, identifying new hypotheses, analyzing data-poor research topics, articulating “world views,” setting new research agendas, avoiding cognitive biases, and teaching. The article also establishes the low rate at which scenarios are used in the international relations subfield and situates scenarios in the broader context of political science methods. The conclusion offers two detailed examples of the effective use of scenarios.¶ In his classic work on scenario analysis, The Art of the Long View, Peter Schwartz commented that “social scientists often have a hard time [building scenarios]; they have been trained to stay away from ‘what if?’ questions and concentrate on ‘what was?’” (Schwartz 1996:31). While Schwartz's comments were impressionistic based on his years of conducting and teaching scenario analysis, his claim withstands empirical scrutiny. Scenarios—counterfactual narratives about the future—are woefully underutilized among political scientists. The method is almost never taught on graduate student syllabi, and a survey of leading international relations (IR) journals indicates that scenarios were used in only 302 of 18,764 sampled articles. The low rate at which political scientists use scenarios—less than 2% of the time—is surprising; the method is popular in fields as disparate as business, demographics, ecology, pharmacology, public health, economics, and epidemiology (Venable, Li, Ginter, and Duncan 1993; Leufkens, Haaijer-Ruskamp, Bakker, and Dukes 1994; Baker, Hulse, Gregory, White, Van Sickle, Berger, Dole, and Schumaker 2004; Sanderson, Scherbov, O'Neill, and Lutz 2004). Scenarios also are a common tool employed by the policymakers whom political scientists study.¶ This article seeks to elevate the status of scenarios in political science by demonstrating their usefulness for theory building and pedagogy. Rather than constitute mere speculation regarding an unpredictable future, as critics might suggest, scenarios assist scholars with developing testable hypotheses, gathering data, and identifying a theory's upper and lower bounds. Additionally, scenarios are an effective way to teach students to apply theory to policy. In the pages below, a “best practices” guide is offered to advise scholars, practitioners, and students, and an argument is developed in favor of the use of scenarios. The article concludes with two examples of how political scientists have invoked the scenario method to improve the specifications of their theories, propose falsifiable hypotheses, and design new empirical research programs.¶ Scenarios in the Discipline¶ What do counterfactual narratives about the future look like? Scenarios may range in length from a few sentences to many pages. One of the most common uses of the scenario method, which will be referenced throughout this article, is to study the conditions under which high-consequence, low-probability events may occur. Perhaps the best example of this is nuclear warfare, a circumstance that has never resulted, but has captivated generations of political scientists. For an introductory illustration, let us consider a very simple scenario regarding how a first use of a nuclear weapon might occur:¶ During the year 2023, the US military is ordered to launch air and sea patrols of the Taiwan Strait to aid in a crisis. These highly visible patrols disrupt trade off China's coast, and result in skyrocketing insurance rates for shipping companies. Several days into the contingency, which involves over ten thousand US military personnel, an intelligence estimate concludes that a Chinese conventional strike against US air patrols and naval assets is imminent. The United States conducts a preemptive strike against anti-air and anti-sea systems on the Chinese mainland. The US strike is far more successful than Chinese military leaders thought possible; a new source of intelligence to the United States—unknown to Chinese leadership—allowed the US military to severely degrade Chinese targeting and situational awareness capabilities. Many of the weapons that China relied on to dissuade escalatory US military action are now reduced to single-digit-percentage readiness. Estimates for repairs and replenishments are stated in terms of weeks, and China's confidence in readily available, but “dumber,” weapons is low due to the dispersion and mobility of US forces. Word of the successful US strike spreads among the Chinese and Taiwanese publics. The Chinese Government concludes that for the sake of preserving its domestic strength, and to signal resolve to the US and Taiwanese Governments while minimizing further economic disruption, it should escalate dramatically with the use of an extremely small-yield nuclear device against a stationary US military asset in the Pacific region.¶ This short story reflects a future event that, while unlikely to occur and far too vague to be used for military planning, contains many dimensions of political science theory. These include the following: what leaders perceive as “limited,” “proportional,” or “escalatory” uses of force; the importance of private information about capabilities and commitment; audience costs in international politics; the relationship between military expediency and political objectives during war; and the role of compressed timelines for decision making, among others. The purpose of this article is to explain to scholars how such stories, and more rigorously developed narratives that specify variables of interest and draw on extant data, may improve the study of IR. An important starting point is to explain how future counterfactuals fit into the methodological canon of the discipline.

### Case

#### Innovation straight turns - their impact is about how people in developing countries die from preventable diseases, but voting aff stops companies from innovating new treatments, which means that new diseases will ravage the developing world without treatments even existing.