### 1AC---Plan

#### Plan: The United States Federal Government should reduce appropriation of outer space by private entities that engage in anti-competitive business practices in accordance with the higher ethical principles of the outer space treaty.

Top of Form

#### Antitrust is uniquely compatible with the Outer Space Treaty, or OST---the plan generates momentum for international harmonization.

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Equality and Free Access

Secondly, it could be argued that the principle of “equality” and “free access” as enshrined within article I of the OST would seem to preclude monopolies insofar as equal access to celestial bodies must be maintained while, in theory, monopolization would potentially bar such equal access:

(...) Outer space, including the moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies (...) (42). (emphasis added)

The main concern raised by the above-cited paragraph is to determine to what extent the article I applies to space resources on the celestial bodies in question. Since celestial bodies are not defined, as previously stated, and since there is no mention of space “resources” within the OST, national law or doctrine can be used to answer the question. The only national legislations mentioning space resources are the ones in favor of the commercialization, as listed supra (43). Secondary sources, or doctrine, reflect divergent views expressed by scholars at the international level (44). This situation illustrates how national law is filling the legal void previously referred to. Nevertheless, which void does it precisely try to fill? The term “appropriation” appears in article II of the OST, alongside with the term “celestial body” which, in article I appears next to “free access”, “equality” and “benefit”. By association, it can be inferred that the States in favor of space commerce do not object to the idea of the extension of these principles to space resources. In this case, as space resources regulation seems to emanate from the national level, national antitrust measures constitute, (at the first stage) an adequate legal response, in parallel, to contain and monitor the risk of monopolization or other anti-competitive behavior in space (an international level field). Such measures could indeed be included within current and future national space legislation and enforce fair competition based on the OST principles. This could in turn generate enough momentum and critical mass to trigger an international framework and intensify harmonization efforts (at the second stage), especially with regards to the commercialization of the space sector.

#### Universal application of U.S. antitrust law has direct and indirect causal mechanisms that encourage conformity.

David Gerber 12, Distinguished Professor, Law, Chicago-Kent College of Law, Illinois Institute of Technology. President, American Society of Comparative Law, "US Antitrust Law: Models and Lens," in Global Competition: Law, Markets, and Globalization, Chapter 5, 2012, pg. 151-158. edited for OCR errors.

US law and US antitrust experience have played central roles in the development of competition law virtually everywhere, and they are central to global competition law development. The US system is often referred to as a ‘model,’ and this model role has shaped the dynamics of global competition law development. Many foreign officials and commentators assume that they should or must follow it.50 Others have been skeptical that it is appropriate for their own circumstances.

I hear use the term ‘model’ in a broad sense to refer to an identifiable set of legal principles and institutions to which others commonly refer. In this sense, US antitrust law is a model, because it is commonly referred to as such. As we shall see, a model can have many functions, and can be used in a variety of ways. As we investigate the role played by US antitrust, it is important to emphasize that its roles are typically based on perceptions and images rather than extensive knowledge of the US system. The term does not necessarily imply a positive assessment of the identified characteristics.

1. Distinguishing among roles

The US model plays several roles and performs several functions. Distinctions among them are seldom clearly drawn, but failure to make them can distort analysis of the dynamics of global competition law today as well as assessment of future policies. At a basic level, the US model is important because it is a common point of reference for virtually all who participate in the global competition law arena. Some have studied US antitrust formally, but most have merely picked up pieces of information about it. All have at least some idea of some of its features. This dimension of the US role often goes unnoticed, but it frames assessments of the US system and anchors assumptions about the directions of global competition law. It is important to identify such cognitive factors, because many are unaware of them, and thus their influence can easily be underestimated.

The US model’s role as a common reference point is associated with its role as a heuristic—a cognitive device for thinking about complicated issues. Basic images of US antitrust law often orient discussions of competition law issues and supply a language for those discussions. Discussions of global competition law often contain comments such as ‘we’re moving toward a US system’ or ‘this is like the US model.’ In this way, the US model simplifies and structures complex information and facilitates discussion of competition law issues among participants who may share few other points of reference.

Use of US antitrust as a shared point of reference easily blends into a related use in which it serves as a standard of comparison and a criterion for evaluating competition law systems. Comments such as ‘country X’s system is still immature or undeveloped in comparison to the US antitrust system’ are common. The assumption here is that the US system is not only a point of reference, but it also represents a better or more mature system that others should emulate.

The US model also plays more specifically normative roles. It is often used as a source of authority for claims about what competition law should be. In this use, a proponent of a particular viewpoint or decision in a foreign system seeks to strengthen [their] ~~her~~ argument by showing that [they are] ~~she is~~ advocating a position from US law. US antitrust law here represents a form of normative ‘authority’ that can be used to support claims in other antitrust systems. Similarity to the US system in and of itself supports such claims. No further argument is required. The low cost of arguments based on this type of authority makes them particularly attractive for use by those with limited resources and those for whom lack of experience or other constraints make more sophisticated analysis difficult.

Finally, US experience also serves as a source of data. Here the focus is on the evolution of the US model rather than on the model itself. The long history of US antitrust law makes it a valuable source of antitrust experience. Th ere is an unparalleled depth of judicial opinions spanning more than a century, and many contain far more material about the practices involved than is available in other systems. In addition, there is a rich body of scholarly writing about antitrust law, and it includes a wide variety of theoretical perspectives. Importantly, the material is available in English, and it is thus far more accessible than are other rich sources of competition law experience such as German experience in the twentieth century.

2. Evolution of the model’s functions

These functions are intertwined, and their relative importance has changed over time, generally paralleling the changing role of the US in global economic and political affairs in the twentieth century. As noted in chapter two, reviews of the US antitrust system prior to the Second World War tended to be negative, and they appear to have often been based on very little actual knowledge of the system. Comments often focused on the then ‘radical’ practice of prohibiting certain conduct that was deemed anticompetitive. European economic thinking and political realities made such a prohibition seem unwarranted and unrealistic. Moreover, the US prohibition system was portrayed as harmful, because it forced fi rms to merge rather than cooperate, thus intensifying the concentration of industry, a spectre that haunted Europe during the early decades of the twentieth century.

In the aftermath of the Second World War, European views changed dramatically. The US was now in a dominant position in the market-oriented part of the world, and it promoted antitrust as a tool for fostering democracy and peace and for generating wealth. Many forgot that there had been a different model of competition law in Europe in the 1920s, and they came to identify competition law with its US variant. Over the next forty years, the US model was effectively imposed on transnational markets, because its courts and institutions applied or threatened to apply US antitrust law anywhere, and US hegemony generally blunted resistance to its imposition. This meant that scholars, lawyers and officials involved with competition law throughout the world had little choice but to learn at least something about US antitrust law and to respect its potential impact.

The fall of the Soviet Union and the successes of the US economy in the 1990s opened another chapter in the evolution of this model role. The return of global markets and their new prominence brought renewed attention to competition law, and much of the attention underscored the model role of US antitrust law. US officials, lawyers and economists have taken leading roles in the internationalizing networks that have formed during this period. They have promulgated US antitrust thinking, touting it as an important factor in building economic progress and political stability in countries previously operating on non-market principles. Officials in the many new competition law systems have needed technical assistance, and the US has been willing and able to provide it. All of this reinforces the image of US antitrust as the ‘leader’ in the field.

3. Influences and incentives

Why have others sought to know, use and follow the US antitrust model? Isolating these factors allows us to assess their impact on current dynamics as well as on future strategies. One factor is the status of US antitrust as the oldest and best-established antitrust system in the world. This ‘father’ image itself tends to confer status and authority on it. A decision maker outside the US, particularly one with a little developed competition law, can often support a position or claim by identifying it as a borrowing from the world’s oldest and most ‘mature’ system. The claim is thereby sanctioned by time and experience. A more refined version of this claim is that the long history of US antitrust does not by itself justify its authority, but that US antitrust has undergone a long process of trial-and-error learning that has revealed mistakes and produced a better system. US writers are fond of using this latter version of the claim, and often fervently believe that US experiences in the 1950s and 1960s show the follies of older and less economically based versions of competition law.

US economic successes, particularly in the 1990s and early 2000s, created another set of incentives to follow the US model. For many, the soaring US economy of the period appeared to confirm the superiority of US economic policy. Antitrust is part of that economic policy package and thus derives status and authority from its success. Ideological factors have sometimes enhanced this attractiveness and augmented the authority it provides. US antitrust is a symbol of ‘US-style capitalism’ with its resistance to government interference with business, and thus those who support this view of the relationship between government and markets have tended to welcome and support the introduction of US antitrust principles and practices into their own systems. For almost two decades prior to the financial crisis that began in 2008, governments virtually everywhere sought to emulate at least portions of this policy package.

US antitrust law is often also seen as a surrogate for an international standard. Discussions of economic globalization often seek international standards, and this has been particularly prominent in discussions of competition law. A competition law decision maker can expect support for a claim to the extent that it represents ‘what the others are doing,’ i.e. an international standard. Although there is no international standard, many assume that US power will require that US antitrust law serve that function.

US economic and political power sometimes also directly supports the influence of US antitrust law. These issues are seldom discussed, but their influence can be extensive. One form of power is governmental. The US government has actively sought to influence the development of foreign systems. Sometimes this is overt and well-publicized, as, for example, during the early 1990s when the US government pressured the government of Japan to increase enforcement of its antitrust laws, thereby hoping to increase the access of US fi rms to the Japanese market. More commonly, pressure is exerted in the context of aid and technical assistance programs, where a country can expect to gain US support and/or assistance by conforming its conduct to the wishes of the US authorities.

Private power and influence play somewhat similar, less obvious, but potentially more pervasive roles. Here there is no direct use of governmental power. Instead, the power is ‘soft’—i.e., the capacity to induce others without coercion to make decisions that correspond to the interests of the private parties involved.51 One forum for this exercise of soft power is the international competition law conferences that have become increasingly common since the mid-1990s. These conferences provide fora where lawyers, economists and public officials present their views and experiences make contacts and often seek to influence each other. In these contexts, US officials and lawyers have played leading roles. They often host the most prestigious of these conferences, and they are often featured speakers.52 As a group, their prominence is based on many factors, including their experience in international competition law matters, the richness of US scholarship, and the practical importance of US antitrust enforcement throughout the world. US lawyers and economists also benefit from the weight and influence of the institutions with which they are associated. Especially since the 1990s, very large international law firms have formed, primarily to provide services to large, internationally-structured business firms. These firms often commit significant resources to influencing foreign decision makers to favor the interests of their clients. This creates incentives for lawyers, officials and economists from other countries to seek contacts

with them for their own benefit, e.g., through the potential for client referrals and so on. Large multinational corporations represent a potentially significant source of income for lawyers and consultants in the competition law fi eld. Th ese factors can also influence the literature of antitrust.

E. US Antitrust Experience as a Lens: A Leader’s Perspective

US antitrust experience is also the lens through which members of the US antitrust community and many of those associated with it view transnational competition law issues and assess foreign antitrust laws. It is common for members of this community to assume that the US antitrust system is generally superior to others and that others should follow it, perhaps shorn of some of its inconsistencies and weaknesses (such as vestiges of classical-era case law thinking). The unique evolution of the US system and its relations with other competition law systems combine to shape these US attitudes. The lens they have shaped is the source of US confidence in competition law convergence as a strategy and the generally negative US views on multilateral commitment. We look briefly at the characteristics of this lens and the images it has shaped.

A key feature of the lens is its narrow focus. There have been few incentives in US antitrust experience to look at competition law broadly, i.e., to view US antitrust as just one competition law among many. US antitrust law officials, scholars and lawyers have seldom had occasion to look carefully at foreign competition law experiences or to learn from them. There is, for example, very little in-depth comparative law writing in the antitrust field and what there is typically suggests that US antitrust law should instruct others. The general tenor of US writing that deals with foreign systems is to point out their inadequacies in relation to US antitrust learning.

Related to this is a general tendency of the lens to exclude or marginalize political and social factors in considering antitrust law and its influence. US antitrust law is made by courts. In contrast to virtually all other competition law regimes, legislative influences have been minimal in its history, and thus there has been no vehicle for direct political influence. As a result, the US antitrust community pays primary attention to court decisions, which are generally less concerned with issues of political support.

Using this lens, members of the US antitrust community generally view the basic principles and approaches of US antitrust law with satisfaction, or at least as preferable to its alternatives. Few would consider it unblemished, but most consider it to be basically ‘right.’ The rapid victory of this economics-based conception of antitrust has imbued members of the US antitrust community with confidence that current US antitrust thinking provides the ‘right answers’ to basic antitrust questions. There is little in US experience that generates questions as to whether what is ‘right’ in the US is also ‘right for the rest of the world. It is a universalizing view of US antitrust law. When it is combined with the power and influence of the US it can easily appear to others as arrogance, whereas from within the US antitrust community it is just a ‘better way’ developed through hard won experience.

Confidence in the ‘superiority’ of US antitrust law is not new. It has long been common within the US antitrust community. US antitrust law was the first prominent antitrust system, and this long-ago accustomed member of the US antitrust community to seeing their system as the ‘father’ of modern competition law and to having it seen as such by others. This father image has tended to generate and support the impression that others do and should look to the US system for leadership.

Th is self-image was strengthened in the aftermath of the Second World War. Th e US promoted antitrust as part of its ‘mission’ to help democratize countries such as Germany and Japan and to spread market principles and democracy. Th is led many to forget that there had been a different model of competition law in Europe prior to the war. US antitrust law became the model for antitrust law. The missionary tenor of this message has had a lasting, if altered and reduced impact.

Th e reformulation of US antitrust philosophy that began in the 1970s strengthened the perception in the US antitrust community that US antitrust thinking had found the right answers to basic antitrust questions. It urged that an economics-based antitrust law was superior to earlier conceptions of antitrust law in which issues such as fairness and bigness had influenced decisions. In this image, US antitrust law has learned from its mistakes and now provides a convincing and analytically consistent basis for antitrust. This understanding of US antitrust experience leads many in US antitrust law to scorn forms of competition law in other countries that resemble those earlier US ‘mistakes.’ A common refrain is that ‘we did that, and we know that it doesn’t work.’ When this lens is applied internationally, it readily leads to the conclusion that foreign systems that are concerned with issues such as fairness that have been discredited in the US domestic context deserve limited respect.

The 1990s again spotlighted the leadership role of US antitrust. The US was prominent in providing technical assistance based on US experience, and since then US officials and lawyers have generally been in the forefront of discussions of transnational competition law in many areas of the world. All this reinforces the image of the US as the most prominent antitrust system, i.e., the ‘leader’ in the field.

Finally, the image that US law is ‘the right way’ to do antitrust gives members of the US antitrust community something to ‘sell.’ US lawyers, economists and officials (many of whom expect to return soon to private practice) have incentives to promote the superiority of the US approach.53 Where others adapt the US system, they will undoubtedly turn to the US for guidance and advice.

US antitrust law and experience have long been at the center of discussions about competition law. For those outside, US antitrust law has often been a point of reference for thinking about their own decisions. For those within US antitrust, US experience has been a lens for viewing and evaluating the decisions of others and thinking about the future of competition law on both national and transnational levels. The centrality of these roles makes US antitrust experience unique and exceptionally important. It can be of great value to others and to global competition law development, but it can also obstruct and distort that development.

There are two basic ways of looking at the relevance of US experience for other countries and for global competition law development. One is to see US experience as an evolutionary process that has produced a universally valid ‘best’ approach. Here the claim is that the US has experimented with competition law longer than have other systems; that ‘trial and error’ experience has led to the rejection of approaches that have been shown to be ineffective; and that this has led to a superior system that should be copied by others. In this view, US experience is relevant to all countries and should be the model for global competition law development. A second view asks whether US experience is specifically relevant to the development of competition law in other countries and for global development. Does US experience in setting goals and creating and maintaining institutions relate specifically to the problems and issues faced in developing competition law on a global level? Here the answer is that US experience can be of great value, but that it must be used with careful attention to its uniqueness.

#### Exemptions collapse Rule of the Road – those are necessary to a thriving space industry.

Larsen 18, Paul B. "Minimum International Norms for Managing Space Traffic, Space Debris, and Near Earth Object Impacts." J. Air L. & Com. 83 (2018): 739. (taught air and space law for more than 40 years respectively at Southern Methodist University and at Georgetown University. He is co-author of Lyall and Larsen, Space Law a Treatise (2ne edition Routledge 2017) and of Larsen, Sweeney and Gillick, Aviation Law.)//Miller

D. NON-GOVERNMENTAL ORGANIZATIONS AS MODELS FOR MINIMUM SPACE NORMS Space industry operators are concerned that national and international government-established operating norms may be too restrictive and may kill off the inventive start-up space business initiatives now appearing in the marketplace. No one state or non-governmental entity can appropriate or assert sovereignty over outer space. The Outer Space Treaty Article IX requires states to pay due regard to the corresponding activities of other states.218 But that requirement does not give one state regulatory authority over the business authorities of other states. Article IX merely requires appropriate international consultations.219 Individual space businesses need room to experiment.220 At the same time, they are concerned about the intense competition and the need for some basic safety and traffic rules. Another complication is that the competing space businesses are of different nationalities, and the space businesses authorized by one state may receive inadequate protection from their authorizing state against competing businesses authorized by another state. The nations have to coordinate in order to establish order and basic operating rules for non-sovereign outer space by voluntary agreement. Several operators have sought to join together in associations for their own protection and coordination. A good example is the Space Data Association, in which large space operators like Intelsat, SES, and Euelsat have joined with large manufacturers such as Airbus, and even some space agencies like NASA and the German DLR, to pool information about traffic in outer space.221 They have formed subcommittees on urgent issues such as safety, procedural developments, and interference with radio frequencies.222 However, the large number of small satellite operators have tended to form their own association representing New Space. It is recognized that industry standardsetting organizations, such as the International Standardization Organization (ISO),223 and the new space standardization organization, CONFERS,224 have important roles for setting product standards for the space industry. However, the norms needed for management of space traffic, space debris, and NEOs require minimum government coordination among the states to establish international uniformity. Several industry observers call for some kind of international policing of outer space.225 The private associations can only depend on the goodwill of their competitors in obeying and complying with association rules. Private associations have no inherent police powers for enforcement other than legal action for breach of contract.226 Enforcement of contracts may depend on national laws and on national courts that may favor domestic business over foreign business. Furthermore, associations may be restricted by national antitrust and anti-monopoly laws. Conflicting with the idea of operators working in unison for their common good is the proposition that space operators are basically in business for individual profit. Thus, an individual business may not be willing to sacrifice its profit motives for the sake of public safety. That becomes the nub of the question of whether to leave safety in outer space to be resolved by the non governmental entities: each of the operators will always be motivated by self-interest. A neutral policing authority would therefore be more acceptable to direct traffic than competing business operators. Importantly, the individual national governmental authorities do not have exclusive policing authority in outer space. The only effective solution is to establish international minimum operating norms for space debris generation, space traffic, and planetary defense. It appears that, for space business to succeed, international norms with adequate input from business operators will be the best solution for these urgent public safety problems for space business to succeed. Standards and norms are commercial necessities. They enable businesses to satisfy a larger market demand for their products and services. Some technical standards and norms can be established by the commercial interests without government involvement, but others require minimum governmental regulation and oversight. Space traffic norms will benefit business enterprises, but they require international coordination and policing to assure uniformity. Reduction and elimination of space debris is another activity that requires international coordination combined with national enforcement. Planetary defense against threatening NEOs is yet another area beyond the ability of commercial enterprises to control. These three space activities requiring minimum government safety norms will help businesses prosper and allow space exploration to continue.

### 1AC---Adv---Space Law

#### International space law isn’t equipped for the privatization of space BUT US-led space antitrust checks its erosion AND allows for international harmonization

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11. Discussion

Traditionally, international space law, as opposed to national space law, is not equipped to deal directly with the private sector. However, antitrust has the tools to do so. The broader range of space antitrust might help delve further down into the elusive and transnational commercial law, which is likely to accelerate in the near future and multiply interest around the commodification of the space market. As suggested throughout this paper, space concentration, leading to monopolies, is a likely outcome of the further development of space commerce. To mitigate the risks of monopolization, collusive and of other anti-competitive behavior, especially when considering the particular nature of space resources, to be exchanged on the emerging space-based market – including the complex and specialized services attendant thereto – special ethical and legal safeguards must be put in place to incentivize competition while containing the risks of fragmentation mentioned previously.

This is important to enable a healthy expansion of the ecosystem. Our emphasis on the market forces at play is rooted in the assumption that through the observation of the current trends of commercialization and of the growing number of non-traditional actors (either public or private) stemming from old and from new space-faring nations, it is easier to anticipate risk and to provide supporting regulatory proposals.

Our suggested approach toward an adaptive and polycentric governance model attempts to resolve some of these challenges, by allowing for a bottom-up framework that fosters commercialization, to surface organically, from the players, with minimal outside intervention. Our goal is to prevent the risk of privatization and commercialization that might gradually erode the ethical principles of international space law. To use the analogy of the carrot and the stick in striking a balance between regulatory intervention and free initiative, we prefer the carrot approach. Incentivizing the private sector to compete around ethically balanced markets has the potential to unlock new and unforeseen forces of antitrust in space to channel the fragmentation of forces in a sustainable manner while ensuring the respect of the conventional set of ethical principles to which many corporations already subscribe to in the context of their corporate compliance programs. Here we would an additional layer of space law higher ethical principles (such as enumerated supra) and investigate into further incentivizing soft law implementations. These higher principles are rooted in system interconnectivity and complexity, and have direct consequences on life, planetary protection, environmental aspects, intergenerational equity, etc. In approaching these issues through the angle of antitrust, we argue that antitrust is bound to evolve and to adapt, both in Space and on Earth. Furthermore, a broad space antitrust scope might also benefit from polycentric governance when concrete self-determination claims would manifest, such as Elon Musk’s self-governing principles on Mars. Any future space colonies (or settlements) would either rely on their own resources or would depend on the import and the export of resources, and therefore, on resource commodification. It then follows that having an ethical space antitrust regime well in place appears as a foreseeable necessity. An ethical space antitrust should also consider non-market factors such as the potential new rights granted to specific resources and regulate accordingly (e.g. the equivalent in space of legal rights to natural resources, etc.). Without such an ethical regime framework harnessing uncoordinated competitive forces, one possible outcome would be the dystopia described by Andy Weir’ Artemis economy on the Moon based on “soft landing grams” credits directly applied to one’s consumption of oxygen. A bleak perspective. Finally, antitrust is an adequate response to space property and resources, as property law is, at its basis, domestic law and so is competition law. They can evolve in parallel in the space sector and merge into an international framework, adapted to the international space law forum. There is no internationally harmonized antitrust framework as of this writing, except non-binding UN guidelines. Perhaps, a “space antitrust” would help bridge that gap and contribute to reducing growing issues such as “forum shopping,” fragmentation and “conflict of laws.”

12. Limitations and further research

While this paper is at the exploratory level, further research is necessary in determining the scope of antitrust in space, property and commodities and how ethics can play a role specifically, at the implementation level. Case studies should be conducted with a clear methodology. Moreover, the research must include other financial aspects such as spacebased assets and securities, notably the Space Assets Protocol of the UNIDROIT Cape Town Convention. Finally, more work must be done in terms of international/transnational recommendations for antitrust, as there is no internationally harmonized antitrust governance or regime and it remains heavily politicized – or not enough, depending on the school of thought (Teachout, 2020, p. 212).

13. Conclusion

This paper explored a roadmap into managing fragmentation triggered by the accelerated development of the outer space ecosystem and the rise in non-traditional space actors, be they public or private. International space law no longer suffices to cope with all the new actors, and therefore, transnational alternates are recommended. This paper recommends a transformed antitrust regime, adapted to space, based on the corpus juris spatialis ethics. This could help preventing the risk of space law erosion while privatization and commercialization of space are trending and potentially leading to the commodification of the space market and ecosystem, while space lawyers are still debating internationally as per the principle of non-appropriation and as per what a “space object” should consist of and what property rights could be applicable in space. An interdisciplinary approach could prove very helpful to address this problem. For instance, E. Ostrom’s work on classifying the goods into four categories from an economic standpoint might help space lawyers into classifying space goods once and for all and this could serve as a catalyst for polycentric space governance, governed inter alia, by competing forces. However, these competing forces should rather be seen as the dark matter in a space ecosystem, enabling sustainable synergies and interactions, with intergenerational equity in mind. This would be essential to avoid unregulated speculation based on space commodities, which could prove to be more detrimental in such an extreme environment as space. For instance, speculation benefits from climate change impact on crops and other commodities on Earth. We are all too familiar with the consequences. Imagine what space weather-based speculation could do in space. It could obliterate entire economies at once. One could argue that either space antitrust monitors the space commoditization closely, either space derivatives should be significantly regulated.

#### Space law erosion causes space wars.

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Interregional Academy of Personnel Management, “Private International Space Law. Philosophical and Legal Factors of Approval by the World Community,” 2019, Philosophy and Cosmology, Volume 22, p. 21-22

Consequences of the lack of legal rules of conduct for individuals in space

As the authors have shown above, public international law well regulates the exploration and use of outer space by States. However, more and more private companies and individuals are making real or virtual use of comic space and space bodies. So far, private companies are working closely with the relevant national structures. For example, SpaceX works closely with NASA. It works for profit, but according to public international and national space laws of the United States. Accordingly, while significant problems in this area do not arise. However, after the withdrawal of the orbit of the Earth by the SpaceX company of about 12000 satellites that will give away “free” Internet traffic of all comers, problems without doubt arises. First of all, it will be connected with the protection of intellectual property rights and counter-terrorism. The such States, such as China and Russia, will be categorically against all available Internet because they profess the theory and practice of the state-controlled Internet. In other words, the activities of a private company that will operate under soft (softlaw) space law will conflict with the national laws of sovereign States. Consequently, in the context of private companies and individuals, when using space, they enjoy soft law and act in accordance with a constitutional principle of English law: “Everything which is not forbidden is allowed”.

Even more, there is a violation of the principle of justice and sometimes common sense about the virtual use of cosmic bodies. For example, Dennis M. Hope, the formal owner of the Moon since 1980. In 2015, two private companies, Moonestates and Moonlife Ltd, merged and merged is bring together the community of over 6 million space enthusiasts that have purchased land on the Moon (https://www.moonestates.com/about-us/). MoonEstates.com, and Moonlife Ltd view the “legalities” of selling extraterrestrial property and are quite legally valid in the U.S.A. legislative field (<https://www.moonestates.com/about-us/space-law/>).

From our point of view, it is unacceptable that individuals and organizations that do not enjoy any legitimacy from society should (albeit virtually) use or dispose of space objects as their property. This is a direct road to the future confrontation for the natural resources of space. The worst consequence of which can be real space wars. Philosophy of War and Peace, as well as its influence on the formation of the foundations of national and planetary security strategies, are considered in the study Philosophy of War and Peace: in Search of New European Security Strategy [Bazaluk & Svyrydenko, 2017]. Private international space law, adopted by the international community through the legalization in the UN, has the right to regulate the activities of individuals about comic objects. Consequently, the lack of legal rules of conduct for individuals in space leads to two main types of incidents:

1. Not the settlement of the right of private ownership of space bodies, will not lead to the fair capture of space bodies by persons who do not have the right to do so, and the redistribution of such objects will objectively lead to space wars.

2. Not controlled by the right of private companies to use the near-earth space will lead to a threat to the life and health of the inhabitants of the Earth, negative environmental consequences and legal conflicts, both interstate and private.

#### They go nuclear---AND erode nuclear deterrence.

Dr. Robert Farley 22, Assistant Professor of Security and Diplomacy at the Patterson School at the University of Kentucky, Ph.D. in Political Science from the University of Washington, B.A. from the University of Oregon, “Does A Space War Mean A Nuclear War?,” 1945, 1/9/2022, https://www.19fortyfive.com/2022/01/does-a-space-war-mean-a-nuclear-war/

The recent Russian anti-satellite test didn’t tell the world anything new, but it did reaffirm the peril posed by warfare in space. Debris from explosions could make some earth orbits remarkably risky to use for both civilian and military purposes. But the test also highlighted a less visible danger; attacks on nuclear command and control satellites could rapidly produce an extremely dangerous escalatory situation in a war between nuclear powers. James Acton and Thomas Macdonald drew attention to this problem in a recent article at Inside Defense. As Acton and MacDonald point out, nuclear command and control satellites are the connective tissue of nuclear deterrence, assuring countries that they’re not being attacked and that they’ll be able to respond quickly if they are.

For a long time, these strategic early-warning satellites were akin to a center of gravity in ICBM warfare. Nuclear deterrence requires awareness that an attack is underway. Attacks on the monitoring system could easily be read as an attempt to blind an opponent in preparation for general war, and could themselves incur nuclear retaliation. Thus, the nuclear command and control satellites are critical to the maintenance of nuclear deterrence. They make it possible to distribute an order from the chief of government to the nuclear delivery systems themselves. Consequently, their destruction might lead to hesitation or delay in performing a nuclear launch order.

It was only later that the relevance of satellites for conventional warfare became clear. Satellites could reconnoiter enemy positions and, more importantly, provide communications for friendly forces. Indeed, the expansion of the role of satellites in conventional warfare has complicated the prospect of space warfare. States have a clear reason for targeting enemy satellites which support conventional warfare, as those satellites enable the most lethal part of the kill chain, the communications and recon networks that link targets with shooters. Thus, we now have a situation in which space military assets have both nuclear and conventional roles. In a conflict confusion and misperception could rapidly become lethal. If one combatant views an attack against nuclear command and control as a prelude to a general nuclear attack, it might choose to pre-empt.

Nuclear powers have dealt with problems in this general category for a good long while; would a conventional attack against tactical nuclear staging areas represent an escalation, for example? Would the use of ballistic missiles that can carry either conventional or nuclear weapons trigger a nuclear response? Do attacks against air defense networks that have both strategic and tactical responsibilities run the risk of triggering a nuclear response? There’s also the danger that damage to communications networks designated for conventional combat could force traffic onto the nuclear control systems, further confusing the issue.

No one has ever fought a nuclear war, and no two nuclear powers have engaged in a prolonged, high-intensity conventional conflict. Now that conventional systems have become implicated in space technologies for reconnaissance, targeting, and communications, leaders will have to make very difficult, very careful decisions on what enemy capabilities they want to disrupt. Acton and MacDonald propose a straightforward ban on attacks against nuclear satellite infrastructure, which would also require agreement to keep nuclear and conventional communications networks separate. This is the little ask; countries should plan to fight more carefully. The big ask is for a multilateral ban to prevent future anti-satellite weapons tests in space. This would reduce the danger that debris could close off, temporarily or permanently, human access to certain locations in earth orbit. But given that countries use satellites for the conduct of conventional military operations, it’s a lot to ask for warfighters to consider critical military infrastructure off-limits in any particular conflict.

#### Antitrust harmonization prevents extinction from resource depletion, human rights abuse, and war

Geoffrey A. Manne 13, Lecturer in Law at Lewis & Clark Law School, Executive Director of the International Center for Law & Economics, JD from the University of Chicago Law School, Former Olin Fellow at the University of Virginia School of Law, and Dr. Seth Weinberger, PhD and MA in Political Science from Duke University, MA in National Security Studies from Georgetown University, AB from the University of Chicago, Associate Professor in the Department of Politics and Government at the University of Puget Sound, “International Signals: The Political Dimension of International Competition Law”, The Antitrust Bulletin, Volume 57, Number 3, Last Revised 7/18/2013, p. 497-503

A. The international political environment

At the root of international political theory is the fundamental maxim that relations between sovereign nations in the absence of mitigating factors is characterized by intense competition, mutual distrust, the inability to make credible commitments, and war.20

[FOOTNOTE] 20 Political scientists characterize the international system as “anarchic.” In the absence of world government (or other mitigating force), competition between states is largely unregulated by external laws or enforcement. The world is characterized by mistrust, the inability to contract, and the ultimate reliance on a state’s own devices. See THOMAS HOBBES, LEVIATHAN 80 (Edwin Curley ed., 1994) (in the state of nature “the condition of man . . . is a condition of war of everyone against everyone”). In fuller terms:

There is no authoritative allocator of resources: we cannot talk about a ‘world society’ making decisions about economic outcomes. No consistent and enforceable set of comprehensive rules exists. If actors are to improve their welfare through coordinating their policies, they must do so through bargaining rather than by invoking central direction. In world politics, uncertainty is rife, making agreements is difficult, and no secure barriers prevent military and security questions from impinging on economic affairs.

ROBERT O. KEOHANE, AFTER HEGEMONY: COOPERATION AND DISCORD IN THE WORLD POLITICAL ECONOMY 18 (1984). Efficiency-enhancing gains from trade are difficult to appropriate because trade itself (and any other form of exchange or agreement between nations) is characterized by the absence of credible commitments to future behavior. And underlying the problem is the ever-present threat of the use of force. See, e.g., Kenneth N. Waltz, Anarchic Orders and Balances of Power, in NEOREALISM AND ITS CRITICS 98, 98 (Robert O. Keohane ed. 1986) (“The state among states . . . conducts its affairs in the brooding shadow of violence . . . . Among states, the state of nature is a state of war.”). Although this dire characterization of the international environment is, of course, a stylized approximation of the real world—there are always overlying constraints on sovereign behavior in the form of norms, reputational effects, and customary international law, HEDLEY BULL, THE ANARCHICAL SOCIETY: A STUDY OF ORDER IN WORLD POLITICS (1977)—it is a useful and widely accepted heuristic for crafting a theory of international politics. [END FOOTNOTE]

As one commentator notes, “Nations dwell in perpetual anarchy, for no central authority imposes limits on the pursuit of sovereign interests.”21 And states are “unitary actors who, at a minimum, seek their own preservation and, at a maximum, drive for universal domination.”22 As a result, states operating on the international stage are unable to judge the sincerity of each others’ stated intentions when those intentions are contrary to this manifest interest. Because of self-help rules, states are forced in the main to assess their own security environment by assessing the capabilities of competitors, downplaying their motives. Given that the nature of the competition can implicate the fundamental survival of one (or more) of the actors, actions taken by one state to improve its own security must necessarily decrease the security of its competitor; in the absence of mitigation, security is a zero-sum game.23 In a world where cooperation is exceedingly difficult (because there is no authority to enforce agreements, nor any basis for assessing the reliability of another state’s commitments), international relations are characterized by a continuous race to the bottom, a mindless arms race rather than the opportunity to realize gains from cooperation.

It is obvious that not all relations between states are characterized by the security dilemma, however. Canada, for example, shares an unprotected border with the most powerful nation in the world without degenerating into a destructive and costly arms race. By some mechanism, then, Canada must be able reliably to judge U.S. intentions, even absent the apparent ability by the United States credibly to bind itself to a nonaggressive policy toward Canada. The key to mitigating the pressures of the security dilemma is the ability to distinguish a state with aggressive and expansionist tendencies from a benign one.24 States can be distinguished by their fundamental type. They can be classified as “revisionist,” that is, they seek to subvert the dominant order, or they can be classified as “status quo,” that is, they seek to support it.25 But, as noted, a state’s ability to judge another’s intentions (as opposed simply to counting its armaments) is extremely tenuous and comes at great cost. In fact, political science offers few well-understood mechanisms for judging a state’s propensity for aggression.

At the same time, hegemonic states have an abiding interest in spreading and maintaining their dominant worldview.26 Not only is it imperative that dominant states receive credible signals about other states’ intentions, but it is also important that dominant states attempt to inculcate their norms within other states that, over time, might mount credible challenges to the dominant states’ security.27 The spread of hegemony through internalization of norms occurs for three reasons. First, states with similar institutions and sympathetic domestic norms are simply better and more reliable trading partners, and it is in the hegemon’s economic interest to instill its norms.28 Second, states with defensive military postures and that adhere to the status quo present significantly less security risk to dominant states.29 And finally, the hegemon has a normative interest in the spread of its culture, its worldview, and its norms.30 This conception of the playing field upon which states interact leads to the conclusion that, entirely apart from the immediate and substantial economic benefits to a state from well-ordered interactions with other states, hegemonic states also have a national security and a normative interest in the information to be gleaned from the fact that these interactions are, in fact, well ordered.

In the absence of centralized enforcement, privately held and nonverifiable information as to a state’s fundamental type is the critical problem in assessing motives.31

[FOOTNOTE] 31 See KEOHANE, supra note 20, at 31 (“Order in world politics is typically created by a single dominant power [or hegemon].”). States are consequently classified as one of two types, “revisionist” or “status quo,” based on their acceptance and adherence to the political norms, institutions, and rules created by the hegemon. Status quo states are those that try to improve their condition from within the framework of the accepted world order. Revisionist states, by contrast, seek to gain position both by working outside that order and by working to subvert the hegemonic order itself. For instance, the existing world order is generally accepted to be that created by the United States after World War II. It comprises a liberal international economic order, the use of multilateral institutions (such as the United Nations and the WTO), negotiation for dispute resolution rather than the threat of violence, and the promotion of liberal democratic moral norms. See, e.g., Schweller, supra note 24, at 85; HANS J. MORGENTHAU, POLITICS AMONG NATIONS: THE STRUGGLE FOR POWER AND PEACE 32 (1948). Trade disputes between status quo states (like tariff disputes between the United States and Europe) are resolved through peaceful negotiation rather than the threat of war. Although status quo states do not entirely eschew the use of violence, they typically seek international authorization and legitimization before employing military force, as in the multilateral operations in Iraq, Kosovo, and Afghanistan. Revisionist states, on the other hand, such as North Korea, Iran, and China, will more readily use military force as a bargaining tool and are more reluctant fully to participate in transparent military, economic, and political negotiations. [END FOOTNOTE]

States wishing to escape the pressures of the security dilemma and engage in cooperative behavior need a means of conveying their preferences to others in a credible manner. There are, in general, two means by which such information can be transmitted: states can either bind themselves in such a way that they are unable to deviate from a stated behavior (known as “hands tying” in Schelling),32 or they can signal their intention to engage in a specified course of action by incurring costs sufficiently large that they discourage the misrepresentation of preference.33

International institutions can play a crucial role in facilitating the transmission of this information.34 In particular, international agreements over the terms of trade, even without binding supranational enforcement authority, provide a means for states to bind themselves to a desirable course of behavior in the short run and, more importantly, to signal their acquiescence to the ruling world order in the long run. Because compliance with treaty obligations often requires signatories to alter their domestic laws to reflect the terms of the treaty, the costs of compliance can be substantial. In the short run, to the extent that states enforce their domestic laws they can bind themselves to a certain course of behavior. In the long run, a state’s willingness to incur the substantial costs of changing its laws, both the transaction costs inherent in changing domestic laws and the even more substantial costs in domestic political capital, signals a willingness to engage other states on the terms set by the reigning international power. Moreover, there may be unintended effects, as changes in domestic laws result in a new set of domestic incentives to which actors respond, and new windows of opportunity may open up through which policy entrepreneurs can push for the internalization of new norms.35 Competition laws in particular are susceptible to this mode of analysis.

Most nations have adopted competition laws as a way to actualize (as well as to symbolize) a degree of commitment to the competitive process and to the prevention of abusive business practices . . . . The introduction of competition laws and policies has also gone hand in hand with economic deregulation, regulatory reform, and the end of command and control economies.36

The surest way to remove the threat of war, increase wealth, conserve resources, and protect human rights is through fundamental agreement between all states (or at least effective agreement between verifiably status quo states) under a normative umbrella that promotes all of those values. This normative convergence can be effected through the stepwise internalization of the sorts of economic and democratic values inherent in international economic liberalization, perhaps most notably through the adoption of principled international antitrust standards.37

#### Rules of the road check Russian and Chinese ASATs--- cause Taiwan war, AND deck cred among allies.

Dr. Brian G. Chow 20, Independent Policy Analyst, Spent 25 years as a Senior Physical Scientist Specializing in Space and National Security, Ph.D in Physics from Case Western University, MBA and Ph.D in Finance from the University of Michigan, “Space Traffic Management in the New Space Age,” Strategic Studies Quarterly, Winter 2020, p. 76-78

* Modified for ableist language

The Necessity for Space Traffic Management

In 2018, the Long Term Sustainability (LTS) Working Group of the Committee on the Peaceful Uses of Outer Space (COPUOS) tried to establish voluntary “measures for the safe conduct of proximity space operations.”15 Russia blocked adding these RPO measures to the 21 guidelines developed by the working group over the prior eight years.16 Finally, in June 2019, Russia endorsed the 21 guidelines, but RPO rules were not included. While these guidelines will help avoid accidental collisions of functional satellites with space debris, they will not prevent satellites from being deliberately threatened or disabled by robotic spacecraft.

Even if Russia and China agreed to reconsider RPO measures, there is another problem. COPUOS has long focused only on guidelines for commercial safety, not military security. Taking advantage of this tradition, Russia and China could steer RPO guidelines toward helping commercial operators avoid accidental collisions but leaving the option of using proximity operations to threaten critical US military satellites. This threat could be a powerful instrument for executing their asymmetric strategies to counterbalance the more superior US military capabilities in space. For example, in its 2019 document China Military Power, the US Defense Intelligence Agency states, “PLA [People’s Liberation Army] writings emphasize the necessity of ‘destroying, damaging, and interfering with the enemy’s reconnaissance . . . and communications satellites,’ suggesting that such systems, as well as navigation and early warning satellites, could be among the targets of attacks designed to ‘~~blind and deafen~~ [disorient] the enemy.’ ”17

Such an attack would be most damaging if it is the fateful opening of a war in space or on Earth. China could pre-position and maintain multiple dual-use robotic spacecraft arbitrarily close to our critical satellites. Even more worrying is that this threat will grow. Sometime in the latter half of the 2020s, China will have the capability to pre-position dozens of cheap RPO small satellites (smallsats18) close to dozens of our satellites, such as the Global Positioning System (GPS). Although these spacecraft are slow-moving, they will be able to legally pre-position during peacetime and get unreasonably close. After “legitimately” setting up this threatening posture, China would have an advantage in a crisis, such as one involving Taiwan. If the US intervenes, China could disable critical satellites so quickly that we would not have enough time to defend them. The disabling could severely degrade US war-fighting capabilities. Furthermore, knowing an intervention could fail, the US might decide not to intervene in the first place and would risk its credibility among allies.19 The US could prevent such a threat scenario and outcome by creating and enforcing a more comprehensive STM regime that provides timely warning and prevention.

Already, “rumors have been circulating for years that the Chinese Communist Party (CCP) has developed small satellites with robotic arms that could be used as anti-satellite weapons.” The rumors indicate that “some of the smaller satellites are lighter than 22 pounds, yet have a triple-eye sensor to gauge the shapes of targets and can adjust their speed and rotation, allowing them to grab objects within a distance of six inches, using a single robotic arm.”20 Considering their significant research and development in RPOs and smallsats,21 China as well as Russia can likely deploy a few attackers in the first half of the 2020s and then, in the second half of the decade, dozens of inexpensive smallsats capable of RPOs to mount a simultaneous proximity attack. These proximity ASATs would have a cost ratio (e.g., millions each for ASATs versus hundreds of millions each for a victim’s satellites) highly favorable to the attacker. It would be even more favorable to the attacker if one includes the high cost to the victim of losing the services provided until its satellite capability is fully replaced. Constellations of even dozens of satellites could still be vulnerable. For example, the 32 GPS III satellites, which will replace the current GPS by 2025, cost about half a billion dollars each.22 Dozens of cheap, robotic ASATs could defeat most of these 32 satellites, degrading or eliminating a critical service needed in peacetime and wartime.

#### Chinese ASAT attacks go nuclear.

Lee Billings 15, Editor at Scientific American covering space and physics, Citing Michael Krepon, an arms-control expert and co-founder of the Stimson Center, and James Clapper, Director of National Intelligence, The Scientific American, August 10, 2015, “War in Space May Be Closer Than Ever”, http://www.scientificamerican.com/article/war-in-space-may-be-closer-than-ever/

The world’s most worrisome military flashpoint is arguably not in the Strait of Taiwan, the Korean Peninsula, Iran, Israel, Kashmir or Ukraine. In fact, it cannot be located on any map of Earth, even though it is very easy to find. To see it, just look up into a clear sky, to the no-man’s-land of Earth orbit, where a conflict is unfolding that is an arms race in all but name.

The emptiness of outer space might be the last place you’d expect militaries to vie over contested territory, except that outer space isn’t so empty anymore. About 1,300 active satellites wreathe the globe in a crowded nest of orbits, providing worldwide communications, GPS navigation, weather forecasting and planetary surveillance. For militaries that rely on some of those satellites for modern warfare, space has become the ultimate high ground, with the U.S. as the undisputed king of the hill. Now, as China and Russia aggressively seek to challenge U.S. superiority in space with ambitious military space programs of their own, the power struggle risks sparking a conflict that could ~~cripple~~ [destroy] the entire planet’s space-based infrastructure. And though it might begin in space, such a conflict could easily ignite full-blown war on Earth.

The long-simmering tensions are now approaching a boiling point due to several events, including recent and ongoing tests of possible anti-satellite weapons by China

and Russia, as well as last month’s failure of tension-easing talks at the United Nations.

Testifying before Congress earlier this year, Director of National Intelligence James Clapper echoed the concerns held by many senior government officials about the growing threat to U.S. satellites, saying that China and Russia are both “developing capabilities to deny access in a conflict,” such as those that might erupt over China’s military activities in the South China Sea or Russia’s in Ukraine. China in particular, Clapper said, has demonstrated “the need to interfere with, damage and destroy” U.S. satellites, referring to a series of Chinese anti-satellite missile tests that began in 2007.

There are many ways to disable or destroy satellites beyond provocatively blowing them up with missiles. A spacecraft could simply approach a satellite and spray paint over its optics, or manually snap off its communications antennas, or destabilize its orbit. Lasers can be used to temporarily disable or permanently damage a satellite’s components, particularly its delicate sensors, and radio or microwaves can jam or hijack transmissions to or from ground controllers.

In response to these possible threats, the Obama administration has budgeted at least $5 billion to be spent over the next five years to enhance both the defensive and offensive capabilities of the U.S. military space program. The U.S. is also attempting to tackle the problem through diplomacy, although with minimal success; in late July at the United Nations, long-awaited discussions stalled on a European Union-drafted code of conduct for spacefaring nations due to opposition from Russia, China and several other countries including Brazil, India, South Africa and Iran. The failure has placed diplomatic solutions for the growing threat in limbo

, likely leading to years of further debate within the UN’s General Assembly.

“The bottom line is the United States does not want conflict in outer space,” says Frank Rose, assistant secretary of state for arms control, verification and compliance, who has led American diplomatic efforts to prevent a space arms race. The U.S., he says, is willing to work with Russia and China to keep space secure. “But let me make it very clear: we will defend our space assets if attacked.”

Offensive space weapons tested

The prospect of war in space is not new. Fearing Soviet nuclear weapons launched from orbit, the U.S. began testing anti-satellite weaponry in the late 1950s. It even tested nuclear bombs in space before orbital weapons of mass destruction were banned through the United Nations’ Outer Space Treaty of 1967. After the ban, space-based surveillance became a crucial component of the Cold War, with satellites serving as one part of elaborate early-warning systems on alert for the deployment or launch of ground-based nuclear weapons. Throughout most of the Cold War, the U.S.S.R. developed and tested “space mines,” self-detonating spacecraft that could seek and destroy U.S. spy satellites by peppering them with shrapnel. In the 1980s, the militarization of space peaked with the Reagan administration’s multibillion-dollar Strategic Defense Initiative, dubbed Star Wars, to develop orbital countermeasures against Soviet intercontinental ballistic missiles. And in 1985, the U.S. Air Force staged a clear demonstration of its formidable capabilities, when an F-15 fighter jet launched a missile that took out a failing U.S. satellite in low-Earth orbit.

Through it all, no full-blown arms race or direct conflicts erupted. According to Michael Krepon, an arms-control expert and co-founder of the Stimson Center think tank in Washington, D.C., that was because both the U.S. and U.S.S.R. realized how vulnerable their satellites were—particularly the ones in “geosynchronous” orbits of about 35,000 kilometers or more. Such satellites effectively hover over one spot on the planet, making them sitting ducks. But because any hostile action against those satellites could easily escalate to a full nuclear exchange on Earth, both superpowers backed down. “Neither one of us signed a treaty about this,” Krepon says. “We just independently came to the conclusion that our security would be worse off if we went after those satellites, because if one of us did it, then the other guy would, too.”

Today, the situation is much more complicated. Low- and high-Earth orbits have become hotbeds of scientific and commercial activity, filled with hundreds upon hundreds of satellites from about 60 different nations. Despite their largely peaceful purposes, each and every satellite is at risk, in part because not all members of the growing club of military space powers are willing to play by the same rules—and they don’t have to, because the rules remain as yet unwritten.

#### Taiwan war goes nuclear.

Ayson 21 – Robert, Professor of Strategic Studies at Victoria University of Wellington. “NUCLEAR ESCALATION IN A TAIWAN STRAIT CRISIS?”, Nautilus Institute, <https://nautilus.org/napsnet/napsnet-special-reports/nuclear-escalation-in-a-taiwan-strait-crisis/>, 05-19-2021

The Nuclear Dimension

A military conflict in the Taiwan Strait will have a nuclear dimension regardless of whether the United States is directly involved. Both Taiwan and China know that the latter is nuclear armed and could, at least in theory – but in violation of its No First Use policy – use nuclear weapons against Taiwan.[39] The nuclear dimension is intensified if the United States is factored in, because it means that two nuclear-armed great powers are on opposing sides of an armed conflict. It is intensified further if we make the plausible assumption that one of the reasons that Taiwan is interested in protection from the United States is that the latter has nuclear weapons. America’s arsenal constitutes one of the main appeals of extended deterrence. But it also means that the United States needs to factor in China’s nuclear prowess when it considers the assistance it offers to Taiwan in an armed conflict and the actions it is willing to take against China’s forces.[40]

There are more deliberate and less deliberate ways in which the threshold could be crossed from a Taiwan Strait conventional armed conflict to one involving nuclear weapons. In terms of the deliberate side of the equation, it cannot be exaggerated how big such a decision – by China, by the United States, and/or by both – would be for course of the war and the course of history. Why then might either of them be willing to violate the nuclear taboo that has been in place since 1945? Under what circumstances would such a step make any sense at all as a deliberate policy choice?

We can take some solace that there is no obvious answer to these questions. But there are still some more detailed issues that need to be considered. For example, even if China has been emboldened by its dominant cross-Strait military position to intensify its conventional attacks on Taiwan as the crisis moves into war, it would end up encountering a different balance of military power to the extent that the United States becomes involved. Of course the latter comes with much greater immediate risks than it once did. American analysts may be increasingly aware of the costs and risks of intervening militarily in a Taiwan Strait crisis. They may wonder how quickly the US could reposition its forces for a more protracted conflict with China. Hence Washington probably has less scope to repeat its 1996 playbook. It is arguably harder for the United States to deter a PLA attack on Taiwan today than it was a quarter of a century ago. And it is certainly much harder for the United States to deter China from coercing Taiwan.

Yet if Taiwanese and American deterrence of China has failed, and China is at war with Taiwan, Washington may very well decide to commit to a limited conventional war against China. (Strategic ambiguity raises questions about the time, place, nature and probability of an American response. But these questions don’t allow us to conclude that if China attacks Taiwan, the US won’t get involved in a fighting war). Notwithstanding China’s ability to put American forces at risk, American attacks on PLA force elements could have a devastating effect on China’s military options as the crisis escalates. Some of these measures could be undertaken from a distance: the United States could hold PLA mainland targets at risk even if China had a momentary advantage around Taiwan. And if China initially held the upper hand, Washington might have extra reasons to put mainland PLA targets at risk.

If the United States pursued some of the conventional military steps implied earlier and degraded China’s military by attacking PLA forces situated on the mainland, (including through attacks on missile bases and command systems), then China would face a deteriorating correlation of forces. China’s sense of vulnerability will be much greater than America’s. There is more than a passing possibility that Beijing would feel its time for making choices that mattered was closing in. Perhaps in anticipation of these American measures, the Communist Party leadership may have already decided that it is time to use “all options are on the table” language, hinting at nuclear possibilities. Hinting is about as far as things might go. Writing over a decade ago, admittedly when the distribution of military power was more strongly in America’s favour, Baohui Zhang suggested that “the possibility of China threatening first use of nuclear weapons should not be ruled out when a real crisis in the Taiwan Strait makes U.S. military intervention seemingly unavoidable,”[41] which also reminds us that there is a difference between issuing a threat and carrying it out.

But once those American precision attacks have begun (and China’s conventional and nuclear deterrence has failed to prevent such an intervention) the situation changes. If China’s options to manage and escalate the conventional conflict seem to be getting scarcer because of the effects of American strikes – actual as well as anticipated – what remaining choices will Beijing have aside from crossing the nuclear threshold and putting an end once and for all to its no first use declaratory policy? This runs against the assessment that “there is no evidence that China envisages using nuclear weapons first to gain a military advantage by destroying U.S. conventional forces or to gain a coercive advantage by demonstrating its greater resolve in a conflict with the United States.”[42] But this envisaging has not been occurring when China is losing a conventional war against the United States. And surely the possible targets for a nuclear attack by China would not be confined to the Strait, unraveling any remaining sense of a tacit agreement to limit the geographical confines of the conflict. Would Beijing consider nuclear attacks on US territories in the wider region – including Guam – if it really wanted to exercise some measure of intra-war deterrence (to make the costs of continuing too great for Washington to handle?) Would it want to hold hostage cities and other targets in the Pacific coast of the US mainland?

The hostage-taking scenario may seem farfetched. But if China judged that America’s conventional attacks were sufficiently damaging to warrant the use of nuclear weapons, it would then be obliged to think ahead to what sort of American retaliation would ensue. Any such thinking would be bound to focus minds on the very significant asymmetry between China’s and America’s nuclear forces, and the absence of nuclear options on Beijing’s part that might communicate intentions of fighting a limited nuclear war[43] (however preposterous that notion sounds). But should escalation dominance in such a situation be judged by capability and doctrine (which would favour the United States) or by desperation (which might favour China)?

At this point there is also an obligation to consider whether the United States might be the first of the two nuclear-armed states in this crisis to use nuclear weapons. There is the decades-old precedent of US nuclear threats against China in a Taiwan Strait crisis (which occurred several years before China itself had a nuclear arsenal). But the mid-1950s were the era of massive retaliation strategies, and America’s nuclear weapons were not used. And more than half a century later, United States decision-makers would also have some confidence that many of their military objectives – including knocking out PLA systems on the mainland – could be achieved by using advanced conventional systems (eg conventionally armed cruise missiles launched from offshore). Moreover, while some US attacking options would be vulnerable to China’s pressure (including forces based in regional bases) the United States would retain long-range options (including bombers) that would be very hard for the PLA to reach.

But we need to ask whether the United States would use nuclear weapons first in a Taiwan Strait conflict if the conventional phase of that war was heading strongly in China’s favour? In other words, if it looked like China had a good prospect of turning military outcomes in the Strait into a political victory: unification by force. Taiwan’s future could head in almost any direction, including forceful absorption into China, without any obvious direct threat to America’s own survival. Yet Taiwan’s absorption would imply that Washington had been defeated by China in East Asia. America’s reputation amongst regional allies which depend on it (eg Japan and Korea) would have been seriously affected. Japan’s own security, including against fears of being trapped alongside a triumphant China, would be imperiled by the PLA’s ongoing presence in a Beijing-controlled Taiwan. The temptation for nuclear proliferation in East Asia after America’s failure to protect the interests of its allies would be strong. America’s national security policymakers might argue that despite the enormous costs of using nuclear weapons, (and the moral opprobrium that would follow) at stake in choosing not to use them was the future of the East Asian equilibrium on which many United States vital interests depend.

What then of the less deliberate side of the nuclear ledger? Here I do not have in mind an entirely accidental nuclear war – one in which no obvious decision to proceed with hostile acts was involved. Instead there are risks in any close military-technical and doctrinal interdependence between the conventional and nuclear forces of participants in what begins as a limited war in the Taiwan Strait. The question here is a simple one about a complex situation: can either of the two sides (and especially the United States) put at risk the conventional forces of the other side (and especially China’s) without also endangering the target country’s nuclear forces? Endangering nuclear forces is not necessarily restricted to attacks on delivery systems and warheads – eg the nuclear armed variants of the PLA rocket forces. Also crucial are the command and control, intelligence, surveillance and reconnaisance systems for these nuclear forces, without which their delivery to target may be compromised or prevented. At stake here is China’s confidence that it retains nuclear options in the event of a significant American conventional attack and America’s confidence that it can attack China’s conventional capabilities without unintentionally putting at risk China’s nuclear forces, creating more use them or lose them choices for the adversary.

This problem is not confined to considerations of a crisis in the Taiwan Strait. The late Desmond Ball and I argued a few years ago that any colocation of the PLA’s conventional and nuclear systems could create significant escalatory hazards in a conventional war between China and Japan which brought in the United States as Japan’s security guarantor.[44] Similar risks would be in play should some of the same mainland missile bases that China would use in conducting attacks against Taiwan allow for nuclear as well as conventional options. David Logan argues that while some of these comingling problems have been overstated and others remedied by China’s military reforms, still more may be emerging.[45] P.W. Singer and Ma Xiu have noted that while it was assumed that “the PLA was at least separating its nuclear and conventional forces into distinct and geographically discrete brigades” the deployment of the intermediate range DF26 missile with both conventional and nuclear payloads portends a new and worrying point of instability.[46] If the very same missile offers nuclear as well as conventional options to China, the inadvertent escalation problem raises its dangerous head.

In a thoughtful exploration, Talmadge suggests that in the event the United States attacked the capabilities that China was most likely to use in a missile bombardment across the Strait, China’s leaders would still retain some of their most significant nuclear options (and the command and control systems that would permit their use).[47] What matters less, she argues, are the technical interconnections. What matters more is whether China’s leaders believe (wrongly or rightly) that the United States had decided on a counterforce mission, (conventional or nuclear) designed to disarm China. And this version of the nuclear temptation will grow for China’s leaders, “as more and more of their conventional and nuclear or nuclear-relevant assets come under threat during a conventional war.”[48] It needs hardly to be said that putting assets under threat is part of the modern American military philosophy. This would extend to targeting China’s intelligence, surveillance and reconnaissance systems, vital to PLA missile systems (and so reducing the threat to US forces) but also crucial to China’s ability to know what was going on.

#### Nuclear war causes extinction -- counter-forcing is impossible

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Nuclear war has no winner. Beginning in 2006, several of the world’s leading climatologists (at Rutgers, UCLA, John Hopkins University, and the University of Colorado-Boulder) published a series of studies that evaluated the long-term environmental consequences of a nuclear war, including baseline scenarios fought with merely 1% of the explosive power in the US and/or Russian launch-ready nuclear arsenals. They concluded that the consequences of even a “small” nuclear war would include catastrophic disruptions of global climate and massive destruction of Earth’s protective ozone layer. These and more recent studies predict that global agriculture would be so negatively affected by such a war, a global famine would result, which would cause up to 2 billion people to starve to death. These peer-reviewed studies – which were analyzed by the best scientists in the world and found to be without error – also predict that a war fought with less than half of US or Russian strategic nuclear weapons would destroy the human race. In other words, a US-Russian nuclear war would create such extreme long-term damage to the global environment that it would leave the Earth uninhabitable for humans and most animal forms of life. A recent article in the Bulletin of the Atomic Scientists, “Self-assured destruction: The climate impacts of nuclear war,” begins by stating: “A nuclear war between Russia and the United States, even after the arsenal reductions planned under New START, could produce a nuclear winter. Hence, an attack by either side could be suicidal, resulting in self-assured destruction.” In 2009, I wrote “Catastrophic Climatic Consequences of Nuclear Conflicts” for the International Commission on Nuclear Non-proliferation and Disarmament. The article summarizes the findings of these studies. It explains that nuclear firestorms would produce millions of tons of smoke, which would rise above cloud level and form a global stratospheric smoke layer that would rapidly encircle the Earth. The smoke layer would remain for at least a decade, and it would act to destroy the protective ozone layer (vastly increasing the UV-B reaching Earth) as well as block warming sunlight, thus creating Ice Age weather conditions that would last 10 years or longer. Following a US-Russian nuclear war, temperatures in the central US and Eurasia would fall below freezing every day for one to three years; the intense cold would completely eliminate growing seasons for a decade or longer. No crops could be grown, leading to a famine that would kill most humans and large animal populations. Electromagnetic pulse from high-altitude nuclear detonations would destroy the integrated circuits in all modern electronic devices, including those in commercial nuclear power plants. Every nuclear reactor would almost instantly meltdown; every nuclear spent fuel pool (which contain many times more radioactivity than found in the reactors) would boil off, releasing vast amounts of long-lived radioactivity. The fallout would make most of the US and Europe uninhabitable. Of course, the survivors of the nuclear war would be starving to death anyway. Once nuclear weapons were introduced into a US-Russian conflict, there would be little chance that a nuclear holocaust could be avoided. Theories of “limited nuclear war” and “nuclear de-escalation” are unrealistic. In 2002 the Bush administration modified US strategic doctrine from a retaliatory role to permit preemptive nuclear attack; in 2010, the Obama administration made only incremental and miniscule changes to this doctrine, leaving it essentially unchanged. Furthermore, Counterforce doctrine – used by both the US and Russian military – emphasizes the need for preemptive strikes once nuclear war begins.

Both sides would be under immense pressure to launch a preemptive nuclear first-strike once military hostilities had commenced, especially if nuclear weapons had already been used on the battlefield. Both the US and Russia each have 400 to 500 launch-ready ballistic missiles armed with a total of at least 1800 strategic nuclear warheads, which can be launched with only a few minutes warning. Both the US and Russian Presidents are accompanied 24/7 by military officers carrying a “nuclear briefcase,” which allows them to transmit the permission order to launch in a matter of seconds. Yet top political leaders and policymakers of both the US and Russia seem to be unaware that their launch-ready nuclear weapons represent a self-destruct mechanism for the human race. For example, in 2010, I was able to publicly question the chief negotiators of the New START treaty, Russian Ambassador Anatoly Antonov and (then) US Assistant Secretary of State Rose Gottemoeller, during their joint briefing at the UN (during the Non-Proliferation Treaty Review Conference). I asked them if they were familiar with the recent peer-reviewed studies that predicted the detonation of less than 1% of the explosive power contained in the operational and deployed US and Russian nuclear forces would cause catastrophic changes in the global climate, and that a nuclear war fought with their strategic nuclear weapons would kill most people on Earth. They both answered “no.” More recently, on April 20, 2014, I asked the same question and received the same answer from the US officials sent to brief representatives of the NGOS at the Non-Proliferation Treaty Preparatory Committee meeting at the UN. None of the US officials at the briefing were aware of the studies. Those present included top officials of the National Security Council. It is frightening that President Obama and his administration appear unaware that the world’s leading scientists have for years predicted that a nuclear war fought with the US and/or Russian strategic nuclear arsenal means the end of human history. Do they not know of the existential threat these arsenals pose to the human race . . . or do they choose to remain silent because this fact doesn’t fit into their official narratives? We hear only about terrorist threats that could destroy a city with an atomic bomb, while the threat of human extinction from nuclear war is never mentioned – even when the US and Russia are each running huge nuclear war games in preparation for a US-Russian war. Even more frightening is the fact that the neocons running US foreign policy believe that the US has “nuclear primacy” over Russia; that is, the US could successfully launch a nuclear sneak attack against Russian (and Chinese) nuclear forces and completely destroy them. This theory was articulated in 2006 in “The Rise of U.S. Nuclear Primacy,” which was published in Foreign Affairs by the Council on Foreign Relations. By concluding that the Russians and Chinese would be unable to retaliate, or if some small part of their forces remained, would not risk a second US attack by retaliating, the article invites nuclear war. Colonel Valery Yarynich (who was in charge of security of the Soviet/Russian nuclear command and control systems for 7 years) asked me to help him write a rebuttal, which was titled “Nuclear Primacy is a Fallacy.” Colonel Yarynich, who was on the Soviet General Staff and did war planning for the USSR, concluded that the “Primacy” article used faulty methodology and erroneous assumptions, thus invalidating its conclusions. My contribution lay in my knowledge of the recently published (in 2006) studies, which predicted even a “successful” nuclear first-strike, which destroyed 100% of the opposing side’s nuclear weapons, would cause the citizens of the side that “won” the nuclear war to perish from nuclear famine, just as would the rest of humanity.

### 1AC---Adv---Noble Antitrust

#### Absent US-led noble competition, infrastructure collapse, inequality, and corporatism are inevitable.

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Duhigg’s classmates are unhappy despite well-paying jobs, but many of us don’t have the luxury of such well-cushioned unhappiness. We are working too hard for not enough pay, no benefits or lousy ones, and no job security. For us the promise of prosperity never arrived, even though we work in a competitive economy, which we’ve been told is the pathway to prosperity. That is the rationale policy makers have offered for their efforts to increase competition, fortify the laws to protect it, and eliminate many of the regulatory restraints that they deem harmful and unnecessary.

You would be right to ask: What went wrong? How have we found ourselves at this unfortunate juncture? And what path should we have followed?

Not the mostly abandoned paths of communism and totalitarianism, which are certainly no better and indeed much worse than the one we’re on. Few among us would want to work or live in a centrally planned economy. Competition often does promote efficiency, economic growth, innovation, and material well-being, just as the competition ideologues insist. And regulations that restrict the freedom of companies can indeed be counterproductive. But we must acknowledge that the oversimplified version of the competition ideology that is being sold to us today, with its assumption that unfettered competition is always and in every circumstance superior to any other path, has not delivered as promised. Increasingly, we see its darker sides.

If looked at objectively, it becomes apparent how reductive the ideology really is, and how much potential there is for abuse. Rather than competition serving us by improving our material living standards (income, consumption, and wealth), this economic tool has become the master that we must serve, the magic elixir we must swallow whole. The economists’ warning labels have been peeled off; the possibility of overdosing from toxic competition has been dismissed outright.

The ever-ascending arrow in the chart on the left depicts the promise of competition; the downward curve of the arrow on the right is a more realistic depiction of where it has led us.

It doesn’t have to be that way, however. From the late-1940s until the mid-1970s, competition really did foster innovation, increase quality, and improve our material living standards. But it was competition that operated in an environment with regulatory protections.

Beginning in the late 1970s, such protections were gradually stripped away as the competition ideology, like kudzu, took over and smothered everything in its path—including the social, moral, and ethical values that might have mitigated its pernicious effects.

Over the past forty years lobbyists, powerful firms, and ideologues have pushed for free market solutions, unmonitored and unregulated, even for services—like prisons—that are particularly ill-suited to an ideology that puts profits and “shareholder value” ahead of all other values. Politicians and policy makers promoted competition as the panacea for nearly every societal ill, while striving both to dismantle existing regulations and to resist any new ones, all in the name of avoiding “regulatory creep”—that supposedly lethal blow to the free market. The result: The regulatory framework and safety nets that are crucial to an inclusive and stable economy are gone. With few incentives to invest in infrastructure or the more general needs of society, the competitive companies that our policy makers promised us would maximize our earning potential have delivered their benefits instead to only a tiny percentage (less than 1 percent) of our population. We, the citizens, are often left to pay the bill (recall the financial meltdown) or the side effects (from your pay slip to your social rights). With most of the benefits pocketed by these fortunate few, income inequality around the globe reached its highest level for the past half century by 2018.3 Wealth inequality (a measure of how much we have rather than how much we earn) was even worse—twice the level of income inequality.4 The $1.5 trillion in tax cuts by the Trump administration, as the United Nations noted, overwhelmingly benefited the wealthy and worsened inequality: “The consequences of neglecting poverty and promoting inequality are clear. The United States has one of the highest poverty and inequality levels among the OECD countries,” and also ranks near the bottom among wealthy countries in terms of labor markets, safety nets, and economic mobility.

The middle class, in the United States and in much of Europe, is shrinking—down to just over 50 percent in the United States and 60 percent in the European Union.6 Once-thriving manufacturing centers where workers could earn a decent living have been reduced to a state of rusting decay brought about by declines in labor’s share of profits, low-skilled workers’ wages, labor force participation, and the start-up rate of new firms (due to barriers erected by powerful incumbents).7 Yet, our elected officials continue to defend the competition ideology, to insist that it will pay off, even as our pocketbooks, health care, and social rights tell us otherwise.

What has happened is that the idealized perfect competition portrayed in the economic textbooks has been squeezed out by the bad forms of competition—monopolistic or toxic or both. Crony capitalism, in which big business and big government cozy up to each other to stifle the good forms of competition, is the order of the day. Economists who have studied the data reveal that under this system many markets have actually become more concentrated and less competitive. And while the profit margins of the most powerful companies increased, innovation may have actually declined.8

Yet the consolidation in the marketplace continues to be defended as necessary. “Unless you have scale and power in the marketplace and with the consumer, you’re just out there scrambling on your own,” an executive at AT&T Inc. said after the federal court allowed it to acquire media conglomerate Time Warner.9

The alignment between big government and big business will continue as long as money and corporate help with reelection remain top-of-mind concerns for so many government officials. This means that we can expect many governmental policies to remain skewed toward helping the wealthy and powerful under the façade of competition, and against regulation in the name of freedom. Writers and thinkers as diverse as Martin Luther King, Jr., Senator Bernie Sanders, former Secretary of Labor Robert Reich, and Robert F. Kennedy, Jr., have inveighed against this state of affairs, which they describe as socialism for the rich (meaning government policy that sees to it that most resources go to the rich, their powerful corporations, and our financial institutions) and capitalism—or as King put it, “rugged individualism”—for the poor (meaning that they are left to struggle on their own). Nobel prize–winning economist Joseph Stiglitz describes the result this way:

We haven’t achieved the minimalist state that libertarians advocate. What we’ve achieved is a state too constrained to provide the public goods—investments in infrastructure, technology, and education—that would make for a vibrant economy and too weak to engage in the redistribution that is needed to create a fair society. But we have a state that is still large enough and distorted enough that it can provide a bounty of gifts to the wealthy.10

If we continue along the current path, our infrastructure will continue to crumble. Public education at the primary and secondary school level will deteriorate even further for those in poor or low-income areas. Rising college tuition will plunge even more students and their families into serious debt.11 And in order to mount a legal defense of their merger strategies, behemoths like AT&T will continue to bleat piteously about having to scramble on their own.

#### Infrastructure disruptions ripple---extinction.

Dennis Pamlin 15. Dennis Pamlin, Executive Project Manager Global Risks, Global Challenges Foundation, and Stuart Armstrong, James Martin Research Fellow, Future of Humanity Institute, Oxford Martin School, University of Oxford. February 2015. “Global Challenges: 12 Risks that threaten human civilization: The case for a new risk category,” Global Challenges Foundation, https://api.globalchallenges.org/static/wp-content/uploads/12-Risks-with-infinite-impact.pdf

Global Challenges – Twelve risks that threaten human civilisation – The case for a new category of risks 89 3.1 Current risks System Collapse 3.1.5 Global Global system collapse is defined here as either an economic or societal collapse on the global scale. There is no precise definition of a system collapse. The term has been used to describe a broad range of bad economic conditions, ranging from a severe, prolonged depression with high bankruptcy rates and high unemployment, to a breakdown in normal commerce caused by hyperinflation, or even an economically-caused sharp increase in the death rate and perhaps even a decline in population. 310 Often economic collapse is accompanied by social chaos, civil unrest and sometimes a breakdown of law and order. Societal collapse usually refers to the fall or disintegration of human societies, often along with their life support systems. It broadly includes both quite abrupt societal failures typified by collapses, and more extended gradual declines of superpowers. Here only the former is included. 3.1.5.1 Expected impact The world economic and political system is made up of many actors with many objectives and many links between them. Such intricate, interconnected systems are subject to unexpected system-wide failures due to the structure of the network311 – even if each component of the network is reliable. This gives rise to systemic risk: systemic risk occurs when parts that individually may function well become vulnerable when connected as a system to a self-reinforcing joint risk that can spread from part to part (contagion), potentially affecting the entire system and possibly spilling over to related outside systems.312 Such effects have been observed in such diverse areas as ecology,313 finance314 and critical infrastructure315 (such as power grids). They are characterised by the possibility that a small internal or external disruption could cause a highly non-linear effect,316 including a cascading failure that infects the whole system,317 as in the 2008-2009 financial crisis. The possibility of collapse becomes more acute when several independent networks depend on each other, as is increasingly the case (water supply, transport, fuel and power stations are strongly coupled, for instance).318 This dependence links social and technological systems as well.319 This trend is likely to be intensified by continuing globalisation,320 while global governance and regulatory mechanisms seem inadequate to address the issue.321 This is possibly because the tension between resilience and efficiency322 can even exacerbate the problem.323 Many triggers could start such a failure cascade, such as the infrastructure damage wrought by a coronal mass ejection,324 an ongoing cyber conflict, or a milder form of some of the risks presented in the rest of the paper. Indeed the main risk factor with global systems collapse is as something which may exacerbate some of the other risks in this paper, or as a trigger. But a simple global systems collapse still poses risks on its own. The productivity of modern societies is largely dependent on the careful matching of different types of capital325 (social, technological, natural...) with each other. If this matching is disrupted, this could trigger a “social collapse” far out of proportion to the initial disruption.326 States and institutions have collapsed in the past for seemingly minor systemic reasons.327 And institutional collapses can create knock-on effects, such as the descent of formerly prosperous states to much more impoverished and destabilising entities.328 Such processes could trigger damage on a large scale if they weaken global political and economic systems to such an extent that secondary effects (such as conflict or starvation) could cause great death and suffering. 3.1.5.2 Probability disaggregation Five important factors in estimating the probabilities of various impacts: 1. Whether global system collapse will trigger subsequent collapses or fragility in other areas. 2. What the true trade-off is between efficiency and resilience. 3. Whether effective regulation and resilience can be developed. 4. Whether an external disruption will trigger a collapse. 5. Whether an internal event will trigger a collapse. 1. Increased global coordination and cooperation may allow effective regulatory responses, but it also causes the integration of many different aspects of today’s world, likely increasing systemic risk. 2. Systemic risk is only gradually becoming understood, and further research is needed, especially when it comes to actually reducing systemic risk. 3. Since systemic risk is risk in the entire system, rather than in any individual component of it, only institutions with overall views and effects can tackle it. But regulating systemic risk is a new and uncertain task. 4. Building resilience – the ability of system components to survive shocks – should reduce systemic risk. 5. Fragile systems are often built because they are more efficient than robust systems, and hence more profitable. 6. General mitigation efforts should involve features that are disconnected from the standard system, and thus should remain able to continue being of use if the main system collapses 7. A system collapse could spread to other areas, infecting previously untouched systems (as the subprime mortgage crisis affected the world financial system, economy, and ultimately its political system). 8. The system collapse may lead to increased fragility in areas that it does not directly damage, making them vulnerable to subsequent shocks. 9. A collapse that spread to government institutions would undermine the possibilities of combating the collapse. 10. A natural ecosystem collapse could be a cause or consequence of a collapse in humanity’s institutions. 11. Economic collapse is an obvious and visible way in which system collapse could cause a lot of damage. 12. In order to cause mass casualties, a system collapse would need to cause major disruptions to the world’s political and economic system. 13. If the current world system collapses, there is a risk of casualties through loss of trade, poverty, wars and increased fragility. 14. It is not obvious that the world’s institutions and systems can be put together again after a collapse; they may be stuck in a suboptimal equilibrium. 15. Power grids are often analysed as possible candidates for system collapse, and they are becoming more integrated. 16. The world’s financial systems have already caused a system collapse, and they are still growing more integrated. 17. The world’s economies are also getting integrated, spreading recessions across national boundaries. 18. The world’s political and legal systems are becoming more closely integrated as well. Any risk has not been extensively researched yet, and there remain strong obstacles (mainly at the nation state level) slowing down this form of integration. 19. The politics of the post-system collapse world will be important in formulating an effective response instead of an indifferent or counterproductive one. 20. System collapses can be triggered internally by very small events, without an apparent cause. 21. External disruptions can trigger the collapse of an already fragile system. 22. The trade-off between efficiency and resilience is a key source of fragility in a world economy built around maximising efficiency. 23. Climate change, mass movements of animals and agricultural mono-cultures are interlinking ecosystems with each other and with human institutions. 24. There is a lot of uncertainty about systemic risk, especially in the interactions between different fragilities that would not be sufficient to cause a collapse on their own.

#### Noble competition builds higher ethical values into antitrust, resulting in sustainable development and systemic resiliency, solving extinction.

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At the same time, the very foundations of competition policy are being revised in various contexts and for various purposes. The emergence of a sui generis approach to competition law in the area of the digital economy,1 discussions about the role of competition policy in remedying various societal, economic, industrial, racial, gender and other problems and challenges show that competition policy can no longer be addressed hermetically, only via the traditional toolkit of law and economics.

The main purpose of this article is to provide a legal theoretical framework explaining, justifying and conceptualising the existing reconfiguration of competition law, economics and policy. Its main purpose is not to use this legal theory to support a specific sustainability-related normative argument, but to analyse how the key arguments of the supporters and critics of a greener competition policy could be shaped and underpinned by the jurisprudential theory of legal realism. On an applied level, the article explains why the current situation in competition law is particularly susceptible to various versions of ‘competition law and …’ movements.

More specifically, this article aims to (i) examine and systematise the central arguments of the supporters and the opponents of the idea of sustainability-centred – or at least sustainability-minded – competition law; (ii) to place these arguments into a broader context of the development

of (primarily EU) competition policy; (iii) to transpose the discussion into legal-theoretical discourse and the apparatus of legal realism; and (iv) to operationalise the system by showing the mechanics of balancing. It summarises and explains its main contribution in the conclusion.

II. Competition and sustainability: pros & cons

A stylised argumentation of the proponents of a more sustainability-minded approach begins with reminding us of the dangers associated with rapid climate change, ‘a disaster in slow motion’ (Dolmans, 2020) and of humankind’s responsibility to adjust our economic and socio-cultural practices and habits accordingly. Then the scientific, political and legal sources of the UN, OECD,

EU and other international and domestic organisations and polities are analysed, with the demonstration of the topicality and the urgency of the issue and the availability of legally binding instruments for applying a more sustainability-minded approach to competition policy. Finally, advantages and shortcomings of the current case law are addressed and ways for re-interpreting

the legislative, administrative and judicial sources are offered.

One of the most comprehensive and well-argued pieces by the proponents of a more proactive sustainability-minded application of competition policy is Simon Holmes’ ‘Climate Change, Sustainability, and Competition Law’ (Holmes, 2020). The author’s central message is that competition law should become a solution rather than remain an obstacle to a more sustainable development. Holmes supports this normative plea with reference to the constitutional architecture of EU law, referring to some hierarchical primacy of sustainability and environmental protection over competition policy, as deduced from the provisions of the TFEU. Holmes notices a common tactical move of responsibility shifting, when any meaningful initiative to tackle climate change is relativised and downrated by the rhetorical arguments of the inability of such an initiative alone to achieve clearly measurable outcomes. He argues that the existing legal framework of EU law is sufficient for achieving much better results, and elaborates a conception of a purposeful reinterpretation of the provisions of its primary law. The main argument is that Article 11 TFEU stipulates that ‘[e]nvironmental protection requirements must be integrated into the definition and interpretation of the Union policies and activities, in particular with a view to promoting sustainable development’ (emphasis added by Holmes). This implies that these requirements must be also integrated into the definition and interpretation of competition policy.

Obviously, several important clarificatory questions emerge: (i) who and how should the limits of such re-interpretation of established doctrinal avenues of competition policy be defined, particularly given that unlike the issues of competition, environmental policy belongs to shared, rather than exclusive, EU competences (Article 4 TFEU); (ii) the provisions of Article 7 TFEU requiring consistency between its policies and activities may well be interpreted not as an imperative that all its policies must be consistent with each other (i.e. that competition policy must be consistent with the environmental one), but that all EU activities must be consistent with its policies – and thus no direct requirement of consistency between the policies themselves; (iii) even the former interpretation refers to a mere consistency between policies, not primacy of one over the other, and as such could be interpreted both as ‘sustainability-minded competition policy’ as well as ‘competition-minded environmental policy’. Given that the EU has many other (often conceptually conflicting) policies, expecting all of them to be consistent with each other would be very hard to achieve. This can be deduced from the wording of Article 7 TFEU, which stipulates that all EU objectives must be taken into account rather than taxonomically subordinated to each other.

However, all these counterarguments do not negate the wording of Article 11 TFEU, requiring all EU policies being defined and interpreted with environmental protection in mind. This is an important legal imperative imposing a categorical requirement of sustainability-minded definition and interpretation of EU policies, providing thereby some hierarchical primacy of the latter over all former. Evidently, this interpretation would be unenforceable in reality – Holmes, for example, acknowledges that over his long and remarkable career in competition law, this legal argument never played an important role in daily enforcement – (Holmes, 2020, p. 359), and hard to conceptualise in theory as such an approach would also imply a primacy of environmental policy over e.g. (all other) human rights. Yet such an apagogical reductio ad absurdum alone does negate the fact that formally this imperative exists and despite the questions related to its enforceability, the imperative remains legally binding. These conflicts of policies are much more common in constitutional law and legal theory, and there is rich doctrinal and practical literature addressing these dilemmas (Andriychuk, 2017).

The next powerful argument of Holmes’ paper is that (i) the term consumer welfare is much broader than its economic dimension implies, and that (ii) the methodological reduction of consumer welfare – let alone the competitive process – to the neoclassical apparatus of price theory is myopic and distortive of the very meaning of the phenomena it seeks to comprehend and steer.

Finally, Holmes offers a convincing analysis of five formal ways of incorporating sustainable development into the current competition law framework: (i) some sustainability agreements do not restrict competition (as long as competition policy is reinterpreted in an environmentally-minded way); (ii) ‘Albany’ route of finding the provisions of Article 101 TFEU inapplicable to (some) sustainability agreements; (iii) ancillary restraints; (iv) Article 101(3) TFEU; (v) standardisation agreements. The remainder of his article focuses on the elaboration of the above five avenues, looking at other pillars of competition law and offering eight practical recommendations for implementing a more sustainability-minded competition policy: (i) positive statements by competition authorities; (ii) test cases in courts; (iii) publication of legal opinions which facilitate this approach for others; (iv) revising soft-law; (v) enforcement priorities; (vi) block exemptions; (vii) changes to the law and (viii) changes to the Treaties.

A stylised argumentation of the proponents of the status quo also begins with acknowledging the dangers of climate change and the need for a more proactive approach to remedying its negative implications. They question, however, if competition policy is indeed suitable for such purposes, showing examples of why and how the rhetoric of sustainability could be used for so called ‘greenwashing’ and other forms of opportunistic, if not deceptive, misuse of the idea of sustainable development. They counter the argument of sustainability-minded competition policy with the idea that many other societal values, which either conflict directly or at least diverge substantially, are also acknowledged by the political and legal documents, and that without a proper ‘division of labour’ between different policies the goal of a sustainable development – as well as many other societal policies – would suffer immeasurable loses, and submit that a greener competition policy would eventually backfire as ‘more, not less, competition [… is] the right stimulus for inducing sustainability efforts’ (Schinkel, Treuren, 2020).

Edith Loozen offers a range of appealing arguments from the perspective of EU constitutional law (Loozen, 2019). Unlike Holmes, Loozen is rather sceptical about the ability of EU competition law to encapsulate so proactively the sustainability-driven narrative. The author begins by offering an excellent reference to earlier literature on this issue. Then Loozen analyses the provision of Article 3(3) TEU and submits that the primary objective of the EU constitutional project concerns market integration. Questions about the characteristics of the internal market are of paramount importance, but they are not – and conceptually can never be – superior over the market integration narrative as such. The paper offers an appealing substantiation of this normative proposition, analysing inter alia the main jurisprudence of the Court of Justice (hereinafter: CJ).

Loozen begins with analysing Wouters2 followed by Meca-Medina3 and OTOC and CNG. 4 These cases offer prima facie the same rationale of the non-applicability of Article 101(1) TFEU to some types of sectorial agreements. In Wouters, Article 101(1) TFEU was held inapplicable. The otherwise anticompetitive Netherlands Bar’s measures were considered to be necessary for ensuring the proper functioning of the profession. However, according to Loozen, this case does not allow for a flexible weighing of the applicability of Article 101(1) TFEU any time when the ‘legitimate objective’ outweighs the rationale of Article 101(1) TFEU.

In Meca-Medina, anti-doping rules as adopted by sports federations were considered as capable of falling within the scope of Article 101(1) TFEU, but not infringing competition in practice. In other words, unlike the Netherlands’ Bar, the IOC does not enjoy immunity from Article 101(1) TFEU, and as such Loozen concludes that the recourse to the legitimate objective rationale was needed in the first place. She finishes by discussing why the attempts of some EU Member States to impose an imperative public mandate on some of the widely supported by the public sustainability initiatives violate the EU useful effect doctrine, imposing on and expecting from the Member States a duty of sincere cooperation and/or Article 105(1) TFEU.

Another impactful paper by the sceptics is written from an economic point of view by Maarten Schinkel and Leonard Treuren (Schinkel, Treuren, 2020). Their central normative position is based on the basic principle of non-intervention as the cornerstone of competition (qua invisible hand). They

also begin by acknowledging the urgency of environmental challenges, but submit that such an all-inclusiveness of competition analysis is likely to lead to cartel greenwashing, with the overarching formula: ‘minimum sustainability benefits for maximum prices’ underpinning the very idea. The authors submit that such a shift of responsibility would slow down those governmental divisions which are directly responsible for a more proactive sustainability policy.

A number of appealing arguments are raised by Giorgio Monti (Monti, 2020). He offers a conceptual resolution to the opposite parties. He begins by analysing cases in which environmental benefits were converted into a monetary dimension and balanced against eventual economic inefficiencies. Monti then reverts to the landmark CECED case,5 analysing the changes in approaches of the Commission to the scope of the definition of ‘consumers’ in Article 101(3) TFEU. The key question being if the definition embraces only those directly involved in the purchase – or also a broader category. Only if taken in the scope of the latter, the benefits from environmental improvements would be seen as sufficient for outweighing the anti-competitiveness of the agreement. This would be in line with the Guidelines on Horizontal Agreements6, adopted two years later, prescribing the analysis of net improvements. Monti than notices that this coincided with the growing popularity of the more economic approach and, thus, the Commission was moving towards a more restrictive approach to non-economic benefits of Article 101(3) TFEU, which was reflected, inter alia, in a new edition of the Guidelines.7 This has created quite a confusing situation – where both the supporters of private sustainability initiatives and their critics had strong legal arguments underpinning the position of both sides, arguments which are counterbalanced with the equally meritorious position of the opponents (as well as the middle-position). This Hartian ‘open texture of law’ is not a legal pathology, but the only possible condition of law.

The main contribution of the paper is in its development of legal avenues, which would remedy the existing uncertainty. Monti puts forward four options for a reform. The lightest proposes a more cooperative approach of the enforcers to sustainability initiatives from the industry – an approach which would imply giving less attention to such agreements either in a form of enforcement de-prioritisation or any shape of comfort letters. Option 2 concerns a greener interpretation of Article 101(3) TFEU, focusing on refining the cost-benefit analysis – a difficulty, of course, would be the uncertainty and the burden of proof on the undertakings. Option 3 concerns deeper green alternatives, focusing on the issues, which are not always at the centre of the discussion – for example territoriality. Option 4, the greenest competition policy, implies internalising the rationale of Article 11 TFEU, and overall, a more proactive application of other non-competition law provisions of the Treaties and secondary legislation in tackling environmental problems via the competition law paradigm. Comparable examples may refer to the use of ethical standards in international trade and public procurement, GDPR, privacy and all other instances of instrumental competition enforcement of the ‘antidumping’ type.

III. The (post-) pandemic impact

A number of insightful contributions to the discussion on competition and sustainability were raised during the Commission’s consultation on ‘Competition Policy supporting the Green Deal’, which was launched in October 2020. It has generated a great deal of responses from the industry, academia, public authorities and law firms. Many submissions note that pursuing a greener competition policy is easier in the area of State aid (Bruzzone, Capozzi, 2020). Indeed, while the wording of Articles 101 & 107 TFEU both refer to actions restricting competition and declare these actions to be incompatible with the internal market, the nature of State aid – unlike the nature of the prohibition of anticompetitive agreements – concerns competition only peripherally. The main essence and the main mission of State aid control is the protection and promotion of the Internal Market, making it more homogeneous. The interest of protecting competition is used mainly as a convenient proxy (no other developed antitrust jurisdiction with a con-/federative system has its rules on State aid developed to a degree similar to the EU – as the integration of the internal market is not as an important task for any other such jurisdiction as it is for the EU).

In response to the consultation, for example, Francisco Costa-Cabral notes that we can learn from the model of how the reference to the protection of public health is being used in a competition law analysis: ‘[t]he Commission has done so by using the consequences for national health systems and for the research of new pharmaceuticals to ground novel anti- competitive behaviour and theories of harm in merger control (See Case A.37.507/F3 AstraZeneca 15.06.2005 112–132 and Case M.7275 – Novartis/GSK 28.1.2015 101–114)’ (Costa-Cabral, 2020), and this has been done despite the existence of ex ante regulation. He calls for a more proactive approach by the Commission in pursuing environmental objectives.

As far as the UK concerns, the Competition and Market Authority (hereinafter: CMA) issued in 2021 a guidance on ‘Environmental Sustainability Agreements and Competition Law’,8 outlining its vision on the key problems of the issue, focusing only on anticompetitive agreements and only on the environmental dimension of sustainable development.

The central purpose of the CMA in this context is to avoid ‘unnecessary obstacles’ to sustainable development, rather than creating an atmosphere where any formally questionable environmental initiative is abandoned by the businesses as one susceptible of raising competition law concerns. Some anticompetitive agreements can indeed be exempted either individually or as part of an existing exemption category. The emphasis is placed on the subjective part of the agreement, questioning if its real intention is not a cover for a cartel. Standardisation agreements are a significant part of pro-environmental anticompetitive agreements and the guidance is focused on explaining the key criteria for the agreement being qualified as such. The document also offers a helpful ‘Framework for assessment’ flowchart.

A separate strand of literature contextualises the discussion to the (post-)pandemic crisis. Despite substantive differences between the issue of sustainability and crisis cartels, there are also some important similarities as both address situations where the economics-centred antitrust methodology interacts with broader (and for many ‘more important’) societal values.

Julian Nowag raises the issue of the resilience of competition law, looking at the pandemics as a test of the system against ad hoc emergency regulatory measures. A resilient system is expected to survive the exogenous shocks, ultimately getting out of it stronger. He argues for a need to strike a balance between some elements of the interventionist crisis-management and systematicity and certainty (Nowag, 2020).

Masako Wakui puts forward an argument for a more inductive, case-by-case approach to this highly contested issue, using market studies as the main legitimate cause for action. (Wakui, 2020: 316–318). Even such an approach is seen by the representatives of many producers as not sufficiently proactive. They would be prepared to undertake much more inclusive actions to tackle the pandemic-related challenges (Wakui, 2020). But many of such actions require coordination and/or synchronous entry to avoid the first mover disadvantage. This appears to be the real apple of discord for the entire matter.

Alison Jones emphasises that in such a situation, where multiple conflicting approaches to the issue may be chosen by the enforcers, what really matters is clear and expedient guidance about the approach chosen by the relevant agency (Jones, 2020).

Maurice Stucke and Ariel Ezrachi see the pandemic as an opportunity to recalibrate the overall societal vision about the very phenomenon of economic competition, submitting that if a major revision of competition policy is inevitable anyway, it should be done in an ethically minded manner, in a way promoting the instances of noble and discouraging toxic competition (Stucke, Ezrachi, 2020).

#### The plan inaugurates “noble space antitrust,” allowing antitrust to be applied to space while maintaining higher ethical principles.

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Space commerce is not yet regulated, as it is still in its early infancy and therefore, potential monopolistic endeavors can arise, be they natural or artificial, in which case, antitrust measures should be taken. However, such antitrust must take into account the peculiarities of the space context, as previously mentioned: (1) no direct access to air nor water unless produced/provided and, (2) the sector is regulated by international space law, which consists of ethical principles. The first peculiarity might give rise to monopolies, which should be prevented and thus sanctioned through injunctions. For doing so, competition law applied to such space-based monopolies should consider the principles of space (e.g., duty to assist, non-discrimination, non-interference, etc.iv) and thus competition law (or anti-monopoly/antitrust law) should be adapted. This article proposes that this adaptation crystallizes as a new legal sub-category named ‘‘space antitrust,’’ and since the goal of this specific sub-branch is not solely focused on lowering prices for the consumer’s welfare, but on the higher purpose of human rights and the sustainable development of the space ecosystem as a whole, this article further proposes of the terms ‘‘noble space antitrust,’’ borrowing the term ‘‘noble’’ from Stucke and Ezrachi.2,v

The argument according to which antitrust must be added in the equation of human rights and CHR in the space context might seem, prima facie, far-fetched. However, it plays a key role in ensuring that the balance does not tilt unduly in favor of corporate interests that have superior resources to allocate to litigation and lobbying efforts, to the detriment of basic human rights that are for the benefit of humankind.

Further, basic human rights, CHR, and commercial law can all be categorized as transnational law, whereas space law is both international and national, and antitrust law falls under national law. This complicated architecture of layers might seem difficult to navigate at first and this calls for clarification. The illustration given next (Fig. 1) summarizes the layering.

Figure 1 illustrates how antitrust has the potential to play a pivotal role as the perfect nexus to reconcile the *lex mercatoria*, whereby transnational CHR might clash in the future with international space law principles that aspire to protect transnational values, ethics, and human rights. Through the principle in law of extra-territoriality, domestic regulation can be applied to space activities, depending on the location of ‘‘effect.’’3 In this case, antitrust can, therefore, successfully be applied to space practice.

### 1AC---FW

#### 1] Pleasure and pain *are* intrinsic value and disvalue

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‌Let us start by observing, empirically, that a widely shared judgment about intrinsic value and disvalue is that pleasure is intrinsically valuable and pain is intrinsically disvaluable. On virtually any proposed list of intrinsic values and disvalues (we will look at some of them below), pleasure is included among the intrinsic values and pain among the intrinsic disvalues. This inclusion makes intuitive sense, moreover, for there is something undeniably good about the way pleasure feels and something undeniably bad about the way pain feels, and neither the goodness of pleasure nor the badness of pain seems to be exhausted by the further effects that these experiences might have. “Pleasure” and “pain” are here understood inclusively, as encompassing anything hedonically positive and anything hedonically negative. 2 The special value statuses of pleasure and pain are manifested in how we treat these experiences in our everyday reasoning about values. If you tell me that you are heading for the convenience store, I might ask: “What for?” This is a reasonable question, for when you go to the convenience store you usually do so, not merely for the sake of going to the convenience store, but for the sake of achieving something further that you deem to be valuable. You might answer, for example: “To buy soda.” This answer makes sense, for soda is a nice thing and you can get it at the convenience store. I might further inquire, however: “What is buying the soda good for?” This further question can also be a reasonable one, for it need not be obvious why you want the soda. You might answer: “Well, I want it for the pleasure of drinking it.” If I then proceed by asking “But what is the pleasure of drinking the soda good for?” the discussion is likely to reach an awkward end. The reason is that the pleasure is not good for anything further; it is simply that for which going to the convenience store and buying the soda is good. 3 As Aristotle observes: “We never ask [a man] what his end is in being pleased, because we assume that pleasure is choice worthy in itself.”4 Presumably, a similar story can be told in the case of pains, for if someone says “This is painful!” we never respond by asking: “And why is that a problem?” We take for granted that if something is painful, we have a sufficient explanation of why it is bad. If we are onto something in our everyday reasoning about values, it seems that pleasure and pain are both places where we reach the end of the line in matters of value.

#### 2] Extinction outweighs

#### **a] Forecloses improvement – we can never improve society because our impact is irreversible**

#### **b] Turns suffering – mass death causes suffering because people can’t get access to food and water**

#### **c] Moral obligation – allowing people to die is unethical and should be prevented because it creates ethics towards other people**

#### **d] Objectivity – body count is the most objective way to calculate impacts because comparing suffering is unethical**

#### **e] Moral uncertainty – if we’re unsure about which interpretation of the world is true – we ought to preserve the world to keep debating about it**

**3] Actor specificity: A] Governments must aggregate since every policy benefits some and harms others, which also means side constraints freeze action. B] States lack wills or intentions since policies are collective actions. Actor-specificity comes first since different agents have different ethical standings. Link turns calc indites because the alt would be *no* action.**

#### 1] Yes 1AR theory – anything else means infinite abuse A] Drop the debater – 1AR & 1AC are too short to make up for the time trade-off No RVIs – 6 min 2NR means they can brute force me every time B] Competing interps – otherwise the 2NR could drown the aff in arguments while playing defense. C] Aff theory first – much larger strategic loss – ¼ of the 1AR vs. 1/7 of the 1NC. D] Theory debate should be valuated after the 1ar – the 1ARs too short to be able to rectify abuse and adequately cover substance E] No 2NR paradigm issues, theory, or RVIs because you have 6 minutes to go for them whereas I only have a 3 minute 2AR to respond so I get crushed on time skew.