## Off Case

### Off 1

#### States ought to establish or expand an international public trust obligation towards celestial protection.

#### Counterplan solves global space sustainability.

**Babcock ’19** — Hope M. Babcock, Professor of Law, Georgetown University Law Center, B.A., Smith College, L.L.B., Yale University; (2019; “ARTICLE: THE PUBLIC TRUST DOCTRINE, OUTER SPACE, AND THE GLOBAL COMMONS: TIME TO CALL HOME ET”; University of Michigan Libraries, Nexis Uni; *Syracuse University Law Review*, Vol. 69; //LFS—JCM)

[\*259] The doctrine also appears to be infinitely malleable. Original uses of the doctrine were restricted to only that "aspect of the public domain below the low-water mark on the margin of the sea and the great lakes, the waters over those lands, and the waters within rivers and streams of any consequence," 520and covered only traditional uses of those lands, like fishing and navigation. 521 Over time, the scope and application of the doctrine broadened to protect more public resources and different uses. 522 Thus, the doctrine expanded to protect new trust resources, such as dry sand beaches, inland lakes, groundwater, dry riverbeds, and wildlife, 523and passive uses of those resources, like scientific study. 524The original link to navigable water and tidelands disappeared. 525 Supporters of the [\*260] doctrine successfully advocated that it be applied to "wildlife, parks, cemeteries, and even works of fine art," 526 while arguing more recently its application to the atmosphere. 527

A doctrine that imposes a perpetual duty on the sovereign to preserve trust resources, prevents their alienation for private benefit, assures public access to them, and can be invoked by anyone seems particularly useful as a management tool in outer space. 528The fact that public access to trust resources is so central to the doctrine makes it reflective, not contradictory, of international space law's bar against appropriation of outer space and of the principle of space being the "province of all mankind." 529 It avoids the problems of alienation and exclusion associated with any of the management approaches associated with some form of private property and requires neither the creation of a new administrative authority nor the presence of a close-knit group of like-minded people. 530 Members of the public, both rich and poor, can invoke and enforce the doctrine as easily as the sovereign. 531 It is cost effective to the extent that no separate apparatus is required to implement it, and the doctrine has shown itself to be highly adaptable and innovative as different needs arise. 532 It could also fill the gap in international law with respect to managing celestial property. Therefore, of all the management approaches studied here, the PTD seems the most suited to keep order in space until a regulatory regime is imposed.

However, the doctrine provides no incentives for development of trust resources; rather, it might be used to limit or curtail that development, making it an imperfect, perhaps even counter-productive solution by itself to the extent that such development might be [\*261] beneficial. 533Modifying the doctrine to allow limited use of private property management approaches, like tradable development claims, might buffer that effect - a form of overlapping hybridity between one type of property, a commons, and a management regime from another, private property, enabled by application of the PTD.

Conclusion

"Only a legal system that accommodates both the human need for resources and the necessary preservation of mankind's common heritage can fulfill these criteria."534 The future is now with regard to the development of outer space and its resources - it is no longer a question of whether humans will engage in these activities, but how soon they will. Technically advanced countries and private commercial enterprises are probing outer space and preparing for landing on an asteroid or the moon to extract their resources. 535Speculators are selling deeds to the moon's surface and preparing to exploit the tourism potential that space offers. 536 But, the legal framework for managing these initiatives is almost nonexistent. 537International treaties came into being before all this activity began in earnest and national laws that might apply are stunted by jurisdictional quandaries like the absence of national boundaries in outer space. 538Thus, there is an urgency to figure out how to control what happens in outer space before its resources are irreparably damaged or permanently monopolized by powerful countries and individuals.

In the absence of regulation, much of the current debate centers on what property regime should be applied in outer space. 539The assumption is that by only allowing private property rights in space, countries and commercial enterprises will undertake the risks and costs of space development. 540However, unless international space law changes, it may prevent this from happening. If it changes, strong management controls will be necessary to prevent destruction or over-consumption of celestial resources, as well as monopolization and competitive behavior by participants, which could lead to hostilities and inequities.

[\*262] This Article examines various private property regimes, including those of less than full fee ownership, to see if any would avoid the conflict with the international prohibition on appropriation of outer space and its resources. It concludes that none will because each retains the right to exclude and each is insensitive to the treaties' equity concerns. In contrast, considering outer space to be common is consistent with international space law in both respects.

Hypothesizing that private property in outer space may yet prevail, this Article investigates different private property management approaches, such as the right of first possession, lotteries, and tradable development rights, to see if any would be cost effective, easy to implement and equitable, and would also prevent over-consumption, monopolization or the slide into rivalrous behavior. The Article concludes that each comes up short in some respect. Social norms as a management tool for property held in common, although compliant with international law, are also not up to the task. Instead, although ancient, the PTD, with its malleability, easy and cost-effective implementation and enforcement, non-consumption principle, and consistency with the goals that animate international space treaties, seems best suited to the task of protecting the public's interests in the global commons that is outer space as it has done for centuries in Earth-bound commons.

But, as its principal terrestrial use has been to protect trust resources from development, the doctrine needs some modification to encourage development of celestial resources. Hence, this Article suggests that modifying the PTD to allow the application of private property management tools, like tradable development rights, will not only allow development, but also will assure that when it happens, it will not be just profitable for a few, but will also be sustainable and equitable.

### Off 2

#### Innovation high now but aff trades off

Raghavan 21[Seetha Raghavan, Seetha Raghavan is a professor in UCF’s Department of Mechanical and Aerospace Engineering. 8-4-2021, "The Impact of Innovation in the New Era of Space Exploration," University of Central Florida News | UCF Today, https://www.ucf.edu/news/the-impact-of-innovation-in-the-new-era-of-space-exploration/]/ISEE

Every once in a while, a confluence of discoveries, events and initiatives results in a breakthrough so significant that it propels the entire world to a higher level, redefining what is possible in so many different fields. This breakthrough is taking centerstage now, as the new era of space exploration — catalyzed by increasing launch access — dawns upon us. The surge of innovation that comes with this will create new opportunities and inspire the next generation of doers. When this happens, boundaries between scientific and social impact are blurred. Innovation leading to scientific discovery can benefit society in the same way that social innovation can diversify and support scientific innovators, who can contribute to global progress. To ride this wave of progress, we must all participate and innovate in the new era of space exploration. The intersection of space exploration, innovation and impact isn’t a new phenomenon. In the past, technology developments and spin-offs from space research have consistently found their way into communities worldwide sometimes with lifesaving benefits. The International Space Station supports experiments that have led to discoveries and inventions in communication, water purification, and remote guidance for health procedures and robotic surgeries. Satellite-enabled Earth observation capabilities that monitor natural disasters, climate and crops often support early warnings for threats and mitigation strategies. Space exploration has always been relevant to everyone no matter the discipline or interest. Commercialization of space has been key in many ways to the current boost in “firsts” over the last few years. It has spurred innovation in launch vehicles and related technologies that led to firsts in vertical-takeoff-vertical landing rocket technology, reusability of rocket boosters and privately developed crewed missions to orbit. Concurrently, NASA has continued to captivate our imagination with the first flight of a helicopter in another world, a mission to return an asteroid sample to Earth and sending a probe to make the closest ever approach to the sun. While we celebrate the scientific progress, there is a vastly important question that we all need to focus on: How can we drive the surge in innovation offered by increased access to space, to benefit humankind? Access to low-Earth orbit, and eventually human exploration of space, is a portal to achieve many impactful outcomes. The numbers and completion rate of microgravity experiments conducted by scientists will be greatly increased as a range of offerings in suborbital flights provide more opportunities to advance critical research in health, agriculture, energy, and more. Lunar, planetary, and even asteroid exploration may lead to discoveries of new materials — busting the limitations now imposed on capabilities for energy, transportation, and infrastructure or creating new sensors and devices that enhance safety on Earth. Space tourism —one can hope — has the power to potentially create an awareness of our oneness that may lead to social change.

#### Commercial space innovation stops extinction

Charles Beames 18, Chairman of the SmallSat Alliance, Executive Chairman of York Space Systems, former Principal Director of Space and Intelligence in the Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics (OUSD(AT&L)), Col. (ret.) in the USAF where he served 23 years in space & intelligence leadership positions around the world, 8/8/18, “Op-ed | SmallSat Alliance is on a path toward a new space horizon,” <https://spacenews.com/op-ed-smallsat-alliance-is-on-a-path-toward-a-new-space-horizon/>

We find ourselves still at the dawn of a new space century, mindful of the victories and setbacks of our past, eager to pass the torch to the next generation of space visionaries, scientists, engineers, and enthusiasts. We look to the future not just to see how much bigger, faster, or higher we can reach, but also how the United States, and specifically the U.S. space community, can again inspire the nations of the world to align with us, as it did in the 20th century. The SmallSat Alliance is an alliance of companies developing, producing, and operating in all segments of the ‘next generation’ space economy; championing renewed U.S. leadership in the burgeoning commercial space economy, and advocating for the transformation of government-led space capabilities. We are experienced space professionals who have chosen to join with others leveraging our decades of hard-won experience, to develop smarter ways to explore space in the 21st century. A wonderful outgrowth of the legacy space program is the commercial, entrepreneurial, and job-creating commercial space business that it bequeathed. These next-generation enterprises range from multi-million-dollar startups providing rideshare opportunities or components for small satellites to multi-billion-dollar space data-analytic platforms reinventing urban car service and agricultural production. The early returns of this economic revolution are already on our doorstep: space data capabilities are exponentially growing elements of the 21st century world economy. Beginning with the dreams and funding by successful tech entrepreneurs, enormous venture investments are already delivering wondrous benefits to the world. Commercial Space – Profit and Non-Profit There are really two major categories in the commercial sector, the profit driven and the non-profit. The classic for-profit companies include not only those designing, building, launching, and operating satellites but also the tech sector that is turning that raw space data into gold through machine-learning analytics. Since for-profit companies are no longer dependent upon the revenues generated by the Cold War space race culture of a bygone era, this new generation of space companies is able to more efficiently capitalize on Moore’s Law, the nonstop exponential growth in chip density, and the associated networking technology co-evolving with it. This new generation is building profitable businesses helping to clean up our oceans of garbage and debris with satellite surveillance, reconnoitering to assist in enforcing laws that protect our oceans from illegal, unregulated, unlicensed fishing, something that is rapidly depleting the world’s most valuable and essential lifeforms. It’s leading in the innovative use of low-cost satellite constellations to produce ubiquitous remote-sensing data, enabling small business owners to be more profitable and less wasteful. For example, precise timing signals from space are already optimizing transportation of people, goods, and services, with even further gains anticipated with the introduction of artificial intelligence to assist drivers, perhaps even someday replacing them entirely. The non-profit sector is the other side of commercial space, concerned more for the general welfare of society, but every bit as integral to this new space enterprise. Much like every century before it in human history, ours is not without its unique challenges, some of which have been a consequence of the last, and all of which the space data domain can be leveraged to help solve. Examples are endless, but one challenge that this new space community is uniquely well-adapted for is to further inform worldwide resource allocation for the 21st century and beyond. These two primary resources are sustainable water and the materials needed for adequate housing for an ever-increasing human population. As cities and urbanization continue to expand, governmental planning challenges such as transportation design optimization for goods and services are only the beginning. Additionally, through using inexpensive remote sensing technologies, some members are designing space data analytics to mitigate human suffering from plagues, contain outbreaks, and combating illegal poaching. Some are connecting with other non-profits to curtail human trafficking for the sex trade or forced labor for migrant debt repayment. Still others are helping non-governmental organizations in their work to expose the use of children as soldiers. Addressing these challenges has little to do with resuscitating dreams conceived by long deceased science-fiction writers and much more to do with turning “swords back into plowshares” to solve real threats to humanity. Other non-profit initiatives include pursuing an even more foundational understanding of who we are and how to be the best custodians of our environment. Much as exploring and monitoring the world’s oceans has advanced civilization through a better understanding of human life and the planet, so too does exploring and monitoring from space. Low Earth orbit (LEO) provides a unique vantage point to look back on the planet and understand what is happening, anticipate what might happen and prepare for the future. In addition to better understanding Earth, responsible and rapid exploitation of the low Earth orbit domain will enhance the understanding of the solar system and the rest of the universe. Small satellites already offer low-cost platforms to study and explore what lies beyond the Earth. Other members are pioneering the use of zero-carbon, hydrogen-based reusable propulsion systems to ensure we don’t worsen our atmosphere using kerosene-fueled rockets for the coming tsunami of satellite launches. Finally, a mission ensuring the general welfare and planet survival for the next thousand years is finally confronting the existential threat that asteroids and comets pose to humanity. These extra-terrestrial, deep-space threats are passing dangerously close to our planet, and today we have no solar map of them and no defense.

## Case

### ROB

#### The counter role of the ballot is to evaluate consequences

#### 1] anything else is irresponsible and escapes valuable discussions.

Bracey 6 Christopher A. Bracey, Associate Professor of Law, Associate Professor of African & African American Studies, Washington University in St. Louis, September, Southern California Law Review, 79 S. Cal. L. Rev. 1231, p. 1318

Second, reducing conversation on race matters to an ideological contest allows opponents to elide inquiry into whether the results of a particular preference policy are desirable. Policy positions masquerading as principled ideological stances create the impression that a racial policy is not simply a choice among available alternatives, but the embodiment of some higher moral principle. Thus, the "principle" becomes an end in itself, without reference to outcomes. Consider the prevailing view of colorblindness in constitutional discourse. Colorblindness has come to be understood as the embodiment of what is morally just, independent of its actual effect upon the lives of racial minorities. This explains Justice Thomas's belief in the "moral and constitutional equivalence" between Jim Crow laws and race preferences, and his tragic assertion that "Government cannot make us equal [but] can only recognize, respect, and protect us as equal before the law." 281 For Thomas, there is no meaningful difference between laws designed to entrench racial subordination and those designed to alleviate conditions of oppression. Critics may point out that colorblindness in practice has the effect of entrenching existing racial disparities in health, wealth, and society. But in framing the debate in purely ideological terms, opponents are able to avoid the contentious issue of outcomes and make viability determinations based exclusively on whether racially progressive measures exude fidelity to the ideological principle of colorblindness. Meaningful policy debate is replaced by ideological exchange, which further exacerbates hostilities and deepens the cycle of resentment.

#### 2] Don’t let them weigh the sum total of capitalism—they only get to weigh the unique amount solved by the affirmative. Filter the debate through scope of solvency—there’s no impact to root cause if they don’t solve it

#### 3] Existential threats outweigh – all life has infinite value and extinction eliminates the possibility for future generations – err negative, because of innate cognitive biases

GPP 17 (Global Priorities Project, Future of Humanity Institute at the University of Oxford, Ministry for Foreign Affairs of Finland, “Existential Risk: Diplomacy and Governance,” Global Priorities Project, 2017, <https://www.fhi.ox.ac.uk/wp-content/uploads/Existential-Risks-2017-01-23.pdf>,

1.2. THE ETHICS OF EXISTENTIAL RISK In his book Reasons and Persons, Oxford philosopher Derek Parfit advanced an influential argument about the importance of avoiding extinction: I believe that if we destroy mankind, as we now can, this outcome will be much worse than most people think. Compare three outcomes: (1) Peace. (2) A nuclear war that kills 99% of the world’s existing population. (3) A nuclear war that kills 100%. (2) would be worse than (1), and (3) would be worse than (2). Which is the greater of these two differences? Most people believe that the greater difference is between (1) and (2). I believe that the difference between (2) and (3) is very much greater. ... The Earth will remain habitable for at least another billion years. Civilization began only a few thousand years ago. If we do not destroy mankind, these few thousand years may be only a tiny fraction of the whole of civilized human history. The difference between (2) and (3) may thus be the difference between this tiny fraction and all of the rest of this history. If we compare this possible history to a day, what has occurred so far is only a fraction of a second.65 In this argument, it seems that Parfit is assuming that the survivors of a nuclear war that kills 99% of the population would eventually be able to recover civilisation without long-term effect. As we have seen, this may not be a safe assumption – but for the purposes of this thought experiment, the point stands. What makes existential catastrophes especially bad is that they would “destroy the future,” as another Oxford philosopher, Nick Bostrom, puts it.66 This future could potentially be extremely long and full of flourishing, and would therefore have extremely large value. In standard risk analysis, when working out how to respond to risk, we work out the expected value of risk reduction, by weighing the probability that an action will prevent an adverse event against the severity of the event. Because the value of preventing existential catastrophe is so vast, even a tiny probability of prevention has huge expected value.67 Of course, there is persisting reasonable disagreement about ethics and there are a number of ways one might resist this conclusion.68 Therefore, it would be unjustified to be overconfident in Parfit and Bostrom’s argument. In some areas, government policy does give significant weight to future generations. For example, in assessing the risks of nuclear waste storage, governments have considered timeframes of thousands, hundreds of thousands, and even a million years.69 Justifications for this policy usually appeal to principles of intergenerational equity according to which future generations ought to get as much protection as current generations.70 Similarly, widely accepted norms of sustainable development require development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs.71 However, when it comes to existential risk, it would seem that we fail to live up to principles of intergenerational equity. Existential catastrophe would not only give future generations less than the current generations; it would give them nothing. Indeed, reducing existential risk plausibly has a quite low cost for us in comparison with the huge expected value it has for future generations. In spite of this, relatively little is done to reduce existential risk. Unless we give up on norms of intergenerational equity, they give us a strong case for significantly increasing our efforts to reduce existential risks. 1.3. WHY EXISTENTIAL RISKS MAY BE SYSTEMATICALLY UNDERINVESTED IN, AND THE ROLE OF THE INTERNATIONAL COMMUNITY In spite of the importance of existential risk reduction, it probably receives less attention than is warranted. As a result, concerted international cooperation is required if we are to receive adequate protection from existential risks. 1.3.1. Why existential risks are likely to be underinvested in There are several reasons why existential risk reduction is likely to be underinvested in. Firstly, it is a global public good. Economic theory predicts that such goods tend to be underprovided. The benefits of existential risk reduction are widely and indivisibly dispersed around the globe from the countries responsible for taking action. Consequently, a country which reduces existential risk gains only a small portion of the benefits but bears the full brunt of the costs. Countries thus have strong incentives to free ride, receiving the benefits of risk reduction without contributing. As a result, too few do what is in the common interest. Secondly, as already suggested above, existential risk reduction is an intergenerational public good: most of the benefits are enjoyed by future generations who have no say in the political process. For these goods, the problem is temporal free riding: the current generation enjoys the benefits of inaction while future generations bear the costs. Thirdly, many existential risks, such as machine superintelligence, engineered pandemics, and solar geoengineering, pose an unprecedented and uncertain future threat. Consequently, it is hard to develop a satisfactory governance regime for them: there are few existing governance instruments which can be applied to these risks, and it is unclear what shape new instruments should take. In this way, our position with regard to these emerging risks is comparable to the one we faced when nuclear weapons first became available. Cognitive biases also lead people to underestimate existential risks. Since there have not been any catastrophes of this magnitude, these risks are not salient to politicians and the public.72 This is an example of the misapplication of the availability heuristic, a mental shortcut which assumes that something is important only if it can be readily recalled. Another cognitive bias affecting perceptions of existential risk is scope neglect. In a seminal 1992 study, three groups were asked how much they would be willing to pay to save 2,000, 20,000 or 200,000 birds from drowning in uncovered oil ponds. The groups answered $80, $78, and $88, respectively.73 In this case, the size of the benefits had little effect on the scale of the preferred response. People become numbed to the effect of saving lives when the numbers get too large. 74 Scope neglect is a particularly acute problem for existential risk because the numbers at stake are so large. Due to scope neglect, decision-makers are prone to treat existential risks in a similar way to problems which are less severe by many orders of magnitude. A wide range of other cognitive biases are likely to affect the evaluation of existential risks.75

### Presumption

#### Aff cant solve cap –

#### No warrant for why private expansion spills up to broader change – vote neg on presumption the aff doesn’t actually do anything

#### Alt causes decimate the aff – no warrat for why one ballot in round 2 of a rr materially does anything

#### They don’t say what they affirm

### Solvency

#### Aff cant solve – public entities

Fredriksson and Arvanitakis 17 [Martin Fredriksson Linköping University James Arvanitakis Western Sydney University “Property, Place and Piracy” November 2017 Publisher: RoutledgeISBN: 9781138745131 Projects: Piracy UnboundCommons and Commodities]/ISEE

So, the Orphans rebellion might be closer to Disney’s Jack Sparrow than to ‘Calico Jack’ Rackham and figures like Tumlinson describe the invocation of piracy as tongue in cheek. Nontheless historical figure of the pirate remains a useful heuristic for approaching contemporary space mining. The pirate, as frontier libertarian of the colonial seas, was both anathema to and fundamentally constitutive of the international legal order that began to emerge alongside the ‘juridification of the oceanic commons’ (Policante, 2015, p. xii). A violent appropriator exploiting the ‘free’ spaces outside the sphere of state power, the pirate of the pre-modern world was hostis humani generis – the enemy of all humanity (see Chapter 6 in this volume for a detailed analysis). But, paradoxically, efforts to eradicate piracy solidified the role of European colonial powers as protectors of the oceanic commons and global commerce, simultaneously strengthening the state’s monopoly on legitimate violence on the frontier (Heller-Roazen, 2009; Policante, 2015, p. xii). Although the pirate’s capacity for unrestricted violence in plundering treasure from rival vessels may not resonate with space mining, this section considers whether extraterrestrial resource exploitation can be construed as an act of theft that similarly involves this state/ pirate dialectic. Central to the commingling of piratical lawlessness and the extension of state power onto the frontier is a transformation in the pirate’s legal standing that occurred between the sixteenth and eighteenth centuries. During the European Wars of Religion, a ‘state of exception’ (Agamben, 2005) became solidified in customary law and treaty agreements beginning with the 1559 Treaty of Cateau-Cambrésis. ‘Amity lines’ were drawn to separate the emergent ‘law of nations’ between continental powers and an anomic space ‘beyond the line’,10 where ‘treaties, peace and friendship applied only to Europe, to the Old World, to the area on this side of the line’ (Schmitt, 2006, p. 92). It is within this 130 M. Johnson anomic space where the pirate became employed by the state: those who held a lettre des marques et de représailles (letter of marque and reprisal) were authorised to plunder enemy vessels and treasure without any limit on hostility. The pirate was transformed from lawless freebooter to state-sanctioned privateer: resources appropriated beyond the line were shared between privateers and state coffers, and the privateer became fundamental to European state-building (Policante, 2015, pp. 61–67). Might the frontier beyond the atmosphere comprise a similar state of exception, where the physical distance from the ‘concrete order’ (Schmitt 2006, p. 65) of terrestrial legal and political norms results in an extra-legal or anomic space, free for plunder? Despite the largely pre-emptive juridification of the space frontier via the Outer Space Treaty of 1967 (OST), the legal status of outer space retains a degree of ambiguity. The OST was drafted at the height of Cold War geopolitical tension and subsequently focused more on the militarisation of outer space and undesirability of territorial claims on celestial bodies, as opposed to clarifying the role of non-state actors or providing a framework for commercial activity (Pop, 2000). The treaty established that outer space was res communis: a commons and ‘the province of all mankind’. Article 2 stated that ‘Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.’ Crucially, the treaty has not explicitly forbidden private appropriation of celestial bodies. The clause ‘by any other means’ is possibly enough to prohibit appropriation by non-government actors (Pop, 2000). To more ardent supporters of space mining, however, the emphasis on national appropriation presents a loophole for private enterprise (Kfir, 2016; White, 1998), that ‘an individual acting on his own behalf or on behalf of another individual or a private association or an international organization could lawfully appropriate any part of outer space, including the moon and other celestial bodies’ (Gorove, 1969, p. 351). The US Commercial Space Launch Competitiveness Act of 2015 (CSLCA) appears to take the latter interpretation, whereby the sovereign power of the US legislature endorses private enterprises to ‘act on their own behalf’. Title IV of the Act states: A United States citizen engaged in commercial recovery of an asteroid resource or a space resource … shall be entitled to any asteroid resource or space resource obtained, including to possess, own, transport, use, and sell the asteroid resource or space resource obtained in accordance with applicable law, including the international obligations of the United States. (US CSLCA, 2015, §402) These ‘international obligations’ are clearly in relation to the OST, and the CSLCA also includes the ‘Extraterritorial Sovereignty Disclaimer’: ‘the United States does not thereby assert sovereignty or sovereign or exclusive rights or jurisdiction over, or the ownership of, any celestial body’ (US CSLCA, 2015, Privateering on the cosmic frontier? 131 §403). The ‘applicable law’ of the act only includes, but it is not limited to, international law: while the precise details regarding enforcement of any space property claims are unclear, such claims could also be protected under US law and competing claims arbitrated in US courts. While the CLSCA would not entail the American flag being planted on the surface of an asteroid, the US is tacitly claiming some level of jurisdiction via acts of corporate appropriation. And, if ‘international obligations’ represent more than just the OST’s nonappropriation principle, the general absence of recognition and endorsement from the international community means that the CSCLA is a largely unilateral assertion.11 The CSLCA effectively positions the US in opposition to other nations – spacefaring or otherwise – seeming to contradict the res communis nature of the OST. It imposes a res nullius legal interpretation of outer space resources by assuming that celestial bodies are free for exploitation, provided no direct territorial claims are made. The United States recognises and enforces its citizens’ resource claims on the space frontier in the name of ‘[developing] in the United States … economically viable, safe and stable’ space resource industries (US CSLCA, 2015, p. 44). This exploitation of the frontier as ‘state of exception’ is an act of economic competition, and the CSLCA then starts to resemble the letter of marque. Resources claimed in outer space will generate tax revenue and further political prerogatives of economic growth (jobs, infrastructure and so on), akin to the role of privateering in European state-building or the granting of royal charters to joint-stock companies like the East India Company. Outer space becomes the province of the United States economy rather than ‘all mankind’ a commercial vanguard enables an indirect form of ‘accumulation by dispossession’ (Harvey, 2004; Dickens & Ormrod 2007, p. 59), pre-emptively stealing resources owned by all. As far as NewSpace’s yearnings for pirate space utopias are concerned, this fundamental reliance on the state’s legislative apparatus implies that the notion of a stateless space frontier is indeed a fantasy. As privateers and patriots, ‘[extending] our free-market values into space’ (Kerber, cited in Space Frontier Foundation, 2015), NewSpace mining firms effectively extend state influence onto the anomic frontier under the guise of entrepreneurial commerce.

### Cap good!

#### Capitalism is self-correcting and sustainable---war and environmental destruction are not profitable and innovation solves their impacts.

Kaletsky 11 – (Anatole, editor-at-large of *The Times* of London, where he writes weekly columns on economics, politics, and international relations and on the governing board of the New York-based Institute for New Economic Theory (INET), a nonprofit created after the 2007-2009 crisis to promote and finance academic research in economics, Capitalism 4.0: The Birth of a New Economy in the Aftermath of Crisis, p. 19-21, Accessed provided by UMich databases, AK)

Democratic capitalism is a system built for survival. It has adapted successfully to shocks of every kind, to upheavals in technology and economics, to political revolutions and world wars. Capitalism has been able to do this because, unlike communism or socialism or feudalism, it has an inner dynamic akin to a living thing. It can adapt and refine itself in response to the changing environment. And it will evolve into a new species of the same capitalist genus if that is what it takes to survive

In the panic of 2008–09, many politicians, businesses, and pundits forgot about the astonishing adaptability of the capitalist system. Predictions of global collapse were based on static views of the world that extrapolated a few months of admittedly terrifying financial chaos into the indefinite future. The self-correcting mechanisms that market economies and democratic societies have evolved over several centuries were either forgotten or assumed defunct.

The language of biology has been applied to politics and economics, but rarely to the way they interact.1 Democratic capitalism’s equivalent of the biological survival instinct is a built-in capacity for solving social problems and meeting material needs. This capacity stems from the principle of competition, which drives both democratic politics and capitalist markets.

Because market forces generally reward the creation of wealth rather than its destruction, they direct the independent efforts and ambitions of millions of individuals toward satisfying material demands, even if these demands sometimes create unwelcome by-products. Because voters generally reward politicians for making their lives better and safer, rather than worse and more dangerous, democratic competition directs political institutions toward solving rather than aggravating society’s problems, even if these solutions sometimes create new problems of their own. Political competition is slower and less decisive than market competition, so its selfstabilizing qualities play out over decades or even generations, not months or years. But regardless of the difference in timescale, capitalism and democracy have one crucial feature in common: Both are mechanisms that encourage individuals to channel their creativity, efforts, and competitive spirit into finding solutions for material and social problems. And in the long run, these mechanisms work very well.

If we consider democratic capitalism as a successful problem-solving machine, the implications of this view are very relevant to the 2007–09 economic crisis, but diametrically opposed to the conventional wisdom that prevailed in its aftermath. Governments all over the world were ridiculed for trying to resolve a crisis caused by too much borrowing by borrowing even more. Alan Greenspan was accused of trying to delay an inevitable “day of reckoning” by creating ever-bigger financial bubbles. Regulators were attacked for letting half-dead, “zombie” banks stagger on instead of putting them to death. But these charges missed the point of what the democratic capitalist system is designed to achieve.

In a capitalist democracy whose raison d’etre is to devise new solutions to long-standing social and material demands, a problem postponed is effectively a problem solved. To be more exact, a problem whose solution can be deferred long enough is a problem that is likely to be solved in ways that are hardly imaginable today. Once the self-healing nature of the capitalist system is recognized, the charge of “passing on our problems to our grandchildren”—whether made about budget deficits by conservatives or about global warming by liberals—becomes morally unconvincing. Our grandchildren will almost certainly be much richer than we are and will have more powerful technologies at their disposal. It is far from obvious, therefore, why we should make economic sacrifices on their behalf. Sounder morality, as well as economics, than the Victorians ever imagined is in the wistful refrain of the proverbially overoptimistic Mr. Micawber: “Something will turn up.”

One condition, however, must be satisfied to “turn up” new solutions, whether for stabilizing financial markets and managing the economy or for eliminating global pollutants and curing diseases: Capitalism and democracy must themselves survive. That is why sacrifices to protect democracy and private enterprise against the military challenges of communism, fascism, and religious fundamentalism are rational and morally admirable, while sacrifices on behalf of our grandchildren’s purely economic prosperity are not (at least at the level of society as a whole).

#### The 1AC explicitly rejects capitalism in favor of assertions about unsustainability –

#### Capitalism is good – three warrants --

#### 1---Climate---Growth’s sustainable---exponential innovation and intangible capital solve the environment.

Zenghelis 21, MSc, Senior Visiting Fellow at the London School of Economics. Previously he was Head of Policy at the Grantham Research Institute at the LSE. Before that, he headed the Stern Review Team at the Office of Climate Change, London, and was a lead author on the Stern Review on the Economics of Climate Change. (Dimitri, 3-19-2021, "Sustainability Is Not Only Compatible With Growth, It Requires It – But Only With Targeted Innovation", *Forbes*, <https://www.forbes.com/sites/dimitrizenghelis/2021/03/19/can-we-be-green-and-grow/?sh=1d80dc304ce0>)

The notion that ‘green’ and growth are traded off is intuitively appealing, but it relies on the assumption that economic growth equates to growth in material use (such as fuels, minerals, ecosystem services and capital equipment) and pollution. In fact, efficiency and productivity improvements can allow us to get more out of the resources we have by decoupling GDP from materials. It is true, the world has never before managed this, but the fact is we have never really tried. Sustainability is in our gift Where a minimal public and private effort has been made to invest in new technologies, for example in renewable energy and electric vehicles, great progress has been made towards decarbonising the electricity and transport sectors. This relied heavily on taxpayer funded research and deployment policies to kick start innovation. Moreover, once learning, experience and economies of scale in production and discovery kicked in, these innovative new technologies turned out to be cheaper, more efficient and more productive than the incumbents they replaced. Exponential growth is not only possible, it is exactly what you’d expect in a world where you did not increase your resource or greenhouse gas footprint. You’d learn to use resources smarter and get more out of them. Investing in science, creativity and innovation can accelerate our ability to use fewer resources. In this way, increasing returns to ideas overcome diminishing returns to factors, such as labour and physical capital. This then generates more resources for further investment. Unlike material resources, ideas are weightless. Knowledge begets knowledge and does not deplete when used. Ideas can be weightless as well as priceless The green transition can serve to accelerate this trend provided we steer innovation in a way that enhances prosperity. The World Bank estimates that intangible capital—ideas, processes, software, databases, new media libraries, creative copy-write and online services—now makes up between 60% and 80% of total wealth in most developed countries.

#### Climate Change causes extinction and is an impact filter---prefer ev from scientific experts

Phoebe Weston 21 (Phoebe Weston is a biodiversity writer for the Guardian, 1/13/21, accessed 10/16/21, “Top scientists warn of 'ghastly future of mass extinction' and climate disruption”, https://www.theguardian.com/environment/2021/jan/13/top-scientists-warn-of-ghastly-future-of-mass-extinction-and-climate-disruption-aoe)AGabay

The planet is facing a “**ghastly future of mass extinction**, declining **health** and **climate-disruption upheavals**” that threaten **human survival** because of ignorance and inaction, according to an international group of scientists, who warn people still haven’t grasped the urgency of the biodiversity and **climate crises**. The **17 experts**, including Prof Paul Ehrlich from Stanford University, author of The Population Bomb, and scientists from Mexico, Australia and the US, say the planet is in a much **worse state** than most **people** – even scientists – **understood**. “The **scale** of the threats to the **biosphere** and **all its lifeforms** – including **humanity** – is in fact **so great** that it is **difficult** to **grasp** for even well-informed experts,” they write in a report in Frontiers in Conservation Science which **references more than 150 studies** detailing the world’s major environmental challenges. The delay between **destruction** of the **natural world** and the **impacts** of these actions means people **do not recognise** how **vast** the **problem is**, the paper argues. “[The] mainstream is having difficulty grasping the magnitude of this loss, despite the steady erosion of the fabric of human civilisation.” The report warns that climate-induced **mass migrations**, **more** **pandemics** and **conflicts** over resources will be **inevitable unless** urgent action is **taken**. “Ours is not a call to surrender – we aim to provide leaders with a realistic ‘cold shower’ of the state of the planet that is essential for planning to avoid a ghastly future,” it adds. Dealing with the enormity of the problem requires far-reaching changes to global capitalism, education and equality, the paper says. These include abolishing the idea of perpetual economic growth, properly pricing environmental externalities, stopping the use of fossil fuels, reining in corporate lobbying, and empowering women, the researchers argue. The report comes months after the world failed to meet a single UN Aichi biodiversity target, created to stem the destruction of the natural world, the second consecutive time governments have failed to meet their 10-year biodiversity goals. This week a coalition of more than 50 countries pledged to protect almost a third of the planet by 2030. An estimated one million species are at risk of extinction, many within decades, according to a recent UN report. “**Environmental deterioration** is infinitely more **threatening** to **civilisation** than **Trumpism** or **Covid-19**,” Ehrlich told the Guardian. In The Population Bomb, published in 1968, Ehrlich warned of imminent population explosion and hundreds of millions of people starving to death. Although he has acknowledged some timings were wrong, he has said he stands by its fundamental message that population growth and high levels of consumption by wealthy nations is driving destruction. He told the Guardian: “Growthmania is the fatal disease of civilisation - it must be replaced by campaigns that make equity and well-being society’s goals - not consuming more junk.” Large populations and their continued growth drive soil degradation and biodiversity loss, the new paper warns. “More people means that more synthetic compounds and dangerous throwaway plastics are manufactured, many of which add to the growing toxification of the Earth. It also increases the chances of pandemics that fuel ever-more desperate hunts for scarce resources.” The effects of the climate emergency are more **evident** than biodiversity loss, but still, society is **failing to cut emissions**, the paper argues. If people understood the magnitude of the crises, changes in politics and policies could match the gravity of the threat. “Our main point is that once you realise the scale and imminence of the problem, it becomes clear that we need much more than individual actions like using less plastic, eating less meat, or flying less. Our point is that we need big systematic changes and fast,” Professor Daniel Blumstein from the University of California Los Angeles, who helped write the paper, told the Guardian. The paper cites a number of key reports **published** in the past few years **including**: The **World Economic Forum** report in 2020, which named biodiversity loss as one of the top threats to the global economy. The 2019 **IPBES Global Assessment report** which said **70%** of the planet had been **altered by humans**. The 2020 WWF **Living Planet report**, which said the average population size of vertebrates had declined by 68% in the past five decades. A 2018 **Intergovernmental Panel on Climate Change report** which said that humanity had already exceeded global warming of 1C above pre-industrial levels and is set to reach 1.5C warming between 2030 and 2052. The report **follows** years of stark **warnings** about the **state** of the **planet** from the world’s **leading scientists**, including a statement by **11,000 scientists** in **2019** that people will face “untold suffering due to the **climate crisis**” unless major changes are made. In 2016, more than 150 of Australia’s climate scientists wrote an open letter to the then prime minister, Malcolm Turnbull, demanding immediate action on reducing emissions. In the same year, 375 scientists – including 30 Nobel prize winners – wrote an open letter to the world about their frustrations over political inaction on climate change.

#### Alt causes to launches – public sector

#### Launches aren’t the biggest polluter – alt causes

#### 2---Space Col---Cap creates the innovation to get off the rock

Thiessen ‘20 – writes a twice-weekly column for The Post on foreign and domestic policy. He is a fellow at the American Enterprise Institute, and the former chief speechwriter for President George W. Bush. (Marc A., "SpaceX’s success is one small step for man, one giant leap for capitalism," Washington Post, 6-1-2020, https://www.washingtonpost.com/opinions/2020/06/01/spacexs-success-is-one-small-step-man-one-giant-leap-capitalism/, Accessed 6-27-2021, LASA-SC)

It was one small step for man, one giant leap for capitalism. Only three countries have ever launched human beings into orbit. This past weekend, SpaceX became the first private company ever to do so, when it sent its Crew Dragon capsule into space aboard its Falcon 9 rocket and docked with the International Space Station. This was accomplished by a company Elon Musk started in 2002 in a California strip mall warehouse with just a dozen employees and a mariachi band. At a time when our nation is debating the merits of socialism, SpaceX has given us an incredible testament to the power of American free enterprise. While the left is advocating unprecedented government intervention in almost every sector of the U.S. economy, from health care to energy, today Americans are celebrating the successful privatization of space travel. If you want to see the difference between what government and private enterprise can do, consider: It took a private company to give us the first space vehicle with touch-screen controls instead of antiquated knobs and buttons. It took a private company to give us a capsule that can fly entirely autonomously from launch to landing — including docking — without any participation by its human crew. It also took a private company to invent a reusable rocket that can not only take off but land as well. When the Apollo 11 crew reached the moon on July 20, 1969, Neil Armstrong declared “the Eagle has landed.” On Saturday, SpaceX was able to declare that the Falcon had landed when its rocket settled down on a barge in the Atlantic Ocean — ready to be used again. That last development will save the taxpayers incredible amounts of money. The cost to NASA for launching a man into space on the space shuttle orbiter was $170 million per seat, compared with just $60 million to $67 million on the Dragon capsule. The cost for the space shuttle to send a kilogram of cargo into to space was $54,500; with the Falcon rocket, the cost is just $2,720 — a decrease of 95 percent. And while the space shuttle cost $27.4 billion to develop, the Crew Dragon was designed and built for just $1.7 billion — making it the lowest-cost spacecraft developed in six decades. SpaceX did it in six years — far faster than the time it took to develop the space shuttle. The private sector does it better, cheaper, faster and more efficiently than government. Why? Competition. Today, SpaceX has to compete with a constellation of private companies — including legacy aerospace firms such as Orbital ATK and United Launch Alliance and innovative start-ups such as Blue Origin (which is designing a Mars lander and whose owner, Jeff Bezos, also owns The Post) and Virgin Orbit (which is developing rockets than can launch satellites into space from the underside of a 747, avoiding the kinds of weather that delayed the Dragon launch). In the race to put the first privately launched man into orbit, upstart SpaceX had to beat aerospace behemoth Boeing and its Starliner capsule to the punch. It did so — for more than $1 billion less than its competitor. That spirit of competition and innovation will revolutionize space travel in the years ahead. Indeed, Musk has his sights set far beyond Earth orbit. Already, SpaceX is working on a much larger version of the Falcon 9 reusable rocket called Super Heavy that will carry a deep-space capsule named Starship capable of carrying up to 100 people to the moon and eventually to Mars. Musk’s goal — the reason he founded SpaceX — is to colonize Mars and make humanity a multiplanetary species. He has set a goal of founding a million-person city on Mars by 2050 complete with iron foundries and pizza joints. Can it be done? Who knows. But this much is certain: Private-sector innovation is opening the door to a new era of space exploration. Wouldn’t it be ironic if, just as capitalism is allowing us to explore the farthest reaches of our solar system, Americans decided to embrace socialism back here on Earth?

#### Otherwise inevitable extinction.

Zarkadakis ’19 [George; December 26; Ph.D. in Artificial Intelligence; George Zardakis, “Abandoning the metropolis: space colonisation as the new imperative,” <https://georgezarkadakis.com/2019/12/26/abandoning-the-metropolis-space-colonisation-as-the-new-imperative/>]

Space colonization is not only the subject of fiction but of serious science too. The late physicist Stephen Hawking argued that unless colonies were established in space the human race would become extinct. There are several natural phenomena beyond our control that could spell our obliteration. Over a long enough period of time our planet is vulnerable to catastrophic meteorite strikes, or getting exposed to the deadly radiation of a nearby supernova explosion. As our Sun burns its fuel it will start to expand and, in a few million years, will scorch Earth. We can also self-destruct by waging nuclear war, or by tilting our planet’s climate towards a runaway greenhouse effect. Space colonization is therefore the ultimate insurance policy of long-term human survival[4]. Physics and Biology: how to solve the challenges of interstellar travel But colonizing space is hard. Three are the main problem categories for humans surviving away from Earth over an indefinite period of time. The first, and probably easiest to solve, is finding a place suitable for colonization. Our solar system provides several possible habitats, the most obvious ones being of course the Moon and Mars. The Jovian moons could also be colonization targets. The Artemis Project[5], a private venture to establish a permanent, self-sustainable human base on the Moon, has proposed the Jovian moon Europa as an alternative future habitat, given the possibility of a hot interior and a liquid ocean of water under the icy surface, both of which could provide for a sustainable human base. Colonizing the Solar System could be a stepping-stone for venturing to worlds beyond, of which there are aplenty. In 2009 NASA launched the Kepler space telescope to discover Earth-size planets orbiting other stars in habitable zones. More than 1,300 planets have been discovered so far, in about 440 star systems; the nearest planet may be “only” 12 light years away. Based on Kepler’s findings scientists estimate that there could be as many as 11 billion rocky, Earth-like planets orbiting habitable zones of Sun-like stars in our Galaxy. The possibilities for expanding humanity’s reach in the cosmos are truly astronomical. The second problem category is how to get to these other worlds: space travel is a hugely challenging technological problem. After more than six decades of space engineering we are still dependent of heavy rockets that burn chemical fuel to get us out of the Earth’s gravity. Perhaps the greatest innovation so far is the reusable rockets pioneered by Elon Musk’s Falcon 9 and Jeff Bezos’s Charon. Having reusable rockets significantly lowers the cost of space flight. According to Elon Musk it costs $60 million to make the Falcon 9, and $200,000 to refuel it, so theoretically by reusing a rocket multiple times the cost of each flight lowers every time it flies. There are of course additional costs for refurbishment after each flight that must be factored in, but reusing rockets looks like the most practical way to advance space technology today. Alternatively, we could have a space elevator carrying people and equipment on low orbit, an idea envisioned by the pioneering Russian scientist Konstantin Tsiolkovsky back in 1895. Researchers in Japan’s Shizuoka University are presently advancing the concept by using two mini satellites to test elevator motion in space. Moreover, the Obayashi Corporation, which will build Japan’s largest tower, has put together a space elevator proposal that will take people from Earth to an orbiting space station. However, the solution requires 60,000 miles of cable made of carbon nanotubes or an as-yet undeveloped material. Owing to developments in quantum computing in the next ten years, we may be able to exponentially advance the production of materials for constructing space elevators, as well as for developing new rocket fuels; and thus dramatically reduce the cost of space flight. By harnessing near-infinite computing power and accessing calculations at quantum level physicists may be able to unlock the mysteries of dark matter and dark energy, and probe deeper into the fundamental structure the universe.

#### Space colonization is only possible through growth

Marko Kovic 19 (Marko Kovic is the co-founder president of the nonprofit think tank ZIPAR (Zurich Institute of Public Affairs Research) and the co-founder and CEO of the consulting firm ars cognitionis, March 2019, accessed 11/30/21, “The future of energy”, https://osf.io/preprints/socarxiv/aswz9/download)AGabay

Ideally, the mitigation of climate **risks** will coincide with and contribute to the **development** of improved or even entirely novel sources of energy that will increase the long-term chances of **humankind’s survival** by means of **space colonization**. This is not an **unrealistic expectation**, given that the mitigation of climate risks consists, to a large degree, of replacing fossil fuels with other, less harmful sources of energy. However, some climate change mitigation strategies might actually harm the long-term prospects of humankind. First, it is possible that dominant climate change **mitigation** strategies will actively exclude any form of **nuclear energy** from the repertoire of climatefriendly energy sources. Existing and experimental (molten salt) fission reactors could play a **significant role** in replacing carbon-heavy energy sources, but proenvironmental attitudes often overlap with anti-nuclear sentiments [65]. As a result, and in combination with other problems such as large-scale market failures of existing emission reactors (one of the reasons being that generating electricity from fossil fuels is cheaper) [66], nuclear fission does not currently have significant standing as a “cleantech” contribution to climate change mitigation. From a long-term perspective, an unfavorable view of nuclear energy in the context of climate change might mean that technological progress in the areas of nuclear fission and fusion might come to a halt (for example, due to explicit bans or implicit disincentives). If such a scenario came to be, our attempts at colonizing space would almost certainly **fail**: There are currently no alternatives to **fission** and **fusion**, and it is highly **improbable** that Solar power alone could suffice for sustaining **extraterrestrial habitats**. Second, there is some **probability** that climate change mitigation strategies will change the social order towards a **degrowth** philosophy. Degrowth is a vague socio-economic concept and social movement that, in general, calls for a contraction of the global and national economies by means of **lower production** and **consumption** rates, and, to some degree, to more profound changes to the “**capitalist**” system of economic production [67]. Degrowth or degrowth-like approaches are being actively considered as climate risk mitigation strategies [68, 69], and degrowth would almost certainly be a highly effective measure for mitigating climate change. After all, if we were to drastically reduce or even completely eliminate the (industrial) sources of greenhouse gases, the amount of greenhouse gases that are being emitted would accordingly drastically sink. From the **long-term perspective** of humankind’s survival, degrowth is **problematic** in at least two ways. First, there is a risk that the general contraction of **economic activity** would also slow or **eliminate** **progress** in the domain of energy, which would, in turn, **reduce** the **probability** of successful **space colonization** due to an absence of suitable **energy sources**. Second, and more fundamental: If degrowth were to become a **dominant societal paradigm**, it is **uncertain** whether the longterm **survival** of humankind by means of **space colonization** would be regarded a **desirable** goal. In a literal sense, establishing **extraterrestrial colonies** would mean **growth**; the size of the total human population would **grow**, and the area of space-time that humans occupy would grow. In a more philosophical sense, degrowth might even be **antithetical** to space **colonization**. Even though both degrowth and space colonization have a similar moral goal – increasing wellbeing – , the ends to that goal are very different. Within degrowth philosophy, the goal is, metaphorically speaking, not to “**live beyond our means**”: We should strive for “**ecological balance**”, and such a state should increase the average **wellbeing**. But the frame of **reference** is the **status quo**; Earth and humankind as we know it today. **Space** **colonization**, on the other hand, operates with a much **larger** **frame** of reference: All the **future generations** of humans (and other sentient beings) who could enjoy wellbeing if we succeed in colonizing space – and who will categorically be denied that **wellbeing** if we fail to colonize space [70]. The goal of space colonization as a moral project is not to live beyond our **means**, but to actively **redefine** and expand what our **means** are through **scientific** and **technological** **progress**.

#### 3---War---crash causes it

Liu ’18 [Qian; November 2; Economist, Managing Director at Greater China, citing the economist Thomas Piketty and political scientist Samuel Huntington; Project Syndicate, “From economic crisis to World War III,” p. 1-2; RP]

The next economic crisis is closer than you think. But what you should really worry about is what comes after: in the current social, political, and technological landscape, a prolonged economic crisis, combined with rising income inequality, could well escalate into a major global military conflict. The 2008-09 global financial crisis almost bankrupted governments and caused systemic collapse. Policymakers managed to pull the global economy back from the brink, using massive monetary stimulus, including quantitative easing and near-zero (or even negative) interest rates. But monetary stimulus is like an adrenaline shot to jump-start an arrested heart; it can revive the patient, but it does nothing to cure the disease. Treating a sick economy requires structural reforms, which can cover everything from financial and labour markets to tax systems, fertility patterns, and education policies. Policymakers have utterly failed to pursue such reforms, despite promising to do so. Instead, they have remained preoccupied with politics. From Italy to Germany, forming and sustaining governments now seems to take more time than actual governing. Greece, for example, has relied on money from international creditors to keep its head (barely) above water, rather than genuinely reforming its pension system or improving its business environment. The lack of structural reform has meant that the unprecedented excess liquidity that central banks injected into their economies was not allocated to its most efficient uses. Instead, it raised global asset prices to levels even higher than those prevailing before 2008. In the United States, housing prices are now 8% higher than they were at the peak of the property bubble in 2006, according to the property website Zillow. The price-to-earnings (CAPE) ratio, which measures whether stock-market prices are within a reasonable range, is now higher than it was both in 2008 and at the start of the Great Depression in 1929. As monetary tightening reveals the vulnerabilities in the real economy, the collapse of asset-price bubbles will trigger another economic crisis – one that could be even more severe than the last, because we have built up a tolerance to our strongest macroeconomic medications. A decade of regular adrenaline shots, in the form of ultra-low interest rates and unconventional monetary policies, has severely depleted their power to stabilise and stimulate the economy. If history is any guide, the consequences of this mistake could extend far beyond the economy. According to Harvard’s Benjamin Friedman, prolonged periods of economic distress have been characterised also by public antipathy toward minority groups or foreign countries – attitudes that can help to fuel unrest, terrorism, or even war. For example, during the Great Depression, US President Herbert Hoover signed the 1930 Smoot-Hawley Tariff Act, intended to protect American workers and farmers from foreign competition. In the subsequent five years, global trade shrank by two-thirds. Within a decade, World War II had begun. To be sure, WWII, like World War I, was caused by a multitude of factors; there is no standard path to war. But there is reason to believe that high levels of inequality can play a significant role in stoking conflict. According to research by the economist Thomas Piketty, a spike in income inequality is often followed by a great crisis. Income inequality then declines for a while, before rising again, until a new peak – and a new disaster. Though causality has yet to be proven, given the limited number of data points, this correlation should not be taken lightly, especially with wealth and income inequality at historically high levels. This is all the more worrying in view of the numerous other factors stoking social unrest and diplomatic tension, including technological disruption, a record-breaking migration crisis, anxiety over globalisation, political polarisation, and rising nationalism. All are symptoms of failed policies that could turn out to be trigger points for a future crisis. Voters have good reason to be frustrated, but the emotionally appealing populists to whom they are increasingly giving their support are offering ill-advised solutions that will only make matters worse. For example, despite the world’s unprecedented interconnectedness, multilateralism is increasingly being eschewed, as countries – most notably, Donald J. Trump’s US – pursue unilateral, isolationist policies. Meanwhile, proxy wars are raging in Syria and Yemen. Against this background, we must take seriously the possibility that the next economic crisis could lead to a large-scale military confrontation. By the logic of the political scientist Samuel Huntington, considering such a scenario could help us avoid it because it would force us to take action. In this case, the key will be for policymakers to pursue the structural reforms that they have long promised while replacing finger-pointing and antagonism with a sensible and respectful global dialogue. The alternative may well be global conflagration.

#### 4---Bees!---Capitalism is key to stop beemageddon

**Regan 17** (Shawn Regan – research fellow at PERC and the director of outreach and publications. He holds a M.S. in Applied Economics from Montana State University and degrees in economics and environmental science from Berry College. His writing has appeared in a variety of publications, including the Wall Street Journal, Quartz, High Country News, National Review, Reason, Regulation, Grist, and Distinctly Montana. Shawn is also a former backcountry ranger for the National Park Service. <KEN> "How Capitalism Saved the Bees," Reason. June 20, 2017. DOA: 12/14/19. https://reason.com/2017/07/19/how-capitalism-saved-the-bees/)

You've heard the story: Honeybees are disappearing. Beginning in 2006, beekeepers began reporting mysteriously large losses to their honeybee hives over the winter. The bees weren't just dying—they were abandoning their hives altogether. The strange phenomenon, dubbed colony collapse disorder, soon became widespread. Ever since, beekeepers have reported higher-than-normal honeybee deaths, raising concerns about a coming silent spring. The media swiftly declared disaster. Time called it a "bee-pocalypse"; Quartz went with "beemageddon." By 2013, National Public Radio was declaring "a crisis point for crops" and a Time cover was foretelling "a world without bees." A share of the blame has gone to everything from genetically modified crops, pesticides, and global warming to cellphones and high-voltage electric transmission lines. The Obama administration created a task force to develop a "national strategy" to promote honeybees and other pollinators, calling for $82 million in federal funding to address pollinator health and enhance 7 million acres of land. This year both Cheerios and Patagonia have rolled out save-the-bees campaigns; the latter is circulating a petition calling on the feds to "protect honeybee populations" by imposing stricter regulations on pesticide use. A threat to honeybees should certainly raise concerns. They pollinate a wide variety of important food crops—about a third of what we eat—and add about $15 billion in annual value to the economy, according to the U.S. Department of Agriculture. And beekeepers are still reporting above-average bee deaths. In 2016, U.S. beekeepers lost 44 percent of their colonies over the previous year, the second-highest annual loss reported in the past decade. But here's what you might not have heard. Despite the increased mortality rates, there has been no downward trend in the total number of honeybee colonies in the United States over the past 10 years. Indeed, there are more honeybee colonies in the country today than when colony collapse disorder began. Beekeepers have proven incredibly adept at responding to this challenge. Thanks to a robust market for pollination services, they have addressed the increasing mortality rates by rapidly rebuilding their hives, and they have done so with virtually no economic effects passed on to consumers. It's a remarkable story of adaptation and resilience, and the media has almost entirely ignored it. The Bee Business The chief reason commercial beekeeping exists is to help plants have sex. Some crops, such as corn and wheat, can rely on the wind to transfer pollen from stamen to pistil. But others, including a variety of fruits and nuts, need assistance. And since farmers can't always depend solely on bats, birds, and other wild pollinators to get the job done, they turn to honeybees for help with artificial insemination. Unleashed by the thousands, the bees improve the quality and quantity of the farms' yields; in return, the plants provide nectar, which the bees use to produce honey. Honeybees are essentially livestock. Their owners breed them, rear them, and provide proper nutrition and veterinary care to them. Unlike bumblebees and wasps, honeybees are not native to North America; the primary commercial species, the European honeybee, is thought to have been introduced by English settlers in the 17th century. Commercial beekeepers are migratory. They truck their hives across the country in tractor trailers on a journey to "follow the bloom," stacking their hives on semis and moving at night while the bees are at rest. Most travel to California in the early spring to pollinate almonds. After that, they take their own routes. Some go to Oregon and Washington for apples, pears, and cherries; others to the apple orchards of New York. Some pollinate fruits and vegetables in Florida in the early spring, followed by blueberries in Maine. Like any such transit project, accidents happen—as when one beekeeper, Lane Miller, crashed his truck in a canyon near Bozeman, Montana, in 2014. More than 500 hives—about 9 million sleepy, angry bees—spilled onto the roadway. "The bees were so agitated you could barely see the beekeepers or the wreckage itself," said the local fire chief at the time. After 14 hours, hundreds of stings, and a crew of emergency beekeepers, the road finally reopened. Still, the migration is mostly uneventful. After blooming season, beekeepers shift their focus from pollinating crops to making honey. Many commercial crops that require honeybee pollination, such as almonds and apples, do not provide enough nectar for the bees to produce surplus honey. So in the summer, beekeepers often head to the Midwest, where they essentially pasture the bees, turning their hives loose in fields near sunflower, clover, or wildflowers, which supply large amounts of nectar and allow the bees to make plenty of honey. When summer ends, the beekeepers truck their bees back south to spend the winter in warmer climates. Some observers claim that this annual migration is contributing to colony collapse. As the food writer Michael Pollan put it in The New York Times in 2007, "the lifestyle of the modern honeybee leaves the insects so stressed out and their immune systems so compromised that, much like livestock on factory farms, they've become vulnerable to whatever new infectious agent happens to come along." But it is precisely this modern-livestock lifestyle and the active markets for pollination services that have allowed non-native honeybees to flourish on our continent. They are the reason honeybee populations have remained steady even in the face of disease and other afflictions. The Fable of the Bees Before the 1970s, it was widely believed among academics that the pollination industry's very existence was a problem. In a 1952 paper, the appropriately named economist J.E. Meade argued that honeybee pollination was an "unpaid factor" in apple farming, since orchard owners and beekeepers did not coordinate their production decisions. Both produce what economists call "positive externalities," or spillover benefits for the other, causing inefficiencies. Since "the apple-farmer cannot charge the beekeeper for the bee's food, which the former produces for the latter," Meade believed that certain "subsidies and taxes must be imposed." (Indeed, Washington established a honey price-support program in 1952 with the goal of promoting pollination. The program was briefly eliminated in 1996, but has since been resurrected.) But then another economist, Steven Cheung, investigated how the honeybee pollination market actually worked. In a 1973 study, he found plenty of contracting between beekeepers and orchard owners to overcome the problem Meade had identified. All he had to do was open the yellow pages of the phone book to find listings for pollination services. "The fable of the bees," as Cheung called it, was blackboard theorizing. Real-life farmers and beekeepers were solving this problem on their own. Sometimes the farmers paid the beekeepers to pollinate their crops; other times the beekeepers paid the farmers for the right to place hives in their orchards. It all depended on which activity—pollination or honey production—generated more value in that instance. Sometimes the exchange involved both money and honey. Meade, meanwhile, had gotten his central example backward: Apple pollination does not yield much honey, so the beekeeper charges the apple farmer, not the other way around. The details differ, but markets for pollination services clearly exist and work quite well. Today, commercial beekeeping is a $600–$700 million industry that spans all regions of the country. And now the beekeepers and farmers are working together to overcome another apiary challenge: dead bees. Adaptation There have been 23 episodes of major colony losses since the late 1860s. Two of the most recent bee killers are Varroa mites and tracheal mites, two parasites that first appeared in North America in the 1980s. The latter, which attack their hosts' breathing tubes, devastated hives in many states before honeybees began to develop a genetic resistance. The former—tick-like parasites that suck bees' blood—remain a scourge for beekeepers today. Other threats to bee colonies include American foulbrood (which attacks bee larvae), nosema (which invades bees' intestinal tracts), and chalkbrood (which infests bees' guts, causing them to starve). Beekeepers have developed a variety of strategies to combat these afflictions, including the use of miticides, fungicides, and other treatments. While colony collapse disorder presents new challenges and higher mortality rates, the industry has found ways to adapt. Rebuilding lost colonies is a routine part of modern beekeeping. The most common method involves splitting a healthy colony into multiple hives—a process that beekeepers call "making increase." The new hives, known as "nucs" or "splits," require a new fertilized queen bee, which can be purchased from a commercial queen breeder. These breeders produce hundreds of thousands of queen bees each year. A new fertilized queen typically costs about $19 and can be shipped to beekeepers overnight. (One breeder's online ad touts its queens as "very prolific, known for their rapid spring buildup, and…extremely gentle.") As an alternative to purchasing queens, beekeepers can produce their own queens by feeding royal jelly to larvae.

#### Extinction

**Halter 10** (Reese, Founder of Global Forest Science, Prof @ Alabama, Has done studies and written books on honeybees and the importance of their pollination, "VIEWPOINTS: Humble honeybees are vital to human survival", February 10, <http://blog.al.com/birmingham-news-commentary/2010/02/viewpoints_humble_honeybees_ar.html>)

VIEWPOINTS: Humble honeybees are vital to human survival Over the past three years, more than 50 billion honeybees have died. Scientists understand the causes, and now, we need everyone to lend a helping hand. bee.jpgThe humble honeybee has been inextricably linked to humankind since prehistoric times. At first, we were drawn to this remarkable creature because of its sweet honey. Honey is to a bee what electricity is for humans: energy. One teaspoon of honey weighing 21 grams contains 16 grams of sugar, or 60 calories, and it took 12 bees their entire foraging lives, combined flying time of about 6,000 miles, to produce 21 grams of honey. To understand the importance of honeybees, consider that every third bite on your plate is a result of their primary role on the planet as pollinators, the most important group on Earth. Honeybees contribute at least $44 billion a year to the U.S. economy. In Alabama, bees from 2,500 beekeepers in all 67 counties pollinate crops like apples, blueberries, blackberries, cantaloupes, cucumbers, grapes, honeydew, peaches, persimmons, plums, pumpkins, strawberries, squash, sunflowers, tomatoes, vegetable seeds, watermelons; alfalfa and clover for beef and dairy industries; cotton for our clothes; and, of course, bees give us honey, candles and medicines. Bees have been on the planet for more than 100 million years, or about 14 times longer than the first human progenitor. Bees have a memory: They vote, are being trained to count and are helping people as an early detector of disease by sniffing skin and lung cancers, diabetes and tuberculosis. The Red Cross estimates there are 40,000 new land mines being deployed weekly. Each year, these brutal weapons of destruction maim tens of thousands of children. Researchers from the University of Montana are using bees to find TNT residue -- the primary ingredients in land mines. Many blue-chip corporations depend on honeybees for their products. A combination of factors has collided to create the conditions for memory loss, appetite loss and autoimmune system collapse resulting in the rapid decline in honeybee populations worldwide. Each year, 5 billion pounds of pesticides are applied globally, and these chemicals are known to poison nerves causing symptoms similar to Parkinson's or Alzheimer's. In 2008, researchers from Penn State found 43 different pesticides in a Pennsylvania apple orchard. Many farmers combine or stack their chemicals to reduce applications cost. However, stacking chemicals is known to increase toxicity levels in some cases by 1,000 times. Research from Europe showed that bees exposed to electromagnetic radiation from cellular towers made 21 percent less honeycomb, and that 36 percent of those bees, taken a half mile from the hive, were unable to navigate home. In 2006, the honeybee genome was decoded, and genetics revealed only half as many genes for detoxification and immunity compared to other known insects. Bees evolved to feed on a wide assortment of pollens, but today, we use them in monoculture fields. Pollens provide their only source of protein. Proteins grow eggs, larvae, brains and autoimmune systems. The abnormally high temperatures of 2006 were likely the tipping point for bees in North America. The searing springtime temperatures during the onset of flowering are believed to have caused sterile pollen in many plants. Sterile pollen produces little, if any, protein. In 2007, almond, plum, kiwi and cherry pollen that was tested exhibited little if any protein content. Infertile soils lacking essential nutrients, bacteria, fungi, protozoa along with climate change were implicated. Beekeepers around the globe are now feeding their hives a form of a protein shake with eggs, brewer's yeast, pollen and honey. Clearly, agriculture must reduce the levels in toxicity from pesticides, herbicides and miticides globally. There is hope on the horizon, as organics are the fastest-growing sector in the United States at $24 billion a year. First lady Michelle Obama has an organic garden on the White House lawn with two honeybee hives close by. Each of us can help by buying organic foods and cottons, and support local beekeepers by buying organic honey. Do not use herbicides, insecticides or miticides in your yard. Plant a wide variety of native yellow and blue flowers and take part by helping scientists in the U.S. National Phenology Network (www.usanpn.org). Without bees, we cannot survive.

#### 5--- Emerging Tech ---Economic strength solves risks of emerging tech.

Burrows 16. [Mathew Burrows, Director of the Atlantic Council’s Strategic Foresight Initiative, PhD in European History from the University of Cambridge, Appointed Director of the Analysis and Production Staff (APS) in 2010, September 2016, “Global Risks 2035: Mathew J. Burrows Foreword by Brent Scowcroft The Search for a New Normal” Atlantic Council Strategy Papers, http://espas.eu/orbis/sites/default/files/generated/document/en/Global\_Risks\_2035\_web\_0922.pdf]

As emerging technologies come online, the lack of a truly global institutional framework could be particularly dangerous. Assuring the future security of the Internet is particularly important in this regard, because all the new emerging technologies—bio, 3D printing, robotics, big data—take for granted a secure, global Internet. Everyone loses if cyber crime and cyber terrorism undermine the Internet. In the worstcase scenarios, in which cyber crime proliferates or strong national borders fragment the Internet, an Atlantic Council study, as mentioned, found that the economic costs could be as much as $90 trillion out to 2030, in addition to the risk of open conflict.102 Besides bringing the emerging powers into leadership roles in the panoply of multilateral institutions, the United States will need to temper its often “exemptionalist” stance to ensure the survival of the multilateralist order. According to the Council on Foreign Relations’ Patrick Stewart, a prominent scholar of global governance, one of the persistent paradoxes of the post-1945 decades has been that the “United States is at once the world’s most vocal champion of a rules-based international order and the power most insistent on opting out of the constraints that it hopes to see binding on others.”103 No country has the networks and connections that the United States does, but the system is now polycentric, rather than unipolar, and others resent the “exceptional” privileges that the United States claims. The Global Trends works have talked about the need for a new model of US global leadership. The United States needs to be guiding the international system as a “first among equals,” and willing to play by its own rules. Paradoxically, there is likely to be no vibrant global-governance system without US and Western leadership, but too much domineering behavior could doom it. Even if the United States adapted its global role, this is not to say that the tensions and differences with many emerging powers would all disappear, or that the governance system would function seamlessly. In addition to the growing number of new state actors, the increasing importance of nonstate actors adds a new complexity to the functioning of global institutions. Moreover, there are clear-cut differences between the West and emerging powers on values-based issues, such as democracy promotion and the responsibility to protect. Many developing-country publics still resent Western colonialism and equate any intrusion with past historical wrong. They point to the 2011 humanitarian intervention in Libya, for example, as cover for the Western goal of regime change. Hence, the UN Security Council failure to stop the fighting in Syria, with more than two hundred thousand killed and 7.6 million displaced. Russia and China want to make a stand against the United States and the West getting their way and ousting the Assad regime. On the other hand, the lack of a solution smacks more of anarchy than global governance. Certainly, it shows one of the gaps that remains, and likely will remain, limiting global governance because of differences in values. The speed with which new technologies are coming online and becoming an important political, military, and economic tool—for both good and bad—carries big risks for global governance. Stewart Patrick lists four potential new technologies that “cry out for regulation”: geoengineering, drones, synthetic biology, and nanotechnology. Without some setting of rules for their operation, there is the risk of major disruptions, if not catastrophes, stemming from their abuse. The recent advances in synthetic biology lower the bar to abuse by amateurs and terrorists alike, forever affecting human DNA. Geoengineering involves planetaryscale interventions that could interfere with complex climatic systems. However cumbersome, politically unpopular, and ineffective at times, there is little alternative to increased global cooperation if one does not want to see higher risks of conflict and economic degradation. Without some sort of bolstered global governance, the West would end up with less sovereignty in a “dog-eat-dog” world, in which it was increasingly in the minority. But can the United States and the West rise to the challenge of investing in a global-governance system that will not always favor their interests on every issue? Historically, the United States could be especially generous because it was on top of the world in about everything after the Second World War. Europeans came to truly believe in pooling sovereignty and joint governance after centuries of internecine conflict. The tough economic times at home have seen US and European publics become distrustful of overarching multilateral institutions, believing the will of the United States or individual European countries will not be served. It is oftentimes easier for political leaders to fall in with the public mood rather than display leadership that might appear to work against it.

Over time, economic power will also be consolidated in Asia, replicating the situation three centuries ago, when China and India were the biggest economic powers in the world, and the center of the global economy was in the East. Over a longer term, one could also see a concentration in just three countries: The breakdown of the post-Cold War political and security order is irrevocable. Not only are there new powers—particularly China—that do not share the West’s vision of a liberal order, but Western publics themselves have turned against globalization, which has been the overall megatrend of the past three decades. The geopolitical landscape ahead will be much different. The best case is looking at multipolarity with limited multilateralism. In the worst case, that multipolarity evolves into bipolarity with China, Russia, and their partners pitted against the United States, Europe, Japan, and other allies. In that scenario, conflict would be almost inevitable.

**6—NOKO War --- Capitalism solves North Korea nuclear war – empirically proven by the Cold War**

**Lockie 17 –** (Alex Lockie, news editor and a military and foreign-policy blogger at Business Insider, “Capitalism is already breaking down North Korea's government — and it could be the end of Kim Jong Un,” Nov. 20, 2017, <http://www.businessinsider.com/capitalism-north-korea-threat-to-kim-jong-un-2017-11>) // S.Y.

The US has stood on the brink of nuclear war with a totalitarian regime in Asia before, and in the end it was economics, not military might, that brought the Soviet Union down.

The US's nuclear arsenal has failed to scare North Korea away from developing its own nukes, sanctions have failed to restrict its access to markets, and leveraging the US's relationship with China has failed to starve the country into submission.

**But the US's greatest weapon, capitalism, might just do the trick.**

What North Koreans really think of Kim Jong Un

The [Washington Post's Anna Fitfield talked to 25 North Koreans](https://www.washingtonpost.com/graphics/2017/world/north-korea-defectors/?utm_term=.1d09c6df6e35) around Asia about life under Kim Jong Un, the country's dictatorial leader since 2011, **and revealed a pro-market current to everyday life that threatens to undercut the regime**.

"Increasingly, North Koreans are not fleeing their totalitarian state because they are hungry," wrote Fitfield. "**Now, they are leaving because they are disillusioned.**"

Fitfield's interviews with North Koreans paint a picture of a state economy which has come to a halt and a growing trend toward capitalism among common people. The market activity brings with it Western information, as North Koreans travel to China for work and come back enlightened to the realities of life outside the Kim regime.

Though North Korean authorities may punish possessing South Korean media with death, it has become a trend among North Korea's elite to speak with a South Korean accent, indicating their power, independence from the state, and access to outside information, [according to the New Yorker's foreign correspondent Evan Osnos](https://www.facebook.com/ianbremmer/videos/760485680791145/).

"North Korea technically has a centrally planned economy, but now people's lives revolve around the market," a university student who left the country in 2013 told Fitfield. "No one expects the government to provide things anymore. Everyone has to find their own way to survive."

With state infrastructure no longer supporting people's livelihoods, fissures between the actual lives of common people and the total loyalty demanded by the state could render the Kim regime out of touch and in danger of disposal.

A [2016 survey of 36 North Koreans](http://beyondparallel.csis.org/view-inside-north-korea-meager-rations-banned-markets-and-growing-anger-toward-govt/) found that all of them thought the country provided goods sufficient for a good life. Only one of the 36 said they did not make [jokes at the government's expense behind closed doors](http://uk.businessinsider.com/north-korean-opinions-kim-jong-un-2016-11).

"Among my closest friends, we were calling [Kim Jong Un] a piece of s---," another student told Fitfield. "Everyone thinks this, but you can only say it to your closest friends or to your parents if you know that they agree."

'Impure' attitudes among high-rank leaders

South Korea's National Intelligence Service reports that North Korea recently disciplined two of its highest ranking military officers for having "impure" attitudes, according to the Associated Press. The crackdown on the North Korean military's second in command comes as international sanctions have weakened the state's economy more than ever before.

Daily NK, a Seoul-based news website that purports to have a large network of informants within North Korea, reported that US-led sanctions have affected the economy in the country and [now citizens may turn on the Kim government](http://www.dailynk.com/english/read.php?num=14784&cataId=nk01500).

As a result, Daily NK reported that security has increased at monuments to the Kim dynasty for fear that citizens will vandalize the paintings and sculptures, which the state demands citizens give incredible reverence to.

Thae Yong Ho, a former North Korean diplomat and the highest-level defector of the Kim regime, discussed North Korean youths sneaking in "nose cards," or small SD cards loaded with South Korean media hidden inside their noses.

Thae said that although Kim Jong Un would stamp out protests in the street with tanks, [outside information and soft power could bring down the regime](http://www.businessinsider.com/defector-information-not-force-can-bring-down-the-north-korean-regime-2017-11).

"The chasm between the Kim Jong Un regime and the general public is widening every year, and some day, the two sides will ultimately break like a rubber band," [Thae said in August](http://www.businessinsider.com/north-korean-defector-thae-yong-ho-kim-jong-un-overthrown-10-years-2017-8). "I think that day will come within the next 10 years."

Welcome to the free market, North Korea

Rodger Baker, the lead analyst of the Asia-Pacific region for Stratfor, a geopolitical consulting firm, [previously told Business Insider](http://www.businessinsider.com/us-failed-diplomacy-sanctions-north-korea-2017-3) that North Korea's government might be stronger than defectors are willing to admit.

"A lot of the West's vision of North Korea is from defector testimony, which is going to have a political bent," Baker said. He added that the idea that air-dropping South Korean DVDs and music into North Korea would eventually sway the population against Kim "overestimates the draw of material goods over nationalism and national identity."

But history shines with examples of people refusing to be repressed and finding prosperity one way or another. North Korea cannot stand comparison to the prosperous, democratic South.

Much like how President Donald Trump calls Kim Jong Un's reign a "cruel dictatorship" and threatens military action against the rogue nation, former President Ronald Reagan called the Soviet Union an "evil empire" at the height of nuclear tensions between Washington and Moscow in 1983.

Though the US and the Soviet Union both held tens of thousands of nuclear weapons and enough troops to start World War III, no fighting came about. Throughout the 1980s and early 1990s, the US enjoyed stellar economic growth while the Soviet Union imploded. In 1997, Mikhail Gorbachev, Reagan's former communist rival, [starred in a commercial for Pizza Hut in Moscow](https://www.youtube.com/watch?v=fgm14D1jHUw&t=3s).

**The military did not defeat communism in the Cold War, capitalism did. Decades later with North Korea, it may be time for another victory for the free market.**

#### North Korea ballistic missiles can reach both South Korea and Japan ensuring US draw in.

**Roehrig ’13** (Terence Roehrig is Professor of National Security Affairs and the director of the Asia-Pacific studies group at the US Naval War College. He was a research fellow at the Harvard University Kennedy School and a past president of the Association of Korean Political Studies. “North Korea’s Nuclear Weapons: Future Strategy and Doctrine” Harvard Kennedy School Belfer Center May 2013. <https://www.belfercenter.org/publication/north-koreas-nuclear-weapons-future-strategy-and-doctrine>) stowPCB

Nuclear weapons have become a core element of North Korea's national security strategy and it is unlikely to give them up. A future North Korean nuclear weapons force is likely to remain small and configured largely for maintaining a survivable deterrent capability. The dangers of a nuclear-armed North Korea will place added importance on a stable security environment in Northeast Asia along with a stable and secure North Korean nuclear posture. North Korea's efforts to develop a nuclear weapons capability will be difficult and costly; through sanctions and restrictions on technology transfer, the international community will be well served to make sure it stays that way. NORTH KOREA'S NUCLEAR WEAPONS PROGRAM North Korea [Democratic People's Republic of Korea—DPRK] conducted its third nuclear weapons test on 12 February 2013 with a yield that most estimate was around 6 to 10 kilotons. The test came on the heels of a December 2012 missile launch that placed a satellite into orbit though reports soon indicated that the satellite was not functioning properly. Given North Korea's actions and apparent determination, any chance to achieve complete and verifiable denuclearization may be long gone. Estimates of the number of nuclear weapons in the North Korean arsenal range from four to ten. With the announcement to restart operations at Yongbyon, North Korea may be able to produce one additional warhead per year. In 2002, indications of a second path to nuclear weapons surfaced when U.S. officials challenged North Korea with evidence it was pursuing a highly-enriched uranium (HEU) program. Pyongyang informed the UN Security Council in 2009 that the DPRK was ready to enter the final phase of uranium enrichment. The next year, North Korean officials revealed a modern uranium enrichment facility with close to 2,000 centrifuges to visiting Stanford physicist, Siegfried Hecker. Speculation was rife that the February test would use HEU but this was never confirmed and the extent of the DPRK's HEU program remains uncertain. BALLISTIC MISSILES North Korea's nuclear weapons ambitions are complemented by a robust ballistic missile program. The DPRK has over 600 short-range SCUD missiles that can reach most of the Korean Peninsula along with 200 medium-range Nodong missiles with sufficient range to hit Japan. Reports have surfaced of other longer range missiles including the Musudan intermediate range missile and the longer range KN-08. Both are mounted on mobile launchers but are not yet operational. Work continues on a long-range ICBM that could reach the United States. A key challenge remaining for North Korean technicians is weaponizing a nuclear device to fit on a ballistic missile. An assessment by the Defense Intelligence Agency noted with "moderate confidence" that the "North currently has nuclear weapons capable of delivery by ballistic missiles however the reliability will be low." The Obama Administration backed away from the finding leaving in doubt the precise nature of the DPRK's progress on this important technology. If using HEU, the warhead is easier to miniaturize but it is also heavier than a plutonium warhead requiring greater lift capability, particularly for an intercontinental ballistic missile. DPRK technicians will also need to develop guidance systems and reentry vehicles capable of surviving both the launch and reentry. North Korea has developed some of this technology for the Nodong but longer range missiles are a greater challenge. The precise direction of North Korea's nuclear weapons program is unclear. Given its rhetoric and continued testing of both nuclear weapons and ballistic missiles, Pyongyang will likely go beyond its current capability to pursue a small, operational program, perhaps 20–40 warheads though these figures are highly speculative. It is important to note that North Korea's ambitions for a nuclear deterrent will not be cheap or easy, and it will take much more time, money, and testing for the DPRK to develop a reliable nuclear weapons capability. A plethora of sanctions have also slowed North Korea's nuclear weapons development. These challenges will seriously constrain the scope of the DPRK program. DPRK STRATEGY AND IMPLICATIONS If North Korea does pursue a small operational nuclear weapons program, there are several serious implications that could result. First, North Korea will have a nuclear force that is too small and insufficiently accurate to use for a first strike that seeks to disarm an adversary through a counterforce strategy. Instead, Pyongyang will likely opt for a countervalue strategy that targets South Korean or Japanese cities along with U.S. military bases in Japan. If the DPRK is able to improve its long-range ballistic missiles, the U.S. mainland might be added to the target list, a serious change in the strategic landscape for Washington. Second, North Korea will seek to maintain a second strike capability that ensures a part of its nuclear forces will survive an attack to retaliate

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. If North Korea chose to deploy its nuclear-tipped missiles on launch pads, these assets would be highly visible and vulnerable to preemption. To address this vulnerability, North Korea has two likely options for ensuring survivability: storing road-mobile missiles in hardened sites such as mountain tunnels and moving them out for launch; and moving road-mobile missiles around on a road net making them more difficult to target. One other dimension of "hardening" involves the construction of a missile launch facility in 2008 that is 40–50 km from the Chinese border. South Korea or the United States might hesitate striking this site given the close proximity to China. Lastly, if North Korea has any doubts about the survivability of its nuclear forces, it may adopt a launch-on-warning (LOW) posture. Under LOW North Korea's nuclear forces are on hair-trigger alert to launch with little warning. Most of North Korea's missiles are liquid-fuel rather than solid-fuel, a significant complication to an LOW posture. However, it is reasonable to assume North Korea will move toward a solid fuel capability as its program progresses. Indeed, some reports note that the KN-08 is likely to be a solid-fuel missile making it much easier to launch on short notice. If attacked, the DPRK would face a difficult decision, uncertain if an incoming strike were a limited action of punishment for some provocation or the prelude to regime change. If only a limited conventional strike and North Korea responded with nuclear weapons, this would be an escalation Seoul and Washington would not tolerate leading to the end of the DPRK regime. Also, it may not matter if a South Korean or U.S. strike were conventional or nuclear since the result could have the same strategic effect for North Korea of taking out its nuclear weapons. If an attack on North Korea were indeed the start of regime change, North Korean leaders may believe they have little to lose in using nuclear weapons. All of these scenarios place a premium on crisis stability. RECOMMENDATIONS The future configuration of North Korea's nuclear weapons program is uncertain. Should the DPRK seek to develop a small, operational nuclear weapons capability there may be little that can be done other than make this a long and costly process. Given the remaining technical challenges facing Pyongyang, maintaining a working and reliable nuclear weapons capability will take time and a great deal of money. The United States, China, South Korea, and the rest of the international community should work to ensure growth of the North Korean program remains difficult and expensive by limiting as best as possible its access to crucial materials and technology. If denuclearization is out of reach, negotiators should continue work on capping Pyongyang's production of fissile material along with further testing of nuclear weapons and ballistic missiles. In addition, continued vigilance is critical to ensure North Korea is not able to transfer technology and materials to other aspiring states. U.S. and Chinese cooperation will be very important to slow the growth of North Korean capability. Some continue to hope that the DPRK may yet be willing to relinquish its nuclear weapons for a suitable package of incentives, but that outcome appears increasingly unlikely. Perhaps it will be possible to negotiate some type of cap on North Korea's nuclear program but that will not be likely for some time though it will be worth the effort to try. A nuclear North Korea makes it crucial that all countries in Northeast Asia work hard at maintaining a stable security environment that avoids the dangers of a crisis while encouraging North Korea to adopt a nuclear strategy that retains its "no first use" pledge, a strong command and control system, and a stable nuclear weapons posture. Given its relationship with North Korea, China is best positioned to encourage DPRK leaders in these directions. In the years ahead, deterrence on the Korean Peninsula is likely to have a new dimension—North Korean nuclear weapons. Whether this reality is recognized by the international community or not, all countries will need to figure out how to deal with a nuclear North Korea while maintaining peace and security in the region.

### Alternatives Fail

#### **Revolution fails; cooption, power of elites, etc.**

Chirot, 2020

(Daniel, the Herbert J. Ellison Professor of Russian and Eurasian Studies at the Henry Jackson School of International Studies at the University of Washington. This essay is adapted from You Say You Want A Revolution? Radical idealism and Its Tragic Consequences, published by Princeton University Press.March 3, "The Tragedy of Revolution: Lessons from the Past," American Interest, https://www.the-american-interest.com/2020/03/03/the-tragedy-of-revolution-lessons-from-the-past/)/EE

The first modern revolutions—the American one of 1775 and the French one 1789—could have been avoided with some liberalization that had been obviously necessary for some time. This was particularly true of the French Revolution, as France easily had the wealth to solve its fiscal crisis and had the cadres of Enlightenment thinkers and officials necessary to carry out reforms. But stubborn resistance to change by royal and aristocratic forces provoked more change that might earlier have been sufficient. In France, as in so many 20th century revolutions, the first wave of liberal, moderate revolutionaries were quickly overwhelmed by extremists who led the nation into civil war, terror, and eventually a Napoleonic military dictatorship whose constant wars ruined the country. What can we learn from these and many analogous cases? For one, it’s that revolutionary outcomes only seem pre-ordained in hindsight. Once the violence begins, events can quickly spin out of control as counterrevolutionary forces fight back and revolutionary extremists take control. Foreign intervention against the revolution makes that even more likely. Of the great modern revolutions, the American one stands out as an exception because ruling domestic elites never lost control and limited their revolution to political rather than social and economic changes. (To be sure, that had its own costs, as the issue of slavery was left unaddressed and has haunted the United States ever since.) Secondly, moderate liberal reformers have repeatedly failed to grasp how dangerous radicals really are. Leaders like Lafayette or Condorcet in France only belatedly found out that they were as much the target of extremists on their left as were the counterrevolutionary aristocrats on their right. Lafayette fled into exile and Condorcet was murdered despite his long-standing support for a liberal revolution. The same fate befell Kerensky and other moderates in Russia, and also to a series of relative moderates in Mexico. Shapour Bakhtiar, a liberal opponent of royal dictatorship in Iran was repeatedly jailed by the Shah, and only brought to power in 1978, too late to save the situation. He eased the transition to democracy but was forced to flee by Khomeini, and he was eventually murdered by Iranian agents in Paris. The same lack of foresight can be seen in relatively more moderate conservatives who oppose revolutionary change and are more willing to seek allies on the far right than to compromise with moderate leftist reformers. That leads to the kind of alliance that put Mussolini in power in Italy in 1922 and Hitler in Germany in 1933. The great historian Crane Brinton postulated that every revolution would eventually have a “Thermidorian reaction,” named after the month in the French revolutionary calendar when, in 1794, the murderous leader of the terror, Robespierre, was overthrown and guillotined. The lesson of twentieth century revolutions is that indeed Thermidorian reactions happen, but they can take much longer to occur than in France when the radicals were in power a mere two years. In Russia it was only after Stalin’s death in 1953, and even more in the 1970s and 1980s, that the revolution abandoned its radical ideals. Something like that happened with Deng Xiaoping in China, but only incompletely, and in a way that still has to be played out. In Iran the struggle between radical and more centrist revolutionaries continues to this day. A third general lesson that can be drawn from modern revolutions is that they are all eventually corrupted. After radicals have established a dictatorship, the means of exposing and controlling corruption cease to be available to these regimes. That is what has happened to the majority of anti-colonial “Third World” revolutionary regimes like those of Angola and Algeria, or the Baathist ones in Syria and Iraq (before it was overthrown by the Americans). It is what Xi Jinping fears in China, and what had happened to European communism by the 1980s. That this is the ultimate fate of radical revolutions should be no comfort: The most prevalent regime type to follow failed revolutions is the kind of authoritarian kleptocracy best exemplified by Vladimir Putin. Finally, the fourth conclusion is that reform can take place without revolution as long as political elites understand the need for gradual change and compromise. In many cases repression of liberal moderation can last a long time, but eventually some unforeseen event—a war, a pandemic, an economic depression—coupled with overreactions by the forces of repression, and creeping cynicism within the elite, will trigger more drastic revolutionary activity. From there, it is all too easy to fall into destructive extremism. Only after years of tragedy does it become clear that all this was in vain, and that better solutions were available.

#### No transition, alternativs to cap are violent.

Huburt **Buch-Hansen 14**. PhD, Associate Professor, Department of Business and Politics, Copenhagen Business School. October 2014. “Capitalist diversity and de-growth trajectories to steady-state economies,” Ecological Economics, Volume 106. Pages 167–173.

A major focus area in the diversity literature is institutional change, including the processes through which countries that used to fit the categories of state-led or coordinated capitalisms have – to various extents and without losing their distinctive character – moved in a (neo)liberal direction (Schmidt, 2002 and Streeck, 2011). Major institutional changes, such as those involved in the movement from one type of capitalism towards another generally occur in the wake of systemic crises, i.e. deep economic crises that cannot be resolved within the framework of existing institutional arrangements (Kotz, 2009). Yet countless studies have concluded that even such institutional “paradigm shifts” almost never involve a clean break with the past. One reason for this is path dependence, i.e. the phenomenon that once a particular institutional path has been established, ‘patterns of political mobilization, the institutional “rules of the game,” and even citizens' basic way of thinking about the political world’ tend to generate self-reinforcing dynamics that make reversals of the path difficult (Pierson, 2004: 10). Ideas and culture contribute to make profound institutional changes difficult. Once particular ideas have become hegemonic (or “common sense”), they serve to prevent policy-making in terms of different ideas. Societal power relationships are important in this context. The ideas that prevail and become institutionalised are those that can be sustained by material resources and thus tend to be those supported by powerful members of the political elites and the capitalist class (e.g., van Apeldoorn, 2002). Changes in prevailing ideas are thus often preceded by major disruptions of existing power relations — disruptions that in turn often occur in the context of the aforementioned systemic crises (Buch-Hansen, 2012 and Wigger and Buch-Hansen, 2013). Yet even in the wake of such disruptions, institutional change is likely to either take the form of bricolage involving ‘the rearrangement or recombination of institutional principles and practices in new and creative ways’ or of translation, denoting ‘the blending of new elements into already existing institutional arrangements’ ( Campbell, 2010: 98–99). Through processes of bricolage and translation, institutions are changed considerably yet ‘still resemble their predecessors to a significant degree in so far as they are made up of institutional principles and practices that entrepreneurs have inherited from the past’ ( Campbell, 2010: 99; see also Carstensen, 2011).