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#### Infrastructure will pass but PC’s key

Kevin Liptak 9-18, White House Reporter at CNN, BA from William & Mary, Jeff Zeleny, Chief National Affairs Correspondent at CNN, and Phil Mattingly, Senior White House Correspondent for CNN, “Biden Looks To Recapture His Political Momentum With A Full-Court Press On His Domestic Agenda”, CNN Wire, 9/18/2021, Lexis

Now at the lowest approval rating of his nearly eight-month term -- putting him, according to some polls, above only former Presidents Donald Trump and Gerald Ford at similar points in their tenures -- Biden is pressing Democrats to put aside their ideological differences and pass what could become his lasting legislative legacy and a political lifeline. The bills have the potential to overhaul the nation's physical infrastructure and the American social safety net for decades to come and would likely make Biden one of the most consequential Democratic presidents in decades.

The summertime slide in his popularity among Americans has frustrated the President and his team, who believe he is receiving little credit for a rapidly improving economy. Despite setbacks related to the Delta variant surge, the unemployment rate is down, wages are up and retail sales are improving -- tied, in part, to the emergency measures Biden pushed through at the start of his term.

Yet the pandemic is still simmering, delaying a full return to workplaces and complicating the start of the school year for children. A CNN poll conducted by SSRS found 62% of Americans say economic conditions in the US are poor, up from 45% in April and nearly as high as the pandemic-era peak of 65% reached in May 2020.

Biden's attention turns toward Capitol Hill

As a part of his recalibration to his domestic agenda, Biden has spent much more time speaking with Democrats on the other end of Pennsylvania Avenue, both on the phone and in person.

He spoke by telephone Thursday with House Speaker Nancy Pelosi and Senate Majority Leader Chuck Schumer to confer on a path forward on his massive legislative agenda.

"The three are in regular touch and engaging daily on bringing Build Back Better to the finish line," the White House said afterward.

In conversations with other Democrats during periodic "congressional call time" blocked off on his daily schedule, Biden has repeatedly stressed the importance of keeping intact the tangible benefits in the bills that can be easily sold to the American people, according to people familiar with the talks. He has stressed that items like free community college and subsidized child care are clear political winners he says Democrats can campaign on for months or years to come.

Polling and messaging memos sent to congressional Democrats and outside allies have sought to double down on this point, while also pushing lawmakers to focus on a bigger -- and more populist -- picture, rather than get bogged down in the policy disputes that are raging on both sides of the Capitol.

"He's been actively engaged over the last couple of months in helping members of Congress who are more centrists or who are progressive understand and embrace his agenda," said Sen. Chris Coons, a Delaware Democrat who is close to the President.

"President Biden is very persuasive," Coons said, "and I think he's making the case and making it well."

Implicit in Biden's message, as well as those coming from his senior team, is also the clear reality of the moment, according to people familiar with the discussions: For Democrats, there is no alternative path at this point. The specific policy proposals may shift or shrink in scale or duration, but there is no turning back or a broad shift in course in the cards.

If Democrats -- particularly those who are skittish about the political repercussions of enacting such sweeping changes to the role of government in the US economy -- can't unify now, they will likely be left with nothing.

White House tries to keep a level head

It is impossible to know whether Biden's current political predicament will last, and some of his aides are confident that improvements in the pandemic and distance from the chaotic Afghanistan withdrawal will help reverse the fall in approval. They note it is still more than a year before the 2022 midterm elections, when historically the sitting President's party suffers.

A positive result for California's Democratic Gov. Gavin Newsom, for whom Biden campaigned on the eve of his recall vote this week, has also led to renewed confidence in the administration's fights over mask-wearing, vaccines and more.

"California won't end the Covid debate," a White House adviser told CNN, "but it could be a tremendous boost for what Democrats are trying to do."

Biden's team, during last year's presidential campaign, prided itself on avoiding overly reactive steps when negative polls emerged. Officials stress there is no sense of panic in the West Wing, largely pointing to clear opportunities in the high-stakes weeks ahead as clear and tangible opportunities to shift the dynamics that overtook Biden's first summer in office.

But like any political operation, advisers remain highly attuned to shifts in public sentiment, studying focus groups and surveys from top Democratic pollsters who work on behalf of the White House and the Democratic Party.

To be sure, any comparisons in approval ratings between Biden and his predecessors are filled with caveats, given the acrid political climate and the remarkable changes in the presidency over the decades.

The chaos that surrounded the Afghanistan withdrawal has led some advisers to recognize there is less room for error going forward. The drop in Biden's approval ratings has prompted what one adviser called a "hardening" of the President's mission to see his sweeping agenda passed.

The White House softens on a $3.5 trillion price tag

That will require all of Biden's remaining political capital to regain the initiative and see that plan realized. After containing the Covid pandemic -- which is proving to be a prolonged struggle -- aides view passage of the two bills as the single most critical element to Biden's overall political recovery. Yet Democrats are divided over the size and scope of the plan, and the President can afford to lose almost none of them if he hopes to see his vision enacted.

This week, before leaving for his vacation home in Rehoboth Beach, Biden began meeting in-person with moderate Democratic Sens. Kyrsten Sinema of Arizona and Joe Manchin of West Virginia, hearing out their concerns about the amount of spending. With Manchin, he listened patiently to a proposal that would more than halve the size of the final bill. Biden has not endorsed that plan, but also hasn't yet had luck in convincing the skeptical Democrat to come along with his.

In public, Biden has begun signaling the final bill could come in below $3.5 trillion, the figure proposed in an initial blueprint. White House officials acknowledge that's a near certainty at this point in order to secure the votes of Manchin and Sinema. The ever-present balancing act between moderates and progressives has become even more acute as a result.

But Biden is pressuring Democrats to avoid stripping out what he believes will prove to be the bill's most salient selling points.

#### The plan trades-off

Peter C. Carstensen 21, Fred W. & Vi Miller Chair in Law Emeritus at the University of Wisconsin Law School, LL.B. from Yale Law School, MA in Economics from Yale University, “The “Ought” and “Is Likely” of Biden Antitrust”, Concurrences – Antitrust Publications & Events, February 2021, https://www.concurrences.com/en/review/issues/no-1-2021/on-topic/the-new-us-antitrust-administration-en

14. Similarly, despite bipartisan murmurs about competitive issues, the potential in a closely divided Congress that any major initiatives will survive is limited at best. In part the challenge here is how the Biden administration will rank its commitments. If it were to make reform of competition law a major and primary commitment, it would have to trade off other goals, which might include health care reform or increases in the minimum wage. It is likely in this circumstance the new administration, like the Obama administration’s abandonment of the pro-competitive rules proposed under the PSA, would elect to give up stricter competition rules in order to achieve other legislative priorities.

15. Another key to a robust commitment to workable competition is the choice of cabinet and other key administrative positions. Here as well, the early signs are not entirely encouraging. In selecting Tom Vilsack to return as secretary of agriculture, the president has embraced a friend of the large corporate interests dominating agriculture who has spent the last four years in a highly lucrative position advancing their interests. Given the desperate need for pro-competitive rules to implement the PSA and control exploitation of dairy farmers through milk-market orders, the return of Vilsack is not good news. Who will head the FTC and who will be the attorney general and assistant attorney general for antitrust is still unknown, but if those picks are also centrists with strong links to corporate America the hope for robust enforcement of competition law will further attenuate!

16. In sum, this is a pessimistic prognostication for the likely Biden antitrust enforcement agenda. There is much that ought to be done. But this requires a willingness to take major enforcement risks, to invest significant political capital in the legislative process, and to select leaders who are committed to advancing the public interest in fair, efficient and dynamically competitive markets. The early signs are that the new administration will be no more committed to robust competition policy than the Obama administration. Events may force a more vigorous policy—I will cling to that hope as the Biden administration takes shape.

#### Catastrophic blackouts are inevitable without grid investment

Jennifer A. Dlouhy 21, Energy and Environmental Reporter at Bloomberg News, BA in Journalism and Political Science from the University of Missouri, and Ari Natter, Reporter at Bloomberg LP, BA in Journalism from American University, “Biden’s Plea to Remake Grid Gets a Boost on Texas Power Crisis”, Bloomberg Green, 2/17/2021, https://www.bloomberg.com/news/articles/2021-02-17/biden-s-plea-to-remake-grid-gets-a-boost-on-texas-power-crisis

The icy weather that left millions without power in Texas has critics of the Biden administration’s fight against climate change blaming renewable energy, but the failures have more to do with an ill-prepared power grid and shortfalls in traditional electricity sources.

Energy analysts and experts said the blackouts in Texas underscore the U.S. electric system’s need for more of almost everything, from additional power lines criss-crossing the country to large-scale storage systems that can supply electricity when demand spikes or renewable generation declines.

That could give at least a rhetorical boost to President Joe Biden’s plans for a “historic investment” in the nation’s electric grid, including better transmission systems and battery storage that would make the system more resilient amid extreme weather spurred by climate change. The investments broadly touted by Biden could help satisfy his 2035 goal of an emissions-free power system and help meet increased demand nationwide as more electric vehicles hit the roads and more buildings rely on power instead of natural gas for heat.

The administration is set to unveil a blueprint for infrastructure spending, including investments in the nation’s electrical grid, within weeks.

“There are parts of the country right now that have excess power, that have low prices, that are not struggling, where it’s a normal Tuesday, and yet in Texas, 4 million people are without power,” said Joshua Rhodes, a research associate at the University of Texas at Austin’s Webber Energy Group. “This should reignite a debate about some kind of connection between our disparate grids where we can move energy to places like Texas that are desperate for it right now.”

The nation’s grid evolved from a patchwork of local power systems that weren’t meant to serve distant customers. “So cities and even some times neighborhoods have their own systems,” Rhodes said.

The downside of that approach became apparent in Texas as temperatures plunged into single digits. Regional power sources weren’t able to meet the demand as residents cranked up thermostats, straining supplies of electricity in the state known as the energy capital of the U.S. Grid operators were forced to implement rolling blackouts as wind turbines in West Texas froze up and natural gas, coal and nuclear power plants went offline.

“No technologies were spared in this storm of the century,” said Suzanne Bertin, who heads the Texas Advanced Energy Business Alliance. The solution involves “not putting all of our eggs in one technology basket.”

It’s not the first time the nation’s grid has failed to provide energy where it’s needed. A heat wave across California last August caused a spike in energy demand as residents cranked up air conditioners, forcing rolling blackouts.

And in 2011, after a cold snap forced scores of Texas power plants offline federal regulators recommended installing insulation and heated pipes

Larry Gasteiger, executive director of WIRES, a trade group that advocates for more construction of high-voltage transmission, said the latest crisis in Texas shows the urgent need to build a more resilient grid.

“Climate change is continuing to have a serious impact on the electric system,” Gasteiger said in a phone interview. “We are seeing more and more frequent extreme weather events.”

#### Extinction

Benjamin Monarch 20, University of Kentucky College of Law, J.D. May 2015, LLM in Energy, Natural Resources, and Environmental Law and Policy from the University of Denver Sturm College of Law, Deputy District Attorney at Colorado Judicial Branch, and Term Member at the Council on Foreign Relations, “Black Start: The Risk of Grid Failure from a Cyber Attack and the Policies Needed to Prepare for It,” Journal of Energy & Natural Resources Law, vol. 38, no. 2, Routledge, 04/02/2020, pp. 131–160

In the industrial world, when a switch is flipped, we take for granted that it will produce light, boot a computer, illuminate a stadium or activate a power plant. We know, of course, that power losses can and do occur. Many of us have lit candles during a thunderstorm or brought out extra blankets when a blizzard takes down transmission lines. As of this writing, the most populated state in the United States, California, is experiencing rolling blackouts.1 Yet even in prolonged power outages, we expect that electricity will be restored and, consequently, life will return to normal. Perhaps we need ask, however, what if power cannot be restored in a timely manner? Concern is growing that in the not-too-distant future our electricity supply could be irreparably compromised by a cyber attack. The issue when considering a systemic grid failure of this nature is twofold: how did we reach a point where something so critical to routine life now presents an existential threat, and what can we do to mitigate the risk of a catastrophic grid attack?

This article posits that the emergence of cyber attacks on industrial control systems, as a means of war or criminal menace, have reached a level of sophistication capable of crippling those systems. This article argues that a new grid security policy paradigm is required to thwart catastrophic grid failure – a paradigm that recognises the inextricable link between commercial power generation and national security. In section 5, seven policy recommendations are outlined that may, in part, mitigate a future where grid attacks pose existential risk to nations and their citizenry. Those recommendations are: first, develop a comprehensive insurance programme to minimise the financial risk of grid disruption; second, train more cybersecurity professionals with particular expertise in industrial control systems; third, institute a federally mandated information-sharing programme that is centralised under United States Cyber Command; fourth, subsidise and/or incentivise cybersecurity protections for small to mid-size utilities; fifth, provide university grants for grid security research; sixth, integrate new technologies with an eye towards securing the grid; and, lastly, formulate clear rules of engagement for a military response to grid disruption.

The purpose of this article is to provide the reader with an introduction to this complex topic. It is the aim of the author to give orientation to this issue and its many branches in the hope that better understanding will animate further curiosity and, ultimately, positive action on the part of the reader. Although many skilled and earnest people work tirelessly to prevent a grid failure scenario, it is essential that more be added to their ranks each day. Advisors, engineers, regulators, private counsel to power generators, and many others who play roles in electric power production are crucial to this subject. So, while this article provides entrée to the topic of grid security, its long-term objective is to spur action by the entire energy-related community. In the end, no one is immune to consequences of grid failure and, therefore, everyone is responsible, in part, for promoting grid integrity.2 In this regard, lawyers who represent various actors in the energy sector are going to be faced with questions and potential legal risks of a magnitude that they have never experienced before.

1.2. Turning the power back on in a powerless world

‘Black start’, not to be confused with the term ‘blackout’, is the name given to the process of restoring an electric grid to operation without relying on the external electric power transmission network to recover from a total or partial shutdown.3 At first glance, this description is unremarkable, but it implies a disturbing catch-22 – how might one restore power if the entire external transmission network is compromised?

If an electric disruption occurs at a household level, some homes may be equipped with a modest gasoline generator to temporarily restore power. If a hospital loses power, it will almost invariably be resupplied by automatic, industrial-scale generators. These micro considerations hardly give anyone pause; they are hiccups on a stormy night or a snowy day. In other words, their ‘black start’ is a quick and effective process for restoring power. But what happens, at a macro level, when an electric grid supplying power to large portions of the United States goes black, or worse, what happens if all of the United States’ electric grids go down simultaneously?4 In that scenario, how might enough non-grid power be harnessed and transmitted to turn the United States’ lights back on? Moreover, how might such a catastrophe occur in the first place? Perhaps the more ominous question is not how, but whether or not we can survive such circumstances if they persist in the long term.

The United States electric grid (‘the grid’) is the ‘largest interconnected machine’ in the world.5 It consists of more than 7000 power plants, 55,000 substations, 160,000 miles of high-voltage transmission lines and millions of low-voltage distribution lines.6 The scale and complexity of the grid in the context of the modern digital world are beyond comprehension because within it are innumerable industrial control systems; incalculable connections to digital networks; millions, if not billions, of analogue or digital sensors; many thousands of human actors; and trillions of lines of programming code.7 Further complexifying the grid is that it is comprised of generations of technologies, stitched together in ways that are not inherently secure in a world of cyber threats.8 The vastness of the grid makes security of it challenging. Likewise, the vastness of the grid makes the opportunities for intrusion seemingly infinite.

By any measure, grid failure will unleash a parade of horrors. Stores would close, food scarcity would follow, communication would cease, garbage would pile up, planes would be grounded, clean water would become a luxury, service stations would yield no fuel, hospitals would eventually go dark, financial transactions would stop, and this is only the tip of the iceberg – in a prolonged grid failure social chaos would reign, once-eradicated diseases would re-emerge and, increasingly, hope of returning to a normal life would fade.9 The notion of complete grid failure, once relegated to science fiction comics or James Bond movies, is now not only possible but also one of the most pressing national security threats today.10

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#### The 50 state governments and relevant sub-federal territories should increase prohibitions against anti-competitive business practices through establishing a worker-welfare standard.

#### State action solves, won’t be preempted, and causes federal follow-on

Juan A. Arteaga 21, Partner at Crowell & Moring LLP, Former Senior Official in the Antitrust Division of the US Department of Justice, JD from Columbia Law School, and Jordan Ludwig, Counsel in the Antitrust Group at Crowell & Moring LLP, JD from Loyola Law School, “The Role of US State Antitrust Enforcement”, Private Litigation Guide – Second Edition, Global Competition Review, 1/28/2021, https://globalcompetitionreview.com/guide/private-litigation-guide/second-edition/article/the-role-of-us-state-antitrust-enforcement

Prior to the enactment of the first federal antitrust law – the Sherman Act – in 1890, state antitrust enforcement was quite robust in the United States because at least 26 states had already enacted some form of antitrust prohibition.[2] In addition, state enforcers had often used general corporation law and common law restraint of trade principles to regulate anticompetitive business practices and transactions.[3] This well-established state antitrust enforcement infrastructure – coupled with the fact that the Antitrust Division and FTC had only recently been created – permitted state attorneys general to continue playing a leading enforcement role for the first 30 years after the Sherman Act’s passage.[4] Indeed, state attorneys general successfully prosecuted a number of the most consequential antitrust enforcement actions during this period.[5]

In the early 1920s, however, state antitrust enforcers began playing a less prominent role because ‘the national dimension of the most important trusts, . . . as well as their ability to restructure in order to evade problematic state laws’, made clear that the federal government needed to step forward in order to adequately protect consumers and the competitive process.[6] As a result, the DOJ and FTC – whose national jurisdiction and greater resources enabled them to tackle the most pressing competition issues of the time – displaced state attorneys general as the primary source of government antitrust enforcement within the United States.[7] This largely remained true until the mid-1970s when Congress, in response to the DOJ and FTC’s perceived inactivity, passed two laws that expanded the authority of state attorneys general to enforce the federal antitrust laws and provided them with financial resources to do so.[8]

In 1976, Congress passed the Hart-Scott-Rodino Antitrust Improvement Act, which, among other things, authorised state attorneys general to bring *parens patriae* suits (i.e., legal actions brought on behalf of natural persons residing within their states) seeking monetary (treble damages) and injunctive relief for Sherman Act violations.[9] Congress also passed the Crime Control Act of 1976, which, among other things, provided state attorneys general with tens of millions in federal grants as ‘seed money’ for the creation of antitrust bureaus within their offices.[10] These laws had their intended effect of reinvigorating state antitrust enforcement.

During the 1980s, for example, state attorneys general once again emerged as vigorous antitrust enforcers, especially with respect to the prosecution of resale price maintenance practices and other vertical restraints.[11] The rise in the level and prominence of state antitrust enforcement during this period was largely due to a perceived enforcement void at the federal level, where the DOJ and FTC had mostly limited their focus to ‘prohibiting cartels and large horizontal mergers’.[12] No longer content with ceding antitrust enforcement to federal enforcers, state attorneys general expanded their antitrust dockets from prosecuting purely ‘local matters, such as bid-rigging on state contracts’, to actively investigating and litigating matters with multistate and national implications.[13] To help ensure that they had a larger seat at the antitrust enforcement table, state attorneys general also increased the coordination of their enforcement efforts and competition advocacy through organisations such as the National Association of Attorneys General (NAAG), which created a Multistate Antitrust Task Force and issued state Vertical Restraints and Horizontal Merger Guidelines during this period.[14]

Since the reawakening of state antitrust enforcement nearly 30 years ago, state attorneys general have continued to play an important role in the enforcement of both state and federal antitrust laws. During periods of lax federal antitrust enforcement, state attorneys general have often ramped up their enforcement activity in order to protect consumers from anticompetitive transactions and business practices.[15] During periods of vigorous federal antitrust enforcement, they have often served as strong partners for the DOJ and FTC by, among other things, offering valuable insights about competitive dynamics in local markets, assisting with obtaining information from key market participants (including state governmental entities that are direct purchasers of goods and services), and helping develop and implement litigation strategies for cases being tried before federal judges presiding in their states.[16]

Since January 2017, state attorneys general have increasingly played a leading and independent antitrust enforcement role. State antitrust enforcers have significantly increased their enforcement activity and willingness to act separately from their federal counterparts because many of them believe that there has been ‘under-enforcement’ by the DOJ and FTC.[17] State antitrust enforcers have also been able to enhance their influence over key competition policy issues and the antitrust enforcement agenda within the United States because there appears to have been a significant decline in the coordination and relationship between the DOJ and FTC.[18]

In once again flexing their enforcement muscle, state attorneys general have shown a willingness to publicly disagree with the DOJ and FTC on both policy and enforcement decisions, and have also sought to pressure their federal counterparts into more aggressively policing certain industries. Recent examples of the increased independence and assertiveness of state antitrust enforcers include:

* The DOJ, FTC and several state attorneys general have been actively investigating and prosecuting ‘no-poach’ agreements (i.e., where competitors for employees agree not to recruit or hire each other’s employees) in recent years. However, the DOJ and state attorneys general have taken directly opposing positions in private litigation challenging the legality of ‘no-poach’ clauses in corporate franchise agreements. The DOJ has argued that courts should review these clauses under the rule of reason whereas various state attorneys general have argued that these clauses should be deemed per se unlawful.[24]
* In their joint investigation into the T-Mobile/Sprint merger, nearly 20 state attorneys general sued to block the transaction in September 2019 even though the DOJ, along with seven state attorneys general, approved the deal after securing certain structural and behavioural remedies.[19] After the DOJ announced its proposed settlement with the companies, the Attorney General for New York, who led the states’ challenge to the merger, issued a press release dismissing the adequacy of the remedies negotiated by the DOJ: ‘The promises made by [the divestiture buyer] and [the merging companies] in this deal are the kinds of promises only robust competition can guarantee. We have serious concerns that cobbling together this new fourth mobile [phone] player, with the government picking winners and losers, will not address the merger’s harm to consumers, workers, and innovation.’[20] Thereafter, the DOJ opposed the states’ enforcement action by, among other things, moving to disqualify the private counsel hired by the states to represent them[21] and filing submissions that argued against the states’ requested injunction.[22] Ultimately, the state attorneys general were unsuccessful in their bid to block the deal.[23]
* None of the more than 20 state attorney general offices that actively investigated the AT&T/Time Warner merger joined the DOJ’s unsuccessful challenge to the transaction despite the DOJ’s concerted effort to secure their support.[25] In fact, nine state attorneys general filed an amicus brief opposing the DOJ’s appeal of the trial court’s decision.[26]
* After the FTC declined to seek any Colorado-related remedies in connection with Optum’s acquisition of DaVita Medical Group, the Attorney General for Colorado required the merging companies to lift the exclusivity provisions in contracts with certain healthcare providers and to extend their existing contracts with certain health insurers. In announcing this settlement, the Colorado Attorney General stated: ‘I recognize that this case marks an important step in state antitrust enforcement . . . . I am committed to protecting all Coloradans from anticompetitive consolidation and practices, and will do so whether or not the federal government acts to protect Coloradans.’[27]

After voicing displeasure with federal antitrust enforcement in the technology sector, numerous state attorneys general launched their independent investigations into ‘Big Tech’ companies even though the DOJ and FTC have ongoing investigations into these companies.[28]

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#### Anticompetitive’ behavior are business practices that restrict competition without providing lower cost or higher quality goods and services

OECD 3 – OECD Glossary of Statistical Terms, from the Glossary of Industrial Organisation Economics and Competition Law, compiled by R. S. Khemani and D. M. Shapiro, commissioned by the Directorate for Financial, Fiscal and Enterprise Affairs, OECD, 1993, https://stats.oecd.org/glossary/detail.asp?ID=3145

Definition:

Anticompetitive practices refer to a wide range of business practices in which a firm or group of firms may engage in order to restrict inter-firm competition to maintain or increase their relative market position and profits without necessarily providing goods and services at a lower cost or of higher quality.

#### ‘Expanding the scope’ must increase the area covered by antitrust law

Cesar A. Noble 17, Judge on the Connecticut Superior Court, Hartford Judicial District, 777 Residential, LLC v. Metro. Dist. Comm'n, 2017 Conn. Super. LEXIS 4178, \*4-5 (Conn. Super. Ct. August 1, 2017), 8/1/2017, Lexis

The defendant relies upon §7-249 as authority for the supplemental assessment. The statute provides that "[b]enefits to buildings or structures constructed or expanded after the initial assessment may be assessed as if the new or expanded buildings or structures had existed at the time of the initial assessment." The parties dispute whether the conversion of the property constitutes a construction or expansion of buildings or structures granting authority to the defendant to levy a supplemental assessment. The plaintiff argues that because the conversion did not constitute an expansion, that is, an increase in the volume or physical area of a building the defendant had no authority under §7-249 for the supplemental assessment. 5 In the view of the plaintiff it is significant that the conversion did not increase the physical footprint or interior square footage of the property in any way including by a vertical [\*5] enlargement. Absent such an increase, asserts the plaintiff, there can be no construction or expansion of any building or structure. The defendant assert that the construction of the 285 new residential units constitute new structures within the plain meaning of §7-249. The court agrees with the defendant.

[FOOTNOTE]

5 The plaintiff relies upon the definition of the word "expand" found in Merriam-Webster's Collegiate Dictionary (10th ed. 2002) of "to open up; to increase the extent, number, volume, or scope of."

#### ‘Law’ requires legislative action

Dr. Mohammed Saif-Alden Wattad 8, Post-Doctoral Minerva Fellow at the Max-Planck Institute for Foreign and International Criminal Law Studies in Freiburg, “The Torturing Debate on Torture”, Northern Illinois University Law Review, 29 N. Ill. U. L. Rev. 1, Fall 2008, Lexis

6 See MOHAMMED SAIF-ALDEN WATTAD, THE MEANING OF CRIMINAL LAW: THREE TENETS ON AMERICAN & COMPARATIVE CONSTITUTIONAL ASPECTS OF SUBSTANTIVE CRIMINAL LAW 44 (2008) (explaining that the term "law" refers to the laws enacted by legislative bodies [i.e. statutes, constitutions, and treaties] and is to be distinguished from the term "Law," which refers to the higher concept of the "good and just law" binding on all human beings [i.e. the moral or religious law]; if the "law" contradicts the "Law," the latter must prevail).

#### Vote Neg:

#### 1. Limits---the aff allows any kind of method, epistemology or process to be advocated along side a plan with no resolutional tie required, impossible for the Neg to keep up.

#### 2. Ground---the aff permits prerequisite, sequencing and methods to resolve DA links because they would never happen in “the world of the Aff”---makes winning offense impossible.

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#### The United States federal government should:

#### ---not increase the scope of its core antitrust laws increasing prohibitions against anti-competitive business practices through establishing a worker-welfare standard;

#### ---nationalize all industries;

#### ---implement ecological Leninism as described in 1AC Malm.

#### That solves---it implements socialism without modifying antitrust statutes AND avoids all the NBs.

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#### Antitrust litigation is uniquely complex and resource-intensive---a spike trades-off with judicial functioning in other areas

Daniel R. Warren 15, JD from the Boston University School of Law, BS from Ohio State University, “Stress Fractures: The Need to Stop and Repair the Growing Divide in Circuit Court Application of Summary Judgment in Antitrust Litigation”, Review of Banking and Financial Law, 35 Rev. Banking & Fin. L. 380, Lexis

A. Summary Judgment Can Cut Short Extreme Costs

Antitrust litigation can involve enormous discovery costs, particularly when antitrust litigation overlaps with class action litigation. Due to the wide scope of many antitrust claims, discovery can implicate a broad range of documents, records, interrogatories, and depositions. In fact, "[s]trategically minded" plaintiffs can take advantage of antitrust law's "onerous discovery costs" by requiring the defendant "to respond to wide-ranging interrogatories, produce documents, and prepare for and defend depositions" with only a "facially plausible allegation" of an antitrust violation. These costs can take a very large toll on both large and small businesses. The legal hours necessary to answer and address discovery challenges can also impose extreme costs.

Plaintiffs can often use discovery costs as a weapon against defendants in antitrust litigation. The Seventh Circuit Court of Appeals stated that "antitrust trials often encompass a great deal of expensive and time consuming discovery and trial work" in explaining that the "very nature" of antitrust litigation should encourage summary judgment. The court's language here supports [\*389] the idea that in antitrust litigation, summary judgment has a special value, greater even than its normal use in other areas of the law. Summary judgment can be used to cut short lengthy litigation where parties have already accrued extreme costs from discovery and one party still cannot produce a genuine issue of material fact.

In antitrust litigation, the value of summary judgment to mitigate discovery costs through shortening litigation is elevated to a special importance even greater than normal for three reasons. First, antitrust litigation normally involves large organizations, which magnifies the costs of those firms going through the discovery process. Large firms have a great number of involved employees and departments, all of which would likely be subject to the broad discovery that is characteristic of antitrust litigation. Summary judgment, though normally considered after discovery, is a procedural weapon available at nearly any point in this process, as "a party may file a motion for summary judgment at any time until 30 days after the close of all discovery." The existence of a stay for extension of discovery shows that summary judgment need not automatically wait for discovery's completion, and thus can be an invaluable safeguard against otherwise incredibly costly discovery. This safeguard allows summary judgment to be a powerful tool to radically lower discovery time and costs without "railroad[ing]" the other party.

Second, antitrust litigation is normally a slow process that takes a great deal of time. The amount of time necessary to process and review evidence produced by discovery leads to incredible legal costs, often disproportionately placed on the defendant firm. The plaintiff has the advantage over the defendant in deciding the scope of discovery costs, and may often tailor its claim in such a way as to avoid the discovery costs that a defendant's counterclaim may reflect [\*390] back on the plaintiff. These lengthy trials can be effectively truncated by summary judgment, and thus summary judgment's normal value is even greater in the world of antitrust litigation where protracted trials are the norm.

Finally, the vast amount of evidence necessary to prove the elements of an antitrust claim contribute to the large discovery costs tied to antitrust litigation by overwhelming judges' ability to reign in discovery costs. Currently, we rely on judges to limit the range of discovery requested, but in the context of antitrust litigation, judges have difficulty dealing with the broad variety of evidence that may be called for. One analysis of the power of discovery described it as a costly and potentially abusive force, and determined judges' abilities to limit discovery costs on their own as "hollow" at best:

A magistrate supervising discovery does not--cannot--know the expected productivity of a given request, because the nature of the requester's claim and the contents of the files (or head) of the adverse party are unknown. Judicial officers cannot measure the costs and benefits to the requester and so cannot isolate impositional requests. Requesters have no reason to disclose their own estimates because they gain from imposing costs on rivals (and may lose from an improvement in accuracy). The portions of the Rules of Civil Procedure calling on judges to trim back excessive demands, therefore, have been, and are doomed to be, hollow. We cannot prevent what we cannot detect; we cannot detect what we cannot define; we cannot define "abusive" discovery except in theory, because in practice we lack essential information. Even in retrospect it is hard to label requests as abusive. How can a judge distinguish a dry hole (common in litigation as well as in the oil business) from a request that was not justified at the time?

[\*391] Summary judgment can also reduce costs to both parties by reducing time and discovery costs to the parties, and to the judicial system itself, by cutting short lengthy litigation. Both sides often incur costs from employing experts in various areas, researching and producing evidence necessary to prove or disprove elements of antitrust actions, and in the great many legal hours necessary for both plaintiffs and defendants--not to mention costs to the state--during lengthy litigation that is often fruitless due to an "incentive to file potentially equivocal claims." Antitrust law is structured in such a way as to have a "special temptation" for what would otherwise be frivolous litigation. As antitrust law is, by its very nature, between competitors, there is significant motivation to force costs on to other firms, perhaps even through frivolous legal claims or intentionally imposing other large legal costs. Costs can also multiply in antitrust litigation because antitrust actions are often combined with other particularly complex areas of law, such as patent law or class actions. Class actions particularly in the antitrust context can make trials "unmanageable." Combining two already complex areas of law is a recipe for large legal costs and prolonged litigation. The value of cutting costs short cannot be overstated, as antitrust litigation takes place in the arena of business competition. This means that firms are already engaged in close competition for antitrust cases to be relevant, and thus unnecessary costs can further distort the market.

#### Overload from litigation trades-off with judicial exchanges

Matthew J. Wilson 13, Associate Dean of Academic Affairs and Professor of Law at the University of Wyoming College of Law, “Improving the Process: Transnational Litigation and The Application of Private Foreign Law in U.S. Courts”, International Law and Politics, Summer 2013, http://nyujilp.org/wp-content/uploads/2014/01/45.4-Wilson.pdf

In light of increasing global integration and various international outreach activities by the U.S. judiciary, the timing is right for expanding cross-border cooperation and interaction among judiciaries.98 Relationships have developed over the past several decades among judicial systems making information exchanges in civil cases possible on a level never seen before. Judges increasingly appreciate that they function within a common transnational system. Cooperative activities including international educational exchanges, “sister-court” relationships, judicial outreach activities, international judicial conferences, informal meetings, seminars, and similar opportunities for transnational judicial interaction have furthered cordial relationships. Interaction during cross-border criminal cases has done the same.

These activities have also laid a strong foundation for certification- like arrangements. The relationship between the court systems of New York and New South Wales, Australia (NSW) is a prime example. In 2010, the New York state judiciary entered into an informal certification procedure with the NSW courts in the form of a bilateral Memorandum of Understanding (MOU) that contemplates reciprocal cooperation and consultation between their respective judicial systems to enable the parties to obtain correct and authoritative applications of law.99 As the first agreement of its kind between a U.S. and foreign judicial system, this MOU was also designed to combat the high cost of legal experts and reduce the confusion caused by conflicting accounts of foreign law.100 In principle, with the litigants’ consent, the MOU allows both jurisdictions to exchange analysis about a contested dispositive legal issue.101

The path to a successful transnational certification system involves finding the time and resources to answer legal questions received from foreign courts. Court systems in the United States and other countries are often overburdened with their own civil caseloads. Adding another dimension of legal review to the mix could overwhelm some courts. However, courts might look to emeritus or retired judges for special assistance. They might also tap into other competent court officials. Many countries maintain a Central Authority that could provide accurate information regarding their domestic law. Alternatively, court systems could rely on current judges who are interested in international cooperation and who are willing to volunteer their time and expertise. By way of illustration, the New York State court system is relying upon volunteer judges to operate their informal certification system with New South Wales. New York has staffed its “certification” board with one volunteer judge from the New York Court of Appeals and one volunteer judge from each appellate division.102 With an eye towards enhancing accuracy and promoting comity, a panel of three judges functioning as referees will consider any certified questions about New York law submitted by NSW courts and provide a report prepared outside of work hours.103

#### Collapses i-law---extinction

Dr. Noah Feldman 8, Professor of Law at Harvard University School of Law, Director of the Julis-Rabinowitz Program on Jewish and Israeli Law, D.Phil. in Oriental Studies from Oxford University, A.B. Summa Cum Laude in Near Eastern Languages and Civilizations from Harvard University, J.D. from Yale Law School, “When Judges Make Foreign Policy”, New York Times, 9/28/2008, Lexis

Looking at today's problem through the lens of our great constitutional experiment, it emerges that there is no single, enduring answer to which way the Constitution should be oriented, inward or outward. The truth is that we have had an inward- and outward-looking Constitution by turns, depending on the needs of the country and of the world. Neither the text of the Constitution, nor the history of its interpretation, nor the deep values embedded in it justify one answer rather than the other. In the face of such ambiguity, the right question is not simply in what direction does our Constitution look, but where do we need the Constitution to look right now? Answering this requires the Supreme Court to think in terms not only of principle but also of policy: to weigh national and international interests; and to exercise fine judgment about how our Constitution functions and is perceived at home and abroad. The conservative and liberal approaches to legitimacy and the rule of law need to be supplemented with a healthy dose of real-world pragmatism. In effect, the fact that the Constitution affects our relations with the world requires the justices to have a foreign policy of their own. On the surface, it seems as if such inevitably political judgments are not the proper province of the court. If assessments of the state of the world are called for, shouldn't the court defer to the decisions of the elected president and Congress? Aren't judgments about the direction of our country the exclusive preserve of the political branches? Indeed, the Supreme Court does need to be limited to its proper role. But when it comes to our engagement with the world, that role involves taking a stand, not stepping aside. The reason for this is straightforward: the court is in charge of interpreting the Constitution, and the Constitution plays a major role in shaping our engagement with the rest of the world. The court therefore has no choice about whether to involve itself in the question of which direction the Constitution will face; it is now unavoidably involved. Even choosing to defer to the other branches of government amounts to a substantive stand on the question. That said, when the court exercises its own independent political judgment, it still does so in a distinctively legal way. For one thing, the court can act only through deciding the cases that happen to come before it, and the court is limited to using the facts and circumstances of those cases to shape a broader constitutional vision. The court also speaks in the idiom of law -- which is to say, of regular rules that apply to everyone across the board. It cannot declare, for instance, that only this or that detainee has rights. It must hold that the same rights extend to every detainee who is similarly situated. This, too, is an effective constraint on the way the court exercises its policy judgment. Indeed, it is this very regularity that gives its decisions legitimacy as the product of judicial logic and reasoning. Why We Need More Law, More Than Ever So what do we need the Constitution to do for us now? The answer, I think, is that the Constitution must be read to help us remember that while the war on terror continues, we are also still in the midst of a period of rapid globalization. An enduring lesson of the Bush years is the extreme difficulty and cost of doing things by ourselves. We need to build and rebuild alliances -- and law has historically been one of our best tools for doing so. In our present precarious situation, it would be a terrible mistake to abandon our historic position of leadership in the global spread of the rule of law. Our leadership matters for reasons both universal and national. Seen from the perspective of the world, the fragmentation of power after the cold war creates new dangers of disorder that need to be mitigated by the sense of regularity and predictability that only the rule of law can provide. Terrorists need to be deterred. Failed states need to be brought under the umbrella of international organizations so they can govern themselves. And economic interdependence demands coordination, so that the collapse of one does not become the collapse of all. From a national perspective, our interest is less in the inherent value of advancing individual rights than in claiming that our allies are obligated to help us by virtue of legal commitments they have made. The Bush administration's lawyers often insisted that law was a tool of the weak, and that therefore as a strong nation we had no need to engage it. But this notion of ''lawfare'' as a threat to the United States is based on a misunderstanding of the very essence of how law operates. Law comes into being and is sustained not because the weak demand it but because it is a tool of the powerful -- as it has been for the United States since World War II at least. The reason those with power prefer law to brute force is that it regularizes and legitimates the exercise of authority. It is easier and cheaper to get the compliance of weaker people or states by promising them rules and a fair hearing than by threatening them constantly with force. After all, if those wielding power really objected to the rule of law, they could abolish it, the way dictators and juntas have often done the world over.

#### Clogged courts make people lose faith in government

Richard E. Messick 15, legal consultant and former World Bank lawyer, “Uncorking the bottlenecks: Using political economy analysis to address court delay,” https://www.cmi.no/publications/5847-using-political-economy-analysis-to-address-court

Court delay is costly – to the parties to the case and to society as a whole. The lapse of time between the filing of a case and its resolution lessens the chances that the dispute will be justly decided; witnesses may die or disappear and memories can fade. Frustrated by long waits, parties may abandon the effort to vindicate their rights, and a few may turn to violence. Delay undermines public confidence in the court system and in government itself.

#### **Extinction – and turns the case**

Small 6 — Jonathan Small, former Americorps VISTA for the Human Services Coalition, 2006 (“Moving Forward,” *The Journal for Civic Commitment*, Available Online via the Internet Archive’s Wayback Machine at http://web.archive.org/web/ 20060711184600/http://www.mc.maricopa.edu/other/engagement/Journal/Issue7/Small.jsp, Accessed 09-22-2009)

What will be the challenges of the new millennium? And how should we equip young people to face these challenges? While we cannot be sure of the exact nature of the challenges, we can say unequivocally that humankind will face them together. If the end of the twentieth century marked the triumph of the capitalists, individualism, and personal responsibility, the new century will present challenges that require collective action, unity, and enlightened self-interest. Confronting global warming, depleted natural resources, global super viruses, global crime syndicates, and multinational corporations with no conscience and no accountability will require cooperation, openness, honesty, compromise, and most of all solidarity – ideals not exactly cultivated in the twentieth century. We can no longer suffer to see life through the tiny lens of our own existence. Never in the history of the world has our collective fate been so intricately interwoven. Our very existence depends upon our ability to adapt to this new paradigm, to envision a more cohesive society. With humankind’s next great challenge comes also great opportunity. Ironically, modern individualism backed us into a corner. We have two choices, work together in solidarity or perish together in alienation. Unlike any other crisis before, the noose is truly around the neck of the whole world at once. Global super viruses will ravage rich and poor alike, developed and developing nations, white and black, woman, man, and child. Global warming and damage to the environment will affect climate change and destroy ecosystems across the globe. Air pollution will force gas masks on our faces, our depleted atmosphere will make a predator of the sun, and chemicals will invade and corrupt our water supplies. Every single day we are presented the opportunity to change our current course, to survive modernity in a manner befitting our better nature. Through zealous cooperation and radical solidarity we can alter the course of human events. Regarding the practical matter of equipping young people to face the challenges of a global, interconnected world, we need to teach cooperation, community, solidarity, balance and tolerance in schools. We need to take a holistic approach to education. Standardized test scores alone will not begin to prepare young people for the world they will inherit. The three staples of traditional education (reading, writing, and arithmetic) need to be supplemented by three cornerstones of a modern education, exposure, exposure, and more exposure. How can we teach solidarity? How can we teach community in the age of rugged individualism? How can we counterbalance crass commercialism and materialism? How can we impart the true meaning of power? These are the educational challenges we face in the new century. It will require a radical transformation of our conception of education. We’ll need to trust a bit more, control a bit less, and put our faith in the potential of youth to make sense of their world. In addition to a declaration of the gauntlet set before educators in the twenty-first century, this paper is a proposal and a case study of sorts toward a new paradigm of social justice and civic engagement education. Unfortunately, the current pedagogical climate of public K-12 education does not lend itself well to an exploratory study and trial of holistic education. Consequently, this proposal and case study targets a higher education model. Specifically, we will look at some possibilities for a large community college in an urban setting with a diverse student body. Our guides through this process are specifically identified by the journal Equity and Excellence in Education. The dynamic interplay between ideas of social justice, civic engagement, and service learning in education will be the lantern in the dark cave of uncertainty. As such, a simple and straightforward explanation of the three terms is helpful to direct this inquiry. Before we look at a proposal and case study and the possible consequences contained therein, this paper will draw out a clear understanding of how we should characterize these ubiquitous terms and how their relationship to each other affects our study. Social Justice, Civic Engagement, Service Learning and Other Commie Crap Social justice is often ascribed long, complicated, and convoluted definitions. In fact, one could fill a good-sized library with treatises on this subject alone. Here we do not wish to belabor the issue or argue over fine points. For our purposes, it will suffice to have a general characterization of the term, focusing instead on the dynamics of its interaction with civic engagement and service learning. Social justice refers quite simply to a community vision and a community conscience that values inclusion, fairness, tolerance, and equality. The idea of social justice in America has been around since the Revolution and is intimately linked to the idea of a social contract. The Declaration of Independence is the best example of the prominence of social contract theory in the US. It states quite emphatically that the government has a contract with its citizens, from which we get the famous lines about life, liberty and the pursuit of happiness. Social contract theory and specifically the Declaration of Independence are concrete expressions of the spirit of social justice. Similar clamor has been made over the appropriate definitions of civic engagement and service learning, respectively. Once again, let’s not get bogged down on subtleties. Civic engagement is a measure or degree of the interest and/or involvement an individual and a community demonstrate around community issues. There is a longstanding dispute over how to properly quantify civic engagement. Some will say that today’s youth are less involved politically and hence demonstrate a lower degree of civic engagement. Others cite high volunteer rates among the youth and claim it demonstrates a high exhibition of civic engagement. And there are about a hundred other theories put forward on the subject of civic engagement and today’s youth. But one thing is for sure; today’s youth no longer see government and politics as an effective or valuable tool for affecting positive change in the world. Instead of criticizing this judgment, perhaps we should come to sympathize and even admire it. Author Kurt Vonnegut said, “There is a tragic flaw in our precious Constitution, and I don’t know what can be done to fix it. This is it: only nut cases want to be president.” Maybe the youth’s rejection of American politics isn’t a shortcoming but rather a rational and appropriate response to their experience. Consequently, the term civic engagement takes on new meaning for us today. In order to foster fundamental change on the systemic level, which we have already said is necessary for our survival in the twenty-first century, we need to fundamentally change our systems. Therefore, part of our challenge becomes convincing the youth that these systems, and by systems we mean government and commerce, have the potential for positive change. Civic engagement consequently takes on a more specific and political meaning in this context.

### 1NC

#### ‘Increasing’ means to make greater and requires pre-existence

Jeremiah Buckley 6, Attorney, Amicus Curiae Brief, Safeco Ins. Co. of America et al v. Charles Burr et al, <http://supreme.lp.findlaw.com/supreme_court/briefs/06-84/06-84.mer.ami.mica.pdf>

First, the court said that the ordinary meaning of the word “increase” is “to make something greater,” which it believed should not “be limited to cases in which a company raises the rate that an individual has previously been charged.” 435 F.3d at 1091. Yet the definition offered by the Ninth Circuit compels the opposite conclusion. Because “increase” means “to make something greater,” there must necessarily have been an existing premium, to which Edo’s actual premium may be compared, to determine whether an “increase” occurred. Congress could have provided that “ad-verse action” in the insurance context means charging an amount greater than the optimal premium, but instead chose to define adverse action in terms of an “increase.” That def-initional choice must be respected, not ignored. See Colautti v. Franklin, 439 U.S. 379, 392-93 n.10 (1979) (“[a] defin-ition which declares what a term ‘means’ . . . excludes any meaning that is not stated”). Next, the Ninth Circuit reasoned that because the Insurance Prong includes the words “existing or applied for,” Congress intended that an “increase in any charge” for insurance must “apply to all insurance transactions – from an initial policy of insurance to a renewal of a long-held policy.” 435 F.3d at 1091. This interpretation reads the words “exist-ing or applied for” in isolation. Other types of adverse action described in the Insurance Prong apply only to situations where a consumer had an existing policy of insurance, such as a “cancellation,” “reduction,” or “change” in insurance. Each of these forms of adverse action presupposes an already-existing policy, and under usual canons of statutory construction the term “increase” also should be construed to apply to increases of an already-existing policy. See Hibbs v. Winn, 542 U.S. 88, 101 (2004) (“a phrase gathers meaning from the words around it”) (citation omitted).

#### Plan creates new types of prohibition---voting issue for limits---they open the floodgates to any single-article regulation-of-the-week aff---existing activity sets a finite and predictable limit for research and preparation

### 1NC

#### We advocate for the entirety of the 1AC sans its justification as antagonistic to capitalism.

#### Forwarding capitalism as the central telos of society as fixed and a sweeping dismissal of pragmatism sustains environmental degradation, structural violence, and wards off tangible post-capitalist futures.

Claire Sagan 19, PhD, University of Massachusetts, Amherst. Assistant Professor of Political Theory at Vassar College, "Capitalist Temporalities as Uchronia," Theory & Event, Vol. 22, No. 1, January 2019, Project Muse.

"There is no time… to analyse… to think things through… to make sense," sings Radiohead's Thom Yorke in an album inspired by the current ecological catastrophes. In melodious melancholy meanders, slowly and powerfully, his voice sounds the words expressing the urgency and tension characteristic of our times. This is the sort of urgency whereby the pressure to act fast is also, paradoxically, coterminous with a desire and need to slow down to think, per chance to suspend the relentless, frenetic course of things. And, to further complicate the tension, such pause allowing the time to think may densely fill with a simultaneous desire and a need to accelerate the pace of critique, to proliferate alternatives, to quickly rise with proposals, to imagine new arrangements and different ways to live that might make for less rushed though fuller lives. The current sense of urgency and acceleration requires that we take time to recognize, analyze and critique the contradictory capitalist temporalities that lay claim to the regimentation of our lives. To help us do so I propose a new concept that describes what these temporalities share. The goal here is to critique the capitalist, contradictory timescape, across its various timescales. At the quotidian, the lifetime, the historical, and deep time levels, exactly how capitalocentric temporality functions matters in our ecologically catastrophic times.

The word "uchronia" has before, but rarely been used to describe narratives that imagine alternative histories.1 In these cases, the word contrasted with utopian literature, which supposedly imagined [End Page 143] futures made us reflect on our present. In this essay however, I develop a distinct meaning for the term uchronia, one that may enable us to see capitalist times as contingent in spite of their seemingly tireless attempts to grab all of times, all times' directions and goals, all elements of the past supposed to ineluctably lead to said goals, all of the present, all futures, all of our time, 24/7, faster and faster, "forward" to the "end of history." As utopia etymologically is both the "good place" (eu + topos), and the "non-place" (ou + topos), I will use uchronia here to describe characteristic capitalocentric temporalities. These, I argue, rely upon the desire for a "good time" (eu + chronos) that will never come (ou + chronos). This impossible temporal horizon occludes, in the meantime, the resulting ecological destructions and alienations of our more-than-human worlds. The always already presumed capitalist futures attempt to mask and/or justify the catastrophic destruction in our times.2 Thus capitalist goals present themselves as ultimate telos (that which we cannot not want) while also operating as anti-telos (short-termism and capitalocentric teleology mask actual destruction). After Gibson-Graham, I use the adjective "capitalocentric" to describe capitalist temporalities. These normative, hegemonic conceptions and experiences of time reduce our imaginaries to capitalist economies' exigencies, in an effort to subdue all times to a (re)productive, capitalist futurism. The aporetic, simultaneously telic and anti-telic character of "uchronia" requires a slow and patient critical examination of the contradictory layers it is made of. Taking the time to critique capitalist temporalities through the lens of the new concept of uchronia allows us to better discern how capitalist hegemony normatively orients desire—throughout this essay I will use the term "temporality" in reference to normative and normatively-informed conceptions and experiences of time. I will use the term "timescape" to refer to capitalist temporalities at various timescales, taken together.

Against the usual positive connotations of the word, I suggest that the capitalist imaginary is in fact utopian, insidiously working as an unattainable (anti-)telos. Critiquing utopian capitalist economies and their uchronian temporalities as such does not by any means evoke some actual desirability, but may help us decipher some of the ways in which capitalist economies acquire a destructive and deceiving would-be desirability, thus performing their resilience. Capitalist futures, in spite of all sorts of evidence showing their impossibility, untenability, unsustainability (ou + chronos, non-time), are those which—so we are relentlessly told—we cannot not want, irresistible (eu + chronos, the "good" time, here the fetishized time), unstoppable, mandated by alleged laws of nature—nature being conceived, in the uchronian imaginary, as mono-telic, mono-dimensional, its history pre-determined, its movement reduced to capitalist "forward" movement or growth. [End Page 144]

Capitalism is, in effect, natural—a thought that many of us may find disturbing: but then where else would this economic arrangement reside, and what sort of transcendence is it granted when we deny that it is part of a vast Earth history that goes so immensely beyond it? The concept of uchronia as a critical tool underscores that capitalist economies are also, as arguably all things in and of nature, contingent. This too, along with its timescapes, shall pass. One implication, therefore, is that human and more-than-human nature-cultures should not be conceived in a uchronian manner, caught up in an impossibly simplistic, linear, anti-telic telos. Temporalities that crystallize into such impossible unstoppables, out of time (ou + chronos) and imagined to stand for the good times (eu + chronos) against evidence to the contrary, make the human "all-too-human," and the natural "all-too-natural," in an essentialist, dualistic, and destructive sense.

More immediate than this broad ontological and political implication regarding the uchronian nature of capitalism and its corresponding conceptions of nature and of the human, are the high political-strategic stakes informing my calling capitalocentric temporalities "uchronias." Pointing to capitalist times as "uchronian" turns the tables on easy and all-too-common dismissals of environmental justice and feminist proposals as idealist, unrealistic, or utopian. I contend that what gets to count as "reality" or "realism" may in fact be nothing short of utopian (i.e., unpracticable), and that this is particularly visible when examining capitalist temporalities. At stake is also a feminist intervention into certain strands of environmentalisms—the de-growth movement in particular—which, though their proposals may in fact be quite concrete, pragmatic and compelling, have committed the strategic and more broadly ontologico-political mistake of self-identifying as "utopian," using this descriptor appraisively. I wish to invite such environmentalisms to reflect upon the violence involved in describing environmental justice claims and projects as "utopian." For example, what does it mean to call "utopian," the Native North Dakotan water protectors' movement in 2016; the Indian women who led the Chipko movement of the 1970s; the women currently fighting everywhere in the world to exercise their reproductive rights in a context of difficult access to healthy contraception, systemic endocrinal disruptors' pollution, and overpopulation; the transsexual movement resisting pathologizing claims made on the basis of more or less arbitrary boundaries between what counts as natural and what counts as technological; claims that heterosexual and sexed reproduction are far from the norm in diverse naturecultures; and claims that capitalist growth is radically unsustainable?

My goal here is not to take on all the reasons why these seemingly disparate examples of struggles are not in fact utopian, but it is with these stakes in mind that I aim to provide a political, theoretical [End Page 145] strategy and argument disrupting capitalist economies' claims (however implicit or explicit) of having a monopoly on realism. Indeed, the following is a contribution to feminist environmental justice: I offer a critical provocation to face capitalist hegemony and to defy and dismiss it, as well as a call to assert feminist environmentalist visions as pragmatic. I contend that which and whose claims, modes of existence and projects get to be called "utopian," and whose claims and modes of existence are, by contrast, recognized as "pragmatic" or "realistic," indicates more about where these respectively stand in relation to the "reality" and the "pragmatics" of specific and contingent economies of power, than to our constantly changing realities, likelihoods, concrete possibilities.

It is thus as a feminist theorist immersed in queer ecologies and queer temporalities, and as an environmentalist immersed in de-growth but skeptical of the latter movement's frequent self-description as "utopian," that I wish to pose the problem of the capitalist timescape. This timescape is made of temporalities that, though they may often be contradictory, share this common form I am calling uchronia at various timescales: a capitalocentric, allegedly good, abundant, and abstractly idealized, atemporal temporality. Uchronia is composed of an imagined impossible future and an imagined, monodirectional and monodimensional (anti-)telos of capitalist growth actually destructive of our pasts, presents and futures (1). Each individual life is normatively envisioned as teleological, and its telos is conceived as a goal of production and reproduction—as (re)producing a specific economy of power that imagines itself as the only natural and valuable one. Each life is imagined as needing to follow a specific pattern corresponding to each age for all individual subjects following the same life calendar (2). Quotidian time is made of a relentless rush after a consumerist satisfaction that beckons elusively but never arrives—neither is it supposed to arrive. At the quotidian scale, uchronia takes the form of a capitalist, consumerist, productivist reach and pretense at total control, at exercising vampiric mastery over each hour of each day, including sleep (3). At a much vaster scale and more recently, capitalocentric temporalities nourish an anthropocentric desire for a relationship of control over the biosphere, whose rhetoric is animated by what may be called a "futurology." This futurology's response to the climate crisis is characterized by a hubris couched in a periodization of Earth's history whose latest epoch would be the all-too-human (all-too-uchronian) Anthropocene, including fantasies of (and/or experiments with) geoengineering (4). Finally, I conclude by teasing out some of the ontological implications (for rethinking what may be problematic with notions of the human and the natural) and the critical refusal to submit either to optimism or to pessimism made possible by my conceptualization of uchronia (5). [End Page 146]

### 1NC

#### ‘Should’ is mandatory AND requires immediacy

David H. Sawyer 17, Judge on the Michigan Court of Appeals, J.D. from Valparaiso School of Law, “Spartan Specialties, Ltd. v. Senior Servs.”, Court of Appeals of Michigan, 2017 Mich. App. LEXIS 1178, 7/20/2017, Lexis

The specifications in the drawings for the mini-piles stated that the capacity for the mini-piles was "to be" 6,000 or 8,000 pounds and that the length of the mini-piles was "to be" adequate to get into undisturbed soil to a depth adequate for obtaining the required capacity. The specifications in the project manual stated that the mini-piles "should" have a capacity of 4 tons and 3 tons, that the mini-piles "should" be driven to minimum depth of 25 feet, and that a grout bulb "should" be formed at the base of a mini-pile. Kenneth Winters, an expert in structural engineering, and Richard Anderson, an expert in geotechnical engineering, agreed with Steve Maranowski, plaintiff's president, that the specifications in the project manual, because those specifications used the word "should," were permissive and suggestions of what plaintiff could do to achieve the required capacity. However, the trial court, when it instructed the jury on how to interpret the contract, instructed the jury that it was to interpret the words of the contract by giving them their ordinary and common meaning. An ordinary and common meaning of the word "should" is that it denotes a mandatory obligation. [\*9] See People v Fosnaugh, 248 Mich App 444, 455; 639 NW2d 587 (2001) (stating that "the word 'should' can, in certain contexts, connote an obligatory effect"); Merriam-Webster's College Dictionary (11th ed) (defining "should," in pertinent part, as "used in auxiliary function to express obligation, propriety, or expediency"). Accordingly, viewing the evidence in a light most favorable to defendant, reasonable jurors could have honestly reached different conclusions on whether the specifications in the project manual were mandatory and, because Maranowski admitted that plaintiff did not use grout bulbs and did not drive all the mini-piles at least 25 feet into the ground, whether plaintiff breached the contract. Morinelli, 242 Mich App at 260-261.

#### Prefer it:

#### Limits and ground---infinite mechanisms in the future makes it impossible to be NEG.

### 1NC

#### There is no antitrust to deter anticompetitive practices in a world with no competition OR private businesses like the one in which they have described the AFF as occurring within. No unique harms mean vote NEG on presumption.

## Case

### Case---1NC

#### Growth turn:

#### It’s sustainable---robust environmental progress and increasing resource reserves prove---BUT, they can’t save the environment either.

Andrew McAfee 20, principal research scientist at MIT, codirector of the MIT Initiative on the Digital Economy at the MIT Sloan School of Management, Doctorate from Harvard Business School, two Master of Science and two Bachelor of Science degrees from MIT, "Don't Misunderstand Earth Day's Successes," Wired, 4-22-2020, https://www.wired.com/story/opinion-dont-misunderstand-earth-days-successes/

We should all be intensely grateful to the people who took to the streets exactly 50 years ago on the first Earth Day. The modern environmental movement that crystallized then has given us a cleaner, better planet. The pressure applied to governments and businesses on April 22, 1970, has not let up since, and it has yielded two huge victories.

The first is massive reductions in the amount of pollution we and our ecosystems have to endure. In the world’s richest countries, which are the ones where environmentalism has most taken hold, the air, land, and water are all much cleaner than they were 50 years ago. This is not because these countries have simply offshored degradation to poor nations. Germany, for example, has the world’s largest trade surplus, yet has seen steady reductions in air pollution in recent decades.

If globalization is not the reason rich countries are much cleaner now than they were half a century ago, then what is? Effective regulation. The United States established the EPA and greatly strengthened the Clean Air Act in 1970, added the Clean Water Act in 1972, and kept taking steps over the years to bring down all kinds of pollution.

Some of the most innovative and helpful of these steps are cap-and-trade systems that create markets for pollution. Companies can trade with each other for the right to pollute, but the overall total is set by the government and declines over time. Over the past 30 years cap-and-trade has proved to be both relatively cheap and highly effective; a triumph of smart environmentalism.

The other great triumph is the improved health of species and ecosystems that we had pushed to the brink. Throughout the 20th century, relentless hunting almost wiped out whales. A nearly global moratorium was finally passed 1982, thanks in part to the “Save the Whales” movement that started in the mid-1970s (no doubt helped by folk superstar Judy Collins’ 1970 hit “Farewell to Tarwathie,” which introduced many people to whales’ haunting songs).

Many other species, including wolves, bears, beavers, and deer, have also come back after being near extinction in America. They rebounded in large part because we limited when, where, and how they could be hunted, and we limited trade in wild animal products. It’s generally illegal, for example, to sell hunted meat in the US. For the past 50 years, the environmental movement has carried on the laudable traditions of conservationism, which got its start early in the 20th century as Americans reacted in shock and horror to the extinction of the passenger pigeon and near elimination of the bison and other iconic animals.

Paradoxically, the great victories over pollution and extinction highlight environmentalism’s greatest weakness: a continued hostility to economic growth. The “degrowth” movement, which started in the early 1970s, stressed that human populations and economies simply couldn’t continue to grow as they had in the decades leading up to Earth Day. As philosopher André Gorz put it in 1975, “Even at zero growth, the continued consumption of scarce resources will inevitably result in exhausting them completely. The point is not to refrain from consuming more and more, but to consume less and less—there is no other way of conserving the available reserves for future generations.”

This seemed like an obvious truth to many in the 1970s, especially when they saw that the use of many natural resources—fossil fuels, metals and minerals, fertilizer, and so on—had been increasing in lockstep with the size of the overall economy. Since these resources were finite, and since their consumption went hand-in-hand with growth, growth apparently had to stop.

Yet around the world, it didn’t. The pace has slowed down a bit since the inaugural Earth Day, but this is mainly because the years between 1945 and 1970 saw exceptionally fast growth as we rebuilt our societies after two world wars. Except for that 25-year stretch, economic growth since 1970 is the fastest the world has ever seen.

So how are natural resource stocks doing? Oil is a great indicator of the overall story (its recent pandemic-induced demand free fall notwithstanding). At present we have about 50 years of oil left, given projected consumption and known reserves. That sounds dire, until you realize that 40 years ago, we only had 30 years of oil left. How can this be? It’s certainly not because we’ve cut way back on oil demand; we consume almost 40 percent more oil now than we did in 1980.

It’s because we kept finding more supplies. The same is true for every other economically important natural resource. Proven reserves—the amount of the resource we know we can access—have increased as we keep developing better technologies for finding and accessing them. And because the supply-demand balance keeps getting more favorable, resource affordability increases. The world’s average worker can, with an hour of their labor, purchase a greater quantity of every important resource than was the case just a few decades ago.

We live on a finite planet, but an incredibly abundant one. It contains enough of everything we need for as long as we’ll be around. Especially since, in the decades and centuries to come, we clever humans will almost certainly figure out nuclear fusion or some other technology that gives us limitless clean energy and lets us ignore fossil fuels. In short, there’s no need to slam the brakes on our growth. This happy fact is deeply counterintuitive, and it trips a lot of people up. But the evidence is clear: Degrowth is unnecessary.

In fact, it’s a terrible idea. Recall that the countries that have cleaned up their environments the most since Earth Day are the richest ones. This is not a coincidence, as Indira Gandhi knew in 1972. In a speech given in Stockholm, she said “Are not poverty and need the greatest polluters?... The environment cannot be improved in conditions of poverty.” Prosperous people and societies can afford, in every sense of the word, to care about the state of the planet we all live on, and to improve it.

Economic growth does not irreversibly degrade and deplete the planet. Instead, economic growth yields more prosperous people, who demand to live in a better world—a world with less pollution and more healthy ecosystems. The 50 years since Earth Day have largely shown that they get what they want.

The Covid-19 recession has given us much cleaner air in cities around the world, but at a terrible cost. We don’t need to endure such hardship to reduce emissions from car traffic. If we just made pollution more expensive and energy and transport innovation cheaper (via subsidies or research funding), we’d get the same clean skies without any economic devastation at all.

We face no shortage of environmental challenges over the next 50 years. We continue to overhunt, overfish, and raze ecosystems in many parts of the world. More extinctions loom. And of course we have to reduce the greenhouse gas pollution that’s causing global warming. The good news is that, in the decades since Earth Day, we’ve put together an effective playbook for meeting these challenges. I hope the environmentalists of the coming half-century will study this playbook, and realize that it shuns degrowth rather than advocating it.

#### NETs link turns their impact.

Fred Krupp et al. 19. Nathaniel [Keohane](https://search-proquest-com.libproxy2.usc.edu/indexinglinkhandler/sng/au/Keohane,+Nathaniel/$N?accountid=14749), and Eric Pooley. \*President of Environmental Defense Fund, a United States-based nonprofit environmental advocacy group. \*\*Vice president for international climate at the Environmental Defense Fund. He used to be in academia at Yale University and served in the White House as special assistant to President Barack Obama. \*\*\*Senior Vice President, Strategy & Communications at the Environmental Defense Fund. 4-1-2019. "Less Than Zero: Can Carbon-Removal Technologies Curb Climate Change?" Foreign Affairs. https://search-proquest-com.libproxy2.usc.edu/docview/2186099162/594BA6C689D844ABPQ/13?accountid=14749/.

When it comes to generating support for climate policy, a warranted sense of alarm is only half the battle. And the other half-a shared belief that the problem is solvable-is lagging far behind. The newfound sense of urgency is at risk of being swamped by collective despair. A scant six percent of Americans, according to the Yale study, believe that the world "can and will" effectively address climate change. With carbon dioxide emissions from fossil fuels having risen by an estimated 2.7 percent in 2018 and atmospheric concentrations of carbon dioxide, which will determine the ultimate extent of warming, at their highest level in some three million years, such pessimism may seem justified-especially with a climate change denier in the White House. But it is not too late to solve the global climate crisis. A decade of extraordinary innovation has made the greening of the global economy not only feasible but also likely. The market now favors clean energy: in many U.S. states, it is cheaper to build new renewable energy plants than to run existing coal-fired power plants. By combining solar power with new, efficient batteries, Arizona and other sunny states will soon be able to provide electricity at a lower cost per megawatthour than new, efficient natural gas plants. Local, regional, and federal governments, as well as corporations, are making measurable progress on reducing carbon pollution. Since 2000, 21 countries have reduced their annual greenhouse gas emissions while growing their economies; China is expected to see emissions peak by 2025, five years earlier than it promised as part of the negotiations for the Paris climate agreement in 2015. At the UN climate talks held late last year in Poland, countries agreed on rules for how to report progress on meeting emission-reduction commitments, an important step in implementing the Paris accord. What's more, an entirely new arsenal is emerging in the fight against climate change: negative emission technologies, or nets. Nets are different from conventional approaches to climate mitigation in that they seek not to reduce the amount of greenhouse gases emitted into the atmosphere but to remove carbon dioxide that's already there. These technologies range from the old-fashioned practice of reforestation to high-tech machines that suck carbon out of the sky and store it underground. The window of opportunity to combat climate change has not closed-and with a push from policymakers, nets can keep it propped open for longer. THE HEAT IS ON How much time is left to avoid climate catastrophe? The truth is that it is impossible to answer the question with precision. Scientists know that human activity is warming the planet but still don't fully understand the sensitivity of the climate system to greenhouse gases. Nor do they fully comprehend the link between average global warming and local repercussions. So far, however, most effects of climate change have been faster and more severe than the climate models predicted. The downside risks are enormous; the most recent predictions, ever more dire. The Paris agreement aims to limit the increase in global average temperatures above preindustrial levels to well below two degrees Celsius, and ideally to no more than 1.5 degrees Celsius. Going above those levels of warming would mean more disastrous impacts. Global average temperatures have already risen by about one degree Celsius since 1880, with two-thirds of that increase occurring after 1975. An October 2018 special report by the un's Intergovernmental Panel on Climate Change, a body of leading scientists and policymakers from around the world, found that unless the world implements "rapid and far-reaching" changes to its energy and industrial systems, the earth is likely to reach temperatures of 1.5 degrees Celsius above preindustrial levels sometime between 2030 and 2052. Limiting warming to that level, the ipcc found, would require immediate and dramatic cuts in carbon dioxide: roughly a 45 percent reduction in the next dozen years. Even meeting the less ambitious target of two degrees would require deep cuts in emissions by 2030 and sustained aggressive action far beyond then. The ipcc report also warns that seemingly small global temperature increases can have enormous consequences. For example, the half-degree difference between 1.5 degrees Celsius and two degrees Celsius of total warming could consign twice as many people to water scarcity, put ten million more at risk from rising sea levels, and plunge several hundred million more people into poverty as lower yields of key crops drive hunger across much of the developing world. At two degrees of warming, nearly all of the planet's coral reefs are expected to be lost; at 1.5 degrees, ten to 30 percent could survive. The deeper message of the IPCC report is that there is no risk-free level of climate change. Targets such as 1.5 degrees Celsius or two degrees Celsius are important political markers, but they shouldn't fool anyone into thinking that nature works so precisely. Just as the risks are lower at 1.5 degrees Celsius than at two degrees Celsius, so are they lower at two degrees Celsius than at 2.5 degrees Celsius. Indeed, the latter difference would be far more destructive, since the damages mount exponentially as temperatures rise. To manage the enormous risks of climate change, global emissions of greenhouse gases need to be cut sharply, and as soon as possible. That will require transforming energy, land, transport, and industrial systems so they emit less carbon dioxide. It will also require reducing short-lived climate pollutants such as methane, which stay in the atmosphere for only a fraction of the time that carbon dioxide does but have a disproportionate effect on near-term warming. Yet even that will not be enough. To stabilize the total atmospheric concentration of carbon dioxide and other greenhouse gases [GHGs], the world will have to reach net negative emissions-that is, taking more greenhouse gases out of the atmosphere than are being pumped into it. Achieving that through emission reductions alone will be extremely difficult, since some emissions, such as of methane and nitrous oxide from agriculture, are nearly impossible to eliminate. Countering the emissions that are hardest to abate, and bring concentrations down to safer levels, requires technologies that actually remove carbon dioxide from the atmosphere. That's where nets come in-not as a substitute for aggressive efforts to reduce greenhouse gas emissions but as a complement. By deploying technology that removes existing carbon dioxide from the atmosphere, while accelerating cuts in emissions, the world can boost its chances of keeping warming below two degrees and reduce the risk of catastrophe. Scientists and activists have tended to regard these technologies as a fallback option, to be held in reserve in case other efforts fail. Many fear that jumping ahead to carbon dioxide removal will distract from the critical need to cut pollution. But the world no longer has the luxury of waiting for emission-reduction strategies to do the job alone. Far from being a Plan B, nets must be a critical part of Plan A. What's more, embracing nets sooner rather than later makes economic sense. Because the marginal costs of emission reductions rise as more emissions are cut, it will be cheaper to deploy nets at the same time as emission-reduction technologies rather than waiting to exhaust those options first. The wider the solution set, the lower the costs. And the lower the costs, the easier it is to raise ambitions and garner the necessary political support. THE FUTURE IS NOW Even though removing carbon dioxide from the atmosphere may sound like the stuff of science fiction, there are already nets that could be deployed at scale today, according to a seminal report released by the National Academies of Sciences, Engineering, and Medicine in October 2018. One category involves taking advantage of carbon sinks-the earth's forests and agricultural soils, which have soaked up more carbon dioxide since the Industrial Revolution than has been released from burning petroleum. To date, the growth of carbon sinks has been inadvertent: in the United States, for example, as agriculture shifted from the rocky soils of the Northeast to the fertile Midwest, forests reclaimed abandoned farmland, breathing in carbon dioxide in the process. But this natural process can be improved through better forest management-letting trees grow longer before they are harvested and helping degraded forests grow back more quickly. The large-scale planting of trees in suitable locations around the world could increase carbon sinks further, a process that must go hand in hand with efforts to curb tropical deforestation and thereby continue to contain the vast amounts of carbon already stored in the earth's rainforests. Farmland provides additional potential for negative emissions. Around the world, conventional agricultural practices have reduced the amount of carbon in soils, decreasing their fertility in the process. Smarter approaches can reverse the process. Small and large landholders alike could add agricultural waste to soil, maximize the time that the soil is covered by living plants or mulch, and reduce tilling, which releases carbon dioxide. All these steps would decrease the amount of carbon that is lost from soil and increase the amount of carbon that is stored in it. The most technologically sophisticated net available in the near term is known as "bioenergy with carbon capture and storage," or BECCS. It is also the riskiest. Broadly defined, beccs involves burning or fermenting biomass, such as trees or crops, to generate electricity or make liquid fuel; capturing the carbon dioxide produced in the process; and sequestering it underground. It is considered a negative emission technology, and not a zero emission technology, because growing the biomass used in the process removes carbon from the atmosphere. What makes BECCS so exciting is its potential to remove significantly more carbon from the atmosphere than other approaches do. But it also brings challenges. For one, it is expensive: electricity generated from beccs could cost twice as much as that generated with natural gas, because biomass is an inefficient fuel source and capturing and sequestering carbon dioxide is costly. The technology would also require careful monitoring to ensure that the carbon dioxide pumped underground stays there and clear rules for legal liability in the event of leaks. But the fact that private companies have been successfully injecting carbon dioxide into depleted oil and gas reservoirs for decades offers good evidence that permanent storage is possible on a large scale. More worrying are the additional climate risks that BECCS poses. If BECCS drives demand for biomass and more of the carbon that is stored in the forest ecosystem is released as a result, it could end up raising the level of carbon in the atmosphere rather than reducing it. Another concern is competition for land: converting farms or forests to grow energy crops, something that the large-scale use of BEccs might require, could drive up the cost of food, reduce agricultural production, and threaten scarce habitats. These problems could be mitigated by using only biomass waste, such as residues from logging and agriculture, but that would reduce the potential scale. Although BEccs deserves consideration as part of the arsenal, these risks mean that its contribution will likely end up being smaller than some proponents claim. Taking all these land-based nets together, and factoring in the considerable economic, practical, and behavioral hurdles to bringing them to scale, the National Academies report concludes that by midcentury, nets could remove as much as five billion tons of carbon dioxide from the atmosphere annually. Given the significant risks involved, that estimate is probably too bullish. Even if it were not, that's still only half of the ten billion tons of carbon dioxide that will likely need to be removed each year to zero out the remaining greenhouse gas emissions, even with aggressive cuts. CLOSING THE GAP Removing from the atmosphere the balance of the carbon dioxide necessary will require perfecting technologies currently in development. Two deserve particular mention; both are full of promise, although neither is ready for widespread use. The first is called "direct air capture"- essentially, sucking carbon from the sky. The technology is already being tested in Canada, Iceland, Italy, and Switzerland at pilot plants where massive arrays of fans direct a stream of air toward a special substance that binds with the passing carbon dioxide. The substance is then either heated or forced into a vacuum to release the carbon dioxide, which is compressed and either stored or used as feedstocks for chemicals, fuels, or cement. These technologies are real-albeit prohibitively expensive in their current form. As a recent study led by David Sandalow of Columbia University's Center on Global Energy Policy concludes, taking them to scale means solving a variety of technological challenges to bring down the costs. Above all, these processes are highly energy intensive, so scaling them would require enormous amounts of low-carbon electricity. (A direct-air-capture facility powered by coal-fired electricity, for example, would generate more new carbon dioxide than it would capture.) These obstacles are serious, but the surprising progress of the past decade suggests that they can be overcome in the next one. The second technology, enhanced carbon mineralization, is even further from being realized, but it is full of even more possibility. Geologists have long known that when rock from the earth's mantle (the layer of the earth between its crust and its core) is exposed to the air, it binds with carbon dioxide to form carbon-containing minerals. The massive tectonic collisions that formed the Appalachian Mountains around 460 million years ago, for example, exposed subsurface rock to weathering that resulted in the absorption of substantial amounts of carbon dioxide from the atmosphere. That took tens of millions of years; enhanced carbon mineralization seeks to fast-forward the process. Scientists are exploring two ways to do this. In one approach, rocks would be brought to the surface to bind with carbon from the air. Such natural weathering already occurs in mine tailings, the waste left over from certain mining operations. But mimicking this process on a large scale-by grinding up large quantities of rock containing reactive minerals and bringing it to the earth's surface-would be highly energy intensive and thus costly, roughly on par with direct air capture. Another potential approach is pumping the carbon dioxide underground to meet the rock. As the National Academies report explains, carbon-dioxide-rich fluids injected into basalt or peridotite formations (two kinds of igneous rock that make up much of the earth's mantle) react with the rock, converting the dissolved carbon dioxide into solid carbon-containing minerals. Pilot projects in Iceland and the United States have demonstrated that this is possible. There is also evidence for how this could work in the natural world. Peridotite usually lies deep inside the earth, but some rock formations around the globe contain pockets of it on the surface. For example, scientists are studying how the surface-level peridotite in Oman's rock formations reacts with the air and absorbs large amounts of carbon. In theory, this approach offers nearly unlimited scale, because suitable rock formations are widespread and readily accessible. It would also be cheap, because it takes advantage of chemical potential energy in the rock instead of costly energy sources. And since the carbon dioxide is converted to solid rock, the effect is permanent, and it carries few of the side effects that other nets could bring. GETTING TO LESS These technologies do not come cheap. The National Academy of Sciences recommends as much as $1 billion annually in U.S. government funding for research on nets. And indeed, such funding should be an urgent priority. But to make these technologies economically viable and scale them rapidly, policymakers will also have to tap into a much more powerful force: the profit motive. Putting a price on carbon emissions creates an economic incentive for entrepreneurs to find cheaper, faster ways to cut pollution. Valuing negative emissions-for example, through an emission-trading system that awards credits for carbon removal or a carbon tax that provides rebates for them-would create an incentive for them to join the hunt for nets. Forty-five countries, along with ten U.S. states, have put in place some mechanism to price carbon. But only a handful of them offer rewards for converting land into forest, managing existing forests better, or increasing the amount of carbon stored in agricultural soils, and none offers incentives for other nets. What's needed is a carbon pricing system that not only charges those who emit carbon but also pays those who remove it. Such a system would provide new revenue streams for landowners who restored forest cover to their land and for farmers and ranchers who increased the amount of carbon stored in their soils. It would also reward the inventors and entrepreneurs who developed new, better technologies to capture carbon from the air and the investors and businesses that took them to scale. Without these incentives, those players will stay on the sidelines. By spurring innovation in lower-cost nets, incentives would also ease the way politically for an ambitious pollution limit-which, ultimately, is necessary for ensuring that the world meets it climate goals. Simply put, humanity's best hope is to promise that the next crop of billionaires will be those who figure out low-cost ways to remove carbon from the sky. The biggest hurdle for such incentives is the lack of a global market for carbon credits. Hope on that front, however, is emerging from an unlikely place: aviation. Currently responsible for roughly two percent of global greenhouse gases, aviation's emissions are expected to triple or quadruple by midcentury in the absence of effective policies to limit them. But in 2016, faced with the prospect that the eu would start capping the emissions of flights landing in and taking off from member states, the un body that governs worldwide air travel, the International Civil Aviation Organization, agreed to cap emissions from international flights at 2020 levels. The airline industry supported the agreement, hoping to avoid the messy regulatory patchwork that might result if the eu went ahead and states beyond the eu followed suit with their own approaches. The resulting program, called the Carbon Offsetting and Reduction Scheme for International Aviation (corsia), requires all airlines to start reporting emissions this year, and it will begin enforcing a cap in 2021. Once in full swing, at least 100 countries are expected to participate, covering at least three-quarters of the forecast increase in international aviation emissions. Airlines flying between participating countries will have two ways to comply: they can lower their emissions (for example, by burning less fuel or switching to alternative fuels), or they can buy emission-reduction credits from companies. Because the technologies for reducing airline emissions at scale are still a long way off, the industry will mostly choose the second option, relying on carbon credits from reductions in other sectors. It is estimated that over the first 15 years of corsia, demand for these credits will reach between 2.5 billion and 3.0 billion tons-roughly equal to the annual greenhouse gas emissions from the U.S. power and manufacturing sectors. With this new option to sell emission-reduction credits to airlines, there is a good possibility that a pot of gold will await companies that cut or offset their carbon emissions. In short, corsia could catalyze a global carbon market that drives investment in low-carbon fuels and technologies-including nets. To realize its promise, corsia must be implemented properly, and there are powerful forces working to see that it is not. Some countries, including ones negotiating on behalf of their state-owned companies, are trying to rig the system by allowing credits from projects that do not produce legitimate carbon reductions, such as Brazil's effort to allow the sale of credits from huge hydroelectric dams in the Amazon that have already been built and paid for (and thus do not represent new reductions). Allowing such credits into the system could crowd out potential rewards for genuine reductions. But there are also powerful, sometimes unexpected allies who stand to gain from a global carbon market that works. For example, some airlines are motivated to act out of a fear that millennials, concerned about their carbon footprint, may eventually begin to shun air travel. The new regulations, by creating demand for emission reductions and spurring investment in nets to produce jet fuel, could be the industry's best hope of protecting its reputation-and a critical step toward a broader global carbon market that moves nets from promising pilot projects to a gamechanging reality. Skeptics say that nets are too speculative and a possibility only, perhaps, in the distant future. It is true that these innovations are not fully understood and that not all of them will pan out. But no group of scholars and practitioners, no matter how expert, can determine exactly which technologies should be deployed and when. It is impossible to predict what future innovations will look like, but that shouldn't stop the world from pursuing them, especially when the threat is so grave. The fact remains that many nets are ready to be deployed at scale today, and they might make the difference between limiting warming to two degrees and failing to do so. Ultimately, climate change will be stopped by creating economic incentives that unleash the innovation of the private sector-not by waiting for the perfect technology to arrive ready-made, maybe when it's already too late. No one is saying that achieving all of this will be easy, but the road to climate stability has never been that. Hard does not mean impossible, however, and the transformative power of human ingenuity offers an endless source of hope.

#### Every metric flows neg---the world is getting better.

--poverty is declining rapidly post-Industrial revolution

--other metrics are positive: health, education, moral expansion

--tech innovation is increasing

--we’re cognitively biased toward belief in collapse

Dr. Toby Ord 20, Senior Research Fellow in Philosophy at Oxford University, DPhil in Philosophy from the University of Oxford, The Precipice: Existential Risk and the Future of Humanity, p. 17-19

Yet despite these real problems, on average human life today is substantially better than at any previous time. The most striking change may be in breaking free from poverty. Until 200 years ago—the last thousandth of our history25—increases in humanity’s power and prosperity came hand in hand with increases in the human population. Income per person stayed almost unchanged: a little above subsistence in times of plenty; a little below in times of need.26 The Industrial Revolution broke this rule, allowing income to grow faster than population and ushering in an unprecedented rise in prosperity that continues to this day.

We often think of economic growth from the perspective of a society that is already affluent, where it is not immediately clear if further growth even improves our lives. But the most remarkable effects of economic growth have been for the poorest people. In today’s world, one out of ten people are so poor that they live on less than two dollars per day—a widely used threshold for “extreme poverty.” That so many have so little is among the greatest problems of our time, and has been a major focus of my life. It is shocking then to look further back and see that prior to the Industrial Revolution 19 out of 20 people lived on less than two dollars a day (even adjusting for inflation and purchasing power). Until the Industrial Revolution, any prosperity was confined to a tiny elite with extreme poverty the norm. But over the last two centuries more and more people have broken free from extreme poverty, and are now doing so more quickly than at any earlier time.27 Two dollars a day is far from prosperity, and these statistics can be of little comfort to those who are still in the grip of poverty, but the trends toward improvement are clear.

And it is not only in terms of material conditions that life has improved. Consider education and health. Universal schooling has produced dramatic improvements in education. Before the Industrial Revolution, just one in ten of the world’s people could read and write; now more than eight in ten can do so.28 For the 10,000 years since the Agricultural Revolution, life expectancy had hovered between 20 and 30 years. It has now more than doubled, to 72 years.29 And like literacy, these gains have been felt across the world. In 1800 the highest life expectancy of any country was a mere 43 years, in Iceland. Now every single country has a life expectancy above 50.30 The industrial period has seen all of humanity become more prosperous, educated and long-lived than ever before. But we should not succumb to complacency in the face of this astonishing progress. That we have achieved so much, and so quickly, should inspire us to address the suffering and injustices that remain.

We have also seen substantial improvements in our moral thinking.31 One of the clearest trends is toward the gradual expansion of the moral community, with the recognition of the rights of women, children, the poor, foreigners and ethnic or religious minorities. We have also seen a marked shift away from violence as a morally acceptable part of society.32 And in the last sixty years we have added the environment and the welfare of animals to our standard picture of morality. These social changes did not come naturally with prosperity. They were secured by reformers and activists, motivated by the belief that we can—and must—improve. We still have far to go before we are living up to these new ideals, and our progress can be painfully slow, but looking back even just one or two centuries shows how far we have come.

Of course, there have been many setbacks and exceptions. The path has been tumultuous, things have often become better in some ways while worse in others, and there is certainly a danger of choosing selectively from history to create a simple narrative of improvement from a barbarous past to a glorious present. Yet at the largest scales of human history, where we see not the rise and fall of each empire, but the changing face of human civilization across the entire globe, the trends toward progress are clear.33

It can be hard to believe such trends, when it so often feels like everything is collapsing around us. In part this skepticism comes from our everyday experience of our own lives or communities over a timespan of years—a scale where downs are almost as likely as ups. It might also come from our tendency to focus more on bad news than good and on threats rather than opportunities: heuristics that are useful for directing our actions, but which misfire when attempting to objectively assess the balance of bad and good.34 When we try to overcome these distortions, looking for global indicators of the quality of our lives that are as objective as possible, it is very difficult to avoid seeing significant improvement from century to century.

And these trends should not surprise us. Every day we are the beneficiaries of uncountable innovations made by people over hundreds of thousands of years. Innovations in technology, mathematics, language, institutions, culture, art; the ideas of the hundred billion people who came before us, and shaped almost every facet of the modern world.35 This is a stunning inheritance. No wonder, then, that our lives are better for it.

#### No transition---centuries of history prove societies can’t and won’t shift fast enough.

Rogelio Luque-Lora 21, MSci in History and Philosophy of Science from the University of Cambridge, M.A. in Natural Sciences from the University of Cambridge, “Engaging imaginaries, rejecting utopias: The case for technological progress and political realism to sustain material wellbeing,” Political Geography, Vol. 86, 02-21-2021, https://doi.org/10.1016/j.polgeo.2021.102358

Gómez-Baggethun is right to suspect that the modern myth of progress has theological origins. In fact, it is largely a product of the Christian conception of human history as an inherently meaningful story that has salvation as its end point. Without the belief that there is a teleological coherence to the history of humanity, and that salvation (whether the Christian version of the Kingdom of God on Earth, or the humanist faith in an emancipated and harmonious future) is an earthly event that lies ahead of the present, the idea of progress is groundless. In cultures that are not historically steeped in Western monotheism, the belief that humanity is inexorably marching toward a better state of affairs is largely absent (Gray, 2007, pp. 29–39). Where Gómez-Baggethun's reading of progress misses the mark is in limiting its scope to technology. The central tenet of modern belief in progress is that ethics and politics advance in line with the growth of knowledge, so that as scientific and technological understandings accrue, so too do humans increasingly learn to arrange their societies in rational and ethical ways (Gray, 2002).

Contrary to Gómez-Baggethun's assertions, technological progress is a fact. Throughout their history, humans have increasingly learnt to manipulate the environment around them to serve their interests. The reason for this is that scientific knowledge grows cumulatively: past discoveries are not necessarily lost with the advent of new knowledge, but rather can be built upon or thrown into question by these new understandings. In contrast, any historical ‘gains’ in politics and ethics (placed between inverted commas to reflect that such evaluations will depend on the particular values of each generation) are easily undone by regime and cultural changes. It is progress in ethics and politics, not in technology, that is a myth.

Viewed in this light, Gómez-Baggethun's assertion that utopias are concrete and plausible if they are scientifically informed, while saying nothing about how assumed radical social change may come about, begs the question of why scientific plausibility is given categorical priority over social and political feasibility. Gómez-Baggethun's analysis fits within a broader tradition; the belief that humans can radically remake the world at will commonly presents itself as having the authority of science (Gray, 2007, p. 20). An historically and politically informed view may well reveal degrowth to be utopian, in the true sense of being a projection into the future of an unrealisable society (Gray, 2007, pp. 20–29).

There are no historical examples of humans showing the intelligence or will to voluntarily restructure their societies in the measure that would be required for a global shift to degrowth, let alone at the speed required to avert the climatic changes and ecological collapses predicted for this century. Further complicating things for advocates of degrowth, no contemporary democratic state has been able to survive without sustaining economic growth over the medium and long terms (Gray, 1992, p. 83). Recently, Gray (2019) has written,

The trouble is that Green proposals involve a drop in material living standards for large numbers of people, and any such fall will be unsustainable in political terms. Macron's tax on petrol fuelled the rise of the gilets jaunes in France, while the principal beneficiary of Hilary Clinton's election pledge to shut down the coal industry has been Donald Trump. When Green policies impose heavy costs on the poor and the working majority – as they often do – the result is a popular blowback.

Gómez-Baggethun's mistake here is to think that degrowth is feasible simply because it is desirable. In political terms, the evidence suggests that it is unfeasible. To resist these facts and to consider degrowth to be the only realistic imaginary reflects a pseudo-religious faith in humans' willingness and ability to convert to an ecological worldview and to radically adjust their institutions accordingly.

#### Revolutions turn:

#### It results in state sabotage.

Emily Schepers 17. Veteran civil and immigrant rights activist, doctorate in cultural anthropology from Northwestern University, September 18, 2017. “Agents provocateurs and the manipulation of the radical left.” https://www.peoplesworld.org/article/agents-provocateurs-and-the-manipulation-of-the-radical-left/.

Right now, there is considerable discussion going on about the best way to do all these things. Tactics that make us feel good because they are exhilarating are not necessarily the same as effective tactics. They can, in fact, be precisely the opposite. History teaches us is that the ruling class, the state and non-state institutions it controls, as well as the right have learned the political judo whereby the left’s actions may be turned around and used to strengthen the right and weaken the left. Specifically, we should learn from the history of the agent provocateur, a specialist in manipulating conflict so as to benefit our enemies. Agents provocateurs are not merely enemy spies within the people’s movement. The provocateur has an even more sinister mission, which sometimes has deadly results. What the provocateur frequently provokes is actions that either discredit the left or the people’s movement in the eyes of large numbers of people, or which entrap the unwary into acts that will allow police to pounce, accuse activists of plotting violent or other anti-social acts, and then lock them up. Agents provocateurs have been known for well over a century, in many countries; the breed was especially rife in tsarist Russia in the late 1800s and early 1900s. In the United States, agents provocateurs often targeted labor union organizing efforts. Since the end of the Second World War and the beginning of the Cold War, there are many accounts of the FBI, other police bodies, the military, and private right-wing vigilante groups sending agents provocateurs into people’s organizations with the purpose of dividing, disrupting, and discrediting them and then laying them open to arrest and prosecution, or worse. More radical than thou In the 1960s and 1970s, there was a great outpouring of grassroots rejection of the policies, domestic and international, of the Cold War. The Civil Rights Movement, plus the movement against the Vietnam War, brought millions into the streets protesting courageously against the many injustices of our society. The Cold Warriors and the ruling class did not like this, as they saw their interests threatened. So they developed open and covert strategies for undermining the new radicalism as well as the “old left” (communists and socialists). The idea was to make sure that the left did not continue to win over the support of the mass of the people of the United States to progressive and ultimately, revolutionary, socialist ideas. The “new left” tendencies that arose at this time included many positive features but had some dangerous flaws also. One flaw was that too often, a fetish was made of the absolute right of anybody involved in an organization to express his or her opinion no matter how divergent from the main goals of the organization, or to engage in any activity which was “radical” regardless of whether it helped or harmed the cause. This extreme liberalism laid many organizations open to manipulation of some of their weakest elements by agents provocateurs. There was also a tendency to compete to see who was most radical. The competition for revolutionary “cred” was a godsend for agents provocateurs, who actively encouraged such competition. The lack of connections, especially among campus-based white radicals, to the working class and its politics exacerbated this trend by eliminating an important reality check. Picking off leaders and undermining public support There also tended to be a cult of leadership within many radical organizations which put their leaders into a vulnerable position in which they could be targeted for neutralization so as to undermine the whole movement. J. Edgar Hoover’s FBI, for instance, put a huge amount of effort into neutralizing leaders. The agents provocateurs were deployed in such a way as to discredit the leaders and their organizations, to create splits in the movement, and in some cases to provoke violence which would lead to physical elimination of leaders plus a societal repudiation of the movement. The 1960s campus-based movement against the Vietnam War was a top target for agents provocateurs. There were several at work, but one, known as “[Tommy the Traveler](https://jeffsharletandvietnamgi.blogspot.com/2011/04/tommy-traveler.html)” was particularly memorable. He, too, concentrated on enticing impressionable young would-be “revolutionaries” to commit acts that would divide the movement while landing them in jail. Hoover, a crusading anti-communist and paranoid racist, paid particular attention to disrupting the [highly-effective](http://www.peoplesworld.org/article/want-to-punch-a-nazi-think-twice/) African American people’s movement, often employing agents provocateurs to create friction within and between liberation organizations. This led to several murders. In 1967, for example, agents provocateurs, especially a certain [William O’Neal](https://www.thenation.com/article/was-fred-hampton-executed/), described in a Nation article as “infatuated with weapons,” played a role in the police murder of Illinois Black Panther Party leaders Fred Hampton and Mark Clark. Hampton had been suspicious of O’Neal because of his violent talk, but others did not see through him, with tragic results. O’Neal’s promotion of crackpot violent schemes should have been a giveaway. When O’Neal set up Hampton and Clark for a brutal murder by police acting under the orders of Cook County State’s Attorney Ed Hanrahan, the perpetrators were able to convince sectors of the public that the Panthers were prone to violence and shot first, which was untrue. Another example was the crime of Cerro Maravilla, in Puerto Rico, on July 25, 1978. An agent provocateur, [Alejandro González Malavé](https://nacla.org/article/cerro-maravilla-deaths-police-cover-rock-puerto-rico), working undercover for the Puerto Rican police, enticed two idealistic young supporters of independence for Puerto Rico into a reckless act that cost them their lives. One was Carlos Enrique Soto Areví, the son of one of Puerto Rico’s most important literary figures, the novelist Pedro Juan Soto. The second was a self-taught worker, Arnaldo Dario Rosado. Both were on fire with indignation at the colonialist treatment that Puerto Rico received at the hands of the United States (treatment which continues today). They wanted to demonstrate this indignation in some dramatic way. Their lack of practical political experience made them easy prey for González Malavé. He persuaded them that a noble act for their homeland would be to destroy some communications towers on the top of a hill called “Cerro Maravilla.” This was supposed to express solidarity with some imprisoned Puerto Rican independence fighters. The three kidnapped a taxi driver and forced him to drive them up to Cerro Maravilla. But when they arrived, they found they had been led into a police ambush. As the armed police approached, González Malavé identified himself as an agent, but Soto and Rosado were killed, and the “official” story was put out that they had been shot in a firefight with the cops. The right-wing, pro-statehood governor at the time, Carlos Romero Barceló, hailed the police as heroes, and the FBI helpfully pitched in to support the Puerto Rican Justice Department with the cover-up. However, the police had left a “loose end,” namely the taxi driver, who spoke to the press and revealed that in fact González Malavé was a police agent and that the two young men were still alive when he left the place. The police had entrapped the two men, then murdered them after they surrendered. This became a big scandal, and eventually led to prosecutions and the defeat of Romero Barceló’s party in the next elections. But the use of agents provocateurs to divide and isolate the Puerto Rican left has been unrelenting, both before and after that incident. Disrupting today’s movements Such agent provocateur tactics surfaced again during the protests against the Iraq War, and in the “Occupy” movement. In each case, glib charismatic strangers wormed their way into protest organizations, and then entrapped inexperienced young radicals to get involved in plans, which were sometimes really just talk, to engage in violence. A typical case is that of the “[Cleveland bomb plot](http://articles.latimes.com/2012/may/02/nation/la-na-nn-fbi-stings-20120502)” of 2012. Another is the San Francisco [Mission District riot](https://missionlocal.org/2012/05/occupysf-reacts-to-monday-nights-destruction-of-valencia/) of May 2012, when a mysterious black-clad contingent hijacked part of a peaceful “Occupy” demonstration and turned it toward random violence. In both cases, the purpose of the provocateurs was to discredit the movement in the eyes of the public, which otherwise might have been receptive to Occupy’s “99 percent versus one percent” message. This kind of manipulation still continues by all accounts. As before, the purpose is to discredit the movement, divide it, deprive it of allies, and set up leaders and organizations for repressive action while making sure that this repression will not produce a wave of public indignation, as happened with the Cerro Maravilla case. The right and the ruling class always try to portray these people’s movements as violent, because this is the alchemy best suited to turn public opinion against them. This is the main lesson to be learned from the agent provocateur experiences of the past. In the conditions of our country today, injecting violent tactics into the mass movement of protest undermines that movement and plays the enemy’s game. Loose talk about violence can be just as dangerous. This danger is multiplied by the development of online communications and social media—there are no secrets now. Hijacking other people’s protest actions to “move them to a higher level,” meaning toward violent confrontations, is really a dirty kind of pseudo-left politics. What is needed now is to build the movement into a great wave of rejection against the reactionary policies of the ruling class, the right, and the Trump administration and its allies. Let us work on that basis and avoid tactics that undermine it.

#### Military cracks down and obliterates the ALT.

Kevin Flaherty 05, B.A. in International Relations from the University of South California; Cryptogon, “Militant Electronic Piracy: Non-Violent Insurgency Tactics Against the American Corporate State,” Cryptogon, 2005, http://cryptogon.com/docs/pirate\_insurgency.html/

Any violent insurgency against the American Corporate State is sure to fail and will only serve to enhance the state's power. The major flaw of violent insurgencies, both cell based (Weathermen Underground, Black Panthers, Aryan Nations etc.) and leaderless (Earth Liberation Front, People for the Ethical Treatment of Animals, etc.) is that they are attempting to attack the system using the same tactics the American Corporate State has already mastered: terror and psychological operations. The American Corporate State attained primacy through the effective application of terror and psychological operations. Therefore, it has far more skill and experience in the use of these tactics than any upstart could ever hope to attain. This makes the American Corporate State impervious to traditional insurgency tactics.

- Political Activism and the ACS Counterinsurgency Apparatus

The American Corporate State employs a full-time counterinsurgency infrastructure with resources that are unimaginable to most would be insurgents. Quite simply, violent insurgents have no idea of just how powerful the foe actually is. Violent insurgents typically start out as peaceful, idealistic, political activists. Whether or not political activists know it, even with very mundane levels of political activity, they are engaging in low intensity conflict with the ACS.

The U.S. military classifies political activism as “low intensity conflict.” The scale of warfare (in terms of intensity) begins with individuals distributing anti-government handbills and public gatherings with anti-government/anti-corporate themes. In the middle of the conflict intensity scale are what the military refers to as Operations Other than War; an example would be the situation the U.S. is facing in Iraq. At the upper right hand side of the graph is global thermonuclear war. What is important to remember is that the military is concerned with ALL points along this scale because they represent different types of threats to the ACS.

Making distinctions between civilian law enforcement and military forces, and foreign and domestic intelligence services is no longer necessary. After September 11, 2001, all national security assets would be brought to bear against any U.S. insurgency movement. Additionally, the U.S. military established NORTHCOM which designated the U.S. as an active military operational area. Crimes involving the loss of corporate profits will increasingly be treated as acts of terrorism and could garner anything from a local law enforcement response to activation of regular military forces.

Most of what is commonly referred to as “political activism” is viewed by the corporate state's counterinsurgency apparatus as a useful and necessary component of political control.

Letters-to-the-editor...

Calls-to-elected-representatives...

Waving banners...

“Third” party political activities...

Taking beatings, rubber bullets and tear gas from riot police in free speech zones...

Political activism amounts to an utterly useless waste of time, in terms of tangible power, which is all the ACS understands. Political activism is a cruel guise that is sold to people who are dissatisfied, but who have no concept of the nature of tangible power. Counterinsurgency teams routinely monitor these activities, attend the meetings, join the groups and take on leadership roles in the organizations.

It's only a matter of time before some individuals determine that political activism is a honeypot that accomplishes nothing and wastes their time. The corporate state knows that some small percentage of the peaceful, idealistic, political activists will eventually figure out the game. At this point, the clued-in activists will probably do one of two things; drop out or move to escalate the struggle in other ways.

If the clued-in activist drops his or her political activities, the ACS wins.

But what if the clued-in activist refuses to give up the struggle? Feeling powerless, desperation could set in and these individuals might become increasingly radicalized. Because the corporate state's counterinsurgency operatives have infiltrated most political activism groups, the radicalized members will be easily identified, monitored and eventually compromised/turned, arrested or executed. The ACS wins again.

#### Reject monocausal analyses.

David Martin Jones 15, Visiting Professor in the Department of War Studies, King's College London and Associate Professor, School of Politics and International Studies at the University of Queensland; and M.L.R. Smith, Professor of Strategic Theory in the Department of War Studies, King's College London, September 2015, “Return to reason: reviving political realism in western foreign policy,” International Affairs, Vol. 91, No. 5, p. 933-952

The dissolution of any prospect for enduring stability, whether in the Middle East, Africa or central and east Asia, exhibits a condition of great complexity. What does this complexity disclose about how European states and the United States might respond? First, it should be recognized that the search for a single root-cause that identifies a singular answer is futile and counter-productive. Monolithic solutions present themselves in a variety of forms, ranging from pacifist utopianism through cosmopolitan transformational idealism to cynical conservative pessimism. Yet even a superficial examination of international problems negates such one-dimensional explanations. For example, the intense sectarian and tribal divisions and rivalries affecting very different societies in the Middle East or across the wider and more diffuse ‘Muslim world’ exposes the practical limitations of any all-encompassing rationalist or normative solution.28 Indeed, the diversity of Islam both in its heartlands and across its diaspora illustrates the difficulty of trying to establish an abstract monocausal explanation that magically reveals a hidden interconnection between very different issues and conflicts.

#### No endless war impact---their analysis is a reductive critique of a complex list of factors that influence US foreign policy.

---restraint literature essentializes complex IR.

---history of interventions faced heavy controversy as opposed to immediate consensus.

---military doctrines err away from interventions.

---primary motivators of interventions are security.

---military presence, spending, and nuclear arsenals all dramatically decreased to levels restraint advocates would’ve called for in the peak of US hegemony.

---no active, forced liberal order promotion.

Michael J. Mazarr 20, Senior political scientist at the RAND corporation. Previously he worked at the U.S. National War College, where he was professor and associate dean of academics; as president of the Henry L. Stimson Center; senior fellow at the Center for Strategic and International Studies; senior defense aide on Capitol Hill; and as a special assistant to the Chairman of the Joint Chiefs of Staff, “Rethinking Restraint: Why It Fails in Practice,” The Washington Quarterly, Vol. 43, Issue 2, pg. 9-14, Summer 2020, T&F. edited for language.

US Foreign Policy: Caricature versus Reality

In the eyes of proponents of restraint, the reigning concepts that guide America’s role in the world embody a limitless drive for supremacy and power that has produced an infatuation with militarism and a litany of interventions and wars. “There is one dominant grand strategy in US politics,” two advocates for restraint contend, “which is primacy, also known as liberal hegemony.” 4 “The vast majority of US foreign policy makers are devotees of primacy,” concludes another recent essay. 5 The historian Stephen Wertheim refers to a post-Cold War US approach that “gave pride of place to military threats and methods” and that “spares no expense for military hegemony.” 6 The scholar Barry Posen, in one of the defining works of the restraint literature, points to an overriding implication: “the United States has grown incapable of moderating its ambitions in international politics.” 7

Immediately, this portrait of militarized liberal hegemony in search of primacy simplifies a more complex reality: the concepts of primacy and liberal interventionism overlap on some issues but diverge starkly on others. More importantly, much of the literature on restraint blends these various concepts in order to fuel what quickly becomes an essentialist critique of US foreign and security policy. Proponents argue that US policy is not merely imperfect at the margins—its basic assumptions and impulses are fundamentally unsound, and it must be not merely pruned but substantially uprooted. Yet, by depicting the guiding concepts of US policy with such extreme and unconditional language, these diagnoses tend to deal in caricatures and straw people rather than realities.

This polemical approach emerges in restraint proponents’ treatment of the basic US foreign policy record. It has had its share of excesses, but the record betrays far more limits, hesitation, and, in fact, restraint than the labels of primacy and liberal hegemony would suggest—something apparent in the repeated tendency to avoid interventions, major post-Cold War cuts in defense spending and global posture, and the constraints on liberal value promotion.

The Frequent Impulse to Moderation

The restraint literature downplays the often-powerful reluctance with which successive US administrations have grappled with most decisions to intervene. US action in cases like the Balkan wars and even Libya only came with great hesitancy and after fierce internal debates.8 The United States has shunned many opportunities for large-scale interventions in the last generation alone—in Somalia, Rwanda, Syria, and elsewhere.9 US administrations did not act in crises in the Great Lakes region of Africa and two major examples of Russian aggression in Georgia and Ukraine.10 An infamous case of non-intervention was the Darfur tragedy in the Sudan, when credible accusations of genocide did not prompt US action.11 The United States would never have invaded either Afghanistan or Iraq had it not been for 9/11; indeed, then-NSC official Richard Clarke and others begged two administrations to strike al-Qaeda camps in Afghanistan for months beforehand, to no avail.12 In regard to humanitarian intervention broadly speaking, the selectivity of US action, rather than a general impulse to intervene, is the dominant lesson.13

Even with regard to Vietnam, two US presidents (Kennedy and Eisenhower) struggled to avoid an open-ended US commitment; when the United States did engage, it was because Lyndon Johnson felt a need to stand up to communist aggression and protect his personal reputation, but he was hardly enthusiastic about the prospect. He was painfully conflicted about the war and deeply regretted having to fight it.14 In other words, when US interventionism has occurred, it has often been reactive and halfhearted rather than aggressively ambitious.

In fact, the alleged epicenter of US global military power—the Department of Defense and the military services—have forcefully opposed many interventions in places like the Balkans, Somalia, and Libya, believing they should [conserve] ~~husband~~ their power for major wars. The two leading modern conceptual articulations of criteria for going to war—the Weinberger and Powell Doctrines—came from senior defense officials, and both represented efforts to constrain, not liberate, the use of force.15 Former Secretary of Defense Robert Gates told a graduating class at West Point that “any future defense secretary who advises the president to again send a big American land army into Asia or into the Middle East or Africa should ‘have his head examined,’ as General MacArthur so delicately put it,” 16 reflecting a widely held view at Defense—one far afield from the ideas of unrestrained primacy. A similar impulse for limits has emerged in major diplomatic initiatives. In a recent essay outlining a restraint agenda, Stephen Wertheim suggests that the United States should “seek to normalize relations with North Korea” in part with a nuclear deal, and that it should “end its grudge match” with Iran.17 In fact, the United States at one time embraced both these ideas in the form of the Agreed Framework with North Korea and the Joint Comprehensive Plan of Action (JCPOA) with Iran. The later US desertion of these accords was prompted by hawkish factions in two Republican administrations, not an indiscriminate national hegemonic inclination.18

Nor can US involvement in foreign wars and interventions usually be traced to a hegemonic desire to spread liberal values. A missionary attitude in foreign policy and liberal value promotion agenda may help lay the groundwork or justify the public case for unnecessary commitments and may be responsible for a few of them. But the largest interventions—Korea, Vietnam, the Gulf War, the Balkan wars, Afghanistan, and Iraq—were all primarily motivated by security considerations.19 Some of these actions may have been excessive to begin with or become so over time, and the security concerns that drove them may have been based on bad information or inflated fears. But they were not fueled by the boundless commitment to primacy and liberal value promotion described by many advocates of restraint. Limits to Ambition: By the Numbers Broadly speaking, then, the default setting of US foreign policy is hardly one of fervent interventionism. In terms of actual military posture and spending, if the United States had truly embraced hegemonic policies, there would be a trajectory of continually rising commitments, military spending, and interventions since 1945. Yet the actual record is starkly different. Table 1 tells an interesting story about one key focus of the restraint proponents—global military presence. Between the late 1980s and roughly 2018, US troop levels declined slightly in Japan, more than 40 percent in Korea, and 80 percent in Europe. The result was that, as the Pew Research Center put it, by 2016 the “U.S. military overseas presence [was] at a 60-year low,” falling well below 200,000 after having reached a peak of 1.2 million in the late 1960s and remaining at over 600,000 as recently as 1990. In 2016, only 15 percent of active-duty US military troops were deployed overseas—the lowest proportion since 1957.21 One partial exception to this trend, of course, is the Middle East, where after a history of “extremely light force presence” 22 before 1990, US regional deployments expanded across the region in the wake of the Gulf War and ramped up dramatically during the Iraq War. Various factors—including the flow of units into and out of the region, the use of private contractors to fulfill some functions, and limits on public information—make it impossible to put a precise figure on US deployments; the Congressional Research Service has estimated that as of 2019, there were 60,000 to 80,000 US troops in the Central Command

Table

Description automatically generated

(CENTCOM) area of responsibility.23 Yet even here, these numbers are well down from the recent peak: the Obama administration’s withdrawal of most US combat forces from Iraq meant that numbers there plummeted from over 160,000 in 2006– 07 to residual levels by 2012.24

The story of US defense spending from 1988 to 9/11 is also one of gradual decline. All told, “inflation-adjusted military spending fell by one-third in the 1990s.” 25 The defense budget shows a similar pattern over a longer time period—a downward slope from about 16 percent of GDP in the early 1950s to less than 3 percent by the end of the 1990s, and then, after a bump from 9/11 and the war on terror, back down to 3.1 percent in 2018.26 (Even before the current pandemic, the Congressional Budget Office had projected a further decline to 2.8 percent of GDP by 2029.27) The United States also took advantage of the end of the Cold War to slash its nuclear arsenal from a peak of 31,255 weapons to fewer than 5,000.28 Therefore, had an advocate of restraint called in 1989 for a one-third cut in defense spending, an 80 percent reduction in troops in Europe, and an 85 percent cut in the US nuclear arsenal, they would have gotten everything they asked for. Restraint proponents would doubtless suggest that spending remains too high and that US global posture—with hundreds of bases and deployments across dozens of countries—remains too elaborate. Both may be true, and further cuts may be called for. But the record of US foreign policy does not reflect a one-way trajectory of defense posture and spending in service of primacy and liberal hegemony.

An Inconsistent Urge to Transform the World

In his most recent book, eminent realist John Mearsheimer defines US hegemonic aspirations in especially absolute terms, specifically regarding the promotion of liberal values. The focus of Mearsheimer’s ire is liberal hegemony, which he defines as “an ambitious strategy in which a state aims to turn as many countries as possible into liberal democracies like itself while also promoting an open international economy and building international institutions” through “an active policy of regime change.” Liberal hegemony thus inevitably becomes a “highly interventionist foreign policy that involves fighting wars,” “doing significant social engineering in countries throughout the world,” and “toppling autocracies” which, according to Mearsheimer, results in an “abysmal record of failure.” 29 Stephen Walt joins Mearsheimer in condemning the pursuit of such liberal hegemony as a “costly failure.” 30

It is not clear at what country this critique is aimed, but it certainly is not the United States. During the Cold War, of course, many criticized US foreign policy specifically for embracing many dictatorships—from Pinochet’s Chile to the Shah’s Iran to authoritarian governments in Guatemala. Since the Cold War’s end, the United States has had active regime change policies aimed at only a handful of states. Even with regard to some of these, the record is full of swerves: the United States infamously toyed with engaging Saddam Hussein’s Iraq in the 1980s before gradually sliding toward an unofficial regime change policy by the late 1990s. (Even after fighting Saddam Hussein’s Iraq in the Gulf War, the Bush administration famously decided not to overthrow him, a decision that reflected a remarkable degree of restraint.31) US regime change ambitions with both Iran and Cuba were effectively shelved by the Obama administration (even if revived, at least with Iran, by the Trump administration).

The United States has persistently encouraged the gradual advance of liberal values through more patient means such as broad-based engagement, support for human rights activists, and investments in civil society organizations. But these indirect, long-term approaches are a far cry from the vision of a militarized liberal hegemony.

As an example of the gap between this caricature and actual US policy, consider the US approach to the roster of autocratic states in 1990. Many of these were clustered in Africa; the United States called for improved human rights policies on the continent but had no real, active regime change policies toward any of these governments. Globally, Washington counted many regimes then defined as illiberal—including Saudi Arabia, Oman, Indonesia, Egypt, and Morocco—as friends. It was busily embracing a policy of engaging China, the world’s biggest autocratic regime, and would soon be on the road to mending ties and eventually initiating a strategic partnership with Vietnam. The direct clashes that did exist with autocratic states (largely Cuba, Iran, Iraq, and North Korea) were the product of specific histories or aggressive behavior on the part of these regimes, not any generalized crusade against illiberalism.

To be sure, dreams of liberal value promotion have always inspired US goals and have ornamented some US policies since 1945. The rise of the Responsibility to Protect (R2P) and related interventionist doctrines in the 2000s did help produce what may be the single example of an intervention prompted largely by such considerations—the European and US action in Libya in 2011. Even here, that outcome followed a US effort to embrace the regime: when Washington secured Libyan promises of nonproliferation in 2003, it was happy to remove sanctions on Muammar Qaddafi’s government and move toward rapprochement without much attention to human rights. Washington presumably hoped that such engagement would produce reform and change, but this slow, steady, peaceful approach to value promotion is presumably just the sort of alternative to militarized hegemony that restraint advocates would want. Beyond Libya, the allegedly belligerent approach to liberal hegemony has been evident in remarkably few cases.

To some degree, Mearsheimer is actually making an argument about a momentary period of surplus power, not more perennial motives behind US strategy. He claims that it is not merely a liberal hegemonic impulse that has produced US interventionism, but the fact that “the United States was so powerful in the aftermath of the Cold War that it could adopt a profoundly liberal foreign policy.” 32 If America’s relative power ebbs, he predicts, so will its liberal ambitions.

It is certainly true that, after 1989, America’s preeminent position allowed it to expand its ambitions to an unhealthy degree. But this temptation has been fading for years; the existence of surplus power, for example, cannot solely explain US interventions in Afghanistan or Iraq, neither of which would have occurred absent 9/11.33 Any great power enjoying unrivaled predominance will be tempted to widen its ambitions. That US foreign policy did not run even more amok during these years, given its massive surplus power and the lack of any real countervailing force, is perhaps the greater wonder.

In sum, the record of US foreign policy, both during and after the Cold War, does not look like anything close to an unalloyed embrace of primacy and liberal hegemony. It is the story of potent but also constrained ambitions, repeated efforts to meddle in other societies, and many refusals to do so. It is a complex history of partial global engagement marred by a handful of truly excessive tragedies (dominated by a single case—Iraq—which as of 2012 accounted for 67 percent of casualties and 64 percent of costs of all post-1990 US interventions34)—shaped at every turn by kaleidoscopic mixtures of political impulses and constraints, military realities, personality conflicts, ambitions tempered by risk, and many other influences. It is not a record that looks anything like the portrait of hegemony found in much of the restraint literature.

#### The overall environment is resilient---‘existential’ threats are false.

Ronald Bailey 20, Science Correspondent at Reason, Member of the Society of Environmental Journalists and the American Society for Bioethics and Humanities, “The Global Environmental Apocalypse Has Been Canceled”, Reason Magazine, 8/1/2020, <https://reason.com/2020/08/01/the-global-environmental-apocalypse-has-been-canceled/> [grammar edit]

According to these activists and politicians, humanity is beset on all sides by catastrophes that could kill off civilization, and maybe even our species. Are they right?

Absolutely not, answers the longtime environmental activist Michael Shellenberger in an engaging new book, Apocalypse Never: Why Environmental Alarmism Hurts Us All. "Much of what people are being told about the environment, including the climate, is wrong, and we desperately need to get it right," he writes. "I decided to write Apocalypse Never after getting fed up with the exaggeration, alarmism, and extremism that are the enemy of positive, humanistic, and rational environmentalism." While fully acknowledging that significant global environmental problems exist, Shellenberger argues that they do not constitute inexorable existential threats. Economic growth and technological progress, he says, can ameliorate them.

Shellenberger's analysis relies on largely uncontroversial mainstream science, including reports from the Intergovernmental Panel on Climate Change (IPCC) and the Food and Agriculture Organization. And as a longstanding activist, Shellenberger is in a good position to parse the motives behind the purveyors of doom.

Shellenberger's activism is the real deal. To raise a donation to the Rainforest Action Network, he charged his friends $5 to attend his 16th birthday party. At 17 he went to Nicaragua to experience the Sandinista revolution. In the 1990s he worked with the Landless Workers' Movement in Brazil.

In 2003, Shellenberger and allies launched the New Apollo Project to jumpstart a no-carbon energy revolution over the next 10 years. In 2008, Time named him "A Hero of the Environment." He co-founded the ecomodernist Breakthrough Institute, which advocates the use of advanced technologies such as nuclear power and agricultural biotechnology to decouple the economy from the ecology, allowing both humanity and the natural world to flourish. More recently, he founded Environmental Progress, which campaigns for, among other things, the deployment of clean modern nuclear power. He is an invited expert reviewer of the Intergovernmental Panel on Climate Change's next assessment report.

Ohio Passes Controversial Conscience Clause for Doctors

So what does he say about climate change? "On behalf of environmentalists everywhere, I would like to formally apologize for the climate scare we created over the last 30 years," he wrote in an essay to promote his new book. "Climate change is happening. It's just not the end of the world. It's not even our most serious environmental problem." Needless to say, there are environmentalists everywhere who do not believe they have anything to apologize for. A group of six researchers assembled by the widely respected Climate Feedback fact-checking consortium rated his article as having low scientific credibility.

Shellenberger doesn't devote much of Apocalypse Never to the science behind man-made climate change. He basically accepts the consensus that it's a significant problem and instead focuses on various claims about the harms it is supposedly already causing. In that promotional essay, he argues that (1) human[s] being are not causing a "sixth mass extinction," (2) the Amazon rainforests are not the "lungs of the world," (3) climate change is not making natural disasters worse, and (4) fires have declined 25 percent around the world since 2003.

Shellenberger isn't denying the reality of man-made climate change. He's arguing that humanity is already adapting to the ways climate change has been making weather patterns evolve, and that we will continue to adapt successfully in the future. His book is ultimately a sustained argument that poverty is world's most important environmental problem, and that rising prosperity and increasing technological prowess will ameliorate or reverse most deleterious environmental trends.

#### Fascism fails.

Sarah **Repucci and** Amy **Slipowitz**, 20**21**, Sarah Repucci is vice-president of research and analysis at Freedom House. Amy Slipowitz is the Research Manager for Freedom in the World and holds a master’s degree in international affairs from Columbia University’s School of International and Public Affairs, where she specialized in human rights policy. She also holds a B.A. in economics and American Studies from Colby College. "Democracy under Siege," Freedom House, https://freedomhouse.org/report/freedom-world/2021/democracy-under-siege

The resilience of democracy

A litany of setbacks and catastrophes for freedom dominated the news in 2020. But democracy is remarkably resilient, and has proven its ability to rebound from repeated blows.

A prime example can be found in Malawi, which made important gains during the year. The Malawian people have endured a low-performing democratic system that struggled to contain a succession of corrupt and heavy-handed leaders. Although mid-2019 national elections that handed victory to the incumbent president were initially deemed credible by local and international observers, the count was marred by evidence that Tipp-Ex correction fluid was used to alter vote tabulation sheets. The election commission declined to call for a new vote, but opposition candidates took the case to the constitutional court. The court resisted bribery attempts and issued a landmark ruling in February 2020, ordering fresh elections. Opposition presidential candidate Lazarus Chakwera won the June rerun vote by a comfortable margin, proving that independent institutions can hold abuse of power in check. While Malawi is a country of 19 million people, the story of its election rerun has wider implications, as courts in other African states have asserted their independence in recent years, and the nullification of a flawed election—for only the second time in the continent’s history—will not go unnoticed.

Taiwan overcame another set of challenges in 2020, suppressing the coronavirus with remarkable effectiveness and without resorting to abusive methods, even as it continued to shrug off threats from an increasingly aggressive regime in China. Taiwan, like its neighbors, benefited from prior experience with SARS, but its handling of COVID-19 largely respected civil liberties. Early implementation of expert recommendations, the deployment of masks and other protective equipment, and efficient contact-tracing and testing efforts that prioritized transparency—combined with the country’s island geography—all helped to control the disease. Meanwhile, Beijing escalated its campaign to sway global opinion against Taiwan’s government and deny the success of its democracy, in part by successfully pressuring the World Health Organization to ignore early warnings of human-to-human transmission from Taiwan and to exclude Taiwan from its World Health Assembly. Even before the virus struck, Taiwanese voters defied a multipronged, politicized disinformation campaign from China and overwhelmingly reelected incumbent president Tsai Ing-wen, who opposes moves toward unification with the mainland.

More broadly, democracy has demonstrated its adaptability under the unique constraints of a world afflicted by COVID-19. A number of successful elections were held across all regions and in countries at all income levels, including in Montenegro, and in Bolivia, yielding improvements. Judicial bodies in many settings, such as The Gambia, have held leaders to account for abuses of power, providing meaningful checks on the executive branch and contributing to slight global gains for judicial independence over the past four years. At the same time, journalists in even the most repressive environments like China sought to shed light on government transgressions, and ordinary people from Bulgaria to India to Brazil continued to express discontent on topics ranging from corruption and systemic inequality to the mishandling of the health crisis, letting their leaders know that the desire for democratic governance will not be easily quelled.

The Biden administration has pledged to make support for democracy a key part of US foreign policy, raising hopes for a more proactive American role in reversing the global democratic decline. To fulfill this promise, the president will need to provide clear leadership, articulating his goals to the American public and to allies overseas. He must also make the United States credible in its efforts by implementing the reforms necessary to address considerable democratic deficits at home. Given many competing priorities, including the pandemic and its socioeconomic aftermath, President Biden will have to remain steadfast, keeping in mind that democracy is a continuous project of renewal that ultimately ensures security and prosperity while upholding the fundamental rights of all people.

Democracy today is beleaguered but not defeated. Its enduring popularity in a more hostile world and its perseverance after a devastating year are signals of resilience that bode well for the future of freedom.

# 2NC

## Court Clog DA

### Impact---Terrorism---2NC

#### Judicial overload undermines prosecution of terrorism

Stuart Jr. Taylor 99, “Irrational Excesses, Barbaric Penalties and Political Opportunism”, National Journal, 2/27/1999, Lexis

So did another unhealthy trend, deplored in a Feb. 16 ABA task force report titled ''The Federalization of Criminal Law.'' The 16-member panel was headed by Meese, who is more used to being a punching bag for the liberal-leaning legal establishment than a spokesman for it. He lends bipartisan heft to the ABA report's long-overdue conclusions.      There was only perfunctory media attention to the ABA report because this is bland stuff: no charges of racism or ''sexual McCarthyism,'' no summons to yet another war on drugs, no purple prose.      Still, the message is worthwhile. Although crime rates have fallen, the ABA report explains, the proliferation of new federal criminal prohibitions deserves none of the credit: ''There is no persuasive evidence that federalization of local crime makes the streets safer for American citizens.'' This is because the properly limited (albeit rapidly expanding) number of federal law enforcement officials can conduct only about 5 percent of all prosecutions.      At the same time, federalization does subtle but pervasive damage: It gives federal prosecutors too much inherently arbitrary and unreviewable discretion to focus on a tiny percentage of all possible targets; it clogs federal courts with garden-variety criminal cases, diverting them from national problems such as international terrorism, espionage, bribery of federal officials, big antitrust cases, white-collar fraud, and multistate drug conspiracies; it disrupts the federal-state balance; it moves the nation ''rapidly toward two broadly overlapping, parallel, and essentially redundant sets of criminal prohibitions, each filled with differing consequences for the same conduct.''

#### That causes a wave of attacks

Jeremy Shapiro 3, Associate Director and Research Associate at the Brookings Institute, “French Lessons: The Importance of the Judicial System in Fighting Terrorism”, March, http://www.brookings.edu/fp/cusf/analysis/ shapiro2003032 5.htm

The unique nature of terrorism means that maintaining the appearance of justice and democratic legitimacy will be much more important than in past wars. The terrorist threat is in a perpetual state of mutation and adaptation in response to government efforts to oppose it. The war on terrorism more closely resembles the war on drugs than World War II; it is unlikely to have any discernable endpoint, only irregular periods of calm. The French experience shows that ad-hoc anti-terrorist measures that have little basis in societal values and shallow support in public opinion may wither away during the periods of calm. In the U.S., there is an enormous reservoir of legitimacy, established by over 200 years of history and tradition, in the judiciary. That reservoir represents an important asset that the U.S. government can profit from to maintain long-term vigilance in this type of war. Despite the unusual opportunity for innovation afforded by the crisis of September 11, the U.S. government has not tried to reform American judicial institutions to enable them to meet the threat of terrorism. To prevent the next wave of attacks, however far off they might be, and to avoid re-inventing a slightly different wheel each time will require giving life to institutions that can persist and evolve, even in times of low terrorist activity. Given the numerous differences between the two countries, the U.S. cannot and should not simply import the French system, but it can learn from their mistakes. Their experience suggests a few possible reforms: • A specialized U.S. Attorney tasked solely with terrorism cases and entirely responsible for prosecuting such cases in the U.S. • Direct and formal links between that U.S. Attorney’s office and the various intelligence agencies, allowing prosecutors to task the intelligences agencies during judicial investigations • Special procedures for selecting and protecting juries in terrorism cases and special rules of evidence that allow for increased protection of classified information in terrorist cases Creating a normal, civilian judicial process that can prosecute terrorists and yet retain legitimacy is not merely morally satisfying. It may also help to prevent terrorist attacks in the long run. Not incidentally, it would demonstrate to the world a continuing faith in the ability of democratic societies to manage the threat of terrorism without sacrificing the very values they so desperately desire to protect.

#### WMD terrorism is likely and causes nuclear war

Dr. Louis Rene Beres 21, Emeritus Professor of Political Science and International Law at Purdue University, PhD from Princeton University, “Preventing Nuclear War: Legal Obligations for an Imperiled Planet”, Jurist, 7/29/2021, jurist.org/commentary/2021/07/louis-beres-nuclear-war/

Sub-national or Terrorist Threats

Strategic policies will have to deal with a variegated assortment of sub-national threats of WMD terrorism. Until now, insurgent enemies were sometimes able to confront states with serious perils and in assorted theatres of conflict, but they were never really capable of posing any catastrophic hazard to a nation’s homeland. Now, however, with the steadily expanding prospect of WMD-equipped terrorist enemies – possibly, in the future, even well-armed nuclear terrorists– humankind could have to face a strategic situation that is prospectively dire and historically sui generis.

To face any such unprecedented and portentous situation, America’s president will need to “arm” themselves with antecedent nuclear doctrine and policies. By definition, such doctrine and policies should never represent “seat of the pants” reactions to ad hoc threats. Rather, because generality is a trait of all serious meaning in science, such doctrine and policies will have to be shaped according to broad categories of strategic threat. In the absence of such previously worked-out conceptual categories, human responses are almost certain to be inadequate or worse.

Rationality and Non-Rationality

From the start, all strategic policies have been founded upon some underlying assumption of rationality. We humans have always presumed that our enemies, states and terrorists, will inevitably value their own continued survival more highly than any other preference or combination of preferences. But this core assumption can no longer be taken for granted.

Expressions of decisional irrationality could take various different and overlapping forms. These forms include a disorderly or inconsistent value system; computational errors in calculation; an incapacity to communicate efficiently; random or haphazard influences in the making or transmittal of particular decisions; and the internal dissonance generated by any structure of collective decision-making (i.e., assemblies of individuals who lack identical value systems and/or whose organizational arrangements impact their willing capacity to act as a single or unitary national decision maker).

Confronted with Jihadist enemies, states and terrorists, world leaders must quickly understand that our primary threats to retaliate for first-strike aggressions could sometime fall on deaf ears. This holds true whether we would threaten massive retaliation (MAD), or instead, the more graduated and measured forms of reprisal termed nuclear utilization theory (NUT).

Ultimately, sensible. nuclear doctrine must recognize certain critical connections between law and strategy. From the formal standpoint of international law, certain expressions of preemption or defensive first strikes are known as anticipatory self-defense. Expecting possible enemy irrationality, when would such protective military actions be required to safeguard the human homeland from diverse forms of WMD attack?

This is an all-important question to be considered.

There is more. Recalling that international law is part of the law of the United States, most notably at Article 6 of the Constitution (the “Supremacy Clause”) and at a 1900 Supreme Court case (the Pacquete Habana), how could anticipatory military defense actions be rendered compatible with both conventional and customary obligations? This is a critical question to be raised.

From the standpoint of international law, it is necessary to distinguish preemptive attacks from “preventive ones.” Preemption is a military strategy of striking first in the expectation that the only foreseeable alternative would be to be struck first oneself. A preemptive attack is launched by a state that believes enemy forces are about to attack. A preventive attack, on the other hand, is not launched out of any genuine concern about “imminent” hostilities, but rather for fear of some longer-term deterioration in a prevailing military balance.

In a preemptive attack, the length of time by which the enemy’s action is anticipated is presumptively very short; in a preventive strike, the anticipated interval is considerably longer. A related problem here for the United States and allies is not only the practical difficulty of accurately determining “imminence,” but also the problems of postponement. To the point, delaying a defensive strike until an imminent threat would be tangibly ascertainable could invite existential harms. A state’s resort to “anticipatory self-defense” could be nuclear or non-nuclear, and be directed at either a nuclear or non-nuclear adversary.

Any such resort involving nuclear weapons on one or several sides could prove catastrophic.

Nuclear Targeting Issues

There is more. World leaders must understand that any proposed national strategic doctrine will need to consider and reconsider key issues of nuclear targeting. Relevant operational concerns here would concern vital differences between the targeting of enemy civilians and cities (so-called “counter value” targeting) and targeting of enemy military assets/infrastructures (so-called “counterforce” targeting). Most national leaders still don’t realize that the actual essence of “massive retaliation” and MAD was always an unhidden plan for counter value targeting.

At first glance, any such partially-resurrected doctrine could sound barbarous or at least inhumane, but if the alternative were less credible systems of nuclear deterrence, certain explicit codifications of counter value posture might still become the best way to prevent millions of civilian deaths – i.e., deaths from nuclear war and/or nuclear terrorism. Neither preemption nor counter value targeting could ever guarantee absolute security for Planet Earth, but it is nonetheless imperative that we put serious strategic thinkers to work on these and other critically-related nuclear warfare issues. Under no circumstances should these policies ever be fashioned by “trained specialists” in marketing and public relations.

Quo Vadis

The first time that a world leader will have to face an authentic nuclear crisis, his or her national response should flow seamlessly from broad and previously calibrated strategic doctrine. It follows that national leaders should already be thinking carefully about how this complex doctrine could best be shaped and articulated. Whatever the particulars, these leaders should acknowledge at the outset the broadly systemic nature of the global security problem.

There is one final summarizing aspect of nuclear war avoidance. This is the continuously-intersecting subject matter of law. Whatever strategic imperatives can be identified, national leaders with nuclear weapons access or authority must be continuously constrained by binding principles of international law. These compelling principles concern all elements of the law of armed conflict or humanitarian international law, and various peremptory anti-genocide norms of the international law of human rights. At the same time, treaty law among sovereign states will never be suitably self-enforcing, and expectations of pacta sunt servanda will likely still fall upon largely deaf ears.

Going forward, a planetary system of law and power management that seeks to avoid nuclear war must recognize another significantly underlying axiom: As egregious crimes under international law, war and genocide need not be mutually exclusive. On the contrary, war could sometimes be undertaken as an especially “efficient” manner of national, ethnical, racial or religious annihilation. When the war in question is a nuclear one, the argument becomes self-evident and unassailable.

A final thought dawns. Our planet displays the same fragility an individual human life. Just as a person can perish because of a single miscalculation, misjudgment or accident, so too can the world as a whole be subject to singular error. In the final analysis, microcosm and macrocosm are both made of ashes, and ashes signify elements of incomparable importance. Most important here is that neither the individual person nor the individual state can ever achieve safety at the deliberate expense of designated others.

In world politics and world law, Realpolitik is inevitably a prescription for despair. Left to its traditional endpoints of conflict, war, terrorism and genocide, this time-dishonored dynamic, worsened by ongoing transition from anarchy to chaos, could propel entire continents toward irrecoverable nuclear war. There is likely still time for rescue, but only if humankind can first finally acknowledge the global survival obligations of intellect or mind.

### Impact---Gov Faith---2NC

#### Clogged courts make people lose faith in government

Richard E. Messick 15, legal consultant and former World Bank lawyer, “Uncorking the bottlenecks: Using political economy analysis to address court delay,” https://www.cmi.no/publications/5847-using-political-economy-analysis-to-address-court

Court delay is costly – to the parties to the case and to society as a whole. The lapse of time between the filing of a case and its resolution lessens the chances that the dispute will be justly decided; witnesses may die or disappear and memories can fade. Frustrated by long waits, parties may abandon the effort to vindicate their rights, and a few may turn to violence. Delay undermines public confidence in the court system and in government itself.

#### **Extinction – and turns the case**

Small 6 — Jonathan Small, former Americorps VISTA for the Human Services Coalition, 2006 (“Moving Forward,” *The Journal for Civic Commitment*, Available Online via the Internet Archive’s Wayback Machine at http://web.archive.org/web/ 20060711184600/http://www.mc.maricopa.edu/other/engagement/Journal/Issue7/Small.jsp, Accessed 09-22-2009)

What will be the challenges of the new millennium? And how should we equip young people to face these challenges? While we cannot be sure of the exact nature of the challenges, we can say unequivocally that humankind will face them together. If the end of the twentieth century marked the triumph of the capitalists, individualism, and personal responsibility, the new century will present challenges that require collective action, unity, and enlightened self-interest. Confronting global warming, depleted natural resources, global super viruses, global crime syndicates, and multinational corporations with no conscience and no accountability will require cooperation, openness, honesty, compromise, and most of all solidarity – ideals not exactly cultivated in the twentieth century. We can no longer suffer to see life through the tiny lens of our own existence. Never in the history of the world has our collective fate been so intricately interwoven. Our very existence depends upon our ability to adapt to this new paradigm, to envision a more cohesive society. With humankind’s next great challenge comes also great opportunity. Ironically, modern individualism backed us into a corner. We have two choices, work together in solidarity or perish together in alienation. Unlike any other crisis before, the noose is truly around the neck of the whole world at once. Global super viruses will ravage rich and poor alike, developed and developing nations, white and black, woman, man, and child. Global warming and damage to the environment will affect climate change and destroy ecosystems across the globe. Air pollution will force gas masks on our faces, our depleted atmosphere will make a predator of the sun, and chemicals will invade and corrupt our water supplies. Every single day we are presented the opportunity to change our current course, to survive modernity in a manner befitting our better nature. Through zealous cooperation and radical solidarity we can alter the course of human events. Regarding the practical matter of equipping young people to face the challenges of a global, interconnected world, we need to teach cooperation, community, solidarity, balance and tolerance in schools. We need to take a holistic approach to education. Standardized test scores alone will not begin to prepare young people for the world they will inherit. The three staples of traditional education (reading, writing, and arithmetic) need to be supplemented by three cornerstones of a modern education, exposure, exposure, and more exposure. How can we teach solidarity? How can we teach community in the age of rugged individualism? How can we counterbalance crass commercialism and materialism? How can we impart the true meaning of power? These are the educational challenges we face in the new century. It will require a radical transformation of our conception of education. We’ll need to trust a bit more, control a bit less, and put our faith in the potential of youth to make sense of their world. In addition to a declaration of the gauntlet set before educators in the twenty-first century, this paper is a proposal and a case study of sorts toward a new paradigm of social justice and civic engagement education. Unfortunately, the current pedagogical climate of public K-12 education does not lend itself well to an exploratory study and trial of holistic education. Consequently, this proposal and case study targets a higher education model. Specifically, we will look at some possibilities for a large community college in an urban setting with a diverse student body. Our guides through this process are specifically identified by the journal Equity and Excellence in Education. The dynamic interplay between ideas of social justice, civic engagement, and service learning in education will be the lantern in the dark cave of uncertainty. As such, a simple and straightforward explanation of the three terms is helpful to direct this inquiry. Before we look at a proposal and case study and the possible consequences contained therein, this paper will draw out a clear understanding of how we should characterize these ubiquitous terms and how their relationship to each other affects our study. Social Justice, Civic Engagement, Service Learning and Other Commie Crap Social justice is often ascribed long, complicated, and convoluted definitions. In fact, one could fill a good-sized library with treatises on this subject alone. Here we do not wish to belabor the issue or argue over fine points. For our purposes, it will suffice to have a general characterization of the term, focusing instead on the dynamics of its interaction with civic engagement and service learning. Social justice refers quite simply to a community vision and a community conscience that values inclusion, fairness, tolerance, and equality. The idea of social justice in America has been around since the Revolution and is intimately linked to the idea of a social contract. The Declaration of Independence is the best example of the prominence of social contract theory in the US. It states quite emphatically that the government has a contract with its citizens, from which we get the famous lines about life, liberty and the pursuit of happiness. Social contract theory and specifically the Declaration of Independence are concrete expressions of the spirit of social justice. Similar clamor has been made over the appropriate definitions of civic engagement and service learning, respectively. Once again, let’s not get bogged down on subtleties. Civic engagement is a measure or degree of the interest and/or involvement an individual and a community demonstrate around community issues. There is a longstanding dispute over how to properly quantify civic engagement. Some will say that today’s youth are less involved politically and hence demonstrate a lower degree of civic engagement. Others cite high volunteer rates among the youth and claim it demonstrates a high exhibition of civic engagement. And there are about a hundred other theories put forward on the subject of civic engagement and today’s youth. But one thing is for sure; today’s youth no longer see government and politics as an effective or valuable tool for affecting positive change in the world. Instead of criticizing this judgment, perhaps we should come to sympathize and even admire it. Author Kurt Vonnegut said, “There is a tragic flaw in our precious Constitution, and I don’t know what can be done to fix it. This is it: only nut cases want to be president.” Maybe the youth’s rejection of American politics isn’t a shortcoming but rather a rational and appropriate response to their experience. Consequently, the term civic engagement takes on new meaning for us today. In order to foster fundamental change on the systemic level, which we have already said is necessary for our survival in the twenty-first century, we need to fundamentally change our systems. Therefore, part of our challenge becomes convincing the youth that these systems, and by systems we mean government and commerce, have the potential for positive change. Civic engagement consequently takes on a more specific and political meaning in this context.

## Case

### Cap Sustainable---2NC

#### Green growth is coming and solves tipping points.

Andrew McAfee 20, principal research scientist at MIT, codirector of the MIT Initiative on the Digital Economy at the MIT Sloan School of Management, Doctorate from Harvard Business School, two Master of Science and two Bachelor of Science degrees from MIT, "How we can have 'Green Growth,' increasing human population and prosperity while taking better care of our planet," Newsweek, 2-10-2020, https://www.newsweek.com/how-we-can-have-green-growth-increasing-human-population-prosperity-while-taking-better-care-1486342

Fifty years ago it might have been reasonable to fear that because of our bottomless desire for growth, we humans were going to strip our planet bare and poison it with pollution. But not anymore. The past half-century has shown us that we can increase human population and prosperity while also taking better care of the planet we all live on.

We still face real challenges now and in the years ahead, of which global warming is the most pressing. The good news is that we now know the playbook for effectively meeting these challenges. The bad news is that we're not doing a great job of following that playbook at present. We have to do better. We have to get smarter about meeting the problems we face.

In 1970, people took to the streets on the first Earth Day because of how we were treating our world. It's easy to see why they were so concerned. The 20th century, and in particular the post-war decades, witnessed by far the fastest growth in human history. Around the world, populations grew more quickly than ever before, and economies grew even faster as people strove for a higher standard of living. Unfortunately, it seemed that along with this growth came three side effects, all of which were both inevitable and terrible.

First, we were using up the earth's natural resources at an ever-faster clip. In the U.S., for example, consumption of aluminum, fertilizer and other important materials was growing even more quickly than the overall economy was in the years leading up to Earth Day. On a finite planet, this was a scary trend. If it continued, disaster seemed unavoidable.

At MIT, a team led by biophysicist Donella Meadows built a computer simulation of the global economy and used it to run scenarios about how the future would unfold. Their conclusions, published in the 1972 bestseller The Limits to Growth, were stark: "We can thus say with some confidence that, under the assumption of no major change in the present system, population and industrial growth will certainly stop within the [twenty-first] century, at the latest. The system...collapses because of a resource crisis."

The second bad side effect of growth was pollution. Air, water and land were all getting steadily dirtier in the years leading up to Earth Day. Levels of atmospheric sulfur dioxide in the U.S. increased by more than 60 percent in the three decades after 1940, and in 1969, the Cuyahoga River caught fire in downtown Cleveland. There seemed no end in sight to the pollution. Life magazine reported in 1970 that "Scientists have solid experimental and theoretical evidence to support...the following predictions: In a decade, urban dwellers will have to wear gas masks to survive air pollution....By 1985, air pollution will have reduced the amount of sunlight reaching earth by one half."

The third negative consequence of constant growth was extinction of creatures that we share the planet with. The passenger pigeon showed that even huge numbers provided no guarantee of survival. It was an abundant bird early in the nineteenth century, yet gone by 1914. Animals from the North American bison to the sea otter to the snowy egret to the blue whale came close to extinction during the industrial era, and it seemed clear that many others would vanish. As U.S. Senator Gaylord Nelson wrote in 1970, "Dr. S. Dillon Ripley, secretary of the Smithsonian Institution, believes that in 25 years, somewhere between 75 and 80 percent of all the species of living animals will be extinct."

If we wanted to save species, reduce pollution and avoid running out of natural resources, it seemed that we had to do one thing above all else: stop growing. Perhaps the broadest idea coming out of Earth Day and the nascent environmental movement was degrowth: deliberate shrinkage—rather than expansion—of our populations and economies over time. Degrowth wouldn't be easy and it might not be popular with everyone, but it seemed like a necessity. Philosopher André Gorz spoke for many when he wrote in 1975, "The point is not to refrain from consuming more and more, but to consume less and less—there is no other way."

It's important to be very clear on the following: people and societies around the world have not embraced degrowth since Earth Day. Global economic and population expansion did decelerate a bit after 1970, but this is largely because the 25 years after the end of World War II were a time of extraordinarily fast growth as countries rebuilt themselves. Except for that brief period, growth in the world's economies and populations has never in human history been as fast as in the years since 1970. Degrowth is nowhere to be found.

So what has happened with the three nasty side effects of growth: resource depletion, pollution and species loss? They must all have increased, just as populations and economies have, right?

Not at all. In the years since Earth Day, something weird and wonderful has happened: we ingenious humans figured out how to tread more lightly on our planet, even as we become more numerous and prosperous over time. This happy phenomenon is most advanced in the richest countries, but it's spreading around the world. Almost nobody anticipated that it would happen, and even today very few people are aware that the apparently ironclad trade-off between human prosperity and the state of nature has been eased. But it has. To see this, let's take another look at the three big problems.

First, resource depletion. The surest sign that something is becoming more scarce is that it's becoming less affordable. But without exception, important resources like fuels minerals, and foods have been getting more affordable, not less, for the world's average worker (in other words, not just for people in rich countries). Researchers Marian Tupy and Gale Pooley have calculated this hypothetical worker's ability to buy each of 50 resources over time—everything from crude oil to coffee to cotton. They find that the same market basket of all 50 that could be bought with one hour of labor in 1980 could be bought with only a bit more than 20 minutes of work in 2018. Not a single resource became more "time expensive" to the world's average worker over this period.

How can this be? One of the most important reasons is that many if not most resources are not nearly as scarce as we used to think. 1972's Limits to Growth provides a fascinating demonstration of this because it included a list of the proven reserves of several natural resources, along with predictions about how long these resources would last under various scenarios. If exponential economic growth continued, one of the team's main computer models showed that the planet would run out of gold within twenty-nine years of 1972; silver within forty-two years; copper and petroleum within fifty; and aluminum within fifty-five.

These weren't accurate predictions. We still have gold and silver, and we still have large reserves of them. In fact, the reserves of both are actually much bigger than in 1972, despite almost half a century of additional consumption. Known global reserves of gold are almost 400 percent larger today than in 1972, and silver reserves are more than 200 percent larger. And it's probably not too early to say that we're not going to run out of copper, aluminum and petroleum as quickly as estimated in Limits to Growth. Known reserves of all are much larger than they were when the book was published.

One other thing to keep in mind about natural resources is that in much of the rich world we're now using less of them year after year. And not just less per person, but less in total. In the U.S., which accounts for about 25 percent of global GDP, annual consumption of resources as diverse as copper, paper, water for agriculture, timber, nitrogen (a critical fertilizer component) and cropland is now trending downward. In addition, total American energy use has been essentially flat since 2007, even as the economy has grown by almost 20 percent. Developing countries, including fast-growing ones such as India and China, are not yet de-materializing. But I predict that in the not-too-distant future they'll start decreasing their consumption of some resources, just as high-income countries have.

As I explain in my book More from Less, two powerful forces are combining to drive this de-materialization of the economy. The first is tech progress, especially progress with all things digital (think of how much better and lighter today's LCD computer screens are than the cathode ray tube [CRT] monitors that preceded them). The second is capitalism, or intense competition among profit-seeking companies (think how much pressure CRT makers faced as LCDs took over their markets). This competition provides strong incentives for companies to save money on resources, and tech progress provides plenty of opportunities to do exactly that. So internal combustion engines are simultaneously lighter, more powerful and more fuel-efficient; smartphones replace entire shelves full of devices; and the economy de-materializes in countless other ways.

It's true that we live on a finite planet. But when it comes to thinking about resource consumption and availability, this fact is essentially irrelevant. Our experience since Earth Day has demonstrated that our planet is easily vast enough to supply us with all the materials we'll need, for as long as we'll need them. The real danger is not that our growth will deplete the planet, but instead that it will befoul it. So let's look at pollution next.

As every Economics 101 student learns, pollution is the classic negative externality, or bad outcome from a transaction that affects people who are not part of the transaction. If a factory pollutes a nearby river with its waste, for example, people living downstream suffer even if they don't buy any of the factory's products. Competitive markets do a lot of things well, but they don't deal with externalities. Instead, they often create them. So governments need to step in by forbidding the pollution (as we've done with the chlorofluorocarbons that were responsible for the hole in the ozone layer), placing an upper limit on it, or placing a price on it.

The logic of the latter approach is simple: if pollution is expensive, companies will work to reduce how much they spend on it, just like they work to reduce their spending on other materials. The cap-and-trade program adopted in the U.S. and other rich countries in recent decades to reduce atmospheric pollution is an attempt to reduce pollution by making it costly.

Cap and trade has been a huge success. As Smithsonian magazine summarized, it "continues to let polluters figure out the least expensive way to reduce their...emissions. As a result, the law costs utilities just $3 billion annually, not $25 billion [as they originally estimated]....It also generates an estimated $122 billion a year in benefits from avoided death and illness, healthier lakes and forests and improved visibility on the Eastern Seaboard."

The bans, limits, pricing programs and other pollution-control efforts established in high-income countries since Earth Day have been extraordinarily successful. They've caused pollution levels to go down in the rich world, even as economies and populations have continued to grow. The U.S economy is more than two-and-a-half times as big as it was in 1970, yet atmospheric sulfur dioxide levels have declined by more than 90 percent, and other kinds of air, water and land pollution have also declined dramatically.

A half-century ago, the conventional wisdom was that pollution was an unpleasant but unavoidable consequence of economic progress; as an American mayor said during debates in 1970 about strengthening the Clean Air Act, "if you want this town to grow, it has got to stink." But we now know that this is not true at all. To depollute, we don't have to embrace degrowth. We just have to put smart anti-pollution measures in place, then enforce them.

In recent decades, rich countries have done both. And what about low-income countries? Here the news is not as good. As researchers Hannah Ritchie and Max Roser summarize, "We see that the death rates [from air pollution] tend to be highest across Sub-Saharan Africa and South Asia...Outdoor air pollution tends to increase as countries industrialize and shift from low-to-middle incomes."

This is not a surprising finding. There's a hypothesis, based on the work of the economist Simon Kuznets, that low-income countries will pollute as their economies grew, but only up to a point. As people escape poverty and have more of their basic needs met, they will start to demand a cleaner environment. The government will respond to these demands, and overall pollution will start to go down, even as economic growth continues.

This pattern of rising-then-falling pollution is known as the environmental Kuznets curve (EKC), and in recent years we've seen it with air pollution in China. In March of 2014, Premier Li Keqiang announced to the National People's Congress, "We will resolutely declare war against pollution as we declared war against poverty." The government mandated that coal plants reduce their emissions, shelved plans to build new ones in highly polluted regions and even removed coal furnaces from many homes and small businesses (without, in some cases, providing anything to replace them).

These efforts worked. Economist Michael Greenstone found reductions in fine-particulate pollution of more than 30 percent throughout the country by 2018. He estimated that these reductions, if they were maintained, would add 2.4 years to the life of the average Chinese citizen. As Greenstone wrote, "It took about a dozen years [after passage of the 1970 Clean Air Act] and the 1981–1982 recession for the United States to achieve the 32 percent reduction China has achieved in just four years."

The EKC tells us something fundamental: that economic growth is at first the cause of pollution, then the cure for it. So to reduce pollution, we don't have to pursue degrowth; instead, we should encourage growth around the world. China's example gives us confidence that this approach works, and that growing countries will turn the corner and start polluting less in the years ahead.

We all need this to happen, because some kinds of pollution are global, not local. For example, the huge amount of plastic trash in the world's oceans that doesn't come from ships comes mainly from rivers that flow through low-income countries in Asia and Africa. The surest way to stop this flow of garbage is to make people in these countries prosperous enough that they can afford to care about the environment. We also need to ensure that rich countries don't start backsliding on their environmental successes. The Trump administration's moves to roll back wetlands protections, methane pollution standards and other safeguards are moves in the wrong direction, and should be reversed.

Of course, the greenhouse gases like carbon dioxide that cause global warming are the pollution most damaging to the long-term health of our planet and ourselves. Reducing future greenhouse-gas emissions is a major challenge, requiring political will and technological innovation. But it won't require any other radical departures from our current trajectory. Instead, the same approach that has worked for reducing other kinds of atmospheric pollution—namely, making it expensive—would also be effective at lowering greenhouse gas emissions.

A carbon dividend is an ingenious way to both make greenhouse gases expensive and to help people afford the resulting price increases. This dividend is a tax on carbon with an important twist: instead of keeping the money collected from companies, the government sends it right back out to the people as a "dividend" to each household. William Nordhaus was one of the winners of the 2018 Nobel Prize in economics in large part for his work on the carbon dividend. Clearly, it's an idea whose time has come.

Species loss is one of the most heartbreaking predicted consequences of global warming. Our greenhouse gas emissions could make some habitats uninhabitable, adding more animals to the sad parade of those already eliminated by our actions. But the threat of extinctions doesn't imply a need for degrowth. Instead, it makes more urgent the opposite: a world of nations and people prosperous enough to be good stewards of our planet and the life on it. Over the past 50 years we've seen remarkable increases in this kind of stewardship. In 1982, for example, most nations agreed to a complete moratorium on the hunting of whales, and populations are rebounding.

In addition to protecting species, we're also protecting territory. In 1970, less than 2.4 percent of the earth's land area was designated as parkland or otherwise conserved, and only 0.04 percent of the world's waters. By 2018 these figures had increased to 13.4 percent and 7.3 percent, respectively. In China, which has long been the world's largest market for endangered animal products, another important EKC has taken shape. As the country got wealthier, it eventually applied less pressure, not more, to some important animals. Strict bans are in place on buying, selling and possessing rhino and tiger products, and trade in ivory has been prohibited since 2017.

Are efforts like these helping in the fight against extinctions? They are. Documented extinctions appear to have slowed down in recent decades; for example, no marine creatures have been recorded as extinct in the past fifty years. It is far too early to declare victory over the forces of annihilation, but not too early to say that we know what works. Less pollution and more protection and prosperity are core elements of a winning strategy for protecting life on Earth.

Degrowth is not. The past half-century has exposed it as an unreasonable idea (given human nature), and an unnecessary one. This is not the same as saying that environmentalism is unnecessary. We should all be deeply grateful to the modern environmental movement born around Earth Day. On that day and countless others, concerned people took to the streets; put pressure on businesses, policymakers and elected officials; and otherwise advocated that we take better care of the planet we all live on. It worked.

But gratitude toward environmentalism does not mean continuing to support all of its original ideas. We now know that the core idea of degrowth—that there is no other way to conserve the earth for future generations—is simply wrong. With a few smart moves, including limiting pollution and protecting vulnerable species, we can have both greater human prosperity and a healthy, endlessly abundant planet. So let's get to work on building one.

#### COVID locks in sustainability by centralizing markets. BUT the aff ensures transition wars and global civil war.

Dalio 20 (Ray Dalio is a M.B.A. from Harvard Business School, founded Bridgewater Associates. “Ray Dalio: We must reform capitalism, not abandon it.” 5-15-20. https://www.cnn.com/2020/05/15/perspectives/ray-dalio-capitalism/index.html)

The economic world order is changing whether we like it or not. You can see it happening as people and companies around the world are losing income and savings, and central banks and governments are providing them money to try to compensate for those losses. And you can see it as the free market is no longer determining the allocation of capital — governments are. Central governments and central banks are now creating trillions in money and credit and directing it to those they want to receive it. This will soon be followed by a debate, perhaps even a fight, about where this money should come from and who should have what in the new world. Such controls of spending and the ensuing political conflicts over it have occurred many times in history, especially when severe economic and financial downturns were accompanied by high levels of indebtedness and large wealth gaps. History has taught us that these conflicts take place both within and between countries. How these conflicts are resolved will determine whether the economic pie will grow and be divided well or contract and be divided through fighting. Chances are that the new system we end up with will be significantly different from the capitalist system that we've gotten used to. These sorts of changes to the world order have taken place many times in history, most recently between 1930 and 1945, in periods characterized by intensifying divisions over the best approach for divvying up wealth and power — and over which economic and political system is most effective at doing so. For example, in the transition from the Roaring 1920s to the depressing 1930-1945 period, we saw relatively capitalist and democratic systems shift to systems that were more redistributive of wealth and more autocratic. Such systems included communism (extreme redistribution of wealth with autocratic political controls such as in Russia), fascism (autocratic control of both the economy and politics such as in Germany, Japan, Italy and Spain) and democratic socialism (more moderate wealth redistributions and more moderate moves toward top-down control that existed within democracies such as those in the United States and the United Kingdom). Under the pressure of such stress tests, some societies bend (e.g., the capitalist and democratic systems in the United Kingdom during the 1930s) and others break (e.g., Germany, Japan, Italy and Spain all abandoned their systems in favor of autocracy). Most countries in the world are now under that kind of stress. As the current crisis unfolds, we should remember that throughout history, capitalism has proven to be the best system, though it can sometimes be highly flawed. It is typically best when it comes to allocating resources and raising a society's productivity and living standards because of how profit-making works. Very simply, if the value of a product is greater than the value of the resources used to produce it, it will be profitable and that endeavor will gain more resources. If the value of a product is less than the cost of the resources used to produce it, it will lose money and that endeavor will shut down. The system also financially rewards individuals who come up with products that people want and, if they can do that, it provides them with capital from investors who risk their own money based on their assessments of the economic merits of these ideas. While this profit-making capitalism has worked well in this way, it has also been intolerably imperfect in providing equal opportunity. It has failed to deliver people equal opportunities to be productive if they can be and to take care of the basic needs of people who can't be. It also doesn't create limits on how bad people's living conditions can be or on how decadent spending can be. To me, most tragically, it allows vast numbers of children to grow up in environments of violent squalor, which is both economically and socially bad. It is economically bad because the costs of having large numbers of unproductive people are enormous compared to the benefits of having productive people. And it is socially bad because a system that doesn't provide equal opportunity can't be considered fair — and unfair systems eventually lead to disruptive social conflicts. To be clear, I'm not saying that there should be laws restricting how people spend their money, because I don't believe there should be. But I am saying that such huge gaps in spending and living conditions are threatening the existence of our system. It is for these reasons that I believe we need to reform capitalism, not abandon it. To make society work better, the new system must both increase the size of the pie and divide it well. Our ability to consume is dependent on our ability to produce, not the amount of money we get in the mail. You can't eat money. Somebody must get paid to produce and deliver what we consume. And we can't raise our living standards by just giving people money — they need to be incentivized to produce, and that must be done cost-effectively through some system that is not administered from the top. Most fundamentally, that system must strive to provide 1) equal opportunity to all those who have the potential to produce (because that is both most fair and most productive) and 2) basic needs to those who are unable to (because that is humane and what is fundamentally needed to have a good community). Can't we all — capitalists, socialists, Republicans and Democrats — agree on that? Can't we all agree that whatever system we have, it must do a great job of both increasing the size of the pie and dividing it well? If we can agree that these things are essential because the alternatives are terrible, then people of different ideologies will be more civil with each other and more willing to work through their disagreements thoughtfully so that we can achieve agreement for the good of the whole. We must figure out how to do that in a collaborative and skilled way. If we can't do that, we will have a civil war of some form that will tragically tear us apart and shrink the pie for everyone.

#### No limits to growth - their models ignore feedback effects.

Lynch 16 (Michael, President of Strategic Energy and Economic Consulting, Director of Asian Energy and Security at the Center for International Studies at MIT, and a Lecturer at Tufts and Vienna University. The “peak oil” scare and the coming oil flood. 63-74.)

More recently, there has been a clamor about "peak everything" based on the idea that, well, everything is finite and we 're using it up, so it is "running out." Or at least, production must peak. Or, as one physicist [END OF PAGE 63] points out, eventually human energy production will generate as much heat as the sun does-eventually being 1400 years.

Flat Earth

Colin Campbell, in the famed (well, famous in the IEA's offices) debate at the IEA in 1997, compared resource optimists to the conservative Spanish court that opposed the visionary, Columbus, and has since referred to those, like Adelman and me, who disagreed with him as "flat-earth economists." Albert Bartlett later explained that the term actually meant that economists thought the earth had two dimensions and thus was infinite, containing equivalently infinite resources.

But this description ignores two important variables: capital and knowledge. Additional investment can often increase the production of renewables like agricultural products and nonrenewables like minerals and oil in the same amount of space, as can better technology. Neo-Malthusians tend to ignore this factor and argue that the rate of technological advance (and greater scientific knowledge) has diminished or disappeared, as described in Chapter 7.

The argument is somewhat specious and relies in part the question of the finiteness of resources, discussed earlier-or a static measure of resources and dynamic view of consumption, as in The Limits to Growth.

HOW LONG?

Perhaps the most important factor that raises skepticism is the fact that at least some exponential alarmists fear the distant future. Any number of pundits have looked at long-term forecasts of economic and/or technological development and characterized them as foolish. We have no flying cars, nuclear power is not too cheap to meter, and no one is eating Soylent Green. On the other hand, most of these were not serious forecasting efforts, but rather off-the-cuff remarks (or the equivalent), and those making them were not particularly serious about achieving them within a specific time frame. And we do eat Soylent Green already; only we call it tofu and vegemite. (Read the book, it wasn't people.)

NEWTON'S FIRST LAW

The biggest mistakes have come from an apparent source: extrapolation of a trend endlessly, as if there were no feedback or other variables [END PAGE 64] involved. Jay Forrester, the inventor of Systems Dynamics, which was used in The Limits to Growth model (and which I have used), reportedly once said that feedback effects tend to overwhelm the initial stimuli, which is probably true in many cases. Yet, many neo-Malthusians and especially peak oil advocates tend to extrapolate a given trend endlessly, assuming no feedback effect whatsoever.

Indeed, the first wave of peak oil advocates explicitly argued that no feedback effect would occur: prices didn't affect production or consumption levels. Technological advances were either unimportant or had ceased and so could not increase the resource base.

An important element of the fear of exponential growth is the analysts' choice of particularly high growth rates. As Figure 4.1 showed, Ehrlich chose the highest observed growth in the 20th century for his calculations, even though it represented the post-World War II baby boom and should have been considered an exception, not the norm. Similarly, Bartlett, writing in 1998, talks about the growth in oil demand from the 1950s and 1960s at 7 [percent] a year, which causes a doubling of use every decade, 25 which sounds alarming, given the arguments about the difficulty of making a speedy energy transition, until you realize that consumption growth dropped to 3% per year in the 1970s (a doubling time of 24 years), and under 1 [percent] per year in the 1980s (a doubling period of 75 years), before recovering to 1.5% in the seven years before his talk (48 years).¶ This emphasizes the lack of feedback mechanism used in these simplistic models and how important they are in the real world.

REAL SCARCITY

Indeed, the subtext of the fear of resource scarcity is that renewable resources have repeatedly been the source of problems. In Tainter's The Collapse of Complex Societies, he talks about resources as causing the fall of a number of (mostly) ancient civilizations; nearly all suffered from problems like lengthy droughts and salt buildup in irrigated farmland. 26¶ And similar problems continue today, especially if you consider endangered species, from rhinos to tuna. In all cases, these are renewable resources, the very ones that are NOT finite, that are sustainable, that we can rely on for all eternity-in theory. No lasting shortage of nonrenewable resources minerals and energy-has occurred since the advent of the global economy.

### Cap Sustainable---AT: Militarization

#### Cap solves war---creates lock-in mechanisms that binds countries and dampens conflict---best studies err AFF.

Dafoe 14. Political Science and International Economics (Allan & Nina Kelsey; assistant professor in political science at Yale & research associate in international economics at Berkeley; Journal of Peace Research, “Observing the capitalist peace: Examining market-mediated signaling and other mechanisms,” http://jpr.sagepub.com.proxy.lib.umich.edu/content/51/5/619.full)

Countries with liberal political and economic systems rarely use military force against each other. This anomalous peace has been most prominently attributed to the ‘democratic peace’ – the apparent tendency for democratic countries to avoid militarized conflict with each other (Maoz & Russett, 1993; Ray, 1995; Dafoe, Oneal & Russett, 2013).More recently, however, scholars have proposed that the liberal peace could be partly (Russett & Oneal, 2001) or primarily (Gartzke, 2007; but see Dafoe, 2011) attributed to liberal economic factors, such as commercial and financial interdependence. In particular, Erik Gartzke, Quan Li & Charles Boehmer (2001), henceforth referred to as GLB, have demonstrated that measures of capital openness have a substantial and statistically significant association with peaceful dyadic relations. Gartzke (2007) confirms that this association is robust to a large variety of model specifications. To explain this correlation, GLB propose that countries with open capital markets are more able to credibly signal their resolve through the bearing of greater economic costs prior to the outbreak of militarized conflict. This explanation is novel and plausible, and resonates with the rationalist view of asymmetric information as a cause of conflict (Fearon, 1995). Moreover, it implies clear testable predictions on evidential domains different from those examined by GLB. In this article we exploit this opportunity by constructing a confirmatory test of GLB’s theory of market-mediated signaling. We first develop an innovative quantitative case selection technique to identify crucial cases where the mechanism of market-mediated signaling should be most easily observed. Specifically, we employ quantitative data and the statistical models used to support the theory we are probing to create an impartial and transparentmeans of selecting cases in which the theory – as specified by the theory’s creators –makes its most confident predictions.We implement three different case selection rules to select cases that optimize on two criteria: (1) maximizing the inferential leverage of our cases, and (2) minimizing selection bias. We examine these cases for a necessary implication of market-mediated signaling: that key participants drew a connection between conflictual events and adverse market movements. Such an inference is a necessary step in the process by which market-mediated costs can signal resolve. For evidence of this we examine news media, government documents, memoirs, historical works, and other sources. We additionally examine other sources, such as market data, for evidence that economic costs were caused by escalatory events. Based on this analysis, we assess the evidence for GLB’s theory of market mediated costly signaling. Our article then considers a more complex heterogeneous effects version of market-mediated signaling in which unspecified scope conditions are required for the mechanism to operate. Our design has the feature of selecting cases in which scope conditions are most likely to be absent. This allows us to perform an exploratory analysis of these cases, looking for possible scope conditions. We also consider alternative potential mechanisms. Our cases are reviewed in more detail in the online appendix.1 To summarize our results, our confirmatory test finds that while market-mediated signaling may be operative in the most serious disputes, it was largely absent in the less serious disputes that characterize most of the sample of militarized interstate disputes (MIDs). This suggests either that other mechanisms account for the correlation between capital openness and peace, or that the scope conditions for market-mediated signaling are restrictive. Of the signals that we observed, strategic market-mediated signals were relatively more important than automatic market-mediated signals in the most serious conflicts. We identify a number of potential scope conditions, such as that (1) the conflict must be driven by bargaining failure arising from uncertainty and (2) the economic costs need to escalate gradually and need to be substantial, but less than the expected military costs of conflict. Finally, there were a number of other explanations that seemed present in the cases we examined and could account for the capitalist peace: capital openness is associated with greater anticipated economic costs of conflict; capital openness leads third parties to have a greater stake in the conflict and therefore be more willing to intervene; a dyadic acceptance of the status quo could promote both peace and capital openness; and countries seeking to institutionalize a regional peace might instrumentally harness the pacifying effects of liberal markets. The correlation: Open capital markets and peace The empirical puzzle at the core of this article is the significant and robust correlation noted by GLB between high levels of capital openness in both members of a dyad and the infrequent incidence of militarized interstate disputes (MIDs) and wars between the members of this dyad (Gartzke, Li & Boehmer, 2001). The index of capital openness (CAPOPEN) is intended to capture the ‘difficulty states face in seeking to impose restrictions on capital flows (the degree of lost policy autonomy due to globalization)’ (Gartzke & Li, 2003: 575). CAPOPEN is constructed from data drawn from the widely used IMF’s Annual Reports on Exchange Arrangements and Exchange Controls; it is a combination of eight binary variables that measure different types of government restrictions on capital and currency flow (Gartzke, Li & Boehmer, 2001: 407). The measure of CAPOPEN starts in 1966 and is defined for many countries (increasingly more over time). Most of the countries that do not have a measure of CAPOPEN are communist.2 GLB implement this variable in a dyadic framework by creating a new variable, CAPOPENL, which is the smaller of the two dyadic values of CAPOPEN. This operationalization is sometimes referred to as the ‘weak-link’ specification since the functional form is consonant with a model of war in which the ‘weakest link’ in a dyad determines the probability of war. CAPOPENL has a negative monotonic association with the incidence of MIDs, fatal MIDs, and wars (see Figure 1).3 The strength of the estimated empirical association between peace and CAPOPENL, using a modified version of the dataset and model from Gartzke (2007), is comparable to that between peace and, respectively, joint democracy, log of distance, or the GDP of a contiguous dyad (Gartzke, 2007: 179; Gartzke, Li & Boehmer, 2001: 412). In summary, CAPOPENL seems to be an important and robust correlate of peace. The question of why specifically this correlation exists, however, remains to be answered. The mechanism: Market-mediated signaling? Gartzke, Li & Boehmer (2001) argue that the classic liberal account for the pacific effect of economic interdependence – that interdependence increases the expected costs of war – is not consistent with the bargaining theory of war (see also Morrow, 1999). GLB argue that ‘conventional descriptions of interdependence see war as less likely because states face additional opportunity costs for fighting. The problem with such an account is that it ignores incentives to capitalize on an opponent’s reticence to fight’ (Gartzke, Li & Boehmer, 2001: 400.)4 Instead, GLB (see also Gartzke, 2003; Gartzke & Li, 2003) argue that financial interdependence could promote peace by facilitating the sending of costly signals. As the probability of militarized conflict increases, states incur a variety of automatic and strategically imposed economic costs as a consequence of escalation toward conflict. Those states that persist in a dispute despite these costs will reveal their willingness to tolerate them, and hence signal resolve. The greater the degree of economic interdependence, the more a resolved country could demonstrate its willingness to suffer costs ex ante to militarized conflict. Gartzke, Li & Boehmer’s mechanism implies a commonly perceived costly signal before militarized conflict breaks out or escalates: if market-mediated signaling is to account for the correlation between CAPOPENL and the absence of MIDs, then visible market-mediated costs should occur prior to or during periods of real or potential conflict (Gartzke, Li & Boehmer, 2001). Thus, the proposed mechanism should leave many visible footprints in the historical record. This theory predicts that these visible signals must arise in any escalating conflict, involving countries with high capital openness, in which this mechanism is operative Clarifying the signaling mechanism Gartzke, Li & Boehmer’s signaling mechanism is mostly conceptualized on an abstract, game-theoretic level (Gartzke, Li & Boehmer, 2001). In order to elucidate the types of observations that could inform this theory’s validity, we discuss with greater specificity the possible ways in which such signaling might occur. A conceptual classification of costly signals The term signaling connotes an intentional communicative act by one party directed towards another. Because the term signaling thus suggests a willful act, and a signal of resolve is only credible if it is costly, scholars have sometimes concluded that states involved in bargaining under incomplete information could advance their interests by imposing costs on themselves and thereby signaling their resolve (e.g. Lektzian & Sprecher, 2007). However, the game-theoretic concept of signaling refers more generally to any situation in which an actor’s behavior reveals information about her private information. In fact, states frequently adopt sanctions with low costs to themselves and high costs to their rivals because doing so is often a rational bargaining tactic on other grounds: they are trying to coerce their rival to concede the issue. Bargaining encounters of this type can be conceptualized as a type of war-of-attrition game in which each actor attempts to coerce the other through the imposition of escalating costs. Such encounters also provide the opportunity for signaling: when states resist the costs imposed by their rivals, they ‘signal’ their resolve. If at some point one party perceives the conflict to have become too costly and steps back, that party ‘signals’ a lack of resolve. Thus, this kind of signaling arises as a by-product of another’s coercive attempts. In other words, costly signals come in two forms: self-inflicted (information about a leader arising from a leader’s intentional or incidental infliction of costs on himself) or imposed (information about a leader that arises from a leader’s response to a rival’s imposition of costs). Additionally, costs may arise as an automatic byproduct of escalation towards military conflict or may be a tool of statecraft that is strategically employed during a conflict. The automatic mechanism stipulates that as the probability of conflict increases, various economic assets will lose value due to the risk of conflict and investor flight. However, the occurrence of these costs may also be intentional outcomes of specific escalatory decisions of the states, as in the case of deliberate sanctions; in this case they are strategic. Finally, at a practical level, we identify three different potential kinds of economic costs of militarized conflict that may be mediated by open capital markets: capital costs from political risk, monetary coercion, and business sanctions.

### NETs Turn---AT: Cap Not Key

#### Growth is key to achieve necessary innovations.

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11.1 Introduction The sustainability of modern economic growth, as it developed in the todays Western industrialized economies from the beginning of the industrial revolution at the end of the eighteenth century, has been questioned at the latest since 1972 when the book The Limits to Growth was published by the Club of Rome (Meadows et al. 1972). After more than 200 years of industrial production, large parts of the world population are richer than ever before. However, industrial production in its current form is also closely linked with the exploitation of natural resources and the strong accumulation of greenhouse gases in the atmosphere, endangering human survival. In economics two fundamentally different solution strategies are discussed as a reaction on man-made climate change and irreversible environmental damages: (1) conservation of resources by growth abstinence and (2) decoupling of growth and exploitation of resources. In this chapter, we show that the first perspective with its emphasis on the efficiency of price competition is not suited to conceive a transformation of the production system towards a knowledge-based bioeconomy. Only the emphasis of the superiority of innovation competition, inherent to the second perspective, allows for the inclusion of the required transformative perspective. The supporters of the first approach (e.g., Blewitt and Cunningham 2014; Kallis et al. 2014), summarized under the headings of abstinence and downscaling, claim a renunciation of our lifestyles based on consumption and increasing deployment of resources. This is considered the only way to enable a sustainable and environment-friendly lifestyle and form of economic activity. At first sight, it might look surprising that these growth-hostile approaches are strictly in line with the thinking put forward in mainstream neoclassical growth theories. This follows from the fact that the standard neoclassical approach relies on the assumption of stable economic structures and an understanding of economic growth as a continuous increase in the quantity of the goods that are produced. Figure 11.1 depicts the impressive growth performance of the German economy, where—in particular in the period of the so-called Wirtschaftswunder after 1945—income per head skyrocketed: at the beginning of the twenty-first century, per capita GDP is approximately four times higher than three generations earlier. But does this mean that German consumers today have four Volkswagen Beatles in their garages? Obviously not! Today we have completely different goods and services in our consumption baskets, we acquire different competences in universities, we work in different jobs, etc. Restricting economic growth analysis to a quantitative dimension only dismisses these most important qualitative dimensions. Such an analysis can only serve for a very short-term observation. The alternative approach of neo-Schumpeterian economics (e.g., Hanusch and Pyka 2007) challenges this quantitative orientation and instead emphasizes the importance of qualitative aspects, which make fundamental changes of economic structures over longer periods visible. Without the consideration of the qualitative levels of economic growth, the quantitative figures cannot tell much about the massive technological and socioeconomic developments. The neo-Schumpeterian approach highlights that innovations, market forces, structural change, and urban ways of life are both part of the problem and part of the solution to the sustainability problem. Innovation-triggered development generates both quantitative, i.e., income-increasing growth, and qualitative, i.e., structure-changing development. Only the creative solutions characteristic for capitalistic-organized economies will enable to reform our future economy in the sense of sustainability, thereby supporting the UN’s sustainability goals and simultaneously ensuring growth and development (Mazzucato and Perez 2015). The central role of innovation in neo-Schumpeterian economics highlights that abstinence in the sense of economic downscaling is neither the first nor the only solution. This does not mean that all ideas of the proponents of the camp are rejected: in perfect accordance, certain past patterns like the high energy intensity of production because of too low oil prices not covering the total environmental costs or so-called planned obsolescence in consumption require urgent adjustments. Especially concepts resulting in a more intensive use of goods and therefore contributing to the economization of resources like the sharing economy or displacing physical goods by digital goods are promising. The same applies for closed-loop material cycles, recycling systems, and intelligent waste avoidance and treatment. These concepts are perfectly applicable to foster learning and behavioral changes on the supply and the demand side. The core idea of neo-Schumpeterian economics, however, is the supply of and demand for new technological solutions within a comprehensive economic transformation process (Geels 2002), i.e., different goods and services are produced and demanded in different, namely, sustainable ways. Exploring and exploiting the technological possibilities of the bioeconomy not only creates new investment opportunities but is also the condition sine qua non for the required socioeconomic and cultural changes. The consumers’ acceptance of bio-based products and their demand are indispensable for a successful transformation. Innovations and changed consumer attitudes are complementary conditions for the creation of a sustainable production system. Change can be either of an incremental type in terms of small improvements step-by-step along well-known technological trajectories, or it can be fundamental, leading to structural changes and the emergence of new and the disappearance of old industries. To simplify, we assume in this chapter that incremental technological changes are based on existing technological solutions, whereas radical technological changes question major existing production processes. They might lead to massive upheaval in the global production system in the sense of creative destruction (Schumpeter 1943). Because this chapter deals with the fundamental transformation of current production systems, radical technological innovations are in the spotlight which encompass the overcoming of the lock-in situation in fossil fuels (Unruh 2000) and the establishment of a knowledge-based bioeconomy (Pyka 2017; Pyka and Buchmann 2016). Without doubt this transformation process is radical, qualitative, and long term. It was already in Business Cycles, published in 1939, when Schumpeter revitalized Kondratieff’s theory of long waves in order to explain such processes as regular processes in long-term economic development. His illustration of the discontinuous nature of economic development is famous: “Add successively as many mail coaches as you please, you will never get a railway thereby” (Schumpeter 1934, p. 64). So far, the literature highlights five long waves: The beginning industrialization around the year 1800 represented the first long wave and was fueled by the steam engine and by cotton processing. Then, starting around the year 1850, the widespread availability of steel and the diffusion of railways constituted a second long wave. Again, in the early twentieth century, this Kondratieff cycle was replaced by electricity and chemicals. In the postwar period, the third long wave gained momentum by mass production and the automobile as well as the petrochemical industries. Since then, manufacturing activities built on oil as a second fossil fuel apart from coal. From the 1980s, one refers to the fifth long wave, which is reflected in the fast and ubiquitous diffusion and application of information and communication technology. Now, at the beginning of the twenty-first century, another paradigmatic change is in the air, being characterized, however, by one major difference to previous situations of radical change: whereas previous cycles were driven by technological bottlenecks and their overcoming, in the twentyfirst century, we face the vital question of how to restore environmental sustainability of economic activities. The knowledge-based bioeconomy plays a key role in this transformation process which, of course, like previous radical changes, still is confronted by fundamental uncertainty (Knight 1921). The literature provides many alternative terms for the massive change, shaking global production systems: Freeman (1991) and Dosi (1982) call them techno-economic paradigm changes; Sahal (1985) uses cartographic analogies and refers to technological guideposts that are pointing to technological avenues. All authors highlight the confrontation with profound changes economic systems are faced with over longer periods of time, which question all established production approaches. Not a single technology is responsible for this phenomenon but several complementary developments that include, apart from a package of mutually dependent technologies (e.g., combustion engine, petrochemistry, assembly line production), numerous infrastructural developments (e.g., road structure, filling station network), behavioral changes (e.g., suburbs and commuter flow, shopping malls outside the city centers), as well as institutional changes (e.g., spatial planning and commuter allowance, etc.). The old paradigm will not be replaced by the new one until all these elements interact. The neo-Schumpeterian approach provides us with crucial hints on the process of the forthcoming change. For this purpose, we discuss in the following section how innovations are supported by the discovery and successful diffusion of new knowledge. Knowledge-based economies organize innovation systems composed of different actors which establish a creative environment for mutual learning and knowledge creation. No innovation would have ever been established if it had not attracted consumers’ interest and if it had not been leveraged by their purchasing power. We will focus on these questions in Sect. 11.3. Knowledge-based societies consider new concepts in the sense of responsible innovation that are decisive in bringing an entire economy on a new sustainable path-shaping growth and development. Section 11.4 deals with the massive economic impacts originating from these technological and knowledge-driven changes. It requires, besides technological change, also institutional change in a coevolutionary fashion, if new sustainable technologies are to achieve the aspired transformation of the economic system. 11.2 Innovation Systems and Knowledge Neo-Schumpeterian scholars (e.g., Dosi et al. 1988; Lundvall 1992, 1998; Nelson 1993) strongly emphasize the systemic character of innovation processes. So-called innovation systems are composed of different actors (companies, research institutions, political actors, consumers, etc.) and linkages between these actors (flows of goods, R&D cooperation, knowledge transfer relationships, user-producer relationships, etc.). These linkages are required to ensure mutual learning and common knowledge development to solve complex innovation challenges. Such systems are characterized by their dynamic and coevolutionary nature and are thus enormously complex, as both actors and their knowledge and linkages and interactions between actors may change over time. Dosi (1982) takes this systemic conception as a starting point in defining technological paradigms as “[...] set of procedures, or a definition of the ‘relevant’ problems and of the specific knowledge related to their solution.” Transferred to the knowledge-based bioeconomy, the core idea is substitution, i.e., replacing carbon-based materials and energy with bio-based materials and energy. This can only be achieved by applying a variety of technological processes in the entire breadth and depth of the value-added chain. In this process the exploration of economic complementarities in terms of crossfertilization of different knowledge fields matters. For example, to a large extent, digitalization allows for an extension of value chains by increasing the added value in new sustainable production sectors in a CO2-neutral way (e.g., by electric mobility based on renewables, by establishing so-called smart grids, etc.). The concept of technological paradigms also illustrates that a paradigm shift is not possible at any time. A window of opportunity will only occasionally be opened and allow for a paradigm shift when several interconnected technologies are established and the creation of conducive demand side and institutional conditions happens simultaneously. This, of course, also holds for the emergence of a new bioeconomic innovation system and requires a sound balance of the various actors and their activities. For this reason, we introduce the notion of a dedicated innovation system. The theory of industrial life cycles, which emphasizes the strong dynamics in the emergence and decline of industries, gives a first hint on the meaning of the development of a dedicated innovation system supporting the transformation towards a knowledge-based bioeconomy. Typically, industrial development is divided into four stages: (1) a development phase (new knowledge creates prerequisites for innovation), (2) an entrepreneurial and growth phase (many market entries of smaller innovative firms), (3) a saturation and consolidation phase (formation of industrial standards, mergers, and acquisitions as well as market exits), and (4) a downturn phase (oligopolistic competition in only less innovative industries) (e.g., Audretsch and Feldman 1996). Although the bioeconomy does not represent a well-defined industrial sector, understanding the theory of industrial life cycles is of crucial importance to govern the transformation process towards the knowledge-based bioeconomy. Without doubt, the bioeconomy has to be characterized as cross sectional. On the one hand, several new sectors will emerge, e.g., in the fields of bioplastic, waste management, or biorefineries. On the other hand, already existing sectors in the fields of vehicle construction, battery technology, pharmaceuticals, etc. will gain new momentum by the arrival of bioeconomic approaches. Therefore, we argue that new sectors will emerge by establishing bioeconomic technologies and development dynamics of some already existing industries will receive new impetus at the same time. Adjustments of old and development of new institutions (e.g., in Germany the Renewable Energy Act, the Greenhouse Gas Emissions Trading Law, etc.), adjustments of consumer habits, and the emergence of new educational opportunities in terms of coevolution will accompany these processes and establish the institutional, the industrial, and the consumer pillars of a dedicated innovation system. The patterns and nature of new businesses in the bioeconomy are thus strongly influenced by national institutions and organizations (Casper et al. 1999; Whitley 1999). Institutions are defined as “a set of rules, formal or informal, that actors generally follow, whether for normative, cognitive, or material reasons.” “Organizations are durable entities with formally recognized members, whose rules also contribute to the institutions of the political economy” (North 1990; Hall and Soskice 2001). In this interplay between organizations and institutions, the knowledge base of an economy is created by the education and research system and represents one of the most important prerequisites for the transformation towards a bioeconomic production system (Geels 2002). This automatically relates to a high level of uncertainty in particular concerning the required future competences. In this complex process, numerous individual knowledge fields are potentially relevant for the transformation and are already identified, e.g., synthetic chemistry, process engineering, genetic engineering, food technology, or informatics. It is decisive to understand the dynamics of these knowledge fields and the possibilities of their recombination with other knowledge fields and adequate actors in order to create an innovation system. In many cases, linkages of different knowledge fields (cross-fertilization) are responsible for the emergence of extensive technological opportunities: for instance, a complete new industry, bioinformatics, has been initiated by the fusion of two so far unrelated knowledge fields, database technology and molecular biology. Because linking different knowledge fields is highly uncertain, private actors might not start and governmental innovation policies matter. Knowledge about future potentials, therefore, is essential for supporting research and innovation policies: the analysis of knowledge and network dynamics allows for the identification of development trajectories showing sectors requiring public attention and support concerning research and development in order to close existing knowledge gaps and build bridges between various knowledge domains (Burt 2004; Zaheer and Bell 2005). 11.3 Innovation in Knowledge-Based Societies It has already been mentioned that also consumer knowledge plays an important role for the development and establishment of sustainable consumption patterns in a knowledge-based bioeconomy (Geels 2002). Therefore, the analysis of the transformation process has to include the interaction of technological development, demand, and acceptance of innovative solutions as well as sociological variables. The latter include education, age, income, and gender. All are important explanatory factors determining attention and readiness to deal with bioeconomic issues. A bioeconomic innovation will only be successful when consumers accept it. The direction of the transformation process is, comparable to the importance of the policy realm, determined by consumers, i.e., an important question has to address consumers’ openness to the bioeconomy and its products. Finally, (real and virtual) social networks matter for the establishment of new consumption patterns. They can contribute significantly to a diffusion of consumers’ behavioral patterns and values (Robertson et al. 1996; Valente 1996; Nyblom et al. 2003; Deffuant et al. 2005). Recent studies show that attitudes are substantial for the development of social relationships and that, in turn, social relationships considerably influence behavior and attitudes. In the field of renewable energies, for example, the initiative of municipal utilities’ customers has led in many cases to a “green” orientation of regional power supply. In some cases, citizens’ networks finally transformed to investment companies that are engaged in wind farms. Critical issues are to be dealt with in democratic processes in order to be widely accepted. Not everything that is technically possible is also socially desirable. In the field of the bioeconomy, this may, for instance, include the use of genetically modified organisms in agriculture. In fact, these organisms promise efficiency advantages with regard to the consumption of land and water, etc., but their long-term health and environmental risks cannot be completely (as with any new technology) anticipated. Accordingly, technological developments require consumers’ acceptance and thus depend on the level of education in an economy. This raises the question of a society’s openness towards innovations that are fundamentally associated with uncertainty. The concept of responsible innovation summarizes the future-oriented organization of development and is currently discussed with a high priority by European policy makers and institutions. A comprehensive working definition has been developed by Von Schomberg (2011). He describes responsible innovation as “a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society).” This means that innovations are not exclusively evaluated by their economic efficiency, but different aspects (e.g., consumer protection or ecological aspects; see Schlaile et al. 2017) also matter and are to be evaluated. Discussions on biofuels (“fuel vs. food”) show that both a pure economic and a one-dimensional ethical perspective are not sufficient. The quality of these discussions depends on the discussants’ mutual understanding which in turn depends on the participants’ level of knowledge. Modern plant breeding and production of seeds are bioeconomy fields of innovation in which issues of responsibility are discussed frequently and controversially. German consumers are skeptical about interference with the genome of food crops, but individual points of criticism remain unclear. New breeding techniques introduced, e.g., genome editing, enable scientists to selectively modify DNA strands of crop plants. These techniques are considered innovative as they may allow breeding of potentially efficient plants in fast and cheap ways. Species developed this way hardly differ from those of conventional breeding. The Central Advisory Committee for Biological Safety does not classify these techniques as genetic engineering, especially because no new combinations of genetic material are made. As the Genetic Engineering Act does not explicitly address these techniques, legal clarification is still necessary as to whether these techniques are classified as genetic engineering at all. Dissemination potential and acceptance are influenced by this result. Here again, the necessity to include education and information policies becomes evident to support the transformation towards a knowledge-based bioeconomy. The concept of social innovation (e.g., Hanusch and Pyka 2013) emphasizes the importance of active citizenship in innovation. Thus, according to the understanding of the European Commission, this term includes innovations that are social, both in relation to their objective and their instruments. In particular, this includes innovations referring to the development and the application of new ideas (for products, services, and models), covering at the same time social demand and creating new social relationships or collaborations. The whole society should benefit and contribute to generate new impetus for improvement. Social innovations can make a major contribution to rural development and promote economic resilience in these regions by strengthening cooperative behavior. Rural cooperatives (e.g., regional producer and marketing associations, winegrowers’ cooperatives, tourism associations, etc.) can help to develop regional competitiveness considering ecological and social aspects. As a consequence, within the framework of a bioeconomy, rural regions that are notably affected by the already imminent demographic change and subsequent depopulation receive new opportunities for economic development. 11.4 The Economics of Change The sections above illustrate that a transformation of the prevailing economic system towards a bioeconomy is an extremely complex process. Various different actors participating in different roles are contributing different pieces of knowledge. In this process, innovative adjustments in already existing industries as well as the emergence of new and the disappearance of mature industries can be observed simultaneously. In addition to the substitutive relations of new bio-based industries to traditional oil-based industries, there are numerous essential complementary relations giving further momentum for the transformation process. First and foremost, there are the possibilities and application fields of digitalization. Digitalization allows to replace many oil-based products and energyintensive services simply by bits and bytes. Simultaneously, digitalization offers a wide range of opportunities by coordinating decentralized and very detailed bioeconomic technologies and processes such as energy production and distribution. This affects the composition of individual sectors where a coexistence of large diversified companies and small highspecialized technology companies is a likely solution. Finally, digitalization also offers consumer platforms to efficiently organize “sharing economy” approaches. Finally, successful knowledge generation and diffusion of relevant bioeconomic knowledge depends on dynamic innovation networks (Pyka 2002) in which different actors jointly share and create new knowledge. The consumers, represented, for example, by consumer associations or politics, will play a key role in these innovation networks and will help to establish networks in early stages of technology development. In a knowledge-based bioeconomy, investment and economic growth still represent a crucial element for employment, international competitiveness, and income generation. The bioeconomy can make important contributions to accelerate investments by providing new investment opportunities generated by fundamental innovations and thereby bringing currently available large quantities of liquidity to a productive use. This, in turn, accelerates the technological paradigm shift (Pe´rez 2010). The time path of the transformation process represents another critical component and has been explored only partially so far. On the one hand, it is high time to reduce carbon-based production methods. On the other hand, there will be frictions in the transformation process being caused, for example, by a lack of specialists and required competences. In this context, the so-called sailing ship effects (Howells 2002), frequently observed with radical innovations, could be made of good use. In the middle of the nineteenth century, when the existence of the established sailing ship technology was threatened by the arrival of new steam ships, shipbuilders—not having changed their technologies for many decades, if not centuries—began to innovate again. Due to the threat of innovative technologies, adjustment reactions in predecessor technologies can be observed with the aim to prevent the ancient technologies to be quickly replaced. Such adjustment reactions are, for example, fuel-efficient combustion engines and hybrid technologies as a reaction to the emergence of electric vehicles. These adjustments are advantageous since they pursue the same environmental objectives (e.g., inner-city fine dust and noise reduction, etc.) and thus provide more time to develop new technologies. Accordingly, the transformation process will for longer periods of time feature a coexistence of traditional and bio-based industries. Furthermore, it will be important to concurrently steer the relevant innovation processes in traditional technologies. This coexistence further increases complexity. At the same time, innovation policy is given room for maneuver and yet insufficiently developed technologies are prevented from being introduced prematurely which might cause promising approaches to fail. Distributional effects of the transformation process are important for social acceptance. A bio-based economy on an industrial scale will largely represent a knowledge-based economy. Consequently, additional demand for highskilled workers arises whereas opportunities for low-skilled workers decrease. This means a potential loss of jobs for less skilled workers in traditional industrial production. But apart from that, there will be demand for different goods and services whose compensation potential with regard to added value and employment is still unclear. Moreover, it remains open to what extent companies are prepared for this transformation into the bioeconomy. Transformation processes will lead to a devaluation of competences so far responsible for economic success. How do established companies deal with the so-called not-invented-here syndrome, overcome operational blindness, and shape transformation processes actively in order to obtain added value at their established locations? From this follows that distributional effects have an important regional dimension: does the bioeconomy strengthen divergence processes between regions or does it help to achieve more convergence? The approach of creating networks in the sense of the so-called smart specialization principle (Foray et al. 2009), connecting regional strengths along value-added chains in the best possible way, is promising but only sparsely implemented so far. Thus, in general, polarization tendencies leading to economic as well as political and cultural concentration of power and resulting in strong center-periphery structures can be avoided. But it still remains unclear, how strong and operational meaningful politically induced networks are in comparison to self-organized networks and how policy might exert influence. First findings indicate signs of a potential disintegration of the networks when political support is withdrawn (Green et al. 2013). Transformation towards a knowledge-based bioeconomic production system is supposed to terminate the existing negative relations between economic growth and environmental pollution, use of resources, climate change, and energy consumption and to promote a sustainable economy. The following questions are closely linked to the basic uncertainty of innovation and cannot be answered ex ante: “which contributions are to be made by individual sectors?,” “what complex feedbacks for national and international competitiveness are to be expected?,” and “do the so-called rebound effects possibly reduce or even overcompensate the positive effects of the transformation?” Institutional rules, such as a self-commitment of oil-producing countries to reduce their outputs due to the declining demand caused by bioeconomics, are a way to reduce these uncertainties, at least partly. It remains necessary for the leading actors, companies, households, and policy makers to refrain from optimization approaches and profit maximization in this transformation process. The complexity and uncertainty of this process requires the awareness of all actors to experimental behavior (trial and error) which always also includes the possibility of failure.

#### Capitalism is key to achieving net-zero---otherwise the alt fails---profit motives, market competition, and trade all ensure green tech.

Adair Turner 19. a British businessman and academic and was Chairman of the Financial Services Authority until its abolition in March 2013. “Is capitalism incompatible with effective climate change action?.” World Economic Forum. 9-3-2019. https://www.weforum.org/agenda/2019/09/is-capitalism-incompatible-with-effective-climate-change-action/

Believers in a market economy are dismayed by radical voices arguing that capitalism is incompatible with effective climate action. But unless capitalism's defenders start supporting more ambitious targets and policies to achieve net-zero carbon emissions by mid-century, they should not be surprised if an increasing number of people agree.

This year, the evidence that global warming is occurring, and that the consequences for humanity could be severe and potentially catastrophic, has become more compelling than ever. Record global temperatures in June and July. Unprecedented heatwaves in Australia and India, with temperatures above 50°C. Huge forest fires across northern Russia. All of these things tell us that we are running out of time to cut greenhouse-gas emissions and contain global warming to at least manageable levels.

The response has been growing demand for radical action. In the United States, proponents of the Green New Deal argue that America should be a zero-carbon economy by 2030. In the United Kingdom, activists of the “Extinction Rebellion” movement demand the same by 2025, and have severely disrupted London transport through very effective forms of civil disobedience. And the argument that avoiding catastrophic climate change requires rejecting capitalism is gaining ground.

Against this growing tide of radicalism, companies, business groups, and other establishment institutions urge caution and more measured action. Achieving zero emissions as early as 2030, they argue, would be immensely costly and require changes in living standards which most people will not accept. Illegal actions that disrupt others’ lives, it is said, will undermine popular support for necessary measures. A more affordable and gradual path of emissions reduction would be better and still prevent catastrophe, and market instruments operating within the capitalist system could be powerful levers of change.

These counterarguments are robust. The costs of achieving a zero-carbon economy will increase dramatically if we try to get there in ten years, not 30. Most forms of capital equipment naturally need replacement within 30 years, so switching to new technologies over that timeframe would cost relatively little, whereas switching over ten years would require companies to write off large quantities of existing assets.

Technological progress – whether in solar photovoltaic panels, batteries, biofuels, or aircraft design – will make it much cheaper to cut emissions in 15 years than today. And the profit motive is spurring venture capitalists to make huge investments in the new technologies required to deliver a zero-carbon economy.

Meanwhile, decentralized market mechanisms such as carbon pricing are essential to drive change in key industrial sectors, given the multiplicity of possible routes to decarbonization. Socialist planning will not be as effective: Venezuela is an environmental as well as a social disaster. And there is a real danger that excessively rapid action could alienate popular support. After all, the gilets jaunes (yellow vest) movement in France was provoked by tax increases designed to make diesel cars uneconomic, but were imposed at a time when electric vehicles are not yet cheap enough and lack the range to be a viable alternative for less well-off people living outside major cities.

To survive climate change we have to transform both economics and design

But it is also true that the capitalist system has failed to respond to the challenge of climate change fast enough; and in some ways, capitalism has impeded effective action. Venture capitalists financing brilliant technological breakthroughs have been matched by industry lobby groups successfully arguing against required regulations or carbon taxes. If adequate policies had been adopted 30 years ago, we would be well on the way to achieving a zero-carbon economy at a very low cost. The fact that we did not is, in part, capitalism’s fault.

Massively accelerated action is now required. All developed economies should commit to achieving net-zero carbon emissions by 2050. And zero must mean zero, with no pretense that we can continue burning large quantities of fossil fuels in the late twenty-first century, balanced by equally large quantities of carbon capture and storage.

Developing economies should get there by 2060 at the very latest. That would still leave us vulnerable to significant and unavoidable climate change, but climate science suggests that it would be sufficient to avoid catastrophe. And as the Energy Transitions Commission described in its recent Mission Possible report, it is still possible to achieve that objective at relatively low economic cost, provided we adopt without delay the policies required to drive rapid change.

Carbon taxes should be introduced at a sufficiently high level, and with future increases declared well in advance, to drive the multi-decade investment plans required to decarbonize heavy industry. Carbon tariffs should be used to protect industry from being undercut by imports from countries that fail to apply adequate carbon prices. Airlines should face either steadily rising carbon prices, or regulations requiring them to use a rising proportion of zero-carbon fuels from clearly sustainable sources, with the percentage reaching 100% before 2050.

Blunt but effective instruments – such as banning new sales of internal combustion engine autos from a specific future date, such as 2030, should also be part of the policy armory. And regulations should ban putting plastics in landfills and plastic incineration, forcing the development of a complete plastics recycling system.

None of these policies is anti-capitalist. Instead they are the policies we need to unleash capitalism’s power to solve the problem. Once clear prices and regulations are in place, market competition and the profit motive will drive innovation, and economies of scale and learning-curve effects will force down the costs of zero-carbon technologies. And if we do not unleash that power, we will almost certainly fail to contain climate change.

# 1NR

## Case

### AT: Chemicals

#### ‘Endocrine disruption’ is complete pseudo-science

Gerhard J. Nohynek 13, Les Caillons, Christopher J. Borgert, Center for Environmental and Human Toxicology, Department of Physiological Sciences, University of Florida College of Veterinary Medicine, Daniel Dietrich, Faculty of Biology, University of Konstanz, and Karl K. Rozmand, University of Kansas Medical Center, Department of Pharmacology, Toxicology and Therapeutics, “Endocrine Disruption: Fact or Urban Legend?”, Toxicology Letters, Volume 223, Issue 13, 12/16/2013, ScienceDirect

7. Discussion: facts versus fears

Labels like “Endocrine disruptor” or “hormone-like substances” are stigmatic terms; they sound dangerous, raise media attention and provoke human fears. Yet, in the absence of relevant human exposure and potency data, these terms are meaningless in terms of human health risks. Overall, the entire discussion whether man-made chemicals with hormone-like activity may pose a risk to human health has a paradoxical aspect: if such activities, however small, could actually pose a potential health risk, then it would make sense to worry about all substances that possess such activities, particularly when potent oestrogens, such as the contraceptive pill, are taken orally or when they are present in human food, such as phytoestrogens. To the contrary, a number of epidemiology studies suggest that the potent contraceptive pill or naturally occurring soy isoflavones or other phytoestrogens, pose no or negligible risk to human health or that of human progeny. Thus, it is difficult to conceive how synthetic substances that are not eaten and possess only a tiny fraction of the activity of pharmaceutical or some natural substances could be dangerous (see Fig. 1). Here it should be considered that average humans consume about 100 μg of oestrogen equivalents a day from natural sources (e.g. soy flavonoids), whereas chemicals, such as butylphthalate, in human food amount to about 0.02 μg oestrogen equivalents (Nilsson, 2000). Yet, activists and opportunistic and media-cited scientists focus on that tiny number. To put these figures into perspective: a single contraceptive pill contains the staggering amount of about 17,000 μg of oestrogen equivalents, reflecting the striking potency of genuine hormones.

Science is about establishing cause and effect, it is not about guessing. Scientists develop a hypothesis – substance x causes observation y - and then should rigorously test the hypothesis to determine whether it is valid or not. If the hypothesis is tested rigorously and cannot be refuted, it must be tentatively accepted that the hypothesis may be right (Taubes, 2012). On the other hand, if repeated testing fails to generate unequivocal support, the hypothesis should be viewed with scepticism. Let us put the man-made environmental disruptor hypothesis to the test: the hypothesis has now been evaluated experimentally and epidemiologically for nearly 20 years and no convincing evidence has been found of an actual decline in human fertility, and even less of a causal relation with synthetic hormonally active substances.

This raises another important issue: epidemiology attempts to determine the cause(s) of an established disease (Susser, 1991). Bacteria, viruses or exposure to toxic substances may cause human diseases. To illustrate this, in the 1950s, a causal relation was established for lung cancer and tobacco smoking. Indeed, lung cancer is a genuine disease with measurable frequency. Its incidence dramatically increased in the 50s, whereas cigarette smoking became increasingly popular in the preceding decades. Exposure was certain, given that tobacco smoke is directly inhaled into the lungs. Thus the hypothesis for a causal relation made biological sense and causality was confirmed by a number of subsequent investigations that involved millions of subjects unequivocally exposed to direct inhalation of tobacco smoke. But how can one determine a cause of a disease when the existence of the disease itself is uncertain? For example, the Testicular dysgenesis syndrome (TDS) is merely a hypothetical disease, in other words: nobody knows whether this disease exists or not - some experts in the field doubt whether TDS exists at all (Thorup et al., 2010). Scientifically and philosophically, the search for a hypothetical cause of a hypothetical disease makes no sense – would it not make more sense to first make sure that the disease actually exists, before spending millions on the quest of its cause? With good reason, the quest for environmental, man-made ED has rightly been titled by the European Molecular Biology Organisation as A Cause without a Disease (Breithaupt, 2004). Nevertheless, we are now witnessing the advent of a massive regulatory programme in search of a justifiable public health purpose (Gori, 2007). Finally, even when a substance is active in an in vitro or in vivo ED assay, it is generally very difficult to prove that the effect was actually caused by an endocrine mechanism, since a concomitant effect on endocrine function on its own is not proof of causality per se. As an example, many substances may affect the rat thyroid and rat thyroid hormones by a number of diverse modes of action many of which are not endocrine-relevant (Wu and Farelly, 2006). This poses an additional, yet unresolved, problem of how to prove that a substance is an ED in actual practice.

### AT: Bio/Nanoweapons---2NC

#### No bioweapons

Filippa **Lentzos 17**. Senior research fellow jointly appointed in the Departments of War Studies and of Global Health and Social Medicine at King’s College London. 07-03-17. "Ignore Bill Gates: Where bioweapons focus really belongs." Bulletin of the Atomic Scientists. http://thebulletin.org/ignore-bill-gates-where-bioweapons-focus-really-belongs10876

I disagree. At a stretch, terrorists taking advantage of advances in biology might be able to create a viable pathogen. That does not mean they could create a sophisticated biological weapon, and certainly not a weapon that could kill 30 million people. Terrorists in any event tend to be conservative. They use readily available weapons that have a proven track record—not unconventional weapons that are more difficult to develop and deploy. Available evidence shows that few terrorists have ever even contemplated using biological agents, and the extremely small number of bioterrorism incidents in the historical record shows that biological agents are difficult to use as weapons. The skills required to undertake even the most basic of bioterrorism attacks are more demanding than often assumed. These technical barriers are likely to persist in the near- and medium-term future. Gates does a disservice to the global health security community when he draws media and policy attention to amateurs such as terrorists. Where biological weapons are concerned, the focus should remain on national militaries and state-sponsored groups. These are the entities that might have the capability, now or in the near future, to develop dangerous biological weapons. The real threat is that sophisticated biological weapons will be used by state actors—or by financially, scientifically, and militarily well-resourced groups sponsored by states. So far, state-level use of biology to deliberately inflict disease or disrupt human functions has been limited by the strong international norm against biological weapons enshrined in the 1925 Geneva Protocol and the 1972 Biological and Toxin Weapons Convention. These two biological cornerstones of the rules of war uphold the international prohibition against the development, production, stockpiling, and use of biological weapons. But this norm may not survive indefinitely.

#### Nanoweapons are hype.

Matthew Hull, 2017. Associate Director for Entrepreneurship and Business Engagement with Virginia Tech’s National Center for Earth and Environmental Nanotechnology; PhD, civil and environmental engineering, Virginia Tech. “National Security and the Nano Factor.” Homeland Defense & Security Information Analysis Journal 20: 16-21. <https://www.hdiac.org/system/files/HDIAC%20Journal_Special%20Nanotechnology%20Issue_HDS_National%20Security%20and%20Nanotechnology_0.pdf>.

Practical Nano Security Scenarios As best we can tell, current to near-term nano security scenarios are much more limited and manageable than those that can be imagined based on the trajectories of nano- as well as other emerging and converging technologies. But it is a waiting game, and the gap between science fiction and reality has shrunk rapidly over the last decade. The tangible progress in molecular machines noted earlier is proof enough of that. For the most part though, current embodiments of nanoscale materials appear more like building blocks for increasingly sophisticated material and devices of the future, and less like the “grey goo” they were once feared to be. [16] Nevertheless, present day nano security concerns do exist, and we consider three of these below: Nano-enhanced delivery of chemical and biological agents: Chemical and biological agent attacks remain a very real threat to global and national security. The potential for nanoscale agents to be deployed to enhance the efficacy of such attacks is one practical and near-term concern. As noted earlier, researchers have already demonstrated that nanoscale particles can act as ubiquitous carriers of toxic chemicals. A NATO report on the security implications of nanotechnology noted that: “The potential for [nanotechnology] innovations in chemical and biological weapons is particularly disquieting, as NT can considerably enhance the delivery mechanisms of agents or toxic substances. The ability of nanoparticles to penetrate the human body and its cells could make biological and chemical warfare much more feasible, easier to manage and to direct against specific groups or individuals. Dr. Sean Howard, in his work on NT security implications, has even called the threat of chemical and biological warfare a ‘real nano goo.’” [17] Limited nano detection/forensic capabilities: A major security concern and unmet need lies in our limited ability to determine forensically, whether and to what extent a particular nano threat may have been deployed. Additionally, there exists a clear lack of field deployable and scalable tools capable of detecting and monitoring nanoscale threats beyond laboratories and clean-rooms. Scientific and engineering-based approaches can be taken to address these gaps. For now, capabilities suitable for enhanced detection/ mitigation of nanoscale tracking devices or nano-enabled “Trojan Horse” delivery threats, for example, remain limited. Complacency amidst a silent arms race: The number of state-sponsored nanotechnology initiatives globally signifies a clear arms race to assume a dominant position in nano-enabled science and technology. While not as visible as the nuclear threat, this race is every bit as important to national and global security. A major threat to U.S. national security on this front is the potential to become complacent and to prematurely reduce federal investments into nano and convergent technologies. The United States has established itself as a global leader in nanoscale science and engineering research, scholarship and commercialization. Nevertheless, failure to maintain strategic, long-term investments in these areas, particularly rapidly evolving infrastructure and human capital, could severely impact U.S. innovation in nano-enabled industries and many other emerging technology fields that are simultaneously enhanced by progress in nanotechnology. Attrition of U.S. intellectual and infrastructural capabilities across nanotechnology-related programs would weaken U.S. defense and security interests in the future, when strategic nanoscale science and engineering investments are expected to yield their greatest payoffs. Off Buttons and Erasers: Integrating Security Features into Nano-enabled Technologies A critical security feature of any technology is the ability to turn it off, undo it, deactivate it or otherwise separate the harm it might cause from those it might harm. Even the humble pencil has evolved to include an eraser for undoing its mistakes. But, mankind has endured a host of challenges that arise when new technologies yield unintended consequences – the persistence of consumer plastic goods has left debris scattered across the Earth’s oceans; the use of nuclear weapons and runaway reactor cores have rendered cities uninhabitable for thousands of years; and the use of CFCs in coolant systems migrated unabated to the stratosphere where they’ve depleted the earth’s ozone layer. The recent Galaxy Note 7 battery fire controversy coupled with growing use of lithium ion batteries in mobile devices underscores the importance of technology that can be turned off. At present, it is unclear how persistent nanostructures and the unique behaviors that may accompany them will be in biological and environmental systems, and that should be alarming. An unprecedented dialogue around responsible nanotechnology has yielded progress, but feasible safeguards have been limited at best. Researchers have called for more green chemistry/nanotechnology approaches to help address some of these issues, [18] but those are likely to be effective only in situations where they clearly do not compromise performance of nano-enabled materials and devices. Nano and National Security: Key Considerations for the Future Looking ahead, nanoscale science and engineering will continue to impact security both nationally and globally in significant and far-reaching ways. The following list summarizes some key opportunities for the nano defense and security community: Translate nano properties to human scale devices and systems. Much of the hype surrounding nanotechnology has been muted by a lack of real-world examples demonstrating how unique nanoscale material properties can be translated into materials and devices with performance capabilities that are vastly enhanced relative to their bulk counterparts. Perfect nanoscale power systems. Realization of some of the most exciting security and defense applications of nanotechnology requires innovative strategies to power and mobilize nano devices against ambient molecular forces that are far greater at the nanoscale than they are at the human scale. To nanomachines, molecules of air, water and biological fluids appear as impenetrable walls of infinite thickness.

### AT: Transition

#### Consumption is hard-wired in

Richard Heinberg 15. Senior Fellow-in-Residence of the Post Carbon Institute. 2015. “The Anthropocene: It’s Not All About Us.” <http://www.postcarbon.org/the-anthropocene-its-not-all-about-us/>

It’s hard to convince people to voluntarily reduce consumption and curb reproduction. That’s not because humans are unusually pushy, greedy creatures; all living organisms tend to maximize their population size and rate of collective energy use. Inject a colony of bacteria into a suitable growth medium in a petri dish and watch what happens. Hummingbirds, mice, leopards, oarfish, redwood trees, or giraffes: in each instance the principle remains inviolate—every species maximizes population and energy consumption within nature’s limits. Systems ecologist Howard T. Odum called this rule the Maximum Power Principle: throughout nature, “system designs develop and prevail that maximize power intake, energy transformation, and those uses that reinforce production and efficiency.”

In addition to our innate propensity to maximize population and consumption, we humans also have difficulty making sacrifices in the present in order to reduce future costs. We’re genetically hardwired to respond to immediate threats with fight-or-flight responses, while distant hazards matter much less to us. It’s not that we don’t think about the future at all; rather, we unconsciously apply a discount rate based on the amount of time likely to elapse before a menace has to be faced.

True, there is some variation in future-anticipating behavior among individual humans. A small percentage of the population may change behavior now to reduce risks to forthcoming generations, while the great majority is less likely to do so. If that small percentage could oversee our collective future planning, we might have much less to worry about. But that’s tough to arrange in democracies, where people, politicians, corporations, and even nonprofit organizations get ahead by promising immediate rewards, usually in the form of more economic growth. If none of these can organize a proactive response to long-range threats like climate change, the actions of a few individuals and communities may not be so effective at mitigating the hazard.

This pessimistic expectation is borne out by experience. The general outlines of the 21st century ecological crisis have been apparent since the 1970s. Yet not much has actually been accomplished through efforts to avert that crisis. It is possible to point to hundreds, thousands, perhaps even millions of imaginative, courageous programs to reduce, recycle, and reuse—yet the overall trajectory of industrial civilization remains relatively unchanged.