# Round 5---Texas 21

# 1AC

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### Plan---1AC

#### The United States federal government should prohibit private sector business practices that violate an effective competition antitrust standard.

### Adv---1AC

#### The advantage is the economy:

#### Antitrust law is failing now---current market consolidation undermines innovation, slows growth, and suppresses productivity. Promoting competition solves.

Fiona M. Scott Morton 20. Theodore Nierenberg Professor of Economics at the Yale University School of Management. “Reforming U.S. antitrust enforcement and competition policy,” https://equitablegrowth.org/reforming-u-s-antitrust-enforcement-and-competition-policy/.

Evidence that antitrust laws are falling short is plentiful. Many cartels go undiscovered, and tacit collusion is probably even more prevalent because it is harder for antitrust enforcers to prosecute and deter.9 Anticompetitive horizontal mergers (between rivals) appear to be underdeterred.10 A variety of clever strategies used by incumbents to exclude entrants, either by purchasing them when they are nascent or using tactics to confine them to a less threatening niche or forcing them to exit have been successfully deployed in recent years, often when antitrust enforcement is late or absent.11

Each of these sources of concern can be critiqued, but together they make a compelling case. Some of the evidence may have benign explanations in part, such as the growing importance of fixed costs, for example, when creating software or pharmaceuticals that leads naturally to higher markups, or the increasing benefit of being on the same platform with other users (known as “network effects” in the case of a social media site). Firms in industries with high fixed costs or large network externalities may exhibit high profits and productivity and low labor shares, and may earn high profits because they had a good idea early and executed well, thereby getting adoption from many consumers.12 Nonetheless, the overall picture is clear that market power has been growing in the United States for decades. Moreover, even where the explanation for growing market power is benign, we must ensure that companies do not use anticompetitive tactics to protect their position.

Firms with market power need not compete aggressively to sell their products, so they tend to raise prices, reduce quality, and/or innovate less. Market power can also contribute to slowed economic growth by, for example, suppressing productivity increases.13 Theoretical and empirical economic studies convincingly show that innovation is harmed by anticompetitive conduct.14

This is why antitrust enforcement is such a terrific policy tool to strengthen competition—it does not come with an efficiency downside, as do most policies that redistribute income. Policies that enhance competition are unambiguously beneficial for efficiency, as well as inclusive prosperity, with minor qualifications.15 Other policies for addressing inequality, in particular, such as labor market and tax policies, may create disincentives or allocative efficiency losses that must be weighed against their distributional benefits. Policies to enhance competition, by contrast, offer what is close to a free lunch.16

#### The plan solves---and effective competition standard reinvigorates antitrust.

Marshall Steinbaum & Maurice E. Stucke 19. Assistant Professor of Economics, University of Utah. Douglas A. Blaze Distinguished Professor of Law, University of Tennessee College of Law. “The Effective Competition Standard: A New Standard for Antitrust.” <https://marshallsteinbaum.org/assets/steinbaum-and-stucke-2020-effective-competition-standard-uchicago-law-review-.pdf>.

America, as legal and economic scholars are increasingly noting, has a market power problem. The emerging evidence points to less competition, higher markups, greater concentration, and widening wealth and income inequality. The current state of competition law benefits the select few—at the expense of nearly everyone else.

Our antitrust laws are supposed to deal with concentrated economic power. The problem is that the laws have been hijacked in two ways. First, ideologues narrowed the substance of antitrust from addressing a variety of goals to focusing solely on the concept of consumer welfare—namely, that harm to competition within the legal meaning of the antitrust laws consists solely of harm to consumers and their welfare, as measured almost exclusively by price and quantity effects in output markets. Second, some courts and enforcers went even further, declining to find antitrust liability in conduct that harms consumers on the theory that it carries other benefits, like long-run economic growth. Recent US Supreme Court decisions, including Ohio v American Express Co, and the US District Court’s decision to allow the AT&T/Time Warner merger illustrate how antitrust, under the prevailing consumer welfare standard, has been weakened and distorted beyond all recognition. Courts have elevated the burden of proof on the government and other antitrust plaintiffs to such an extent that the Sherman and Clayton Antitrust Acts have become unenforceable for many anticompetitive practices, other than cartels.

If the United States continues with a light-if-any-touch antitrust review of mergers and turns a blind eye to abuses by dominant firms, concentration and crony capitalism will likely increase, competition and our well-being will decrease further, and power and profits will continue to fall into fewer hands. Startups, small and midsize firms, and Americans more broadly—as workers, consumers, and democratic citizens—will be left to the beneficence or spite of a few powerful, but arbitrary, corporations.

This trend is reversible if we restore antitrust as a guarantor of effective competition. To tackle today’s market power problem, we offer an effective competition antitrust standard to replace the prevailing consumer welfare standard, which courts and scholars have interpreted differently (and at times inconsistently). The effective competition standard restores the primary aim of the antitrust laws—namely, the dispersion and deconcentration of significant private power wherever in the economy it is to be found, including throughout supply chains and in the labor market.

#### It's enforceable and sufficient.

Marshall Steinbaum & Maurice E. Stucke 19. Assistant Professor of Economics, University of Utah. Douglas A. Blaze Distinguished Professor of Law, University of Tennessee College of Law. “The Effective Competition Standard: A New Standard for Antitrust.” <https://marshallsteinbaum.org/assets/steinbaum-and-stucke-2020-effective-competition-standard-uchicago-law-review-.pdf>.

The effective competition standard differs from both the consumer welfare standard and the total welfare standard in that it expressly departs from the partial-equilibrium analysis of a single market as the basis for antitrust analysis. The effective competition standard further differs from the consumer welfare standard in four important ways:

• First, a substantial lessening of competition suffices for liability. Enforcers and courts need not demonstrate how the lessening of competition harms consumers, nor balance the harms to one set of stakeholders against the supposed benefits for another. In this respect, the effective competition standard makes antitrust more enforceable.

• Second, it recognizes that competition needs competitors. Thus, it takes a tougher stance on monopolistic, predatory, and exclusionary practices, which often reduce the competitive opportunities for entrants and rivals.

• Third, unlike the consumer welfare standard, which considers the impact only on consumers, the effective competition standard protects market participants throughout the supply chain, including workers and sellers.

• Finally, by eliminating the precarious step of how the lessening of competition will harm consumers’ welfare, the effective competition standard restores the purpose of the Clayton Act to “arrest restraints of trade in their incipiency and before they develop into full-fledged restraints violative of the Sherman Act.” As Congress noted, “A requirement of certainty and actuality of injury to competition is incompatible with any effort to supplement the Sherman Act by reaching incipient restraints.”

To promote competition and innovation in our heavily concentrated markets, the effective competition standard would depart from today’s light-touch antitrust policies in the following areas.

#### Scenario 1 is Growth:

#### Sustained anti-competitive behavior is regressive and makes economic collapse inevitable.

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The direct cost of anti-competitive behavior is high. Many studies estimate this cost by implied price overcharge, typically stemming from identified cartels. A common approach to estimating the price overcharge consists in applying a difference-in-difference technique, that is, by comparing prices in a market before and after an infringement was identified (e.g., a cartel) to a “counterfactual” market in a different location or product market where no infringement was identified.3 The estimated price overcharges in advanced economies are found to be large on average, ranging from 15 to about 50 percent. Ivaldi et al. (2017) extends these estimationsto 20 developing economies, using a database of over 200 major cartel episodes over 1995–2013. They estimate that the harm to the economy in terms of excess profits resulting from price overcharges could reach about 4 percent of GDP, accounting for the probability of undetected cartels. The cost of cartels could extend to overcharges in intermediate goods, ultimately affecting finished products, as well as procurement of public goods, or it could also affect the economy through a reduction in output (World Bank-OECD 2017). Even without cartels, anti-competitive behavior would result in higher prices and lower production.

There is also growing evidence that the lack of competition not only affects more strongly the poorest countries but also hurts the poor more in each country. Higher market power in food, beverages and medicines was shown to be regressive, that is, they hurt more the poorest, as shown using Mexican data (Urzua 2013). Similar results exist in the context of advanced countries (e.g., Creedy and Dixon 1998 and 2000). There is also evidence that prices in sub-Saharan Africa are higher than in other developing regions, controlling for income and other factors. The extra cost of living in this region is negatively correlated with aggregate measures of competition (IMF 2019a). OECD (2017), using a calibrated model on a selected group of advanced countries, finds that market power could be responsible for a sizable increase in the wealth of the richest 10 percent and a large reduction in the income of the poorest 20 percent.

The decline in the labor share has also been interpreted as a sign of rising market power. Labor share has been decreasing in the U.S. and other advanced economies (IMF 2019b). This decline in labor share could be explained to a large extent as a result of the Information Technology (IT) revolution as argued by Aghion and others (2019). This revolution allowed superstar firms to expand into many sectors of the economy. As these firms have higher markups and lower labor shares than non-superstar firms, the decline in aggregate labor share and corresponding increase in aggregate markups reflect a “composition effect”. In other words, it is not the result of a within-firm increase in markup or a decline in labor share. Evidence of the predominance of a “between-firm” (or “composition”) effect over a “within-firm” effect is provided by De Locker and Eeckout (2019) and Baqaae and Farhi (2019). IMF (2019b) shows that the “reallocation” effect is pronounced in the U.S. but less so in other advanced countries. The long-term effect of this increasing hegemony of superstar firms has been to discourage innovation and entry by non-superstar firms, thereby leading to a decrease in aggregate productivity growth, broad-based growth, and business dynamism. This increasing hegemony, in turn, has been facilitated by an insufficient regulation of mergers and acquisitions, in other words by a competition policy, which has not adapted to the digital economy.

#### State-based market interventions are key to sustainable growth. The alternative to well-measured corrections is an unfettered and regressive free market.

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There is a positive correlation between long-term growth and poverty alleviation. More specifically, Lant Pritchett argues, based on cross-country patterns, that “broad-based growth, defined as the process that raises median income, is far and away the most important source of poverty reduction.”9 The sharp decline in poverty rates in China (about 800 million people escaped poverty) amid the two decades of break-neck growth is the starkest illustration. As discussed, innovation-based growth based on Schumpeterian creative destruction is key to productivity gains and sustained growth. The question is how to achieve broad-based, high and sustained growth which means to spur the emergence of good paying jobs. This is perhaps one of the most difficult and debated questions in economics.

The standard view shared by most economists over the last few decades is that “horizontal policies”, that is improvements in education, the quality of institutions, infrastructure, business environment, and regulations are key. Many of these policies tackle what is known as “government failures” as described in Rodrik (2005). In other words, state intervention should limit itself to providing public goods and the provision of a good environment while crucially ensuring an adequate level of competition. In this context, firms would have the incentive to invest and deploy efforts to be competitive through improvements in productivity and innovation to offer new and better-quality goods among others.

However, growth can be harmed by anti-competitive behaviors or distortive policies which can take different and subtle forms and are not always easy to gauge. Among these, imposing barriers to entry or helping non-performing firms remain in business, could have a substantial negative effect. Hsieh and Klenow (2009) emphasize the importance of input reallocation effects. They show that aggregate productivity differentials can be explained by differences in terms of the distribution of firms’ productivity. This means that relatively less productive firms have access to a considerable share of the resources. They argue that it is harder for a more productive firm to grow but also easier for a less productive firm to survive in India than in the U.S. for example. In the same vein, Aghion (2016) suggests that that there is more business dynamism in the U.S. than India, that is more firms enter and exit, which would explain input misallocation and differences in income per capita.

Compared to the U.S., potential constraints in developing economies such as India include more rigid capital markets and labor/product markets, the lower supply of skills, the poorer quality of infrastructure, and the lower quality of institutions to protect property rights and to enforce contracts. However, even if markets are perfectly competitive and an adequate environment is ensured, the economy may still not reach its full potential. This is because of “market failures,” which typically happen in the presence of externalities. They are at play when firms and workers do not fully internalize the effects of their decisions on the broader economy and their dynamic implications. Typically, they are learning externalities, coordination failures, or information asymmetries (Rodrik 2005).

As argued by many, (e.g., Arrow 1962) and Matsuyama 1992) some activities entail higher productivity gains, or more learning potential, for an economy compared to other traditional activities such as non-tradable services or agriculture. Firms may not be fully aware of these productivity gains, leading to lower output in high-productivity sectors and lower relative incomes over time. The coordination failure is based on the idea that a critical size of the modern sector is needed for a firm to enter it. It would be profitable for a firm to invest in a modern sector only if there are enough firms investing simultaneously in other modern sectors. If many firms invest together in modern sectors, described as the “big push,” economy reaches a higher level of productivity and development (Rosenstein-Rodan 1943, Murphy et al. 1989). Lastly, information asymmetries exist if there is imperfect information about new markets and products, and firms underinvest as a result (Hausman and Rodrik 2003). This is clearly seen in firms trying to export and penetrate new geographical markets with their products.

In theory, tackling these externalities would necessitate a state intervention, broadly defined as industrial policy. However, the scope, the tools and whether it could in practice be superior to a more “laissez-faire” approach, leaving the outcome to unfettered competition, is the object of an ongoing debate. At the heart of the debate lies the definition of what constitutes a “modern” sector, which is conducive to productivity gains and spillovers to the rest of the economy. While it is typically associated with manufacturing (Matsuyama 1992 and Krugman 1987) or related to the concept of sophistication (Hausman, Hwang and Rodrik 2007 and Cherif and Hasanov 2019), others argue that service sectors could also play a role (IMF 2018). More important for inclusive growth, if a sector is to be targeted, it should help achieve broad-based growth to contribute to poverty alleviation. In practice it means that it should also generate (directly or indirectly) enough employment, and the level of skills to fill those jobs should be realistically met over the medium term.

The other key question relates to how state intervention to tackle externalities could curtail or distort competition. Indeed, state interventions of the past typically followed the model of import-substitution policies. The main idea was to protect domestic producers from international competition by imposing barriers to trade, such as high tariffs. In many cases, the curtailment of competition went further and encompassed the domestic market as countries relied on one or very few “champions” to achieve import-substitution goals. The many past failed cases in Latin America and the Middle East imply that such policies may be counterproductive in general (Cherif and Hasanov 2019). The comparison of Malaysia’s foray into automotive industry in the 1970s with its champion Proton to the success of Korea’s Hyundai is a case in point (Cherif and Hasanov 2019b). After decades of support and protection from domestic and international competition, Proton depended on imports of critical inputs, including the engine. The high tariffs to protect it also meant that consumers had to pay higher prices for lower quality products. In comparison, although Hyundai benefitted from state support as well, it was also forced early on to compete both on the domestic and international markets. It could be argued that competition provided Hyundai with an incentive to innovate and take advantage of economies of scale.

Moreover, support for firms could be pursued without necessarily implying less competition. Aghion and others (2015) develop a simple model showing that targeted subsidies can be used to induce several firms to operate in the same sector, and that the more competitive the sector is, the more it will induce firms to innovate in order to “escape competition” (Aghion et. al. 2005). Of course, a lot depends upon the design of industrial policy. Such policy should target sectors, not particular firms (Aghion 2016). Using Chinese firm-level panel data, Aghion and others (2015) look at the interaction between state subsidies to a sector and the level of product market competition in that sector. They show that TFP, TFP growth, and product innovation (defined as the ratio between output value generated by new products to total output value) are all positively correlated with the interaction between state aid to the sector and market competition in the sector. In other words, the more competitive the recipient sector is, the more positive the effects of targeted state subsidies to that sector are. Infact, for sectors with low degree of competition the effects are negative, whereas the effects become positive in sectors with sufficiently high degree of competition. Finally, the interaction between state aid and product market competition in the sector is more positive when state aid is less concentrated.

Yet, there are externalities that can be tackled without curtailing competition with the potential to have a sizable contribution to broad-based growth and poverty alleviation. These are typically related to informational asymmetries. Bloom and Van Reenen (2010), f or example, show that interventions to improve management practices in Indian small firms can significantly improve productivity. So did the productivity missions of the Marshall Plan in Europe after the WWII (Giorcelli 2019). In the same vein, Atkin et al. (2017) showed that Egyptian rug producers can be helped to access export markets by tackling informational asymmetries and coordination failures. In other words, they showed that interventions such as export promotion agencies can help SMEs advertise their products in foreign markets and act as a communication channel between them and customers. They also showed that export activities helped small producers improve their quality and value added which confirms the importance of export orientation. This focus on SMEs can help increase productivity and tackle inequality at the same time.

The trade-off between the benefits and costs of state intervention suggests that the way the state intervenes in the economy is crucial. This intervention needs to be cognizant of exacerbating government failures such as rent-seeking and corruption. Moreover, even if these interventions are successful in the sense that they create competitive industries and contribute to growth, they should avoid creating “islands” of relatively advanced sectors. If these sectors are disconnected from the rest of the economy, broad-based growth may not be sustained, and it would exacerbate inequality. For example, thanks to interventions and targeted policies, Costa Rica managed to foster a high-tech sector in electronics and health instruments (Spar 1998). Although it led to higher growth and declining poverty as well as productivity improvements in agricultural sectors, high inequality persisted while growth policies for inclusiveness were missing (Ferreira, Fuentes, and Ferreira 2018).

#### COVID creates an economic brink---recovery is strong now because of effective monetary policy, but we’ve hit the zero-lower bound.

Christopher Rugaber 21. Associated Press. “Federal Reserve keeps key interest rate near zero, signals COVID-19 economic risks receding.” https://www.chicagotribune.com/business/ct-biz-fed-interest-rates-economy-20210428-bumyc3ynpza6ri4ygsntmdsmya-story.html.

WASHINGTON — The Federal Reserve is keeping its ultra-low interest rate policies in place, a sign that it wants to see more evidence of a strengthening economic recovery before it would consider easing its support.

In a statement Wednesday, the Fed expressed a brighter outlook, saying the economy has improved along with the job market. And while the policymakers noted that inflation has risen, they ascribed the increase to temporary factors.

The Fed also signaled its belief that the pandemic’s threat to the economy has diminished, a significant point given Chair Jerome Powell’s long-stated view that the recovery depends on the virus being brought under control. Last month, the Fed had cautioned that the virus posed “considerable risks to the economic outlook.” On Wednesday, it said only that “risks to the economic outlook remain” because of the pandemic.

The central bank left its benchmark short-term rate near zero, where it’s been since the pandemic erupted nearly a year ago, to help keep loan rates down to encourage borrowing and spending. It also said in a statement after its latest policy meeting that it would keep buying $120 billion in bonds each month to try to keep longer-term borrowing rates low.

The U.S. economy has been posting unexpectedly strong gains in recent weeks, with barometers of hiring, spending and manufacturing all surging. Most economists say they detect the early stages of what could be a robust and sustained recovery, with coronavirus case counts declining, vaccinations rising and Americans spending their stimulus-boosted savings.

#### Eroding financial resilience causes war---that overcomes traditional barriers to conflict.

Jomo Kwame Sundaram & Vladimir Popov 19. Former economics professor, was United Nations Assistant Secretary-General for Economic Development, and received the Wassily Leontief Prize for Advancing the Frontiers of Economic Thought in 2007. Former senior economics researcher in the Soviet Union, Russia and the United Nations Secretariat, is now Research Director at the Dialogue of Civilizations Research Institute in Berlin “Economic Crisis Can Trigger World War.” <http://www.ipsnews.net/2019/02/economic-crisis-can-trigger-world-war/>.

Economic recovery efforts since the 2008-2009 global financial crisis have mainly depended on unconventional monetary policies. As fears rise of yet another international financial crisis, there are growing concerns about the increased possibility of large-scale military conflict.

More worryingly, in the current political landscape, prolonged economic crisis, combined with rising economic inequality, chauvinistic ethno-populism as well as aggressive jingoist rhetoric, including threats, could easily spin out of control and ‘morph’ into military conflict, and worse, world war.

Crisis responses limited

The 2008-2009 global financial crisis almost ‘bankrupted’ governments and caused systemic collapse. Policymakers managed to pull the world economy from the brink, but soon switched from counter-cyclical fiscal efforts to unconventional monetary measures, primarily ‘quantitative easing’ and very low, if not negative real interest rates.

But while these monetary interventions averted realization of the worst fears at the time by turning the US economy around, they did little to address underlying economic weaknesses, largely due to the ascendance of finance in recent decades at the expense of the real economy. Since then, despite promising to do so, policymakers have not seriously pursued, let alone achieved, such needed reforms.

Instead, ostensible structural reformers have taken advantage of the crisis to pursue largely irrelevant efforts to further ‘casualize’ labour markets. This lack of structural reform has meant that the unprecedented liquidity central banks injected into economies has not been well allocated to stimulate resurgence of the real economy.

From bust to bubble

Instead, easy credit raised asset prices to levels even higher than those prevailing before 2008. US house prices are now 8% more than at the peak of the property bubble in 2006, while its price-to-earnings ratio in late 2018 was even higher than in 2008 and in 1929, when the Wall Street Crash precipitated the Great Depression.

As monetary tightening checks asset price bubbles, another economic crisis — possibly more severe than the last, as the economy has become less responsive to such blunt monetary interventions — is considered likely. A decade of such unconventional monetary policies, with very low interest rates, has greatly depleted their ability to revive the economy.

The implications beyond the economy of such developments and policy responses are already being seen. Prolonged economic distress has worsened public antipathy towards the culturally alien — not only abroad, but also within. Thus, another round of economic stress is deemed likely to foment unrest, conflict, even war as it is blamed on the foreign.

International trade shrank by two-thirds within half a decade after the US passed the Smoot-Hawley Tariff Act in 1930, at the start of the Great Depression, ostensibly to protect American workers and farmers from foreign competition!

Liberalization’s discontents

Rising economic insecurity, inequalities and deprivation are expected to strengthen ethno-populist and jingoistic nationalist sentiments, and increase social tensions and turmoil, especially among the growing precariat and others who feel vulnerable or threatened.

Thus, ethno-populist inspired chauvinistic nationalism may exacerbate tensions, leading to conflicts and tensions among countries, as in the 1930s. Opportunistic leaders have been blaming such misfortunes on outsiders and may seek to reverse policies associated with the perceived causes, such as ‘globalist’ economic liberalization.

Policies which successfully check such problems may reduce social tensions, as well as the likelihood of social turmoil and conflict, including among countries. However, these may also inadvertently exacerbate problems. The recent spread of anti-globalization sentiment appears correlated to slow, if not negative per capita income growth and increased economic inequality.

To be sure, globalization and liberalization are statistically associated with growing economic inequality and rising ethno-populism. Declining real incomes and growing economic insecurity have apparently strengthened ethno-populism and nationalistic chauvinism, threatening economic liberalization itself, both within and among countries.

Insecurity, populism, conflict

Thomas Piketty has argued that a sudden increase in income inequality is often followed by a great crisis. Although causality is difficult to prove, with wealth and income inequality now at historical highs, this should give cause for concern.

Of course, other factors also contribute to or exacerbate civil and international tensions, with some due to policies intended for other purposes. Nevertheless, even if unintended, such developments could inadvertently catalyse future crises and conflicts.

Publics often have good reason to be restless, if not angry, but the emotional appeals of ethno-populism and jingoistic nationalism are leading to chauvinistic policy measures which only make things worse.

At the international level, despite the world’s unprecedented and still growing interconnectedness, multilateralism is increasingly being eschewed as the US increasingly resorts to unilateral, sovereigntist policies without bothering to even build coalitions with its usual allies.

Avoiding Thucydides’ iceberg

Thus, protracted economic distress, economic conflicts or another financial crisis could lead to military confrontation by the protagonists, even if unintended. Less than a decade after the Great Depression started, the Second World War had begun as the Axis powers challenged the earlier entrenched colonial powers.

They patently ignored Thucydides’ warning, in chronicling the Peloponnesian wars over two millennia before, when the rise of Athens threatened the established dominance of Sparta!

Anticipating and addressing such possibilities may well serve to help avoid otherwise imminent disasters by undertaking pre-emptive collective action, as difficult as that may be.

#### Those wars draw-in great powers---that outweighs.

Lawrence H. Summers 17. US Secretary of the Treasury (1999-2001) and Director of the US National Economic Council (2009-2010), former president of Harvard University, where he is currently University Professor. “Will the Center Hold?” <https://www.project-syndicate.org/onpoint/recession-or-financial-crisis-political-fallout-by-lawrence-h--summers-2017-12?a_la=english&a_d=5a37edac78b6c709b8d260dd&a_m=&a_a=click&a_s=&a_p=%2Fsection%2Feconomics&a_li=recession-or-financial-crisis-political-fallout-by-lawrence-h--summers-2017-12&a_pa=section-commentaries&a_ps>=.

The risk from a purely economic point of view is that the traditional strategy for battling recession – a reduction of 500 basis points in the federal funds rate – will be unavailable this year, given the zero lower bound on interest rates. Nor is it clear that the will or the room for fiscal expansion will exist.

This means that the next recession, like the last, may well be protracted and deep, with severe global consequences. And the political capacity for a global response, like that on display at the London G-20 Summit in 2009, appears to be absent as well. Just compare the global visions of US President Barack Obama and UK Prime Minister Gordon Brown back then with those of Trump and Prime Minister Theresa May today.

I shudder to think what a serious recession will mean for politics and policy. It is hard to imagine avoiding a resurgence of protectionism, populism, and scapegoating. In such a scenario, as with another financial crisis, the center will not hold.

But the greatest risk in the next few years, I believe, is neither a market meltdown nor a recession. It is instead a political doom loop in which voters’ conclusion that government does not work effectively for them becomes a self-fulfilling prophecy. Candidates elected on platforms of resentment delegitimize the governments they lead, fueling further resentment and even more problematic new leaders. Cynicism pervades.

How else can one explain how the candidacy of Roy Moore for a US Senate seat? Moore, who was twice dismissed for cause from his post on the Alabama Supreme Court, and who is credibly charged with sexually assaulting teenage girls when he was in his 30s, could enter the US Senate as many of his colleagues look the other way.

If a country’s citizens lose confidence in their government’s ability to improve their lives, the government has an incentive to rally popular support by focusing attention on threats that only it can address. That is why in societies pervaded by anger and uncertainty about the future, the temptation to stigmatize minority groups increases. And it is why there is a tendency for officials to magnify foreign threats.

We are seeing this phenomenon all over the world. Russian President Vladimir Putin, Turkish President Recep Tayyip Erdoğan, and Chinese President Xi Jinping have all made nationalism a central part of their governing strategy. So, too, has Trump, who has explicitly rejected the international community in favor of the idea that there is only a ceaseless struggle among nation-states for competitive advantage.

When the world’s preeminent power, having upheld the idea of international community for nearly 75 years, rejects it in favor of ad hoc deal making, others have no choice but to follow suit. Countries that can no longer rely on the US feel pressure to provide for their own security. America’s adversaries inevitably will seek to fill the voids left behind as the US retrenches.

#### Even if growth is imperfect, the transition away fails.

Hubert Buch-Hansen 18. Associate Professor, Department of Business and Politics, Copenhagen Business School. “The Prerequisites for a Degrowth Paradigm Shift: Insights from Critical Political Economy.” *Ecological Economics* 146: 157-63. Emory Libraries.

Still, the degrowth project is nowhere near enjoying the degree and type of support it needs if its policies are to be implemented through democratic processes. The number of political parties, labour unions, business associations and international organisations that have so far embraced degrowth is modest to say the least. Economic and political elites, including social democratic parties and most of the trade union movement, are united in the belief that economic growth is necessary and desirable. This consensus finds support in the prevailing type of economic theory and underpins the main contenders in the neoliberal project, such as centre-left and nationalist projects. In spite of the world's multidimensional crisis, a pro-growth discourse in other words continues to be hegemonic: it is widely considered a matter of common sense that continued economic growth is required.

It is also noteworthy that economic and political elites, to a large extent, continue to support the neoliberal project, even in the face of its evident shortcomings. Indeed, the 2008 financial crisis did not result in the weakening of transnational financial capital that could have paved the way for a paradigm shift. Instead of coming to an end, neoliberal capitalism has arguably entered a more authoritarian phase (Bruff, 2014). The main reason the power of the pre-crisis coalition remains intact is that governments stepped in and saved the dominant fraction by means of massive bailouts. It is a foregone conclusion that this fraction and the wider coalition behind the neoliberal paradigm (transnational industrial capital, the middle classes and segments of organized labour) will consider the degrowth paradigm unattractive and that such social forces will vehemently oppose the implementation of degrowth policies (see also Rees, 2014: 97).

While degrowth advocates envision a future in which market forces play a less prominent role than they do today, degrowth is not an antimarket project. As such, it can attract support from certain types of market actors. In particular, it is worth noting that social enterprises, such as cooperatives (Restakis, 2010), play a major role in the degrowth vision. Such enterprises are defined by being ‘organisations involved at least to some extent in the market, with a clear social, cultural and/or environmental purpose, rooted in and serving primarily the local community and ideally having a local and/or democratic ownership structure’ (Johanisova et al., 2013: 11). Social enterprises currently exist at the margins of a system, in which the dominant type of business entity is profit-oriented, shareholder-owned corporations. The further dissemination of social enterprises, which is crucial to the transitions to degrowth societies, is – in many cases – blocked or delayed as a result of the centrifugal forces of global competition (Wigger and Buch-Hansen, 2013). Overall, social enterprises thus (still) constitute a social force with modest power.

Ougaard (2016: 467) notes that one of the major dividing lines in the contemporary transnational capitalist class is between capitalists who have a material interest in the carbon-based economy and capitalists who have a material interest in decarbonisation. The latter group, for instance, includes manufacturers of equipment for the production of renewable energy (ibid.: 467). As mentioned above, degrowth advocates have singled out renewable energy as one of the sectors that needs to grow in the future. As such, it seems likely that the owners of national and transnational companies operating in this sector would be more positively inclined towards the degrowth project than would capitalists with a stake in the carbon-based economy. Still, the prospect of the “green sector” emerging as a driving force behind degrowth currently appears meagre. Being under the control of transnational capital (Harris, 2010), such companies generally embrace the “green growth” discourse, which ‘is deeply embedded in neoliberal capitalism’ and indeed serves to adjust this form of capitalism ‘to crises arising from contradictions within itself’ (Wanner, 2015: 23).

In addition to support from the social forces engendered by the production process, a political project ‘also needs the political ability to mobilize majorities in parliamentary democracies, and a sufficient measure of at least passive consent’ (van Apeldoorn and Overbeek, 2012: 5–6) if it is to become hegemonic. As mentioned, degrowth enjoys little support in parliaments, and certainly the pro-growth discourse is hegemonic among parties in government.5 With capital accumulation being the most important driving force in capitalist societies, political decision-makers are generally eager to create conditions conducive to production and the accumulation of capital (Lindblom, 1977: 172). Capitalist states and international organisations are thus “programmed” to facilitate capital accumulation, and do as such constitute a strategically selective terrain that works to the disadvantage of the degrowth project.

The main advocates of the degrowth project are grassroots, small fractions of left-wing parties and labour unions as well as academics and other citizens who are concerned about social injustice and the environmentally unsustainable nature of societies in the rich parts of the world. The project is thus ideationally driven in the sense that support for it is not so much rooted in the material circumstances or short-term self-interests of specific groups or classes as it is rooted in the conviction that degrowth is necessary if current and future generations across the globe are to be able to lead a good life. While there is no shortage of enthusiasts and creative ideas in the degrowth movement, it has only modest resources compared to other political projects. To put it bluntly, the advocates of degrowth do not possess instruments that enable them to force political decision-makers to listen to – let alone comply with – their views. As such, they are in a weaker position than the labour union movement was in its heyday, and they are in a far weaker position than the owners and managers of large corporations are today (on the structural power of transnational corporations, see Gill and Law, 1989).

6. Consent

It is also safe to say that degrowth enjoys no “passive consent” from the majority of the population. For the time being, degrowth remains unknown to most people. Yet, if it were to become generally known, most people would probably not find the vision of a smaller economic system appealing. This is not just a matter of degrowth being ‘a missile word that backfires’ because it triggers negative feelings in people when they first hear it (Drews and Antal, 2016). It is also a matter of the actual content of the degrowth project.

Two issues in particular should be mentioned in this context. First, for many, the anti-capitalist sentiments embodied in the degrowth project will inevitably be a difficult pill to swallow. Today, the vast majority of people find it almost impossible to conceive of a world without capitalism. There is a ‘widespread sense that not only is capitalism the only viable political and economic system, but also that it is now impossible to even imagine a coherent alternative to it’ (Fisher, 2009: 2). As Jameson (2003) famously observed, it is, in a sense, easier to imagine the end of the world than it is to imagine the end of capitalism. However, not only is degrowth – like other anti-capitalist projects – up against the challenge that most people consider capitalism the only system that can function; it is also up against the additional challenge that it speaks against economic growth in a world where the desirability of growth is considered common sense.

Second, degrowth is incompatible with the lifestyles to which many of us who live in rich countries have become accustomed. Economic growth in the Western world is, to no small extent, premised on the existence of consumer societies and an associated consumer culture most of us find it difficult to completely escape. In this culture, social status, happiness, well-being and identity are linked to consumption (Jackson, 2009). Indeed, it is widely considered a natural right to lead an environmentally unsustainable lifestyle – a lifestyle that includes car ownership, air travel, spacious accommodations, fashionable clothing, an omnivorous diet and all sorts of electronic gadgets. This Western norm of consumption has increasingly been exported to other parts of the world, the result being that never before have so many people taken part in consumption patterns that used to be reserved for elites (Koch, 2012). If degrowth were to be institutionalised, many citizens in the rich countries would have to adapt to a materially lower standard of living. That is, while the basic needs of the global population can be met in a non-growing economy, not all wants and preferences can be fulfilled (Koch et al., 2017). Undoubtedly, many people in the rich countries would experience various limitations on their consumption opportunities as a violent encroachment on their personal freedom. Indeed, whereas many recognize that contemporary consumer societies are environmentally unsustainable, fewer are prepared to actually change their own lifestyles to reverse/address this.

At present, then, the degrowth project is in its “deconstructive phase”, i.e., the phase in which its advocates are able to present a powerful critique of the prevailing neoliberal project and point to alternative solutions to crisis. At this stage, not enough support has been mobilised behind the degrowth project for it to be elevated to the phases of “construction” and “consolidation”. It is conceivable that at some point, enough people will become sufficiently discontent with the existing economic system and push for something radically different. Reasons for doing so could be the failure of the system to satisfy human needs and/or its inability to resolve the multidimensional crisis confronting humanity. Yet, various material and ideational path-dependencies currently stand in the way of such a development, particularly in countries with large middle-classes. Even if it were to happen that the majority wanted a break with the current system, it is far from given that a system based on the ideas of degrowth is what they would demand.

#### Scenario 2 is Innovation:

#### Increased competition aligns innovation with profit motive and drives technological breakthroughs in every sector of the economy.

Giulio Federico 20. Head of the Unit at the Chief Economist Team (CET) of DG Competition, European Commission, et al., 2020. “Antitrust and Innovation: Welcoming and Protecting Disruption.” https://www.law.berkeley.edu/wp-content/uploads/2020/08/Shapiro-Carl-Antitrust-and-Innovation-Welcoming-and-Protecting-Disruption.pdf.

The goal of antitrust policy is to protect and promote a vigorous competitive process. Effective rivalry spurs firms to introduce new and innovative products, as they seek to capture profitable sales from their competitors and to protect their existing sales from future challengers. In this fundamental way, competition promotes innovation. We apply this basic insight to the antitrust treatment of horizontal mergers and of exclusionary conduct by dominant firms. A merger between rivals internalizes business-stealing effects arising from their parallel innovation efforts and thus tends to depress innovation incentives. Merger-specific synergies, such as the internalization of involuntary spillovers or an increase in the productivity of R&D, may offset the adverse effect of a merger on innovation. We describe the possible effects of a merger on innovation by developing a taxonomy of cases, with reference to recent US and EU examples. A dominant firm may engage in exclusionary conduct to eliminate the threat from disruptive firms. This suppresses innovation by foreclosing disruptive rivals and by reducing the pressure to innovative on the incumbent. We apply this broad principle to possible exclusionary strategies by dominant firms.

I. Introduction

We write in praise of market disrupters—firms that shake up the status quo, threaten incumbent firms, and sometimes transform entire industries. Through this process, which Joseph Schumpeter famously called “creative destruction,” disruptive firms promote economic growth and bring the benefits of new technologies and new business practices and business models to consumers.

We focus on the impact of antitrust policy—known globally as competition policy—on innovation.1 Competition policy seeks to protect and promote a vigorous competitive process by which new ideas are transformed into realized consumer benefits. In this fundamental way, competition spurs innovation. The productivity and growth literature teach us that innovation is the primary driver of rising standards of living over time, so promoting innovation through effective competition policy is likely to be very consequential for economic growth and welfare.

Disruptive firms drive a significant amount of innovation.2 They do not use the same technology or business model as incumbents. They offer consumers a distinct value proposition, not simply lower prices. By making its offer to customers attractive in a new way, a disruptive firm can destroy a great deal of incumbent profit while creating a large amount of consumer surplus. The resulting churn in products and market shares, as new products enter and old ones exit, and as newer business methods and business models supplant older ones, represents a healthy competitive process. If that competitive process is slowed or biased by mergers or by exclusionary conduct, innovation is lessened and consumers are harmed. This same competitive process promotes the development and diffusion of best practices, including what might be termed reductions in X-inefficiency. The trade and productivity literature both convincingly demonstrate that firms vary significantly in their productivity levels and that stiffer competition reallocates sales to more productive firms. The diffusion of best practices also is promoted if sales are contestable, going to the better-performing firms.

Competition policy seeks to protect the competitive process by which disruptive firms challenge the status quo. Competition policy is agnostic regarding the type of firm or the type of innovation involved. Start-ups that grow rapidly can certainly be disruptive. Uber and Airbnb are prominent recent examples. But large established firms can also be disruptive, especially when they attack adjacent markets. Think of Walmart entering local retail markets, Microsoft Bing challenging Google in search, or Netflix producing its own video content.

In contrast, the role played by successful incumbent firms in their own core markets is deeply conflicted. On the one hand, process innovations that lower costs can be most valuable at the largest firms, and market leaders often invest substantial sums to introduce new generations of products. Examples abound: Intel developing a new generation of technology and building new fabs to manufacture microprocessors; Boeing developing a new generation of large commercial aircraft; and Verizon investing to build its 5G wireless network. In many industries experiencing rapid technological change, the biggest firms are also some of the most impressive innovators, as Schumpeter observed 75 years ago.3 This should not be surprising, given the economies of scale associated with R&D, especially in industries where developing the next-generation product or process requires investments of hundreds of millions of dollars and/or extensive experience with the current technology.4 On the other hand, a successful incumbent firm that is profiting greatly from the status quo has a powerful incentive to preserve those profits, and this can mean slowing down or blocking disruptive threats. Successful incumbents also may find it very difficult organizationally to invest in disruptive technologies. 5 Competition valuably increases the diversity of approaches taken to the development of new technology.

We stress in this article that innovation is best promoted when market leaders are allowed to exploit their competitive advantages while also facing pressure to perform coming from both conventional rivals and from disruptive entrants. These labels depend on context: the same firm can be a market leader in one area and a disruptive upstart in another. Market leaders may face competitive pressures to innovate coming from (a) other large firms in the same market, (b) other large firms in adjacent spaces, or (c) smaller, pesky disruptive firms. Casual empiricism indicates that all of these sources of competition are important in different settings. All have historically been protected using competition policy.

The central theme animating our analysis is that a market leader is best motivated to innovate if it fears losing its leadership position to a disruptive rival.6 Even a dominant incumbent will feel pressure to innovate if the bulk of tomorrow’s sales will be won by the firm that is most innovative, be that the incumbent or a disruptive challenger, and if other firms are in a position to leapfrog the current incumbent. Once one properly understands the dynamic nature of the competitive process, it becomes clear that greater rivalry—meaning greater contestability of tomorrow’s sales—leads to more innovation.7 The critical role of competition policy is thus to prevent today’s market leaders from using their market power to disable disruptive threats, either by acquiring would-be rivals or by using anticompetitive tactics to exclude them. Sections II and III discuss the treatment of horizontal mergers that may harm innovation. Section IV discusses the antitrust limits on the business conduct of dominant incumbent firms.

#### Expanding antitrust is necessary to sustain creative destruction. Only that preserves innovation leadership.

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The goal underpinning U.S. antitrust law is to promote competition that leads to lower prices and enhanced consumer welfare.

For years, antitrust agencies have approached this goal by focusing on short-term, static competition, which emphasizes achieving low prices in the here and now.

This narrow focus, however, has resulted in unnecessary conflict between the static competitive analysis deployed by antitrust regulators and the dynamic issues raised by intellectual property.

Fortunately, over the last few decades, a growing recognition has emerged among economists that antitrust laws must be recalibrated to preserve the incentive to innovate and promote the U.S. innovation economy.

These economists are calling for an antitrust framework that prioritizes dynamic over static competition — placing less weight on market concentration in the assessment of market power and more weight on assessing technological opportunity, innovation-driven competition and appropriate enterprise-level capabilities.

At the heart of this movement is the foundational principle, dating back to Joseph Schumpeter and Nobel Laureate economist Robert Solow, that innovation is the main driver of economic growth.

Indeed, given the strong economic evidence that innovation drives productivity, sharpens competition and creates new products, a serious consumer-oriented antitrust policy, with an intermediate-to-long-term orientation, necessarily must focus primarily on supporting and advancing innovation.

However, although antitrust agencies routinely claim to favor both innovation and competition, this has not always been the case.

For instance, during the previous administration, some agency heads unnecessarily generated tension between static competitive analysis — with its undue emphasis on achieving low prices in the short term — and the dynamic issues implicated by intellectual property and associated royalty payments.

Royalties, in the short run, raise prices of licensed goods relative to the prices that would prevail absent payments.

However, payments to licensors also support innovation by helping innovators achieve the economic returns necessary to draw forth the critical investment dollars needed to support research and development (R&D) and continuing innovation.

This model produces a continuous cycle of innovation in which innovators are properly incentivized to invent and reinvest their royalties into more R&D, which leads to new innovations and restarts the cycle.

A prime example of the dynamic benefits flowing from such an innovation ecosystem is 5G. This revolutionary technology promises the ability to connect to and control cities, automobiles, objects and devices, transforming a broad range of industries in the process.

Thanks to its private-sector top performers, the United States currently leads the world in 5G — a distinction that comes with an extraordinary opportunity for massive economic growth and increased consumer welfare.

However, the rigid application of an antitrust framework focused on short-term pricing, rather than on innovation as a critical driver of competition, could cause the United States to forfeit its 5G leadership position.

This would not only reduce consumer welfare but would pose a clear risk to U.S. national security — a fact recognized by U.S. national defense agencies in prohibiting a foreign company from acquiring Qualcomm, a U.S. technology company, because the proposed transaction imperiled Qualcomm’s 5G leadership position.

Recently, the U.S. Department of Justice (DOJ) has indicated that a course correction may be underway. In a series of speeches, Assistant Attorney General Makan Delrahim, head of the DOJ’s Antitrust Division, signaled that the focus of a sound antitrust analysis must be less on short-term pricing and more on the innovation and growth that delivers value to consumers over the longer term.

For example, in his speech before the U.S. Embassy in Beijing, Delrahim invoked “promoting dynamic competition” as a normative goal of competition regulators.

He also declared that “competition law enforcers around the world must give careful consideration to the interests that drive innovation, including by allowing innovators to reap the full rewards of their investment in research and development.” It appears that Delrahim correctly recognizes that innovation is the critical driver of competition.

While Delrahim’s leadership on this issue is admirable, officials at the Federal Trade Commission (FTC) regrettably have yet to follow the DOJ’s lead. The FTC continues to endorse outdated modes of competition regulation and policies that are not properly calibrated to promote dynamic competition and advance innovation.

In order to truly enhance consumer welfare over the long term, I hope the FTC soon will join hands with the DOJ and help move the United States toward a pro-innovation policy founded upon a dynamic competition paradigm.

For over 30 years, a small group of economists has been calling for a pivot in antitrust in favor of dynamic over static competition. With Delrahim at the helm of the DOJ’s Antitrust Division, we may soon witness such a pivot.

U.S. antitrust policy needs to adopt a deeper understanding of innovation processes and competition over the long run, and there needs to be greater policy coherence among antitrust, industrial and technology policies.

The dynamic competition paradigm is both the easiest and the best intellectual paradigm for the competition agencies and the courts to employ to free antitrust from its current outmoded framework. Indeed, prioritizing dynamic competition over its weaker sibling will enhance not just consumer welfare, but economic welfare, too.

#### Innovation is key to leadership and competitiveness.

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First, how will the United States respond to the ongoing transformation of the domestic and international economy? Economic success going forward will be less based on traditional measures and low value-added activities, such as agriculture, resource extraction, low-end services, and even mass industrial prowess. Growth will increasingly emerge from generating and implementing technological innovations, as well as from the ability to creatively finance them. New technological breakthroughs in AI and machine learning, quantum computing, automation and robotics, 3D printing and advanced manufacturing, biomedicine, nanotechnology, etc. have the potential to revolutionize fields ranging from energy and health to manufacturing and transportation. Will the United States generate and adapt to these innovations, while also providing its population with the skills necessary to thrive in this new world? Success in the technology and financial realm have also tended to increase inequality, while also worsening geographical divisions between innovation hubs (Boston, San Francisco, New York, Austin) and other parts of the country. Will the government devise wise policies to ameliorate these frictions without losing the benefits of innovation?

How this question is answered is largely a matter of domestic politics. Yet how it is answered will shape both America’s global competitiveness and its political and societal well-being.

Relatedly, will the United States reject globalization and turn inward? In many communities, intense globalization is associated with de-industrialization and offshoring, despair and the opioid crisis, debt and inequality, climate change, and the rise of China. The United States has, throughout its history, gone through periods where it has turned its gaze away from the international economy. These historical episodes have rarely ended happily. Is there a way to capture the benefits of globalization while minimizing the harmful excesses?

The third question concerns the future of America’s economic relationship to China. The argument for decoupling and reducing vulnerability to China is powerful. First, COVID-19 demonstrated the dangers of vulnerable supply chains. Second, it does not make sense to continue to enrich a current and future rival. Third, increasing automation and robotics means that labor cost differentials are a less compelling reason to offshore production. For those who are skeptical of the pacifying effects of interdependence and believe security concerns should always trump economic ones, pulling away from China’s economy is the obvious choice.

The problem is that left to its own devices, the American and Chinese economies won’t naturally decouple. General Motors sells more cars, and Apple has sold more iPhones, in China than in the United States. Supply chains remain deeply integrated, including on the high-end technology front. Dissolving those relationships will be costly. Trade today is less between countries than within firms, whose operations are global rather than national. Shared technology platforms increase productivity, which would be lost under decoupling.

Trade flows, however, do not begin to capture the deep integration between the two economies. The financial and monetary spheres are far more interconnected. Chinese companies are raising record amounts on Wall Street, while U.S. banks and financial firms increase their investment and business in China. Despite political strains over the past decade, direct investment and financing in both directions shows little signs of decreasing. Reversing economic interdependence — if that policy is chosen for national security purposes — will both be costly and require political will. It would also fully signal that the United States sees China not as a competitor or even a rival, but as a full-blown adversary.

What are the sources of innovation and adaptation, and what role will the national government play in facilitating creating, scaling up, and implementing new technologies? This is the fourth big question faced by the Biden administration, and the issue here will be shaped by its view of U.S. competition and antitrust policy. On the one hand, the recent computing and telecommunications revolution has revealed the power of companies that dominate networks and platforms. The United States has done very well in this new world, and there are important arguments that the government should applaud and support the success of American tech giants dominating the global economy. On the other hand, some experts question whether it is healthy from a competition, innovation, and fairness perspective to allow companies like Amazon, Apple, Google, and Microsoft to achieve such dominating market power. They harken back to the spirit of President Theodore Roosevelt and his controversial but popular program of trust-busting in the early 20th century. There are critical national security considerations to both views.

Relatedly, there is a long-debated question of the role the government should play in seeding, supporting, subsidizing, and even directing the private sector. The United States has long steered clear of national economic planning. Yet the Chinese government’s massive, directed investments and championing of its companies, both for economic and national security reasons, has caused many Americans to rethink their priors on the relationship between the state and the private sector. This is reflected in the impressive, bipartisan support for the Endless Frontier Act to support improved technological competitiveness vis-à-vis China.

The final question involves America’s role as the banker to the world. Will the United States continue in this role, and what will the consequences be? This question has two parts, the first involving international monetary policy, the second surrounding capital formation.

One of the most important global economic developments of the past 15 years has been the emergence of the Federal Reserve Bank as the lender of last resort, not just to the United States, but to the world. The Federal Reserve banking system demonstrated masterful adaptability and far-sighted innovation during both the 2008 financial crisis and the economic fallout from last year’s COVID-19 crisis that, in both cases, arguably prevented a global depression and increased its mandate well beyond securing the U.S. financial system. In the process, it quietly but significantly increased America’s already potent global monetary and financial power. Despite previous predictions to the contrary, it is and will remain for some time a dollar-dominated world. Will this increased monetary power marry up with America’s recent proclivity to deploy economic sanctions, and if so, will that add or diminish American economic influence over the long term?

Part of the answer will be shaped by the uncertain outcome of current economic policies. The United States is currently undergoing a consequential experiment, with relative loose fiscal and monetary policy leading to a rethinking of how much debt and liquidity the economy can contain. Will this produce destabilizing inflation and a return to 1970s stagflation? Or will this liquidity be efficiently absorbed into higher productivity, a reduction in inequality, and overall growth? Interest rates, both nationally and around the world, remain near historical lows, despite the surge in liquidity.

The second aspect to America’s global financial power comes in its world leading innovation, sophistication, and depth of its financial sector. In recent decades, New York City competed with Hong Kong and London as the best place to raise capital and list companies. As recently as a decade ago, New York’s competitors showed signs of taking the lead. Great Britain’s decision to leave the European Union and China’s decision to crack down on dissent in Hong Kong has moved the advantages back to the United States. In addition to the traditional methods of Wall Street finance and exchange listings, America’s innovative venture capital financing capabilities in Silicon Valley, Boston, Austin, and elsewhere provide important and impressive domestic and global advantages. Can they be maintained and expanded upon?

#### Regulated capitalism is key---alternative systems fail to innovate sufficiently.

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Nonetheless, the abolition of capitalism is not the solution. The last century witnessed a large-scale experiment with an alternative system—a system of central planning in the Soviet Union and other communist countries of Central and Eastern Europe. This system failed to offer individuals the freedom and economic incentives necessary for frontier innovation, and so these nations were unable to get beyond an intermediate level of development. Henri Weber, a well-known figure of the French movement of May 1968, was a former Trotskyist leader in the 1960s and 1970s but later became a leader of the French Socialist Party and Socialist member of the European Parliament. He explained his personal conversion to the free market economy and social democracy, looking to the Scandinavian experience: “Having witnessed from a front-row seat the disaster of collectivization of agriculture and firms in the Soviet Union, the Scandinavian Socialists were the first to break with the dogma of socializing means of production and managing the economy by a central planning committee. To control and humanize the economy, it is altogether unnecessary to expropriate management, to nationalize firms, or to eradicate the market . . . altogether unnecessary to deprive society of the creativity, knowhow, and dynamism of entrepreneurs. Under certain conditions, entrepreneurial talent can be mobilized to serve the common good.” A market economy, because it induces creative destruction, is inherently disruptive. But historically it has proved to be a formidable engine of prosperity, hoisting our societies to levels of development unimaginable two centuries ago. Must we therefore resign ourselves to the serious pitfalls and defects of capitalism as the necessary price to pay to generate prosperity and overcome poverty?

In this book, we have sought to better understand how growth through creative destruction interacts with competition, inequality, the environment, finance, unemployment, health, happiness, and industrialization, and how poor countries catch up to rich ones. We have analyzed to what degree the state, with appropriate control of the executive, can stimulate the creation of wealth while at the same time tackling the problems mentioned above. We have seen how, by moving from laissez-faire capitalism, with market forces given free rein, to a form of capitalism in which the state and civil society play their full role, it is possible to stimulate social mobility and reduce inequality without discouraging innovation. We have also seen how appropriate competition policies can curb the decline of growth and how we can redirect innovation toward green technologies to combat global warming. We have seen that, without forgoing globalization, a country can improve its competitiveness through innovative investments and put in place effective safety nets to protect individuals who lose their jobs. Lastly, we have seen how, with the indispensable support of civil society, it is possible to prevent yesterday’s innovators, in collusion with public officials, from pulling up the ladder behind themselves to block the path of tomorrow’s innovators.

#### Failure to sustain innovation leadership makes a China war inevitable.

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The global economy has become more integrated, with China’s economy growing strongly—poised to soon take over the United States at market exchange rates and having already done so in terms of purchasing power parity. More importantly, China has become the top trading partner and creditor/investor for many countries. The size and penetration of the Chinese economy have rendered a strategy of containing China impractical and costly to all sides, and makes the US-China contention more protracted and difficult.

The West thus faces a dilemma: Efforts to decouple from China in order to limit its influence would hurt not only China but also Western countries and the global economy more broadly, but striking a trade deal with China to reduce tensions will likely help the Chinese economy perform better, making the strategic competition with Beijing more intractable.

The rivalry has slowly led to a bifurcation of the global economy, most discernible in high-tech areas such as the tension between digital authoritarianism and digital liberalism, artificial intelligence and surveillance technologies, satellite-based navigation for civilian and military uses, and 5G/6G telecommunications.

A balanced assessment

It’s important to remember that China has many weaknesses, including an aging population with a shrunken labor force, a secular decline in labor productivity, high levels of debt, environmental degradation, and social and economic inequalities. It is still an open question whether China can graduate from its old and trusted development model of mobilizing massive investment for exports to one driven by innovation—a model that tends not to thrive under political control.

However, it is equally important not to underestimate the domestic challenges facing the United States and several European countries. Confronted by aging populations and declining productivity, many affluent Western countries have been beset by populist backlashes against economic inequalities and social problems. Especially in the United States, the division has deepened to the extent that there is no shared perception of reality, let alone common ground for debate. This makes it difficult for the United States to build political consensus behind any sustained actions needed to deal with its challenges—even though the country has managed to overcome difficulties in the past and could do so again.

With or without the label “cold war,” the United States and China are locked in a protracted conflict over core national values, including economic and geopolitical interests. The fact that the Chinese economy is stronger than the Soviet Union’s decrepit economy, playing a key role in integrated global supply chains, while many Western countries suffer from internal divisions, makes the strategic competition more challenging for the West than the Cold War of the late twentieth century was. Of particular concern is the fact that the United States has suffered a steep fall in its Freedom House “Freedom in the World” score since 2010, denting much of its soft power. Consequently, the contestants in today’s conflict appear to be more evenly matched, making for a difficult struggle ahead—whatever you want to call it.

#### US-China competition isn’t defined by military strength, but relative innovation capacity. Outpacing China is the only way to prevent a war.

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The United States and China are in a growing competition, perhaps verging on conflict, but it is not a nineteenth century competition between empires for control of territory and resources. Unlike great power competition in previous centuries, the focal point is not military strength or territorial expansion. This conflict is over control of the modern levers of power—global rules and institutions, standards, trade, and technology. The ability to create new technologies, particularly digital technologies (given their importance for politics, security, and economic growth) have become key factors in the U.S.-China relationship, which is marked by close commercial cooperation and deep governmental distrust. This disparity creates unavoidable tensions.

The link between technology, innovation, national security, and international power is now widely recognized. When Vladimir Putin says that the country that leads in artificial intelligence (AI) “will be the ruler of the world,” it is hyperbole, but hyperbole that confirms that political leaders recognize that the ability to innovate is a potent source of national power. In the digital age, national security and national power have different requirements shaped by technological change and cyberspace.

Innovation has become a central element of its international influence. This is not new—the U.S.-Soviet space race was a contest of the ability of different systems to produce new technologies, but those were unique government programs. Technological competition today is as much between companies as states. A country’s ability to innovate and produce advanced technologies provides economic strength, military power, and an intangible benefit of perceived leadership.

Both China and the United States have advantages and disadvantages in this contest, and while it is usual to focus on quantitative aspects—such as the number of engineers or patents and spending on research and development (R&D)—these are not the key determinants of technological competition between states. This competition is a contest of ideas on governance for investment, innovation, and the internet. The internet and global connectivity not only reshape the environment for competition but also create political and market forces that both nations find difficult to control.

#### That goes nuclear.

Graham Allison 17. American political scientist and professor at the John F. Kennedy School of Government at Harvard. “Destined for War: Can America and China Escape Thucydides's Trap?” Scribe Publications Pty Limited.

Two centuries ago, Napoleon warned, "Let China sleep; when she wakes, she will shake the world." Today China has awakened, and the world is beginning to shake. Yet many Americans are still in denial about what China's transfor- mation from agrarian backwater to "the biggest player in the history of the world" means for the United States. What is this book's Big Idea? In a phrase. Thucydidess Trap; When rising power threatens to displace a ruling power, alarm bells should sound: danger ahead. China and the United States are currently on a collision course for war-unless both parties take difficult and painful actions to avert it. As a rapidly ascending China challenges America's accustomed pre- dominance, these two nations risk falling into a deadly trap first identified the 'ancient' Greek historian Thucydides. Writing about a war that devastated the two leading city-states of classical Greece two and a half. millennia ago, he explained: "It was the rise of Athens and the fear that this instilled in Sparta that made war inevitable." That primal insight describes :1 perilous historical pattern. Reviewing the record of the past five hundred years, the Thucydides's Trap Project I direct at Harvard has found sixteen cases in which a major nation's rise has disrupted the position of a dominant state. In the most infamous example, an industrial Germany rattled Britain's established position at the top of the pecking order a century ago. The catastrophic outcome of their competition necessitated a new category of violent conflict: world war. Our research finds that twelve of these rivalries ended in war and four did not - not a comforting ratio for the twenty- first century's most important geopolitical contest. This is not a book about China. It is about the *impact* of a rising China on the US and the global order. For seven decades since World War II, a rules-based framework led by Washington has defined world order, producing an era without war among great powers. Most people now think of this as normal. Historians call it a rare "Long Peace." To- day, an increasingly powerful China is unraveling this order, throwing into question the peace generations have taken for granted. In 2015, the Atlantic published "The Thucydides Trap: Are the US and China headed for War?" In that essay I argued that this histori- cal metaphor provides the best lens available for illuminating relations between China and the US today. Since then, the concept has ignited considerable debate. Rather than face the evidence and reflect on the uncomfortable but necessary adjustments both sides might make, pol- icy wonlts and presidents alike have constructed a straw man around Thucydides's claim about "inevitability." They have then put a torch to it -arguing that war between Washington and Beijing is not predetermined. At their 2015 summit, Presidents Barack Obama and Xijinping discussed the Trap at length. Obama emphasized that despite the structural stress created by China's rise. "the two countries are capable of managing their disagreements." At the same time, they acknowledged that. in Xi's words. "should major countries time and again make the mistakes of strategic miscalculation, they might create such traps for themselves." I concur: war between the US and China is not inevitable. Indeed, Thucydides would agree that neither was war between Athens and Sparta. Read in context. it is clear that he meant his claim about inevitability as hyperbole: exaggeration for the purpose of emphasis. The point of Thucydides's Trap is neither fatalism nor pessimism. Instead. it points us beyond the headlines and regime rhetoric to recognize the tectonic structural stress that Beijing and Washington must master to construct a peaceful relationship. If Hollywood were making a movie pitting China against the United States on the path to war. central casting could not find two better leading actors than Xi jinping and Donald Trump. Each personifies his country's deep aspirations of national greatness. Much as Xi's appointment as leader (if China in 2012 accentuated the role of the rising power, America': election of Donald Trump in a campaign that vilified China promises a more vigorous response from the ruling power. As personalities, Trump and Xi could not be more different. As protagonists in a struggle to be number one. however, they share por- tentous similarities. Both - Are driven by .1 common ambition: to malte their nation great again. - Identify the nation ruled by the other as the principal obstacle to their dream. - Take pride in their own unique leadership capabilities. ' See themselves playing a central role in revitalizing their nation. ° Have announced daunting domestic agendas that call for radical changes. - Have fired up populist nationalist support to "drain the swamp" of corruption at home and confront attempts by each other to thwart their nation's historic mission. Will the impending clash between these two great nations lead to war? Will Presidents Trump and Xi, or their successors. follow in the tragic footsteps of the leaders of Athens and Sparta or Britain and Ger- many? Or will they find a way to avoid war as effectively as Britain and the US did a century ago or the US and the Soviet Union did through four decades of Cold War? Obviously, no one knows. We can be cer- tain, however, that the dynamic Thucydides identified will intensify in the years ahead. Denying Thucydides’s Trap does not make it less real. Recognizing it does not mean just accepting whatever happens. We owe it to future generations to face one of history’s most brutal tendencies head on and then do everything we can to defy the odds. h, if we only knew." That was the best the Gemian chancellor could offer. Even when a colleague pressed Theobald von Beth- mann Hollweg. he could not explain how his choices. and those of other European statesmen, had led to the most devastating war the world had seen to that point. By the time the slaughter of the Great War finally ended in 1918, the key players had lost all they fought for: the Austro-Hungarian Empire dissolved. the German kaiser ousted, the Russian tsar overthrown, France bled for a generation, and England shorn of its treasure and youth. And for what? If we only knew. Bethmann Hollweg's phrase haunted the president of the United States nearly half a century later. In 1962.]ohn F. Kennedy was forty- five years old and in his second year in oï¬‚ice, but still struggling to get his mind around his responsibilities commander in chief. He knew that his finger was on the button of a nuclear arsenal that could ltill hundreds of millions of human beings in a matter of minutes. But for what? A slogan at the time declared. "Better dead than red." Kennedy rejected that dichotomy as not just facile, but false. "Our goal," as he put it, had to be "not peace at the expense of freedom, but both peace and freedom." The question was how he and his administration could achieve both. As he vacationecl at the family compound on Cape Cod in the sum- mer of 1902, Kennedy found himself reading The Gun: q/'August, Bar- bara Tuchman's compelling account of the outbrealt of war in 1914. Tuclnnan traced the thoughts and actions of Germany's Kaiser Wil- helm and his chancellor Bethmann Hollweg. Britain's King George and his foreign secretary Edward Grey, Tsar Nicholas, Austro-Hungarian emperor Franz Joseph. and others as they sleepwalked into the abyss. Tuchman argued that none of these men understood the danger they faced. None wanted the war they got. Given the opportunity for a do- -mwm he made. Reflecting on his own responsibilities, Kennedy pledged that if he ever found himself facing his own responsibilities, Kennedy pledged that if ever found himself facing choices that could make the difference between catastrophic war and peace, he would be able to give history a better answer than Bethmann Holloweg’s. Kennedy had no inkling of what lay ahead. In October 1962, just two months after he read Tuchman's book, he faced off against Soviet leader Nikita Khrushchev in the most dangerous confrontation in hu- man history. The Cuban Missile Crisis began when the United States discovered the Soviets attempting to sneak nuclear-tipped missiles into Cuba, a mere ninety miles from Florida. The situation quickly esca- lated from diplomatic threats to an American blockade of the island, military mobilizations in both the US and USSR, and several high- stakes clashes. including the shooting down of an American U-2 spy plane over Cuba. At the height of the crisis, which lasted for a tense thirteen days. Kennedy confided to his brother Robert that he believed the chances it would end in nuclear war were "between one-in-three and even." Nothing historians have discovered since has lengthened ' those odds. Although he appreciated the dangers of his predicament. Kennedy repeatedly made choices he knew actually increased the risk of war, in- cluding nuclear war. He chose to confront Khrushchev publicly (rather than my to resolve the issue privately through diplomatic channels); to draw an unambiguous red line requiring the removal of Soviet missiles (rather than leave himself more wiggle room); to threaten air strikes to destroy the missiles (knowing this could trigger Soviet retaliation against Berlin); and finally, on the penultimate day of the crisis. to give Khrushchev a time-limited ultimatum (that. if rejected. would have re- quired the US to fire the first shot). In each of these choices, Kennedy understood that he was raising the risk that further events and choices by others beyond his control could lead to nuclear bombs destroying American cities. including Washing- ton, DC (where his family stayed throughout the ordeal). For example, when Kennedy elevated the alert level of the American nuclear arse- nal to Defcon II. he made US weapons less vulnerable to a preemptive Soviet attack but simultaneously relaxed a score of safety catches. At Defcon ll. German and Turkish pilots took their seats in NATO fighter bombers loaded with armed nuclear weapons less than two hours away from their targets in the Soviet Union. Since electronic locks on nu- clm weapons had not yet been invented, there was no physical or tech- nica barrier preventing a pilot from deciding to ï¬‚y to Moscow, drop a mic ar bomb, and start World War III. ith no way to wish away these "risks of the uncontrollable," Ken- ned ' and his secretary of defense, Robert McNamara, reached deeply into organizational procedures to minimize accidents or mistakes. De- spit those efforts, historians have identified more than a dozen close calls outside Kennedy's span of control that could have sparked a war. A US ntisubmarine campaign, For example, dropped explosives around Soviet submarines to force them to surface, leading a Soviet captain to believe he was under attack and almost fire his nuclear-armed torpe- does. In another incident, the pilot of a U-2 spy craft mistakenly ï¬‚ew over the Soviet Union, causing Khrushchev to fear that Washington was refining coordinates for a preemptive nuclear attack. If one of these actions had sparked a nuclear World War III. could\_]FK explain how his choices contributed to it? Could he give a better answer to an inquisi- tor's question than Bethmann Hollweg did? The complexity of causation in human affairs has vexed philoso- phers, jurists, and social scientists. In analyzing how wars break out, historians focus primarily on proximate or immediate causes. In the case of World War I, these include the assassination of the Hapsburg archduke Franz Ferdinand and the decision by Tsar Nicholas II to mo- bilize Russian forces against the Central Powers. If the Cuban Missile Crisis had resulted in war, the proximate causes could have been the Soviet submarine captain's decision to fire his torpedoes rather than al- low his submarine to sink, or a Turkish pilot's errant choice to fly his nuclear payload to Moscow. Proximate causes for war are undeniably important. But the founder of history believed that the most obvious causes for bloodshed mask even more significant ones. More import- ant than the sparks that lead to war, Thucydides teaches us, are the structural factors that lay its foundations: conditions in which other- wise manageable events can escalate with unforeseeable severity and produce unimaginable consequences. Tl-IUCYDIDES'S TRAP In the most frequently cited one-liner in the study of international re- lations, the ancient Greek historian Thucydides explained, "It was the rise of Athens and the fear that this instilled in Sparta that made war a} . I I .99 Tliucydides wrote about the Peloponnesian War, a conflict that en- gulfcd his homeland, the city-state of Athens, in the fifth century BCB, and which in time came to consume almost the entirety of ancient Greece. A former soldier. Thucydides watched as Athens challenged the dominant Greek power of the day, the martial city-state of Sparta. He observed the outbreak of armed hostilities between the two powers and detailed the fighting's horrific toll. He did not live to see its bitter end. when a weakened Sparta finally vanquished Athens. but it is just as well for him. While others identified an array of contributing causes of the Pelo- ponncsian War. Thucydides went to the heart of the matter. When he turned the spotlight on "the rise of Athens and the fear that this in- stilled in Sparta." he identified a primary driver at the root of some of history's most catastrophic and puzzling wars. Intentions aside, when a rising power threatens to displace a ruling power, the resulting structural stress makes a violent clash the rule, not the exception. It happened between Athens and Sparta in the fifth century ncia, between Germany and Britain a century ago. and almost led to war between the Soviet Union and the United States in the 1950s and 19605. Like so many others. Athens believed its advance to be benign. Over the half century that preceded the conï¬‚ict, it had emerged as a steeple of civilization. Philosophy, drama. architecture, democracy. history, and naval prowess-Athens had it all. beyond anything previously -s'eel'I'Imder the sun. Its rapid development began to threaten Sparta, which had grown accustomed to its position as the dominant power on the Peloponnese. As Athenian confidence and pride grew, so too did its demands for respect and expectations that arrangements be revised to reflect new realities of power. These were, Thucydides tells us, natural reactions to its changing station. How could Athenians not believe that their interests deserved more weight? How could Athenians not expect that they should have greater inï¬‚uence in resolving differences? But it was also natural. Thucydides explained. that Spartans should see the Athenian claims as unreasonable, and even ungrateful. Who, Spartans rightly asked. provided the security environment that allowed Athens to ï¬‚ourish? As Athens swelled with a growing sense of its own importance, and felt entitled to greater say and sway, Sparta reacted with insecurity. fear. and a determination to defend the status quo. Similar dynamics can be found in a host of other settings, indeed even in families. When a young man's adolescent surge poses the prospect that he will overshadow his older sibling (or even his father), what do we expect? Should the allocation of bedrooms. or closet space, or seat- ing be adjusted to reflect relative size as well as age? In alpha-dominated species like gorillas, as a potential successor grows larger and stronger, both the pack leader and the wannabe prepare for a showdown. In businesses, when disruptive technologies allow upstart companies like Apple. Google. or Uber to break quickly into new industries. the re- sult is often a bitter competition that forces established companies like : ifliiexpvlett-Packard, Microsoft. or taxi operators to adapt their business models -or perish. Thucydides's Trap refers to the natural, inevitable discombobulation that occurs when a rising power threatens to displace a ruling power. This can happen in any sphere. But its implications are most dangerous in international affairs. For just as the original instance of Thucydides's Trap resulted in a war that brought ancient Greece to its knees, this phenomenon has haunted diplomacy in the millennia since. Today it has set the world's two biggest powers on a path to a cataclysm nobody wants, bud which they may prove unable to avoid. ARE THE US AND CHINA DESTINED FOR WAR? The world has never seen anything like the rapid, tectonic shift in the global balance of power created by the rise of China. If the US were a corporation. it would have accounted for 50 percent of the global eco- nomic market in the years immediately after World War II. By 1980, that had declined to 22 percent. Three decades of double-digit Chi- nese growth has reduced that US share to 16 percent today. If current trends continue, the US share of global economic output will decline further over the next three decades to 'ust ll rcent. Over this same J P' criod, China's share of the global economy will have soared from 2 P 8 Y percent in 1980 to 18 percent in 2016, well on its way to 30 percent in 2040. China's economic development is transforming it into a formida- ble political and military competitor. During the Cold War. as the US mounted clumsy responses to Soviet provocations, a sign in the Penta- gon said: "lf we ever faced a real enemy, we would be in deep trouble." China is a serious potential enemy. The possibility that the United States and China could find them- selves at war appears as unlikely as it would be unwise. The centennials recalling World War l, however, have reminded us of man's capacity for folly. When we say that war is "inconceivable." is this a statement about what is possible in the world-or only about what our limited minds can conceive? As far ahead as the eye can see. the defining question about global order is whether China and the US can escape Thucydides's Trap. Most contests that fit this pattern have ended badly. Over the past five hun- drcd years, in sixteen cases a major rising power has threatened to dis- place a ruling power. In twelve of those, the result was war. The four cases that avoided this outcome did so only because of huge, painful adjustments in attitudes and actions on the part of challenger and chal- lenged alilte. The United States and China can likewise avoid war, but only if they can internalize two difficult truths. First. on the current trajectory. war between the US and China in the decades ahead is not just possible, but much more likely than currently recognized. Indeed. on the historical record. war lS IUOT? add to they h tainly major likely than not. By underestimating the danger, moreover, we the risk. If leaders in Beijing and Washington keep doing what ave done for the past decade. the US and China will almost cer- wind up at war. Second, war is not inevitable. History shows that ruling powers can manage relations with rivals. even those that threaten to overtake them, without triggering a war. The record of those successes, as well as the failures. offers many lessons for statesmen today. As George Santayana noted, only those who fail to study history are condemned to repeat it. The chapters that follow describe the origins of Thucydides's Trap, explore its dynamics. and explain its implications for the present con- test between the US and China. Part One provides a succinct summary of the rise of China. Everyone knows about China's growth but few have realized its magnitude or its consequences. To paraphrase former Czech president Vaclav Havel. it has happened so quickly that we have not yet had time to be astonished. Part Two locates recent developments in US-China relations on the broader canvas of history. This not only helps us understand current events. but also provides clues about where events are trending. Our review stretches back 2,500 years, to the time when the rapid growth of Athens shocked a dominant martial Sparta and led to the Pelopon- nesian War. Key examples from the past 500 years also provide insights into the ways in which the tension between rising and ruling powers can tilt the chessboard toward war. The closest analogue to the current standoff--Germany's challenge to Britain's ruling global empire be- fore World War I--should give us all pause. Part Three asks whether we should see current trends in America's relations with China as a gathering storm of similar proportions. Daily media reports of China's "aggressive" behavior and unwillingness to accept the "intemational rules-based order" established by the US af- -!El"W6l'l'd War I] describe incidents and accidents reminiscent of 1914. At the same time. a dose of self-awareness is due. If China were "just lilte us" when the US burst into the twentieth century brimming with confidence that the hundred years ahead would be an American era. the rivalry would be even more severe, and war even harder to avoid. If it actually followed in America's footsteps, we should expect to see Chi- nese troops enforcing Beijing's will from Mongolia to Australia, just as Theodore Roosevelt molded "our hemisphere" to his China is following a different trajectory than did the United States during its own surge to primacy. But in many aspects of China's rise, we can hear echoes. What does President Xi\_|inping's China want? In one line: to make China great again. The deepest aspiration of over a billion Chinese citizens is to make their nation not only rich, but also pow- erful. Indeed, their goal is a China so rich and so powerful that other nations will have no choice but to recognize its interests and give it the respect that it deserves. The sheer scale and ambition of this "China Dream" should disabuse us of any notion that the contest between (jliina and the United States will naturally subside as China becomes a "responsible stakeholder." This is especially so given what my former colleague Sam Huntington famously called a "clash of civilizations," a historical disjunction in which fundamentally different Chinese and American values and traditions make rapprochement between the two powers even more elusive. While resolution of the present rivalry may seem difficult to foresee. actual armed conflict appears distant. But is it? In truth, the paths to war are more varied and plausible (and even mundane) than we want to believe. From current confrontations in the South China Sea, the East China Sea, and cyberspace, to a trade conflict that spirals out of control, it is frighteningly easy to develop scenarios in which Ameri- can and Chinese soldiers are killing each other. Though none of these scenarios seem likely, when we recall the unintended consequences of the assassination of the Hapsburg archdulte or of l(hrushchev's nuclear adventure in Cuba, we are reminded of just how narrow the gap is be- tween "unlikely" and "impossible." Part Four explains why war is not inevitable. Most of the policy community and general public are naively complacent about the possi- bility of war. Fatalists. meanwhile, see an irresistible force rapidly ap- proaching an immovable object. Neither side has it right. If leaders in both societies will study the successes and failures of the past, they will find a rich source of clues from which to fashion a strategy that can meet each nation's essential interests without war. The return to prominence of a 5,000-year-old civilization with 1.4 billion people is not a problem to be fixed. It is a condin'on-a chronic condition that will have to be managed over a generation. Success will require not just a new slogan, more frequent presidential summits. or additional meetings of departmental working groups. Managing this relationship without war will demand sustained attention, week by Wcclc. at the highest levels in both governments. It will require a depth of mutual understanding not seen since the Henry Kissinger-Zhou En- lai conversations that reestablished US-China relations in the 19705. Most significant, it will mean more radical changes in attitudes and ac- tions by leaders and the public alilte than anyone has yet undertaken. To escape Thucydides's Trap. we must be willing to think the unthinkable -:md imagine the unimaginable. Avoiding Thucydides's Trap in this case will require nothing less than bending the arc of history.

#### Extinction outweighs.

Seth D. Baum & Anthony M. Barrett 18. Global Catastrophic Risk Institute. 2018. “Global Catastrophes: The Most Extreme Risks.” Risk in Extreme Environments: Preparing, Avoiding, Mitigating, and Managing, edited by Vicki Bier, Routledge, pp. 174–184.

2. What Is GCR And Why Is It Important? Taken literally, a global catastrophe can be any event that is in some way catastrophic across the globe. This suggests a rather low threshold for what counts as a global catastrophe. An event causing just one death on each continent (say, from a jet-setting assassin) could rate as a global catastrophe, because surely these deaths would be catastrophic for the deceased and their loved ones. However, in common usage, a global catastrophe would be catastrophic for a significant portion of the globe. Minimum thresholds have variously been set around ten thousand to ten million deaths or $10 billion to $10 trillion in damages (Bostrom and Ćirković 2008), or death of one quarter of the human population (Atkinson 1999; Hempsell 2004). Others have emphasized catastrophes that cause long-term declines in the trajectory of human civilization (Beckstead 2013), that human civilization does not recover from (Maher and Baum 2013), that drastically reduce humanity’s potential for future achievements (Bostrom 2002, using the term “existential risk”), or that result in human extinction (Matheny 2007; Posner 2004). A common theme across all these treatments of GCR is that some catastrophes are vastly more important than others. Carl Sagan was perhaps the first to recognize this, in his commentary on nuclear winter (Sagan 1983). Without nuclear winter, a global nuclear war might kill several hundred million people. This is obviously a major catastrophe, but humanity would presumably carry on. However, with nuclear winter, per Sagan, humanity could go extinct. The loss would be not just an additional four billion or so deaths, but the loss of all future generations. To paraphrase Sagan, the loss would be billions and billions of lives, or even more. Sagan estimated 500 trillion lives, assuming humanity would continue for ten million more years, which he cited as typical for a successful species. Sagan’s 500 trillion number may even be an underestimate. The analysis here takes an adventurous turn, hinging on the evolution of the human species and the long-term fate of the universe. On these long time scales, the descendants of contemporary humans may no longer be recognizably “human”. The issue then is whether the descendants are still worth caring about, whatever they are. If they are, then it begs the question of how many of them there will be. Barring major global catastrophe, Earth will remain habitable for about one billion more years 2 until the Sun gets too warm and large. The rest of the Solar System, Milky Way galaxy, universe, and (if it exists) the multiverse will remain habitable for a lot longer than that (Adams and Laughlin 1997), should our descendants gain the capacity to migrate there. An open question in astronomy is whether it is possible for the descendants of humanity to continue living for an infinite length of time or instead merely an astronomically large but finite length of time (see e.g. Ćirković 2002; Kaku 2005). Either way, the stakes with global catastrophes could be much larger than the loss of 500 trillion lives. Debates about the infinite vs. the merely astronomical are of theoretical interest (Ng 1991; Bossert et al. 2007), but they have limited practical significance. This can be seen when evaluating GCRs from a standard risk-equals-probability-times-magnitude framework. Using Sagan’s 500 trillion lives estimate, it follows that reducing the probability of global catastrophe by a mere one-in-500-trillion chance is of the same significance as saving one human life. Phrased differently, society should try 500 trillion times harder to prevent a global catastrophe than it should to save a person’s life. Or, preventing one million deaths is equivalent to a one-in500-million reduction in the probability of global catastrophe. This suggests society should make extremely large investment in GCR reduction, at the expense of virtually all other objectives. Judge and legal scholar Richard Posner made a similar point in monetary terms (Posner 2004). Posner used $50,000 as the value of a statistical human life (VSL) and 12 billion humans as the total loss of life (double the 2004 world population); he describes both figures as significant underestimates. Multiplying them gives $600 trillion as an underestimate of the value of preventing global catastrophe. For comparison, the United States government typically uses a VSL of around one to ten million dollars (Robinson 2007). Multiplying a $10 million VSL with 500 trillion lives gives $5x1021 as the value of preventing global catastrophe. But even using “just" $600 trillion, society should be willing to spend at least that much to prevent a global catastrophe, which converts to being willing to spend at least $1 million for a one-in-500-million reduction in the probability of global catastrophe. Thus while reasonable disagreement exists on how large of a VSL to use and how much to count future generations, even low-end positions suggest vast resource allocations should be redirected to reducing GCR. This conclusion is only strengthened when considering the astronomical size of the stakes, but the same point holds either way. The bottom line is that, as long as something along the lines of the standard riskequals-probability-times-magnitude framework is being used, then even tiny GCR reductions merit significant effort. This point holds especially strongly for risks of catastrophes that would cause permanent harm to global human civilization. The discussion thus far has assumed that all human lives are valued equally. This assumption is not universally held. People often value some people more than others, favoring themselves, their family and friends, their compatriots, their generation, or others whom they identify with. Great debates rage on across moral philosophy, economics, and other fields about how much people should value others who are distant in space, time, or social relation, as well as the unborn members of future generations. This debate is crucial for all valuations of risk, including GCR. Indeed, if each of us only cares about our immediate selves, then global catastrophes may not be especially important, and we probably have better things to do with our time than worry about them. While everyone has the right to their own views and feelings, we find that the strongest arguments are for the widely held position that all human lives should be valued equally. This position is succinctly stated in the United States Declaration of Independence, updated in the 1848 Declaration of Sentiments: “We hold these truths to be self-evident: that all men and 3 women are created equal”. Philosophers speak of an agent-neutral, objective “view from nowhere” (Nagel 1986) or a “veil of ignorance” (Rawls 1971) in which each person considers what is best for society irrespective of which member of society they happen to be. Such a perspective suggests valuing everyone equally, regardless of who they are or where or when they live. This in turn suggests a very high value for reducing GCR, or a high degree of priority for GCR reduction efforts.

#### Absent US leadership, China will fill-in the innovation vacuum---that causes an expansion of technology that undermines human rights, expands repression of minorities, and cements dangerous bioethics.

Christopher Darby & Sarah Sewall 21. President and CEO of In-Q-Tel, Executive Vice President for Policy at IQT, U.S. Undersecretary of State for Civilian Security, Democracy, and Human Rights. “America’s Eroding Technological Advantage.” <https://www.foreignaffairs.com/articles/united-states/2021-02-10/technology-innovation-wars>.

Since the early days of the Cold War, the United States has led the world in technology. Over the course of the so-called American century, the country conquered space, spearheaded the Internet, and brought the world the iPhone. In recent years, however, China has undertaken an impressive effort to claim the mantle of technological leadership, investing hundreds of billions of dollars in robotics, artificial intelligence, microelectronics, green energy, and much more. Washington has tended to view Beijing’s massive technology investments primarily in military terms, but defense capabilities are merely one aspect of great-power competition today—little more than table stakes. Beijing is playing a more sophisticated game, using technological innovation as a way of advancing its goals without having to resort to war. Chinese companies are selling 5G wireless infrastructure around the world, harnessing synthetic biology to bolster food supplies, and racing to build smaller and faster microchips, all in a bid to grow China’s power.

In the face of China’s technological drive, U.S. policymakers have called for greater government action to protect the United States’ lead. Much of the conventional wisdom is sensible: boost R & D spending, ease visa restrictions and develop more domestic talent, and build new partnerships with industry at home and with friends and allies abroad. But the real problem for the United States is much deeper: a flawed understanding of which technologies matter and of how to foster their development. As national security assumes new dimensions and great-power competition moves into different domains, the government’s thinking and policies have not kept pace. Nor is the private sector on its own likely to meet every technological need that bears on the country’s security.

In such an environment, Washington needs to broaden its horizons and support a wider range of technologies. It needs to back not only those technologies that have obvious military applications, such as hypersonic flight, quantum computing, and artificial intelligence, but also those traditionally thought of as civilian in nature, such as microelectronics and biotechnology. Washington also needs to help vital nonmilitary technologies make the transition to commercial success, stepping in with financing where the private sector will not.

AMERICA’S INNOVATION CHALLENGE

In the early decades of the Cold War, the United States spent billions of dollars dramatically expanding its scientific infrastructure. The Atomic Energy Commission, formed in 1946, assumed responsibility for the wartime labs that had pioneered nuclear weapons, such as the Oak Ridge National Laboratory, the headquarters of the Manhattan Project, and went on to fund academic research centers, such as the Lawrence Livermore National Laboratory. The Department of Defense, founded in 1947, was given its own massive research budget, as was the National Science Foundation, established in 1950. After the Soviets launched the Sputnik satellite, in 1957, Washington created the National Aeronautics and Space Administration, or NASA, to win the space race, as well as what would become the Defense Advanced Research Projects Agency, which was tasked with preventing a future technological surprise. By 1964, research and development accounted for 17 percent of all discretionary federal spending.

Partnering closely with academia and companies, the government funded a large variety of basic research—that is, research without a specific end use in mind. The goal was to build a technological foundation, defined primarily as conventional and nuclear defense capabilities, to ensure the country’s security. The research proved astonishingly successful. Government investment spawned cutting-edge capabilities that undergirded the United States’ military superiority, from supersonic jets to nuclear-powered submarines to guided missiles. The private sector, for its part, got to capitalize on the underlying intellectual property, turning capabilities into products and products into companies. GPS-enabled technologies, airbags, lithium batteries, touchscreens, voice recognition—all got their start thanks to government investment.

Yet over time, the government lost its lead in innovation. In 1964, the U.S. government was spending 1.86 percent of GDP on R & D, but by 1994, that share had fallen to 0.83 percent. During that same period, U.S. corporate R & D investment as a percentage of GDP nearly doubled. The numbers tell only half the story. Whereas much of the government’s R & D investment was aimed at finding new, game-changing discoveries, corporate R & D was mostly devoted to incremental innovation. The formula for growing revenue, the private sector realized, was to expand on existing products, adding functionality or making something faster, smaller, or more energy efficient. Companies focused on nearer-term technologies with commercial promise, rather than broad areas of inquiry that might take decades to bear fruit.

Increasingly, the most innovative R & D was taking place not in the labs of large corporations but at nimbler, privately funded startups, where venture capital investors were willing to tolerate more risk. Modern venture capital firms—partnerships that invest in early-stage companies—first arose in the 1970s, leading to early successes such as Apple and Microsoft, but it wasn’t until the dot-com bubble of the 1990s that this style of investment really took off. If the first phase of R & D outsourcing was from government labs to corporate America, this was the second phase: away from big businesses and toward small startups. Large companies began to spend less on internal R & D and more on what they called “corporate development,” or acquiring smaller, venture-backed companies with promising technologies.

The rise of venture capitalism created a great deal of wealth, but it didn’t necessarily further U.S. interests. Venture capital firms were judged by their ability to generate outsize returns within a ten-year window. That made them less interested in things such as microelectronics, a capital-intensive sector where profitability arrives in decades more so than years, and more interested in software companies, which need less capital to get going. The problem is that the companies receiving the most venture capital funding have been less likely to pursue national security priorities. When the American venture capital firm Accel hit the jackpot by investing early in Rovio Entertainment, the Finnish video game company behind the mobile app Angry Birds, it may have been a triumph for the firm, but in no way did it further U.S. interests.

Meanwhile, government funding of research continued its decline relative both to GDP and to R & D spending in the private sector. The Department of Defense retained the single biggest pot of federal research funding, but there was less money overall, and it became more dispersed across various agencies and departments, each pursuing its own priorities in the absence of a national strategy. As the best researchers were lured to the private sector, the government’s in-house scientific expertise atrophied. Once close relationships between private companies and Washington also suffered, as the federal government was no longer a major customer for many of the most innovative firms. U.S. agencies were rarely the first to buy advanced technology, and smaller startups generally lacked the lobbyists and lawyers needed to sell it to them anyway.

Globalization also drove a wedge between corporations and the government. The American market came to look less dominant in an international context, with the huge Chinese consumer market exerting a particularly powerful pull. Corporations now had to think of how their actions might look to customers outside the United States. Apple, for example, famously refused to unlock iPhones for the FBI, a decision that probably enhanced its brand internationally.

Further complicating matters, innovation itself was upending the traditional understanding of national security technology. More and more, technology was becoming “dual use,” meaning that both the civilian and the military sectors relied on it. That created new vulnerabilities, such as concerns about the security of microelectronic supply chains and telecommunications networks. Yet even though civilian technologies were increasingly relevant for national security, the U.S. government wasn’t responsible for them. The private sector was, and it was innovating at a rapid clip with which the government could barely keep pace. Taken together, all these trends have led to a concerning state of affairs: the interests of the private sector and the government are further apart than ever.

THE CHINESE JUGGERNAUT

The changes in American innovation would matter less if the world had remained unipolar. Instead, they occurred alongside the rise of a geopolitical rival. Over the past two decades, China has evolved from a country that largely steals and imitates technology to one that now also improves and even pioneers it. This is no accident; it is the result of the state’s deliberate, long-term focus. China has invested massively in R & D, with its share of global technology spending growing from under five percent in 2000 to over 23 percent in 2020. If current trends continue, China is expected to overtake the United States in such spending by 2025.

Central to China’s drive has been a strategy of “military-civil fusion,” a coordinated effort to ensure cooperation between the private sector and the defense industry. At the national, provincial, and local levels, the state backs the efforts of military organizations, state-owned enterprises, and private companies and entrepreneurs. Support might come in the form of research grants, shared data, government-backed loans, or training programs. It might even be as simple as the provision of land or office space; the government is creating whole new cities dedicated solely to innovation.

China’s investment in 5G technology shows how the process works in practice. Equipment for 5G makes up the backbone of a country’s cellular network infrastructure, and the Chinese company Huawei has emerged as a world leader in engineering and selling it—offering high-quality products at a lower price than its Finnish and South Korean competitors. The company has been buoyed by massive state support—by The Wall Street Journal’s count, some $75 billion in tax breaks, grants, loans, and discounts on land. Huawei has also benefited from China’s Belt and Road Initiative, which provides generous loans to countries and Chinese companies to finance infrastructure construction.

Massive state investments in artificial intelligence have also paid off. Chinese researchers now publish more scientific papers in that field than American ones do. Part of this success is the result of funding, but something else plays a big role: access to enormous amounts of data. Beijing has fueled the rise of powerhouse companies that sweep up endless information about their users. These include Alibaba, an e-commerce giant; Tencent, which developed the all-purpose WeChat app; Baidu, which began as a search engine but now offers a range of online products; DJI, which dominates the consumer drone market; and SenseTime, which provides facial recognition technology for China’s video surveillance network and is said to be the world’s most valuable artificial intelligence company. As a matter of law, these companies are required to cooperate with the state for intelligence purposes, a broad mandate that is almost certainly used to force companies to share data for many other reasons.

That information increasingly involves people living outside China. Chinese companies have woven a global web of data-gathering apps that collect foreigners’ private information about their finances, their search history, their location, and more. Those who make a mobile payment through a Chinese app, for example, could have their personal data routed through Shanghai and added to China’s growing trove of knowledge about foreign nationals. Such information no doubt makes it easier for the Chinese government to track, say, an indebted Western bureaucrat who could be convinced to spy for Beijing or a Tibetan activist who has taken refuge abroad.

China’s hunger for data extends to some of the most personal information imaginable: our own DNA. Since the COVID-19 pandemic began, BGI—a Chinese genome-sequencing company that began as a government-funded research group—has broken ground on some 50 new laboratories abroad designed to help governments test for the virus. China has legitimate reasons to build these labs, but it also has an ugly record of forcibly collecting DNA data from Tibetans and Uighurs as part of its efforts to monitor these minorities. Given that BGI runs China’s national library of genomics data, it is conceivable that through BGI testing, foreigners’ biological data might end up in that repository.

Indeed, China has shown great interest in biotechnology, even if it has yet to catch up to the United States. Combined with massive computing power and artificial intelligence, innovations in biotechnology could help solve some of humanity’s most vexing challenges, from disease and famine to energy production and climate change. Researchers have mastered the gene-editing tool CRISPR, allowing them to grow wheat that resists disease, and have managed to encode video in the DNA of bacteria, raising the possibility of a new, cost-effective method of data storage. Specialists in synthetic biology have invented a new way of producing nylon—with genetically engineered microorganisms instead of petrochemicals. The economic implications of the coming biotechnology revolution are staggering: the McKinsey Global Institute has estimated the value of biotechnology’s many potential applications at up to $4 trillion over the next ten to 20 years.

Like all powerful technologies, however, biotechnology has a dark side. It is not inconceivable, for example, that some malicious actor could create a biological weapon that targeted a specific ethnic group. On controversial questions—such as how much manipulation of the human genome is acceptable—countries will accept different degrees of risk in the name of progress and take different ethical positions. The country that leads biotechnology’s development will be the one that most profoundly shapes the norms and standards around its use. And there is reason to worry if that country is China. In 2018, the Chinese scientist He Jiankui genetically engineered the DNA of twin babies, prompting an international uproar. Beijing portrayed him as a rogue researcher and punished him. Yet the Chinese government’s disdain for human rights, coupled with its quest for technological supremacy, suggests that it could embrace a lax, even dangerous approach to bioethics.

THINKING BIGGER

Washington has monitored China’s technological progress through a military lens, worrying about how it contributes to Chinese defense capabilities. But the challenge is much broader. China’s push for technological supremacy is not simply aimed at gaining a battlefield advantage; Beijing is changing the battlefield itself. Although commercial technologies such as 5G, artificial intelligence, quantum computing, and biotechnology will undoubtedly have military applications, China envisions a world of great-power competition in which no shots need to be fired. Technological supremacy promises the ability to dominate the civilian infrastructure on which others depend, providing enormous influence. That is a major motivation behind Beijing’s support for high-tech civilian infrastructure exports. The countries buying Chinese systems may think they are merely receiving electric grids, health-care technology, or online payment systems, but in reality, they may also be placing critical national infrastructure and citizens’ data in Beijing’s hands. Such exports are China’s Trojan horse.

Despite the changing nature of geopolitical competition, the United States still tends to equate security with traditional defense capabilities. Consider microelectronics. They are critical components not only for a range of commercial products but also for virtually every major defense system, from aircraft to warships. Because they will power advances in artificial intelligence, they will also shape the United States’ future economic competitiveness. Yet investment in microelectronics has fallen through the cracks. Neither the private sector nor the government is adequately funding innovation—the former due to the large capital requirements and long time horizons involved and the latter because it has focused more on securing current supplies than on innovating. Although China has had a hard time catching up to the United States in this area, it is only a matter of time before it moves up the microelectronics value chain.

Another casualty of the United States’ overly narrow conception of security and innovation is 5G technology. By dominating this market, China has built a global telecommunications network that can serve geopolitical purposes. One fear is that Beijing could help itself to data running on 5G networks. Another is the possibility that China might sabotage or disrupt adversaries’ communications networks in a crisis. Most U.S. policymakers failed to predict the threat posed by Chinese 5G infrastructure. It wasn’t until 2019 that Washington sounded the alarm about Huawei, but by then, there was little it could do. U.S. companies had never offered an end-to-end wireless network, instead focusing on manufacturing individual components, such as handsets and routers. Nor had any developed its own radio access network, a system for sending signals across network devices that is needed to build an end-to-end 5G system like that offered by Huawei and a few other companies. As a result, the United States found itself in an absurd situation: threatening to end intelligence cooperation if close allies adopted Huawei’s 5G technology without having an attractive alternative to offer.

Digital infrastructure may be today’s battle, but biotechnology will likely be the next. Unfortunately, it, too, is not considered a priority within the U.S. government. The Department of Defense has understandably shown little interest in it. Part of the explanation for that lies in the fact that the United States, like many other countries, has signed a treaty renouncing biological weapons. Still, biotechnology has other implications for the Pentagon, from changing manufacturing to improving the health of service personnel. More important, any comprehensive assessment of the national interest must recognize biotechnology’s implications for ethics, the economy, health, and planetary survival.

Because so many of the gaps in U.S. innovation can be traced back to a narrow view of the national interest and which technologies are needed to support it, the Biden administration’s first step should be to expand that understanding. Officials need to appreciate both the threats and the opportunities of the latest technologies: the havoc that could be wreaked by a paralyzed 5G network or unscrupulous genetic engineering, as well as the benefits that could come from sustainable energy sources and better and more efficient health care.

The Biden administration’s second step should be to create a process for aligning government investments with national priorities. Today, federal funding is skewed toward military capabilities. This reflects a political reality: the Pentagon is the rare part of the government that reliably receives bipartisan budgetary support. Fighter jets and missile defense, for example, are well funded, whereas pandemic preparedness and clean energy get short shrift. But setting the right national technological priorities raises questions that can be answered only by making judgments about the full range of national needs. What are the most important problems that technology can help solve? Which technologies have the power to solve only one problem, and which might solve multiple problems? Getting the answers to such questions right requires taking a truly national perspective. The current method doesn’t do so.

A properly run process would begin with what national security professionals call a “net assessment”—in this case, an analysis of the state of global technological progress and market trends to give policymakers the information necessary to work from a shared baseline. To be actionable, the process would establish a handful of near- and long-term priorities. A compelling candidate for long-term investment, for instance, might be microelectronics, which are foundations for both military and civilian innovation but have difficulty attracting private investment dollars. Another long-term priority might be biotechnology, given its importance for the economy and the future of humanity. As for short-term priorities, the U.S. government might consider launching an international effort to combat disinformation operations or to promote 5G innovation. Whatever the specific priorities chosen, the important thing is that they be deliberate and clear, guiding the United States’ decisions and signaling its aspirations.

A MARKET MINDSET

Supporting those priorities is another matter altogether. The current approach—with the government funding only limited research and the private sector taking care of commercializing the results—isn’t working. Too much government-funded research remains locked in the lab, unable to make the leap to commercial viability. Worse, when it manages to leave U.S. government labs, it often ends up in foreign hands, depriving the United States of taxpayer-financed intellectual property.

The U.S. government will need to take a more active role in helping research make it to the market. Many universities have created offices that focus on commercializing academic research, but most federal research institutions have not. That must change. In the same spirit, the U.S. government should develop so-called sandboxes—public-private research facilities where industry, the academy, and the government can work together. In 2014, Congress did just that when it established Manufacturing USA, a network of facilities that conduct research into advanced manufacturing technologies. A similar initiative for microelectronics has been proposed, and there is no reason not to create additional sandboxes in other areas, too.

The U.S. government could also help with commercialization by building national data sets for research purposes, along with improved privacy protections to reassure the people whose information ends up in them. Such data sets would be particularly useful in accelerating progress in the field of artificial intelligence, which feeds off massive quantities of data—something that only the government and a handful of big technology companies currently possess. Success in synthetic biology, along with wider medical research, will also depend on data. Thus, the U.S. government should increase the quantity and diversity of the data in the National Institutes of Health’s genome library and curate and label that information so that it can be used more easily.

All this help with commercialization will be for naught, however, if the startups with the most promising technologies for national security cannot attract enough capital. Some of them run into difficulties at the early and late stages of growth: in the beginning, they have a hard time courting investors willing to make high-risk bets, and later on, when they are ready to expand, they find it difficult to attract investors willing to write large checks. To fill the gaps at both stages, the U.S. government needs its own investment vehicles.

We work at the parent company of In-Q-Tel, which offers a promising model for early-stage investment. Created in 1999 by the CIA, In-Q-Tel is an independent, not-for-profit firm that invests in technology startups that serve the national interest. (One early recipient of In-Q-Tel’s investment was Keyhole, which became the platform for Google Earth.) Now also funded by the Department of Homeland Security, the Department of Defense, and other U.S. agencies, In-Q-Tel identifies and adapts innovative technologies for its government customers. Compared with a federal agency, a private, not-for-profit firm can more easily attract the investment and technology talent required to make informed investments. There is every reason to take this model and apply it to broader priorities. Even just $100 million to $500 million of early-stage funding per year—a drop in the bucket of the federal budget—could help fill the gap between what the private sector is providing and what the nation needs.

For the later stage, policymakers could draw inspiration from the U.S. International Development Finance Corporation, the federal agency responsible for investing in development projects abroad, which in 2018 was first authorized to make equity investments. A late-stage investment fund could be structured as an arm of that agency or as a fully independent, not-for-profit private entity funded by the government. Either way, it would provide badly needed capital to companies ready to scale up their operations. Compared with early-stage government support, late-stage government support would have to be greater, in the range of $1 billion to $5 billion annually. To expand the impact of this government investment, both the early- and the late-stage funds should encourage “sidecar” investments, which would allow profit-seeking firms and individuals to join the government in making, and potentially profiting from, technology bets.

Government-sponsored investment funds like these would not only fill critical gaps in private-sector investment; they would also allow taxpayers to share in the success of research their money has funded. Currently, most government funding for technology comes in the form of grants, such as the Small Business Innovation Research grants administered by the Small Business Administration; this is true even of some programs that are billed as investment funds. This means that taxpayers foot the bill for failures but cannot share in the success if a company makes it big. As the economist Mariana Mazzucato has pointed out in these pages, “governments have socialized risks but privatized rewards.”

Not-for-profit investment vehicles working on behalf of the government would have another benefit: they would allow the United States to play offense when it comes to technological competition. For too long, it has played defense. For example, it has banned the export of sensitive technology and restricted foreign investment that might pose a national security risk—even though these actions can harm U.S. businesses and do nothing to promote innovation. Supporting commercialization with government-sponsored equity investment will not be cheap, but some of the upfront costs would likely be regained and could be reinvested. There are also nonmonetary returns: investing in national priorities, including infrastructure that could be exported to U.S. allies, would enhance the United States’ soft power.

INNOVATION EVER AFTER

President Joe Biden has pledged to “build back better” and restore the United States’ global leadership. On the campaign trial, he laid out promising proposals to promote American innovation. He called for dramatically boosting federal R & D spending, including some $300 billion to be focused on breakthrough technologies to enhance U.S. competitiveness. That is a good start, but he could make this drive far more effective if he first created a rigorous process for identifying top technological priorities. Biden said he supports “a scaled-up version” of the Small Business Innovation Research grants and has backed “infrastructure for educational institutions and partners to expand research.” Even greater opportunity lies in filling the gaps in private-sector investment and undertaking a long-overdue expansion of government support for commercialization.

On innovation, if the United States opts for just more of the same, its economy, its security, and its citizens’ well-being will all suffer. The United States will thus further the end of its global leadership and the unfettered rise of China. Biden has the right instincts. Yet in order to sustain its technological dominance, the country will have to fundamentally reenvision the why and how of innovation. Biden will no doubt be consumed with addressing domestic challenges, but he has spent much of his career promoting the United States’ global leadership. By revamping American technological innovation, he could do both.

#### Failure to stop China allows them to establish a global dystopian surveillance state. Only Western democracies have self-correcting protections to safeguard citizens from over-stretch.

Charlie Campbell 19. East Asia Correspondent for TIME. "The Entire System Is Designed to Suppress Us': What the Chinese Surveillance State Means for the Rest of the World." https://time.com/5735411/china-surveillance-privacy-issues/.

Still, the risks are considerable. As Western democracies enact safeguards to protect citizens from the rampant harvesting of data by government and corporations, China is exporting its AI-powered surveillance technology to authoritarian governments around the world. Chinese firms are providing high-tech surveillance tools to at least 18 nations from Venezuela to Zimbabwe, according to a 2018 report by Freedom House. China is a battleground where the modern surveillance state has reached a nadir, prompting censure from governments and institutions around the globe, but it is also where rebellion against its overreach is being most ferociously fought.

“Today’s economic business models all encourage people to share data,” says Lokman Tsui, a privacy expert at the Chinese University of Hong Kong. In China, he adds, we are seeing “what happens when the state goes after that data to exploit and weaponize it.”

Some 1,500 miles northwest of where Mrs. Chen recovered her purse, surveillance in China’s restive region of Xinjiang has helped put an estimated 1 million people into “re-education centers” akin to concentration camps, according to the U.N. Many were arrested, tried and convicted by computer algorithm based on data harvested by the cameras that stud every 20 steps in some parts.

In the name of fighting terrorism, members of predominantly Muslim ethnic groups—mostly Uighurs but also Kazakhs, Uzbeks and Kyrgyz—are forced to surrender biometric data like photos, fingerprints, DNA, blood and voice samples. Police are armed with a smartphone app that then automatically flags certain behaviors, according to reverse engineering by the advocacy group Human Rights Watch. Those who grow a beard, leave their house via a back door or visit the mosque often are red-flagged by the system and interrogated.

Sarsenbek Akaruli, 45, a veterinarian and trader from the Xinjiang city of Ili, was arrested on Nov. 2, 2017, and remains in a detention camp after police found the banned messaging app WhatsApp on his cell phone, according to his wife Gulnur Kosdaulet. A citizen of neighboring Kazakhstan, she has traveled to Xinjiang four times to search for him but found even friends in the ruling Chinese Communist Party (CCP) reluctant to help. “Nobody wanted to risk being recorded on security cameras talking to me in case they ended up in the camps themselves,” she tells TIME.

Surveillance governs all aspects of camp life. Bakitali Nur, 47, a fruit and vegetable exporter in the Xinjiang town of Khorgos, was arrested after authorities became suspicious of his frequent business trips abroad. The father of three says he spent a year in a single room with seven other inmates, all clad in blue jumpsuits, forced to sit still on plastic stools for 17 hours straight as four HikVision cameras recorded every move. “Anyone caught talking or moving was forced into stress positions for hours at a time,” he says.

Bakitali was released only after he developed a chronic illness. But his surveillance hell continued over five months of virtual house arrest, which is common for former detainees. He was forbidden from traveling outside his village without permission, and a CCTV camera was installed opposite his home. Every time he approached the front door, a policeman would call to ask where he was going. He had to report to the local government office every day to undergo “political education” and write a self-criticism detailing his previous day’s activities. Unable to travel for work, former detainees like Bakitali are often obliged to toil at government factories for wages as miserly as 35¢ per day, according to former workers interviewed by TIME. “The entire system is designed to suppress us,” Bakitali says in Almaty, Kazakhstan, where he escaped in May.

The result is dystopian. When every aspect of life is under constant scrutiny, it’s not just “bad” behavior that must be avoided. Muslims in Xinjiang are under constant pressure to act in a manner that the CCP would approve. While posting controversial material online is clearly reckless, not using social media at all could also be considered suspicious, so Muslims share glowing news about the country and party as a means of defense. Homes and businesses now feel obliged to display a photograph of China’s President Xi Jinping in a manner redolent of North Koreans’ public displays for founder Kim Il Sung. Asked why he had a picture of Xi in his taxi, one Uighur driver replied nervously, “It’s the law.”

Besides the surveillance cameras, people are required to register their ID numbers for activities as mundane as renting a karaoke booth. Muslims are forced from buses to have their IDs checked while ethnic Han Chinese passengers wait in their seats. At intersections, drivers are ushered from their vehicles by armed police and through Tera-Snap “revolving body detector” equipment. In the southern Xinjiang oasis town of Hotan, a facial–recognition booth is even installed at the local produce market. When a system struggled to compute the face of this Western TIME reporter, the impatient Han women queuing behind berated the operator, “Hurry up, he’s not a Uighur, let him through.”

China strenuously denies human-rights abuses in Xinjiang, justifying its surveillance leviathan as battling the “three evils” of “separatism, terrorism and extremism.” But the situation has been described as a “horrific campaign of repression” by the U.S. and condemned by the U.N. Washington has also started sanctioning companies like HikVision whose facial–recognition technology is ubiquitous across the Alaska-size region. But Western aversion to surveillance is much broader and stems in no small part from abuses like the Facebook/Cambridge Analytica scandal, in which the “scraped” personal information of up to 87 million people was acquired by the political consultancy to swing elections around the world.

China is also rolling out Big Data and surveillance to inculcate “positive” behavior in its citizens via a Social Credit system. In China’s eastern coastal city of Rongcheng, home to 670,000 people, every person is automatically given 1,000 points. Fighting with neighbors will cost you 5 points; fail to clean up after your dog and you lose 10. Donating blood gains 5. Fall below a certain threshold and it’s impossible to get a loan or book high-speed train tickets. Some Chinese see the benefit. High school teacher Zhu Junfang, 42, enjoys perks such as discounted heating bills and improved health care after a series of good works. “Because of the Social Credit system, vehicles politely let pedestrians cross the street, and during a recent blizzard people volunteered to clear the snow to earn extra points,” she says.

Such intrusive government is anathema to most in the West, where aversion to surveillance is much broader and more visceral. Whether it’s our Internet browser history, selfies uploaded to social media, data scavenged from fitness trackers or smart-home devices possibly recording the most intimate bedroom conversations, we are all living in what’s been dubbed a “surveillance economy.” In her book The Age of Surveillance Capitalism, Shoshana Zuboff describes this as “human experience [broken down into data] as free raw material for commercial practices of extraction, prediction, and sales.”

When it comes to facial recognition, resistance is intense given the huge potential for indiscriminate data harvesting. The E.U. is reviewing regulations to give its citizens explicit rights over use of their facial-recognition data. While tech giants Microsoft and Amazon have already deployed the technology, they are also calling for clear legal parameters to govern its use. Other than privacy, there are equality issues too. According to a study by MIT Media Lab, facial-recognition software correctly identified white men 99% to 100% of the time, but that dipped as low as 65% for women of color. Civil-liberties groups are especially uneasy since facial recognition, despite its widespread use by American police, is rarely cited as evidence in subsequent court filings. In May, San Francisco became the first major U.S. city to block police from using facial–recognition software.

Even in China, where civil liberties have long been sacrificed for what the CCP deems the greater good, privacy concerns are bubbling up. On Oct. 28, a professor in eastern China sued Hangzhou Safari Park for “violating consumer privacy law by compulsorily collecting visitors’ individual characteristics,” after the park announced its intention to adopt facial–recognition entry gates. In Chongqing, a move to install surveillance cameras in 15,000 licensed taxicabs has met a backlash from drivers. “Now I can’t cuddle my girlfriend off duty or curse my bosses,” one driver grumbles to TIME.

Russia’s election meddling around the world highlights the risks of commercially harvested data being repurposed for nefarious goals. It’s a message taken to heart in Hong Kong, where millions have protested over the past five months to push for more democracy. These demonstrators have found themselves in the crosshairs after being identified via CCTV cameras or social media. Employees for state airline Cathay Pacific have been fired and others investigated based on evidence reportedly gleaned via online posts and private messaging apps.

This has led demonstrators to adopt intricate tactics to evade Big Brother’s all-seeing eye. Clad in helmets, face masks and reflective goggles, they prepare for confrontations with the police with military precision. A vanguard clutch umbrellas aloft to shield their activities from prying eyes, before a second wave advances to attack overhead cameras with tape, spray paint and buzz saws. From behind, a covering fire of laser pointers attempts to disrupt the recordings of security officers’ body-mounted cameras.

Fending off the cameras is just one response. When Matthew, 22, who used only his first name for his own safety, heads to the front lines, he always leaves his regular cell phone at home and takes a burner. Aside from swapping SIM cards, he rarely reuses handsets multiple times since each has a unique International Mobile Equipment Identity digital serial number that he says police can trace. He also switches among different VPNs—software to mask a user’s location—and pays for protest–related purchases with cash or untraceable top-up credit cards. Voice calls are made only as a last resort, he says. “Once I had no choice but to make a call, but I threw away my SIM immediately afterward.”

The Hong Kong government denies its smart cameras and lampposts use facial-recognition technology. But “it really comes down to whether you trust institutions,” says privacy expert Tsui. For Matthew, the risks are real and stark: “We are fighting to stop Hong Kong becoming another Xinjiang.”

Ultimately, even protesters’ forensic safeguards may not be enough as technology advances. In his Beijing headquarters, Huang Yongzhen, CEO of AI firm Watrix, shows off his latest gait-recognition software, which can identify people from 50 meters away by analyzing thousands of metrics about their walk—even with faces covered or backs to the camera. It’s already been rolled out by security services across China, he says, though he’s ambivalent about privacy concerns. “From our perspective, we just provide the technology,” he says. “As for how it’s used, like all high tech, it may be a double-edged sword.”

Little wonder a backlash against AI-powered surveillance is gathering pace. In the U.S., legislation was introduced in Congress in July that would prohibit the use of facial recognition in public housing. Japanese scientists have produced special glasses designed to fool the technology. Public campaigns have railed against commercial uses—from Ticket-master using facial recognition for concert tickets to JetBlue for boarding passes. In May, Democratic Congresswoman Alexandria Ocasio–Cortez linked the technology to “a global rise in authoritarianism and fascism.”

#### China’s drive for regional hegemony will cause conflict.

Oriana Skylar Mastro 19. Assistant professor of security studies at the Edmund A. Walsh School of Foreign Service at Georgetown University. “The Stealth Superpower: How China Hid Its Global Ambitions.” *Foreign Affairs* 98(1): 31.

But to focus on this reluctance, and the reassuring Chinese statements reflecting it, is a mistake. Although China does not want to usurp the United States' position as the leader of a global order, its actual aim is nearly as consequential. In the Indo-Pacific region, China wants complete dominance; it wants to force the United States out and become the region's unchallenged political, economic, and military hegemon. And globally, even though it is happy to leave the United States in the driver's seat, it wants to be powerful enough to counter Washington when needed. As one Chinese official put it to me, "Being a great power means you get to do what you want, and no one can say anything about it." In other words, China is trying to displace, rather than replace, the United States. The way that China has gone about this project has caused many observers to mistakenly conclude that the country is merely trying to coexist with American power rather than fundamentally overturn the order in Asia and compete with U.S. influence globally. In fact, ambiguity has been part of the strategy: Chinese leaders have recognized that in order to succeed, they must avoid provoking an unfavorable response, and so they have refrained from directly challenging the United States, replicating its orderbuilding model, or matching its globally active military. Although Beijing has pursued an indirect and entrepreneurial strategy of accumulating power, make no mistake: the ultimate goal is to push the United States out of the Indo-Pacific and rival it on the global stage. Until now, China has succeeded in growing without provoking. Yet there is a limit to how powerful a country can get without directly challenging the incumbent power, and China is now reaching that point. Under Xi, China has begun confronting American power head-on

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. Given the country's internal challenges, China's rise could still stall. But history has shown that in the vast majority of cases in which a country was able to sustain its rise, the rising power ended up overtaking the dominant power, whether peacefully or through war. That does not mean that the United States cannot buck the historical trend. To remain dominant, Washington will have to change course. It will have to deepen, rather than lessen, its involvement in the liberal international order. It will have to double down on, rather than abandon, its commitment to American values. And perhaps most important, it will have to ensure that its leadership benefits others rather than pursue a strategy based on "America first." HOW CHINA ROSE Throughout history, would-be powers have invented new ways of growing. The Mongol Empire connected lands through trade, the Qing dynasty built a tributary system, the United Kingdom collected colonies, the Soviet Union created ideologically linked spheres of influence, and the United States established an institutionalized order and a global military presence. China, too, has looked for new sources of power and has used it in ways not previously attempted. In the political realm, China has undertaken a combination of covert actions and public diplomacy to co-opt and neutralize foreign opposition. To shape the discourse on sensitive topics, it has set up hundreds of Confucius Institutes at universities around the world and launched English-language media outlets to disseminate the Chinese Communist Party's narrative. Chinese intelligence agents have even recruited Chinese citizens studying abroad to act as informants and pass along what Chinese students and professors are saying about their country. In Australia and New Zealand, China has sought to influence politics more directly, secretly donating money to preferred candidates. Beijing has been especially innovative in its use of economic power. The strategy here has been to finance infrastructure in the developing world in order to create dependent, and thus compliant, foreign governments. Most recently, those efforts have taken the form of the Belt and Road Initiative, a massive regional infrastructure project launched in 2013. China has spent about $400 billion on the initiative (and pledged hundreds of billions of dollars more), and it has convinced 86 countries and international organizations to sign some 100 related cooperation agreements. Chinese aid, which primarily takes the form of loans from banks controlled by the Chinese Communist Party, doesn't come with the usual Western strings attached: there are no requirements for market reforms or better governance. What China does demand from recipients, however, is allegiance on a number of issues, including the nonrecognition of Taiwan. As the analyst Nadege Rolland has written, the Belt and Road Initiative "is intended to enable China to better use its growing economic clout to achieve its ultimate political aims without provoking a countervailing response or a military conflict." The key is that Beijing has left the military dimensions of this project ambiguous, generating uncertainty within Washington about its true intentions. Many observers have wondered whether the Belt and Road Initiative will eventually have a strong military component, but that misses the point. Even if the initiative is not the prelude to an Americanstyle global military presence-and it probably isn't-China could still use the economic and political influence generated by the project to limit the reach of American power. For instance, it could pressure dependent states in Africa, the Middle East, and South Asia to deny the U.S. military the right to enter their airspace or access their ground facilities. China's entrepreneurialism is not limited to the economic and political realms; it also has a hard-power component. Indeed, perhaps nowhere has Beijing been more entrepreneurial than in its military strategy. Its "anti-access/ area-denial" (A2/AD) doctrine, for one thing, was a masterstroke of innovation: by developing relatively low-cost asymmetric military capabilities, the country has been able to greatly complicate any U.S. plan to come to the aid of Japan, the Philippines, or Taiwan in the event of war. For another thing, instead of confronting the United States to push its military out of the Asia-Pacific region, China has engaged in subtler activities, such as harassing U.S. ships and aircraft with nonmilitary means, which allow it to maintain a degree of deniability and discourage a U.S. response. Thanks to such tactics, China has made significant political and territorial gains without crossing the threshold into open conflict with the United States or its allies. China has also avoided sparking a concerted response from the United States by deliberately delaying the modernization of its military. As Chinese leader Deng Xiaoping famously put it, "Hide your strength, bide your time." Since countries tend to draw inferences about a challenger's intentions from the size and nature of its armed forces, China opted to first build up other types of powereconomic, political, and cultural-in order to project a less threatening image. When, in the 1970s, Deng started pursuing the "four modernizations"-of agriculture, industry, science and technology, and national defense-he saved military modernization for last. Throughout the 1980s, China focused first on building its economy; it then supplemented its burgeoning economic power with political influence, joining international institutions throughout the 1990s and the first decade of this century. At the turn of the millennium, China's military was still remarkably backward. Its ships didn't have the capability to sail safely far beyond visual range of the coastline, its pilots were not adept at flying at night or over water, and its nuclear missiles relied on outmoded liquid fuel. Most of its ground units did not have modern, mechanized equipment, such as up-to-date tanks. It was not until the late 1990s that China began modernizing its military in earnest. And even then, it focused on capabilities that were more appropriate for dominating Taiwan than projecting power more broadly. China also signaled that it sought to use its military for the global good, with Hu publicly announcing that its forces would focus more on peacekeeping and humanitarian relief than on war. Even China's infamous A2/AD doctrine was initially framed as a way of limiting the United States' ability to intervene in Asia rather than as a method for projecting Chinese power. China didn't launch its first aircraft carrier until 2012, and not until 2013 did it undertake the structural reforms that will eventually allow its military to contest U.S. primacy in the Indo-Pacific region in all domains. MINDING THE GAP Another key part of China's strategy of accumulating power concerns its relationship with the U.S.-led global order. Beijing has created uncertainty about its ultimate goals by supporting the order in some areas and undermining it in others. This pick-and-choose approach reflects the fact that China benefits greatly from parts of the current order. Permanent membership in the un Security Council allows it to help set the international agenda and block resolutions it disagrees with. The World Bank has lent China tens of billions of dollars for domestic infrastructure projects. The World Trade Organization, which China joined in 2001, dramatically opened up the country's access to foreign markets, leading to a surge in exports that drove a decade plus of impressive economic growth. But there are parts of the global order that China wants to alter. And the country has discovered that by exploiting existing gaps, it can do so without triggering immediate concern. The first type of gap in the order is geographic. Some parts of the world fall largely outside the order, either because they have chosen to absent themselves tor because they have been low priorities for the United States. In those places, where the U.S. presence tends to be weak or nonexistent, China has found that it can make significant inroads without provoking the hegemon. Thus, China initially chose to focus on leveraging its economic power to build influence in Africa, Central Asia, and Southeast Asia. It also doubled down on close relationships with unsavory regimes that the international community had ostracized, such as Iran, North Korea, and Sudan, which allowed it to increase its political power without threatening the United States' position. The second type of gap is thematic. In issue areas where the established order is weak, ambiguous, or nonexistent, China has sought to establish new standards, rules, norms, and processes that advantage it. Consider artificial intelligence. China is trying to shape the rules governing this new technology in ways that favor its own companies, legitimizing its use for domestic surveillance and weakening the voice of civil society groups that inform the debate about it in Europe and North America. When it comes to the Internet, meanwhile, China has been pushing the notion of "cyber-sovereignty." In this view, which contrasts with the Western consensus, cyberspace should be governed primarily by states, rather than a coalition of stakeholders, and states have the right to regulate whatever content they wish within their borders. To shift the norm in this direction, China has put the brakes on U.S. efforts to include civil society groups in the un Group of Governmental Experts, the main normsetting body for Western governments in cyberspace. Since 2014, it has also held its own annual World Internet Conference, which promulgates the Chinese view of Internet regulation. In the maritime realm, China is exploiting a lack of international consensus on the law of the sea. Although the United States insists that naval vessels' freedom of navigation is enshrined in international law, many other countries contend that warships have no automatic right of innocent passage through a country's territorial waters-an argument made not just by China but also by U.S. allies such as India. By taking advantage of these discrepancies (and the United States' failure to ratify the un Convention on the Law of the Sea), China is able to contest U.S. freedom-ofnavigation operations within the rubric of the existing international order. THE NEW COMPETITION Thanks to this novel strategy, China has been able to grow into one of the most powerful countries in the world, second, perhaps, only to the United States. And if it had chosen to persist with this strategy, the country would have continued to stay off the United States' radar screen. But rising powers can delay provocation for only so long, and the bad news for the United States-and for peace and security in Asia-is that China has now entered the beginning stages of a direct challenge to the U.S.-led order. Under Xi, China is unabashedly undermining the U.S. alliance system in Asia. It has encouraged the Philippines to distance itself from the United States, it has supported South Korea's efforts to take a softer line toward North Korea, and it has backed Japan's stance against American protectionism. It is building offensive military systems capable of controlling the sea and airspace within the so-called first island chain and of projecting power past the second. It is blatantly militarizing the South China Sea, no longer relying on fishing vessels or domestic law enforcement agencies to exercise its conception of sovereignty. It has even started engaging in military activities outside Asia, including establishing its first overseas base, in Djibouti. All these moves suggest one thing: China is no longer content to play second fiddle to the United States and seeks to directly challenge its position in the Indo-Pacific region.

# 2AC

## Case

### AT: Util Bad---2AC

#### We don’t ignore structural oppression---preventing existential risk and framing it as a “we” claim is good.

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Visionary pragmatism is driven by a political ethos that accents radical receptivity and a sense that a greater degree of wildness in our efforts is indispensable for transformative democratic movements. While some of my earlier works accented the ethical character of receptive generosity in political life, Visionary Pragmatism argues that receptivity is indispensable for generating democratic power – precisely because receptivity involves vulnerability, relationship formation, capacities to modulate, and learning in unexpected ways amidst difficult differences. Drawing on my engagements with the movement for democratic action research in Northern Arizona, I argue that receptive practices engender remarkable capacities for fostering grassroots critique and alternatives, powerful political assemblages across differences, and transformative dynamics in the face of what otherwise appear to be intractable problems. Our best and most powerful possibilities for co-creating urgent democratic change almost always advance along pathways engendered partly through relationships of careful attentiveness to what we initially took to be oblique, unintelligible – or, perhaps, even odious.

For these reasons, my political, theoretical, and pedagogical engagements move across many different configurations and a wider range of situations, ideologies, modes, and commitments than most. Eschewing a single subject position, in Visionary Pragmatism, I experiment with first-person plurals in which the ‘we’ morphs in relation to the different loci of initiative that animate my reflections. Sometimes ‘we’ refers to proponents of radical and ecological democracy very broadly, sometimes to scholars in higher education, sometimes to political theorists, sometimes to the action research movement that formed among people at Northern Arizona University and its community partners, sometimes to a specific action research team, sometimes to all people facing the possibility of planetary ecological collapse. Among the many things I find compelling about the writing of James Baldwin is how he shifts his pronouns without notice – for example, sometimes using ‘we’ to represent black people, sometimes as an uncanny member of the white-majority United States. This rhetorical shiftiness encroaches upon and pulls his readers – especially white readers – beyond the ‘innocence that constitutes the crime’ of their assumed individual and collective white subjectivities in ways that work in visceral, relational, and conceptual registers (Baldwin, 1992, p. 6). Such uncertainty has significant capacity to erode habits and defences, as one finds oneself unexpectedly drawn into perspectives, locations, energies, and tendencies that unsettle and reorient one’s own subjectivity. Much of my work has theorized ‘moving democracy’, and my rhetorical shifting of the first-person plural is a textual practice that aims to enhance this in ways that facilitate reflection.

Throughout Visionary Pragmatism, I argue that there are powerful reasons for active hope. At the same time, we do not live far from tipping points beyond which planetary ecological collapse, globalizing neoliberal fascism, and violent chaos may overwhelm our efforts. I do not think so much in terms of pessimism or optimism as I do about seizing and co-creating opportunities for catalysing dynamic changes in theory and practice that foster a powerful movement of receptive democracy, for complex democratic commonwealth and ecological flourishing. In one sense, as Walter Benjamin’s discussion of Paul Klee’s ‘Angelus Novus’ makes poignantly clear, it is always ‘too late’ for so much and so many, as catastrophic history keeps piling wreckage at our feet. At the same time, there are what Benjamin (1968) calls ‘weak messianic powers’ that emerge as the retroactive force of salvaged aspects of past struggles ignite sparks with emerging struggles to explode the continuum of progress. In this sense, up to our day, it is never altogether too late. With the language of ‘game-transformative practice’, I argue that a visionary-pragmatic movement of radical democracy must do something analogous in response to the fierce urgency of now, to avoid a sixth extinction in which this possibility could well become a casualty.

### AT: Nuclear War Not Extinction---2AC

#### Nuclear war causes extinction---best, most recent studies.

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Nuclear warfare could have devastating impacts on millions of people, yet it has been suggested that regional or global nuclear conflict may be possible in the future (Toon et al., 2019). In addition to the calamitous impacts of nuclear conflict on a local level, research conducted with a range of climate models finds a global cooling in response to various conflict scenarios (Coupe et al., 2019; Malone et al., 1985; Mills et al., 2014; Pausata et al., 2016; Robock et al., 2007; Turco et al., 1983). This global cooling is driven by fires started by the nuclear weapons. These fires inject smoke into the upper troposphere, where rapid lofting can spread the sunlight-absorbing soot particles into the stratosphere (Turco et al., 1983). Recent research implies that even a small nuclear conflict may have impacts on the global climate system, affecting the state and circulation of the atmosphere (Robock et al., 2007), increasing the sea ice extent in both hemispheres (Mills et al., 2014), and reducing plant productivity and crop yields in regions far from the conflict location (Özdogan et al., ˘ 2013; Toon et al., 2019; Xia & Robock, 2013). While less studied, the potential impacts of nuclear conflict on the ocean are many. Numerous physical, chemical, and biological processes in the ocean are temperature dependent, and sunlight is a critical ingredient for photosynthesizing phytoplankton at the base of the marine food web. Using a climate model with an interactive ocean, Mills et al. (2014) evaluated the ocean physical response to a potential India/Pakistan nuclear war that lofts 5 Tg of black carbon particles into the stratosphere; they find a 0.8◦ C decrease in globally averaged sea surface temperature, with smaller temperature reductions at depth. Recently Toon et al. (2019) used an Earth system model that includes a representation for phytoplankton to evaluate the ocean biological response to nuclear conflict; they report a 5–15% decrease in phytoplankton productivity under a range of conflict scenarios. Such findings prompt further investigation into how nuclear conflict and the resulting global cooling may alter the chemical state of the ocean. Perturbations in the ocean's carbonate chemistry are of particular interest, owing to their importance for ocean acidification. Ocean acidification is an ongoing, large-scale environmental problem driven by fossil fuel emissions of carbon dioxide (CO2). Cumulatively since the preindustrial era, the ocean has absorbed 41% of the carbon emitted by human industrial activities (McKinley et al., 2017). While this ocean absorption of carbon has partially mitigated anthropogenic global warming, it has fundamentally altered the carbonate chemistry of the ocean, increasing the concentration of hydrogen ions ([H+]) while decreasing the concentration of carbonate ions ([CO2− 3 ]). Observations collected at time series sites across the global ocean find statistically significant reductions in the potential hydrogen (pH = −log([H+])) and the saturation state of the calcium carbonate mineral aragonite (Ωarag, which is proportional to [CO2− 3 ]) over the past few decades (Bates et al., 2014). These changes are a direct consequence of the ocean absorption of anthropogenic carbon; carbonate chemistry dictates that the excess carbon will react with water and CO2− 3 to decrease ocean pH and Ω (Feely et al., 2004). Both of these changes may have negative consequences for marine organisms, in particular for those that precipitate calcium carbonate shells (e.g., coccolithophores, pteropods, foraminifera, corals, molluscs, and echinoderms), as the precipitation is hindered by low pH, and because decreases in Ω favor shell dissolution (Doney et al., 2009). To date, there have been no studies of the effects of nuclear conflict on ocean acidification, though past modeling studies on the ocean's response to volcanic forcing and to proposed geoengineering schemes have intimated that ocean carbonate chemistry is highly sensitive to these types of external forcings. Using a fully coupled carbon-climate model, Frölicher et al. (2011) find that volcanic-induced cooling following the 1991 Mt. Pinatubo eruption led to immediate increases in the flux of carbon from atmosphere to ocean and consequently, increases in the total dissolved inorganic carbon (DIC) concentration in the surface ocean. Eddebbar et al. (2019) demonstrate that air-to-sea CO2 fluxes are significantly enhanced following the eruptions of Agung, El Chichón, and Pinatubo in a large ensemble of simulations with an Earth system model. Matthews et al. (2009) conduct solar radiation management climate engineering simulations with an intermediate complexity model of the coupled climate-carbon system; they find changes in ocean pH and Ωarag as a result of the anomalous cooling. Similarly, Lauvset et al. (2017) indicate that radiation management geoengineering leads to changes in North Atlantic pH in a fully coupled Earth system model, but they do not explore changes in Ωarag. While these studies are suggestive of the carbonate chemistry response to nuclear conflict, the external forcing perturbations are of a different magnitude and duration than those imposed by nuclear conflict. Further, it is difficult to mechanistically understand the ocean carbonate chemistry response to such external forcing perturbations in fully coupled models, where the terrestrial response to forcing additionally influences the atmospheric CO2 concentration. Here, we use a state-of-the art Earth system model to simulate the ocean carbonate chemistry response to a range of nuclear conflict scenarios. We decouple the ocean carbon cycle from that of the terrestrial carbon cycle via a direct prescription of the atmospheric CO2 boundary condition used for air-sea CO2 flux, that is, changes in the terrestrial biosphere have no influence on the atmospheric CO2 that the ocean sees. As we will demonstrate, we find large perturbations in ocean pH and Ωarag as a result of nuclear conflict. These perturbations have relatively long duration (order of 10 years) and are driven by decreases in temperature and subsequent increases in the ocean carbon inventory. 2. Methods We analyse output generated by the Community Earth System Model (CESM) version 1.3, a state-of-the-art coupled climate model consisting of atmosphere, ocean, land, and sea ice components (Hurrell et al., 2013). The atmosphere component of CESM in our simulations is the Whole Atmosphere Community Climate Model (WACCM; Marsh et al., 2013) with nominal 2◦ resolution, 66 vertical levels, and a model top at ∼145 km; it uses the Rapid Radiative Transfer Model for GCMs (RRTMG; Iacono et al., 2000) for the radiative transfer. The Community Aerosol and Radiation Model for Atmospheres (Bardeen et al., 2008) is coupled with WACCM to simulate the injection, lofting, advection, and removal of soot aerosols in the troposphere and stratosphere, and their subsequent impact on climate (Coupe et al., 2019; Toon et al., 2019). The ocean component of CESM is the Parallel Ocean Program version 2 (Danabasoglu et al., 2012) with nominal 1◦ resolution and 60 vertical levels. The biogeochemical ocean component of CESM is the Biogeochemical Elemental Cycling model that represents the lower trophic levels of the marine ecosystem, full carbonate system thermodynamics, air-sea CO2 fluxes, and a dynamic iron cycle (Doney et al., 2006; Moore et al., 2004, 2013; Moore & Braucher, 2008; Long et al., 2013; Lindsay et al., 2014). LOVENDUSKI ET AL. 2 of 9 Geophysical Research Letters 10.1029/2019GL086246 The ocean in the coupled CESM simulation is initialized from rest with World Ocean Circulation (WOCE) temperature and salinity (Gouretski & Koltermann, 2004). Biogeochemical tracers are initialized to observationally based climatologies where possible (Lauvset et al., 2016); where these were not available (such as dissolved iron and phytoplankton biomass), the model is initialized with fields interpolated from an existing CESM simulation. The new, fully coupled simulation was spun up for 4 years to an approximate steady state with a constant atmospheric CO2 mixing ratio of 370 ppm, representative of the mixing ratio in the year 2000. Due to the relatively short spin-up period, the globally integrated air-sea CO2 flux is not in steady state (drifting at a rate of 0.14 Pg C year−2) when the perturbation forcing is applied. We therefore present our results as anomalies from the drifting control integrations. Three control simulations of 20-year duration are generated using round-off level differences in atmospheric initial conditions. As each of these control simulations has different phasing of internal variability (e.g., El Niño-Southern Oscillation), we use the standard deviation across this ensemble to identify statistically significant perturbations due to nuclear conflict. We report on the anomalies generated from four simulations of nuclear conflict with varying amounts of soot injection: three India/Pakistan conflict scenarios that inject 5, 27, and 47 Tg of soot, respectively, and one US/Russia conflict scenario that injects 150 Tg of soot. The initial soot injection amounts are generated from plausible scenarios for nuclear conflict following advice from a number of military and policy experts; the reader is referred to Toon et al. (2019) for further details on scenario development. In each case, we prescribe that the conflict begins on 15 May of the 5th year of the first control simulation, and we integrate the model for a 15-year period following the injection. We assume that the smoke generated by mass fires from nuclear conflict is injected into the upper troposphere above the target sites (in the U. S./Russia case, smoke is spread evenly over the two nations), as in Toon et al. (2019). WACCM lofts much of this smoke higher into the stratosphere via solar heating of black carbon aerosols in the smoke, where the black carbon aerosols persist for about a decade. The resulting annual mean, post-conflict (May to the following April) anomalies in aerosol optical depth are shown in Figure 1a. These optical depth changes result in a 10–40% reduction in incoming solar energy (Toon et al., 2019). While we discuss the anomalies generated from all four of these conflict simulations, we describe two in greater detail throughout this manuscript: the U. S./Russia case, as it is the largest climate perturbation overall, and the India/Pakistan 47-Tg case, as it is the largest climate perturbation generated by a regional nuclear conflict. Ocean biogeochemistry in the version of CESM used for our simulations has been extensively validated in the literature (Brady et al., 2019; Freeman et al., 2018; Harrison et al., 2018; Krumhardt et al., 2017; Lindsay et al., 2014; Lovenduski et al., 2015, 2016; Long et al., 2013, 2016; Moore et al., 2013; McKinley et al., 2016; Negrete-García et al., 2019). Of particular note for our study, the simulated surface ocean carbonate ion concentration from a long, preindustrial control simulation of CESM compares favorably with reconstructed observations, albeit with lower interannual variance than has been measured at subtropical time series sites (Lovenduski et al., 2015). In Figure S1 in the supporting information, we illustrate the comparison between observationally based estimates of surface ocean pH and Ωarag (from GLODAPv2; Lauvset et al., 2016) and the CESM control ensemble mean. In this comparison, we note that the observational estimates have been extensively interpolated and are intended to represent year 2002 carbonate chemistry parameters, whereas CESM has been integrated under an atmospheric CO2 mixing ratio that corresponds to year 2000 forcing. We find high correspondence between the spatial patterns of modeled and observed pH and Ωarag, giving us confidence that CESM is capable of representing the mean state of these two variables. 3. Results Globally averaged surface ocean pH increases in response to each of the nuclear conflicts, where the magnitude of the pH anomaly scales with the amount of soot injected (Figure 1b). In each case, the pH anomaly exceeds the interannual standard deviation of pH in the control ensemble mean (gray shading in Figure 1b). We observe the largest increases in surface ocean pH in response to the U. S./Russia 150-Tg case; here the globally averaged surface ocean pH anomaly exceeds 0.05, corresponding to a ∼10% decrease in the global mean hydrogen ion concentration. Under each scenario, the pH anomaly peaks 2–4 years after the conflict and persists for ∼10 years. With the exception of the high-latitude oceans, the pH increase following the nuclear conflict is pervasive across the surface ocean (Figures 2a– 2c). In the 47-Tg India/Pakistan scenario, we observe local pH anomalies exceeding 0.06 units on average in years 2–5 post conflict (Figure 2c); the anomalies are largest in the North Atlantic, North Pacific, and Equatorial Pacific. These large, abrupt changes in surface ocean pH may have important consequences for calcifying organisms, as shell precipitation can be affected by the ambient hydrogen ion concentration in seawater (Kroeker et al., 2013). Since the beginning of the industrial revolution, global ocean pH has dropped by an estimated 0.1 units (Ciais & Sabine, 2013). The anomalies in pH generated by our simulations exceed 50% of this historical change and occur over a much shorter time period. Whether and how organisms respond to the initial and rapid alleviation of low pH, followed by an immediate return to the current pH state in the global ocean, is as yet unknown (see, e.g., Haigh et al., 2015). In contrast to our results for pH, we observe decreases in surface ocean Ωarag following nuclear conflict (Figure 1c), which should tend to inhibit the maintenance of shells and skeletons in calcified organisms. While minimal changes in Ωarag are simulated for the 5-Tg India/Pakistan case, the other three cases produce large decreases in saturation state, on the order of 0.1 to 0.3 units (Figure 1c). In each of these three cases, the anomalies exceed the interannual standard deviation of Ωarag in the control ensemble mean (gray shading in Figure 1c). The peak response in these three cases occurs 3–5 years post conflict, a year or so later than the pH response. While for pH the globally averaged anomaly is negligibly small, 10-years post conflict; anomalies in globally averaged Ωarag persist beyond our 15-year simulation time frame for all conflict scenarios. The decreases in aragonite saturation state span the tropics and subtropics, with the exception of the central and eastern Equatorial Pacific region (Figures 2d– 2f). Local decreases in saturation state exceed 0.5 units in the western North Atlantic and western North Pacific under the 47-Tg India/Pakistan scenario (Figure 2f). Importantly, the simulated decreases in saturation state are highly pronounced in regions that host diverse coral reef ecosystems (for instance, the western and southwestern Pacific and the Caribbean), and like pH, the changes in saturation state occur fairly rapidly. Projections from climate models suggest that coral reef ecosystems across the world will experience aragonite saturation state declines from their preindustrial value of 3.5 to 3.0 by the end of the century (Ricke et al., 2013); alarmingly, our simulations project similar Ωarag declines over a 3- to 5-year period, which then persist for years after the initial forcing dissipates. The opposite-signed anomalies in pH and Ωarag induced by nuclear conflict seem puzzling at first, as for "typical" anthropogenic ocean acidification scenarios, both of these variables simultaneously decrease. Why would nuclear conflict cause opposing responses in pH and saturation state? To understand these opposing responses, we need to consider the carbonate chemistry system in seawater and its sensitivity to changing temperature. Gaseous CO2 reacts with seawater to form carbonic acid (H2CO3), which then dissociates to form H+ and bicarbonate (HCO− 3 ). The hydrogen ion then reacts with CO2− 3 to form additional HCO− 3 , CO2 + H2O− ↽−−−−−−⇀−H2CO3. (1) H2CO3− ↽−−−−−−⇀−H+ + HCO− 3 . (2) H+ + CO2− 3 − ↽−−−−−−⇀−HCO− 3 . (3) The equilibrium constants for these reactions (typically expressed as K0, K1, and K2, respectively; Sarmiento & Gruber, 2006) are sensitive to changes in temperature, for example, the cooling induced by nuclear conflict. We need to also consider the dissolution reaction for mineral calcium carbonate (CaCO3) in seawater, CaCO3(s)− ↽−−−−−−⇀−Ca2+ sat + CO2− 3,sat, (4) where [Ca2+]sat and [CO2− 3 ]sat are the concentrations of dissolved calcium and carbonate in equilibrium with mineral CaCO3, and the solubility product (Ksp) for this reaction is also sensitive to temperature (Sarmiento & Gruber, 2006). Further, the saturation state for a calcium carbonate mineral in seawater (here: aragonite), can be expressed as Ωarag = [Ca2+][CO2− 3 ] Ksp , (5) where both [CO2− 3 ] and Ksp are affected by changes in temperature (Ca2+ is highly abundant in seawater, and thus changes in temperature do not affect its concentration enough to matter for CaCO3 dissolution; Emerson & Hedges, 2008; Sarmiento & Gruber, 2006). Thus, we can decompose the anomalies in pH and Ωarag into the component driven by temperature-induced changes in the carbonate chemistry equilibrium constants (K0, K1, K2, and Ksp) and the component driven by all other changes to the carbonate chemistry system, such as changes in the DIC concentration, the alkalinity, or the salinity. We approximate the temperature sensitivity of the equilibrium constants using a program developed for CO2 system calculations (CO2SYS; van Heuven et al., 2011) via finite difference approximation. The component driven by all other changes to the carbonate system is computed as the residual of the other two terms. The pH response to nuclear conflict is the sum of two opposing drivers: an increase in pH driven by a decrease in sea surface temperature that alters the carbonate chemistry equilibrium constants and a decrease in pH driven by an increase in the DIC concentration of the upper ocean. Figure 1b illustrates the temporal evolution of the components of the global pH anomalies from the India/Pakistan 47-Tg simulation driven by changes in the equilibrium constants versus all other changes in the carbonate chemistry system. The equilibrium constant-driven pH anomaly is positive, peaking 2–3 years after the conflict, whereas the “other” component of the pH anomaly is negative, peaking 3–5 years after the conflict. The resulting total pH anomaly is positive, indicating that it is more strongly influenced by changes in the equilibrium constants than other changes. In the India/Pakistan 47-Tg case, globally averaged temperature reaches a minimum 2 to 3-years post conflict; the model initially produces 3.5◦C–4◦C anomalies at the surface that rewarm toward pre-conflict values for the duration of the simulation (Figure 3a). In contrast, surface ocean salinity-normalized DIC anomalies peak 3 to 5-years post conflict (Figure 3b), mainly as a result of the enhanced solubility of CO2 in colder seawater. While decreasing biological export production also contributes to increased DIC in the surface ocean, this signal is small relative to the change driven by enhanced air-to-sea CO2 flux (e.g., Figure S2). The delay in DIC relative to temperature anomalies is a result of the long (order months to years) timescale for CO2 to fully equilibrate with the surface mixed layer (Emerson & Hedges, 2008). The cold, high DIC surface anomalies slowly propagate into the global ocean thermocline; we observe 1◦ C and 10 mmol m−3 anomalies in temperature and DIC, respectively, at a depth of 300 m that persist beyond the length of our simulation (Figure 3). As there are no significant anomalies in global mean alkalinity or salinity post conflict (not shown), we conclude that the DIC perturbation drives the “other” component of the pH anomalies. We find similar behavior for these components in the other conflict scenarios (not shown). The negative Ωarag anomalies post conflict are driven by a combination of lower temperatures and higher DIC concentrations. Colder surface temperatures tend to increase Ksp, while higher surface DIC concentrations tend to decrease [CO2− 3 ], resulting in lower Ωarag values post conflict. Figure 1c illustrates that the DIC (other) component dominates the total Ωarag anomaly for the India/Pakistan 47-Tg simulation. As for pH, the equilibrium constant component peaks earlier than the other component; this is due to the timing of the temperature and DIC perturbations (Figure 3). The spatial patterns of the post-conflict surface pH and Ωarag anomalies in the India/Pakistan 47-Tg scenario (Figures 2c and 2f) result from perturbations in local surface ocean temperature and DIC (Figure S3). Negative temperature anomalies and positive DIC anomalies are pervasive in the tropics and extratropics, with the exception of the eastern Equatorial Pacific, where a large and long-lasting El Niño-like event develops following the conflict (Coupe, et al., manuscript in review). This strong reduction in the equatorial trade winds greatly weakens upwelling in the cold tongue region, producing near-zero surface temperature anomalies and a reduction in vertical DIC supply here (Figure S3). In the Southern Ocean, temperature and DIC are not much affected by the nuclear conflict, likely a result of enhanced upwelling of warm water from the subsurface (Harrison, et al., manuscript in preparation). Taken together, the aforementioned changes in temperature and DIC lead to increases in pH and decreases in Ωarag over most of the ocean surface (Figure S4). The changes in surface ocean pH that we simulate for nuclear conflict resemble the simulated response of pH to volcanic eruptions, but are an order of magnitude larger. Figure S5 illustrates the anomaly in surface ocean pH in the first year following the eruptions of Agung, El Chichón, and Mt. Pinatubo, as estimated by the CESM Large Ensemble (Kay et al., 2015), which uses the same physical and biogeochemical ocean components as in our nuclear conflict simulations. The ensemble mean isolates the evolution of the Earth system under historical external forcing, including the aerosol loading following volcanic eruptions (Eddebbar et al., 2019), and averages across the various representations of internal variability (Deser et al., 2012; we note that ensembles are not necessary for the nuclear conflict scenarios since the much larger magnitude of forcing provides a higher signal-to-noise ratio). The anomaly in the ensemble mean shown here thus cleanly captures the response of surface ocean pH to volcanic eruptions. Here we show the anomaly in preindustrial pH (pH anomalies in equilibrium with preindustrial atmospheric CO2, which is computed simultaneously with contemporary pH at model run time), as the contemporary pH anomalies include also the response to increasing atmospheric CO2 from one year to the next. The similarity in the spatial patterns of volcanically induced pH anomalies and those produced under nuclear conflict is striking (cf. Figures S5 and 2c), suggesting that volcanic forcing produces similar temperature, DIC, and thus pH anomalies (including the El Niño-like response to volcanic forcing in the eastern Equatorial Pacific, described in Eddebbar et al., 2019). However, the eruption-driven pH anomaly is both smaller (an order of magnitude) and of shorter duration (∼2 years) than in the India/Pakistan 47-Tg simulation. Unfortunately, a similar analysis of volcanic Ωarag anomalies in the CESM Large Ensemble was not possible as preindustrial [CO2− 3 ] was not saved to disk. 4. Conclusions and Discussion We report on the surface ocean pH and Ωarag anomalies generated from four simulations of nuclear conflict using the CESM with full ocean carbonate system thermodynamics. Globally averaged surface ocean pH increases in response to each conflict, with the largest increases in the North Atlantic, North Pacific, and Equatorial Pacific Ocean. The pH anomalies persist for 10 years post conflict and are primarily driven by changes in the carbonate chemistry equilibrium constants as a result of decreases in sea surface temperature. In contrast, CESM simulates globally averaged decreases in surface ocean Ωarag in response to nuclear conflict, with the largest decreases in the tropics and subtropics. The Ωarag anomalies persist beyond the length of our 15-year simulations and are driven by a combination of changes in the carbonate chemistry equilibrium constants and the solubility-driven increases in DIC. We further demonstrate that the surface pH anomalies induced by nuclear conflict resemble those induced by volcanic eruptions in the same modeling system. The simulated changes in global and regional pH and Ωarag as a result of nuclear conflict are large and abrupt. In the most extreme forcing scenario (U. S./Russia 150 Tg), over a period of ∼5 years, global surface ocean pH increases by 0.06 units, and Ωarag decreases by 0.3 units. To put these numbers into perspective, this simulated rate of change of pH is 10 times larger than the rate of change we have observed over the past two decades as a result of ocean acidification (−0.0018 year−1; Lauvset et al., 2015). Worryingly, surface ocean Ωarag decreases more than six times faster than has been observed in the open ocean over the past three decades (−0.0095 year−1 at the Bermuda Atlantic time series; Bates et al., 2014). While the cooling associated with nuclear conflict rapidly and briefly alleviates the decline in pH associated with ocean acidification, the increase in solubility causes the ocean to absorb ∼11 Pg of excess carbon in a 10-year period, leading to a rapid drop in Ωarag. Whether and how calcifying organisms might respond to such rapid and opposing changes in pH and Ωarag is as yet unknown. In order to measure organism response to ocean acidification, a majority of laboratory studies perform CO2 bubbling perturbation experiments, which simultaneously decrease the pH and Ωarag in the surrounding seawater solution (Pörtner et al., 2014). This simultaneous change in two carbonate chemistry parameters challenges our ability to isolate the organism response to changes in pH or changes in Ωarag alone. A recent laboratory sensitivity study of marine bivalve larvae used chemical manipulation experiments to decouple these two parameters; they found that larval shell development and growth were negatively impacted by decreasing Ω and unaffected by changes in pH (Waldbusser et al., 2014). If these sensitivities are sustained in other organisms, we might conclude that calcifying organisms would be severely affected by nuclear conflict. Our findings shed light on the ocean biogeochemical response to other forms of extreme external forcing, such as volcanic eruptions (Eddebbar et al., 2019; Frölicher et al., 2011) and solar radiation management climate engineering (Lauvset et al., 2017; Matthews et al., 2009). They may further inform the study and understanding of the role of ocean acidification in marine extinction following the Chicxulub impact event (Henehan et al., 2019). Importantly, our results suggest that even a regional nuclear conflict can have an impact on global ocean acidification, adding to the list of the many, far-reaching consequences of nuclear conflict for global society.

#### Even limited nuclear war causes extinction.

Steven Starr 17. 1-9-2017. Director, University of Missouri’s Clinical Laboratory Science Program; senior scientist, Physicians for Social Responsibility. “Turning a Blind Eye Towards Armageddon — U.S. Leaders Reject Nuclear Winter Studies.” Federation of American Scientists. <https://fas.org/2017/01/turning-a-blind-eye-towards-armageddon-u-s-leaders-reject-nuclear-winter-studies/>

Now 10 years ago, several of the world’s leading climatologists and physicists chose to reinvestigate the long-term environmental impacts of nuclear war. The peer-reviewed studies they produced are considered to be the most authoritative type of scientific research, which is subjected to criticism by the international scientific community before final publication in scholarly journals. No serious errors were found in these studies and their findings remain unchallenged. Alan Robock et al., “Nuclear winter revisited with a modern climate model and current nuclear arsenals: Still catastrophic consequences,” Journal of Geophysical Research: Atmospheres 112 (2007). Owen Brian Toon et al., “Atmospheric effects and societal consequences of regional scale nuclear conflicts and acts of individual nuclear terrorism,” Atmospheric Chemistry and Physics 7 (2007). Michael Mills et al., “Massive global ozone loss predicted following regional nuclear conflict,” Proceedings of the National Academy of Sciences of the United States of America 105, no. 14 (2008). Michael Mills et al., “Multidecadal global cooling and unprecedented ozone loss following a regional nuclear conflict,” Earth’s Future 2. Alan Robock et al., “Climatic consequences of regional nuclear conflicts,” Atmospheric Chemistry and Physics 7 (2007). Working at the Laboratory for Atmospheric and Space Physics at the University of Colorado-Boulder, the Department of Environmental Sciences at Rutgers, and the Department of Atmospheric and Oceanic Sciences at UCLA, these scientists used state-of-the-art computer modeling to evaluate the consequences of a range of possible nuclear conflicts. They began with a hypothetical war in Southeast Asia, in which a total of 100 Hiroshima-size atomic bombs were detonated in the cities of India and Pakistan. Please consider the following images of Hiroshima, before and after the detonation of the atomic bomb, which had an explosive power of 15,000 tons of TNT. The detonation of an atomic bomb with this explosive power will instantly ignite fires over a surface area of three to five square miles. In the recent studies, the scientists calculated that the blast, fire, and radiation from a war fought with 100 atomic bombs could produce direct fatalities comparable to all of those worldwide in World War II, or to those once estimated for a “counterforce” nuclear war between the superpowers. However, the long-term environmental effects of the war could significantly disrupt the global weather for at least a decade, which would likely result in a vast global famine. The scientists predicted that nuclear firestorms in the burning cities would cause at least five million tons of black carbon smoke to quickly rise above cloud level into the stratosphere, where it could not be rained out. The smoke would circle the Earth in less than two weeks and would form a global stratospheric smoke layer that would remain for more than a decade. The smoke would absorb warming sunlight, which would heat the smoke to temperatures near the boiling point of water, producing ozone losses of 20 to 50 percent over populated areas. This would almost double the amount of UV-B reaching the most populated regions of the mid-latitudes, and it would create UV-B indices unprecedented in human history. In North America and Central Europe, the time required to get a painful sunburn at mid-day in June could decrease to as little as six minutes for fair-skinned individuals. As the smoke layer blocked warming sunlight from reaching the Earth’s surface, it would produce the coldest average surface temperatures in the last 1,000 years. The scientists calculated that global food production would decrease by 20 to 40 percent during a five-year period following such a war. Medical experts have predicted that the shortening of growing seasons and corresponding decreases in agricultural production could cause up to two billion people to perish from famine. The climatologists also investigated the effects of a nuclear war fought with the vastly more powerful modern thermonuclear weapons possessed by the United States, Russia, China, France, and England. Some of the thermonuclear weapons constructed during the 1950s and 1960s were 1,000 times more powerful than an atomic bomb. During the last 30 years, the average size of thermonuclear or “strategic” nuclear weapons has decreased. Yet today, each of the approximately 3,540 strategic weapons deployed by the United States and Russia is seven to 80 times more powerful than the atomic bombs modeled in the India-Pakistan study. The smallest strategic nuclear weapon has an explosive power of 100,000 tons of TNT, compared to an atomic bomb with an average explosive power of 15,000 tons of TNT. Strategic nuclear weapons produce much larger nuclear firestorms than do atomic bombs. For example, a standard Russian 800-kiloton warhead, on an average day, will ignite fires covering a surface area of 90 to 152 square miles. A war fought with hundreds or thousands of U.S. and Russian strategic nuclear weapons would ignite immense nuclear firestorms covering land surface areas of many thousands or tens of thousands of square miles. The scientists calculated that these fires would produce up to 180 million tons of black carbon soot and smoke, which would form a dense, global stratospheric smoke layer. The smoke would remain in the stratosphere for 10 to 20 years, and it would block as much as 70 percent of sunlight from reaching the surface of the Northern Hemisphere and 35 percent from the Southern Hemisphere. So much sunlight would be blocked by the smoke that the noonday sun would resemble a full moon at midnight. Under such conditions, it would only require a matter of days or weeks for daily minimum temperatures to fall below freezing in the largest agricultural areas of the Northern Hemisphere, where freezing temperatures would occur every day for a period of between one to more than two years. Average surface temperatures would become colder than those experienced 18,000 years ago at the height of the last Ice Age, and the prolonged cold would cause average rainfall to decrease by up to 90%. Growing seasons would be completely eliminated for more than a decade; it would be too cold and dark to grow food crops, which would doom the majority of the human population.

## Race War Procedural

### Race War Procedural---2AC

#### Movements like the Black Panthers prove militancy and institutional change are necessary to freedom’s actualization.

Jim VERNON 14, Associate Professor of Philosophy at York University [“‘I Am We’: The Dialectics of Political Will in Huey P. Newton and the Black Panther Party,” *Theory & Event*, Vol. 17, No. 4 14, Accessed Online through Emory Libraries]

While I have endeavored above to draw a consistent argument from them, in a way, the Party’s split simply reflects the conflict that runs through Newton’s writings. Their inspirational power, for many, came from his full-throated embrace of the absolute principle of freedom and the revolutionary enthusiasm that flows from it. Their organizational clarity and political purchase, however, came from their insistence upon institutional development and tangible improvement in the lives of the oppressed as the litmus test for freedom’s actualization. Within months, one could find him quoted as saying “The only political power that I see that we can build would be potentially destructive. It is not our choice to be destructive: we would like some other avenue to work through, but the country has left us no choice”,61 but also “This is why the Peace Movement is so important. If the Peace Movement is successful, then the revolution will be successful […] Not only should we communicate with it, we should actually get out and support it fully in various ways including literature and demonstrations” (TDFP, 152). The BPP’s rupture, in essence, was “a reflection of the split in Huey’s own personality, two halves operating in completely separate spheres”, and ultimately of the split in the political will whose necessary, but fraught, unity Newton had implicitly theorized.62

The free will which grounds political action is a tense coalition of revolutionary and reformist tendencies—always haunted by arbitrariness—and each aspect no doubt manifests itself with a different degree of intensity at different times in the distinct individuals whose collective action is required for its actualization. There will thus always be those driven to strike back at the status quo in abstract revolt or empty revenge, or who long to withdraw from it in a separate society of like-minded souls, just as there will always be those who largely accept the current alignment, arbitrarily seek to modify it to suit their interests better, or seek larger change as a matter of principle or even whim. By both giving reformist direction to otherwise destructive revolutionaries, withdrawn separatists and arbitrary opportunists, as well as grounding pragmatic reforms in prescriptive, universal principle and militant commitment, the BPP managed to link seemingly piecemeal institutional changes into a broad program far more dangerous to the status quo than the independently operating would-be separatists, organized terrorists or spontaneous rioters of their day combined. While many “reduce the Party to its community service programs or to armed confrontation with the police” in order to impose a sense of unified consciousness and purpose upon it,63 the BPP itself must be grasped as a site of struggle and contest, rife with internal inconsistencies.

It is as easy for a small band of underground revolutionaries—from the BLA to the various manifestations of the Black Bloc tactic—to find unified consciousness and purpose as it is for the reactionary State to isolate and neutralize them. It is the alienating and fruitless violence of such groups that has led, in recent years, groups like Occupy to seek common will through consensual dialogue. For all the inspiration such groups provide, however, their work continues to have little purchase on the situation, guided as it is by the very forms of democratic debate and finite opinion that stabilize the status quo, and infinitely deferred as it is in actually finding a generally acceptable program. What unites these two conceptions of social change is their non-dialectical conception of collective will, pushing towards or presuming from the outset an absolute or general collective consciousness. As the short history of the BPP shows, by forging a tense, imperfect unity between revolutionaries, progressives and even arbitrary actors, seemingly reformist actions can be linked through militant commitment and principle into a potent vehicle for fundamental and sweeping institutional change. Lacking either the universal or particular sides of the free will, political movements generally remain too situationally determined, or too emptily abstract to produce concrete emancipation. Newton’s BPP offers one, no doubt imperfect and unrepeatable, but nevertheless remarkably potent and instructive, example of a political program that allows revolutionaries to constrain their enthusiasm, without abandoning it, within bounds both acceptable and meaningful to those whose lives are a continual, but too particular and often arbitrary, struggle for institutional change. While there are no doubt many lessons to be learned from Newton and the BPP, it is this need for a dialectical, rather than unified, collective to actualize political will that seems both the most pressing, and the least heeded.64

#### Decreases in violence due to peaceful protest and a culture of nonviolence prove anti-Black violence does exist but it doesn’t conceptualize into a “war.”

Wexler 16 Stuart Wexler, historian writing for the Washington Post. No, the United States is not headed toward a race war https://www.washingtonpost.com/posteverything/wp/2016/07/20/no-the-united-states-is-not-headed-toward-a-race-war/?noredirect=on&utm\_term=.f6122dc19065

Is the United States on the verge of a race war? You might think so if you saw the New York Post’s “Civil War” front page the morning after the killing of five Dallas police officers. Or if you watched the YouTube clip of Baton Rouge shooter Gavin Long declaring, “It’s a time for peace, but it’s a time for war, and most of the times when you want peace, you got to go to war.” Or read the tweet from former congressman Joe Walsh (R-Ill.), warning “This is war. Watch out Obama. Watch out black lives matter punks. Real America is coming after you.” Or if you watched former New York mayor Rudy Giuliani’s speech at the Republican National Convention: “The vast majority of Americans today do not feel safe. They fear for their children. They fear for themselves. They fear for our police officers, who are being targeted, with a target on their back.”

It’s easy to understand why, according to new polling, Americans say race relations are getting worse. But despite real fears and frustrations, and those who are trying to capitalize on those fears and frustrations, the United States is unlikely to return to the widespread, violent civil disorder of the 1960s. Improvements in policing and community relations, along with the fragmentation of extremist groups, provide a bulwark against anything approximating a race war.

The United States was a powder keg in the mid ’60s — and there are indeed some parallels to social conditions today. The passage of the Civil Rights Act of 1964 and the Voting Rights Act of 1965 were momentous for blacks in the South, but the laws did little to address the grievances of blacks in northern and western cities, where people of color could already vote and where discrimination was less overt. Blacks everywhere grew frustrated with the realities of de facto economic injustice. Then, as now, the black unemployment rate was approximately double that for whites, and median income was approximately 40 percent lower. Racial disparities persisted in housing, education and political influence. And racial targeting by the police increased the perception of powerlessness within black communities. Even still, as now, there was anxiety among some whites that they were losing out to people of color. When campaigning in 1965 to become the first big-city black mayor, Cleveland’s Carl Stokes (D) felt the need to pledge: “My election would not mean a Negro takeover, it would not mean the establishment of a Negro cabinet. My election would mean the mayor just happened to come from the Negro group.”

But the parallels shouldn’t be overstated. The tensions of the ’60s erupted into racial violence on a level that dwarfs anything seen today by several orders of magnitude. According to calculations by economists William Collins and Robert Margo, from the beginning of 1965 through the end of 1968, there were 533 urban riots resulting in 195 deaths, 9,760 injuries and 14,486 instances of arson. The atmosphere was such that a false rumor that a black cab driver had died in police custody in Newark, N.J., prompted violence that left 26 people dead and 750 injured, while causing more than $10 million in property damage (more than $70 million in today’s dollars).

Compare that to the overwhelmingly peaceful protests in the four years since George Zimmerman was indicted for the murder of Trayvon Martin. Even the most chaotic episodes have been relatively mild. In Baltimore, for instance, riots after the death of Freddie Gray resulted in injuries to more than 150 police officers, 144 vehicles set on fire and property damage estimated at nearly $13 million; no protesters or police were killed. As The Washington Post’s Radley Balko has written, the rate of killings of police officers has been declining since the ’70s, with 2015 being the second safest year for police in decades.

One reason the protests have remained relatively contained has to do with police-community relations. Yes, too many people — and a disproportionate number of black people — are shot by police. Yes, there is still institutionalized racism in the criminal justice system. And yes, many blacks, especially, say they can’t trust law enforcement officials.

But present-day interactions between police and protesters have ranged from tense (in Ferguson, Mo.) to friendly (in Dallas). That’s a world away from the 1960s, when police forces allowed Ku Klux Klan members to savagely beat non-violent protesters on those occasions when they themselves were not delivering the beat-downs. Outside the South, such interactions were less profound and violent, but still routine. It was a presidential commission — the National Advisory Commission on Civil Disorders led by then-Illinois Gov. Otto Kerner — not the Black Panthers, that, in 1968, affirmed the widespread belief among blacks that police “symbolize white power, white racism, and white oppression.”

In response to the Kerner report, police departments raised their standards of professionalism and increased the diversity of their forces. While urban police forces still disproportionately employ white officers relative to the demographics of the communities they serve, the overall number of blacks in law enforcement roughly approximates their presence in the overall U.S. population. Some of the sites of the worst police abuses in the 1960s, including Birmingham, Ala., now have black police chiefs. And some of those chiefs, like Dallas’s David Brown, have implemented community policing policies that have reduced citizen complaints and sought to counter the idea that police are racist oppressors.

The reality that Black Lives Matter activists are willing to deliberate with Brown and other police commissioners, that BLM consistently condemns acts of violence against officers, also works against the narrative that there is some kind “war on police.” The Black Panthers favored retaliatory violence for alleged police misconduct, and did so in armed street battles — they surely never praised a police chief.

Extremist groups today also hold much less sway. By the end of the ’60s, federal law enforcement was becoming quite adept at infiltrating and disrupting white supremacist groups. Experts say there are approximately 8,000 active Ku Klux Klan members in the United States today; in contrast, the White Knights of the Ku Klux Klan of Mississippi, at its peak membership under the leadership of Grand Wizard Sam Bowers in 1965, had close to 10,000 members. Organized group violence, of the kind perpetrated by Bowers, is all but unknown.

## K

### AT: Authoritarianism---2AC

#### China fill-in turns this argument---they’ll implement a system that’s more authoritarian than the current one.

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Much of Washington has fretted over China’s mercantilist approach to economics in general and views the Belt and Road Initiative largely through this lens. Yet the concerns over Beijing’s current approach should go beyond dollars and yuan. By fueling debt dependency, advancing a “China First” development model, and undermining good governance and human rights, the initiative offers a deeply illiberal approach to regions that contain about 65 percent of the world’s population and one-third of its economic output.

The hype surrounding the Belt and Road Initiative — Chinese President Xi Jinping’s signature initiative on the world stage — has recently shifted into overdrive. In China’s domestic politics, support for the project has come to signify loyalty to the country’s president-for-life. At the same time, the Belt and Road serves as an overarching narrative into which Beijing can fit its foreign economic policy in regions as disparate as the Arctic and Latin America. Yet the initiative’s rhetoric and branding should not obscure its core aim: to access markets and project influence and power throughout Eurasia and the Indian Ocean rim. And China has already dedicated significant resources to the effort: Estimates put total Belt and Road-related construction and investment at more than $340 billion from 2014 to 2017.

The United States cannot ignore the Belt and Road Initiative. The offer of financing and other assistance addresses a very real need in many countries for roads, ports, railways, telecommunications networks, and other infrastructure. And given that many see no credible alternative on offer, straight-out American opposition is bound to fail.

Instead, the Trump administration should try to shape the project, where possible, through a combination of engagement and pressure. At the same time, it is imperative to counter the initiative’s most illiberal elements. This means advancing a free, open, and sustainable model of development, fostering political resiliency in select countries, launching a new digital development fund, and more. Undertaken in concert with U.S. allies and partners, these kinds of moves will not demand massive new resources. But absent steps like them, Belt and Road-fueled illiberalism will spread across the globe unchecked.

To understand how the Belt and Road Initiative can threaten human rights and good governance, consider first how its projects are financed. Thus far, China has largely favored loans over grants. It is not a member of the Paris Club of major creditor nations, and it has shown little inclination to adhere to internationally recognized norms of debt sustainability, such as the sovereign lending principles issued by the United Nations Conference on Trade and Development. At the same time, many of the recipient countries participating in the project lack the capability to assess the long-term financial consequences of China’s loans — or they may simply accept them, assuming the bills will come due on a future government’s watch.

Ballooning, unsustainable debt is the predictable result. Sri Lanka, where in 2017 some 95 percent of government revenue went to debt repayment, represents the best-known example of Belt and Road’s negative impact on a country’s balance sheet. But Sri Lanka is only the most prominent case; a recent study by the Center for Global Development identified eight countries — Djibouti, the Maldives, Laos, Montenegro, Mongolia, Tajikistan, Kyrgyzstan, and Pakistan — that are at particular risk of debt distress due to future Belt and Road-related financing.

Naturally, large government-backed loans to foreign countries come with political strings attached. The potentially destructive international economic consequences of failing to make repayments breeds long-term dependence on China and expands Beijing’s influence. As a result, recipient countries will find their foreign-policy choices constrained — even if future governments seek to exit Beijing’s orbit.

Sri Lanka is again a case in point. There, the government of Maithripala Sirisena inherited a mountain of Belt and Road-related debt from its pro-Chinese predecessor and, despite a clear desire to move closer to India and the United States, had no recourse but to engage in a debt-for-equity swap with China. The deal left Beijing with a 99-year lease on the strategically located port at Hambantota.

The Belt and Road Initiative provides a vector through which China can exert influence well beyond countries’ foreign-policy choices. The geographic expanse covered by the initiative includes many nations with high levels of corruption, and with domestic institutions that range from fragile democracies to full-blown autocracies. With Chinese companies being generally less transparent than their international peers, and with Beijing’s zeal to curb bribery and corporate malfeasance limited to its domestic economy, a massive influx of Chinese funds into countries with weak governance is likely to exacerbate ongoing corruption problems. And given that some projects are clearly linked to geopolitical objectives — like gaining control over commercial assets with potential military uses — Beijing may well employ graft to ensure that foreign political elites look favorably on its offers.

China’s planned development of a “new digital Silk Road” has received comparatively less attention than other elements of the initiative but is equally troubling. China’s digital blueprint seeks to promote information technology connectivity across the Indian Ocean rim and Eurasia through new fiber optic lines, undersea cables, cloud computing capacity, and even artificial intelligence research centers. If realized, this ambitious vision will serve to export elements of Beijing’s surveillance regime. Indeed, Chinese technology companies already have a track record of aiding repressive governments. In Ethiopia, likely prior to the advent of Belt and Road, the Washington Post reports that China’s ZTE Corporation “sold technology and provided training to monitor mobile phones and Internet activity.” Today, Chinese tech giant Huawei is partnering with the government of Kenya to construct “safe cities” that leverage thousands of surveillance cameras feeding data into a public security cloud “to keep an eye on what is going on generally” according to the company’s promotional materials. Not all elements of China’s domestic surveillance regime are exportable, but as the “New Digital Silk Road” takes shape, the public and online spaces of countries along it will become less free.

Beyond fueling corruption and enhancing surveillance, the initiative will stifle free speech, at a minimum by strengthening Beijing’s ability to silence criticism. States financially beholden to China will become less willing to call out Beijing’s domestic human rights abuses, for instance, and less eager to object to its foreign-policy practices. This dynamic is already playing out within the European Union. In mid-2017, for the first time, the EU failed to issue a joint condemnation of China at the U.N. Human Rights Council. Greece, which had recently received a massive influx of Chinese investment into its Port of Piraeus, scuttled the EU statement.

Other cash-strapped democratic governments, when confronting the choice between Belt and Road’s immediate – even if one-sided – economic benefits and the need to defend human rights globally, may well follow Greece’s example. Similarly, companies dependent on the Chinese market are already acquiescing to Beijing’s demands – such as by firing an American employee who “liked” a pro-Tibetan independence tweet – and by self-censoring, as in the efforts by some Hollywood producers to ensure that films contain no lines (supportive of Tibet, say, or critical of Xi Jinping) that might arouse anger within the Chinese Communist Party. As the initiative extends its reach, it is easy to imagine government officials feeling similarly compelled.

China’s Belt and Road-related activism leaves the United States in a bind. Lacking additional billions of dollars in government-directed funds, a raft of state-owned enterprises, or well-capitalized banks linked to the government, Washington cannot simply outbid Beijing. Nor should it try to do so. Virtually no country would sign on to an “us or them” approach to the Belt and Road Initiative even if the United States were to offer such a stark alternative, and inducing infrastructure-strapped countries to “just say no” to Chinese funds is a tough sell. The best course for Washington is to offer a positive vision of physical and digital connectivity while taking concrete steps to limit the initiative’s most illiberal effects.

The Trump administration is off to a rhetorical start with its invocation of a “free and open Indo-Pacific,” to which it should couple a “free, open, and sustainable” model of development in that region and beyond. Drawing an implicit distinction with Belt and Road’s debt-fueled focus on hard infrastructure generally constructed with Chinese workers, the United States, together with other democracies such as Japan, European nations, and India, should advance an alternative approach. It should emphasize local capacity-building, the transfer of skills, responsible financing, quality, and innovation. These elements should become the watchword of the free, open, and sustainable model.

Although some governments willingly take on unsustainable debt to finance Belt and Road projects and channel contracts to Chinese companies behind closed doors, others simply lack the technical capacity to assess debt repayment and the long-term costs associated with specific infrastructure projects. The United States, working with its allies and partners, can play a critical role in helping to develop the human capital necessary to adequately determine whether a country should take on a Belt and Road project. This would include such mundane but important efforts as building technical financial assessment capacity, training procurement officials, and enhancing the project management skills of government officials.

The United States should also double down on its international support for democracy, civil society, and rule of law. Transparency, domestic checks and balances, and a free press can function as powerful impediments to the sort of corrupt backroom deals that leave China with enduring financial leverage and receiving governments with a long-term debt hangover. Even modest efforts in nondemocratic countries — to train investigative journalists, for example, or to strengthen the capacity of civil society organizations — may constrain China from pursuing the most one-sided Belt and Road deals.

Information technology connectivity is the one area in which the United States should most actively compete with China. Working with Europe and Japan, Washington could establish a dedicated development fund under the umbrella of the Organization for Economic Cooperation and Development that would finance digital development projects. Such a fund should only support companies that are committed to globally recognized rights of freedom of expression and privacy and that agree to an independent third-party audit of its software and hardware exports.

In March 2000, then-U.S. President Bill Clinton channeled the prevailing wisdom about China in pressing for approval of permanent normal trade relations with Beijing and its admission to the World Trade Organization. “Bringing China into the WTO,” Clinton said, “doesn’t guarantee that it will choose political reform.” Nevertheless, Clinton argued, “the process of economic change will force China to confront that choice sooner, and it will make the imperative for the right choice stronger.” The notion that borders open to trade and investment were bound to allow in liberal ideas struck many policymakers as entirely logical.

But that was an illusion. A richer and more globally connected China has not become a more democratic one — instead, Beijing’s economic strength now allows it to spread its own illiberal values to other countries. Nearly two decades after China’s entrance into the world economy, it is up to U.S. President Donald Trump to ensure that the illiberal values China is exporting under the guise of the Belt and Road Initiative do not take root across the globe.

### AT: Reform/Productivity Bad---2AC

#### Globalization and economic growth are the only ethical systems supported by empirical evidence.

“Why they’re wrong.” ECONOMIST 16. October 1. <http://www.economist.com/news/leaders/21707926-globalisations-critics-say-it-benefits-only-elite-fact-less-open-world-would-hurt>.

The backlash against trade is just one symptom of a pervasive anxiety about the effects of open economies. Britain’s Brexit vote reflected concerns about the impact of unfettered migration on public services, jobs and culture. Big businesses are slammed for using foreign boltholes to dodge taxes. Such critiques contain some truth: more must be done to help those who lose out from openness. But there is a world of difference between improving globalisation and reversing it. The idea that globalisation is a scam that benefits only corporations and the rich could scarcely be more wrong.

The real pro-poor policy

Exhibit A is the vast improvement in global living standards in the decades after the second world war, which was underpinned by an explosion in world trade. Exports of goods rose from 8% of world GDP in 1950 to almost 20% a half-century later. Export-led growth and foreign investment have dragged hundreds of millions out of poverty in China, and transformed economies from Ireland to South Korea.

Plainly, Western voters are not much comforted by this extraordinary transformation in the fortunes of emerging markets. But at home, too, the overall benefits of free trade are unarguable. Exporting firms are more productive and pay higher wages than those that serve only the domestic market. Half of America’s exports go to countries with which it has a free-trade deal, even though their economies account for less than a tenth of global GDP.

Protectionism, by contrast, hurts consumers and does little for workers. The worst-off benefit far more from trade than the rich. A study of 40 countries found that the richest consumers would lose 28 [percent] of their purchasing power if cross-border trade ended; but those in the bottom tenth would lose 63 [percent]. The annual cost to American consumers of switching to non-Chinese tyres after Barack Obama slapped on anti-dumping tariffs in 2009 was around $1.1 billion, according to the Peterson Institute for International Economics. That amounts to over $900,000 for each of the 1,200 jobs that were “saved”.

Openness delivers other benefits. Migrants improve not just their own lives but the economies of host countries: European immigrants who arrived in Britain since 2000 have been net contributors to the exchequer, adding more than £20 billion ($34 billion) to the public finances between 2001 and 2011. Foreign direct investment delivers competition, technology, management know-how and jobs, which is why China’s overly cautious moves to encourage FDI disappoint (see article).

What have you done for me lately?

None of this is to deny that globalisation has its flaws. Since the 1840s advocates of free trade have known that, though the great majority benefit, some lose out. Too little has been done to help these people. Perhaps a fifth of the 6m or so net job losses in American manufacturing between 1999 and 2011 stemmed from Chinese competition; many of those who lost jobs did not find new ones. With hindsight, politicians in Britain were too blithe about the pressures that migration from new EU member states in eastern Europe brought to bear on public services. And although there are no street protests about the speed and fickleness in the tides of short-term capital, its ebb and flow across borders have often proved damaging, not least in the euro zone’s debt-ridden countries.

As our special report this week argues, more must be done to tackle these downsides. America spends a paltry 0.1% of its GDP, one-sixth of the rich-country average, on policies to retrain workers and help them find new jobs. In this context, it is lamentable that neither Mr Trump nor Mrs Clinton offers policies to help those whose jobs have been affected by trade or cheaper technology. On migration, it makes sense to follow the example of Denmark and link local-government revenues to the number of incomers, so that strains on schools, hospitals and housing can be eased. Many see the rules that bind signatories to trade pacts as an affront to democracy. But there are ways that shared rules can enhance national autonomy. Harmonising norms on how multinational firms are taxed would give countries greater command over their public finances. A co-ordinated approach to curbing volatile capital flows would restore mastery over national monetary policy.

These are the sensible responses to the peddlers of protectionism and nativism. The worst answer would be for countries to turn their backs on globalisation. The case for openness remains much the same as it did when this newspaper was founded to support the repeal of the Corn Laws. There are more—and more varied—opportunities in open economies than in closed ones. And, in general, greater opportunity makes people better off. Since the 1840s, free-traders have believed that closed economies favour the powerful and hurt the labouring classes. They were right then. They are right now.

#### Competitive capitalism solves sustainability.

Shi-Ling Hsu 21. D'Alemberte Professor of Law and Associate Dean for Environmental Programs at the Florida State University College of Law. Capitalism and the Environment: A Proposal to Save the Planet. “1 Introduction”

Differences in degree are masked by a simple capitalism-versus-socialism dichotomy. Nevertheless, this book takes up this debate on these simplified terms, and with respect to only one question, but one of existential importance to humankind: How will human civilization right its horribly, tragically errant relationship with the planet it inhabits? Climate change, water pollution by nutrients, plastics, and hydrocarbons, the vast transformation of large landscapes, and the assault of industrial chemicals about which we know virtually nothing, head up a long list of ways in which human civilization faces colossal upheaval, a comeuppance of a longstanding disregard for the environmental consequences of human activity. Earth itself will support some lifeforms indefinitely, but the range of climatic and environmental conditions in which humans can thrive is limited. Humankind is now threatening the planet’s ability to support humankind. What will save us from ourselves? For better or for worse, it will be capitalism that saves us.

That may seem like a strange assertion to some. Activists, scholars, researchers, interested citizens, and maybe even politicians that have been concerned with environmental issues may be surprised, and some chagrined, to hear such a thing, given how much damage capitalist economies have already done to the global environment. Not only that, some prominent capitalists continue to get in the way of environmental regulation and reform. It seems Pollyannaish to suggest that capitalism can turn around and start doing the opposite of what it’s been doing for well over a century.

But that simplistic view misses the wide varieties of ways in which capitalism works and the infinite number of goals that capitalists pursue (it is not just profit). Capitalism is not a monolith. Capitalism can exist in authoritarian states such as China, in libertarian states such as the United States, and in social democratic states such as the Scandinavian countries. In this variety of governments, cultures, and ideologies, capitalism has clearly held sway as the preferred method of economic governance, even as it faces different limits in different countries. In this hour of global environmental crisis, capitalism is the only way to quickly enough marshal the human, financial, and material resources necessary to right the direction of a huge, ponderous ship: a global economy powered by fossil fuels and trillions of dollars of polluting capital. If there is something that can fix this broken form of capitalism, it is capitalism.

Capitalism, like socialism, is difficult to define and frequently misunderstood. By “capitalism” I mean a form of economic governance with decentralized decisionmaking through prices, explicit or implicit, which govern a system in which not only is there free trading in markets, but free movement of factors of production. Money, labor, and other useful inputs (including environmental ones) are all factors of production, and capitalism requires that the owners of these factors of production be free to deploy them in whatever venture they choose. There are limits, of course. Slavery is forbidden, so there is no price on human bondage. But capitalism often means that the most profitable venture finds itself with the most useful factors of production, and competitors fall away, even fail. This is an oversimplification, and I undertake a lengthier discussion in Chapter 2.

Importantly, capitalism is not the absence of law or government, nor even a widely held illusion that government is “neutral” with respect to values, and that it can simply “call balls and strikes” like an impartial umpire in a baseball game. Capitalism embodies bundles of values that vary from country to country. This book suggests only elevating one: protection and restoration of the global environment. It is a far-reaching value because humankind has fouled its own nest in so many ways in so many countries and cultures. But it is a momentous one, because the whole of humankind is now at risk of descending into greatly diminished, and possibly some post-apocalyptic, existence. Whatever diverse meanings people may place on “capitalism” and on “human civilization,” it is now a clear and present danger that the global environment may deteriorate enough to make both of these things difficult to sustain in a recognizable form. That dark future may be nearer than we would like to believe.

The way that capitalism is practiced must change, of course. It has been profitable to externalize environmental harms onto the planet and the rest of society. That is not only a human and planetary tragedy, but it is an anathema to capitalism. At a minimum, a healthy capitalist economy would count and value the vast forms of ecosystem services provided to many productive, profit-making enterprises. Clean air and water are not only vital to a healthy and productive population of human workers, but also as inputs to many industrial processes. But a healthy capitalism would go well beyond that, and place protection of the global environment at the center of industrial and commercial activity, where it belongs. Just as capitalism wrought momentous changes that have transformed society, it can be redirected to transform it again, but with the new goal of protecting and restoring the global environment.

This book suggests ways in which capitalism can be shunted away from its currently unsustainable (ecologically and economically) collision course with the global environment, and how capitalism can be harnessed to help solve the environmental crises facing humankind. Some parts of capitalism are already hard at work solving some of the environmental market failures that other parts of capitalism have created. Saving humankind and many other species will require that these restorative forms of capitalism be allowed to thrive. But more than that is required. Capitalist society must not only beat a hasty retreat from its destructive aspects, but also allow some new forms of capitalism to emerge, develop, and mature.

The necessary transformation of capitalism will be profound, but not necessarily jarring for everybody. In fact, it is already well underway. Driving electric cars or hybrid-electric cars, drawing electricity from a solar rooftop, and using energy- and water-efficient appliances is already routine for many, and would represent just a minor change for most consumers. Overall consumption patterns need not change dramatically.

It is on the production side that change is afoot. Given what we now know about impacts on human and nonhuman life, some methods of industry and commerce are now clearly inferior to alternatives. The way that energy and goods are produced must clearly change. Change is of course difficult, but the nature of capitalism is that progress comes through competition and change. Joseph Schumpeter thought that “creative destruction” brought about by healthy competition was the core feature of capitalism.2 Businesses and industries must come and go. One example of an industry that has become anachronistic is coal mining. Coal combustion can now be replaced by a variety of alternative energy sources, and in fact has been in many places. In the United States and elsewhere, low natural gas prices have outcompeted coal as a fuel of choice for electricity generation. While it is important to acknowledge the economic and emotional toll of change for coal workers, it is also worth keeping it in context. With the development of the internet and the advent of travel websites, about 50,000 travel agents in the United States went out of business from 2000 to 2016. 3 That is also about the same number of workers in the coal mining industry who are at risk.4 In healthy capitalist economies, the only constant is change.

#### Capitalism is a tool not morality. The only question is if the plan is effective.

Nathan Hunt interviewing Rebecca Henderson 21. Henderson, University Professors at Harvard, a research fellow at the National Bureau of Economic Research, and a fellow of both the British Academy and the American Academy of Arts and Sciences. “The Essential Podcast, Episode 32: The Moral Argument for Change — Reimagining Capitalism in a World on Fire”. https://www.spglobal.com/en/research-insights/articles/the-essential-podcast-episode-32-the-moral-argument-for-change-reimagining-capitalism-in-a-world-on-fire

Nathan Hunt: This goes to the heart of what I found both fascinating and challenging about your book, which is that so much seems to depend upon the actions of individuals. My concern is with the underlying structures that are inherent in the capitalist system. The core question I have for you is, do you think that capitalism itself is good or bad? Does it possess an inherent morality?

Rebecca Henderson: No, I do not think capitalism is inherently moral. If we think of capitalism broadly as reliance on free markets, open competition, and the individual ownership of assets. And we could argue, but if we think of it as roughly that set of forces, that coalition can create good things or bad things. Indeed, one of the central themes of the book is the idea that if you don't have anything to balance, the free market, a free market unchecked is a very dangerous, very dangerous thing. I mean, I sometimes use the image of tiger. Capitalism, completely unchecked and completely unbalanced, is voracious. If you tell people that there is no penalty for emitting greenhouse gases, you know, go ahead, burn all the coal burn, burn all the oil, oh yeah, thousands of people for hundreds of years will pay the cost of your doing that, but you know, that's not for you to worry about. People will do it. People will burn the oil and coal and caused the climate crisis. So, capitalism is not inherently good, but it's not inherently bad either. It's a tool. It's a tool for allocating resources for pulling people together to solve problems. And when it's aimed in the right direction and constrained by the right kinds of guardrails, it's unbelievably good. I mean, if you look at the lives we lead compared to our grandparents or our grandparents, parents. We've seen unimagined prosperity. I mean, the human race so much richer and better off than it was, you know, just 50 let alone a hundred years ago. The thing about capitalism, I think, is it has to be in balance with the rest of society, with government, with civil society and we have to remember that as a tool, its original purpose was the creation of prosperity and possibly individual freedom that before capitalism, we had feudalism, you know, you work for the local guy and that's your choice and they control most of economic life and in that context, capitalism is an incredible, both liberation of human potential and creation of real opportunity, when the rules are right. We say, hey, you know, I've said often in public, I'm a huge fan of capitalism and it's true. But I'm a huge fan of capitalism with the right construct and the original construct was creating freedom and prosperity. I mean, Charles Taylor was a Catholic scholar who invented the idea that capitalism was born in a cradle of Christianity, that it was assumed it would be constrained by real moral values and society with its own goals and aims. And that as we, as a society has become less overtly religious, those constraints have sort of crumbled away and we need to rebuild the kinds of constraints that will make capitalism a good tool for us.

### AT: K of China Threat---2AC

#### China is realist.

Chong 20, PhD, associate professor of political science at the National University of Singapore and a Harvard-Yenching Institute Visiting Scholar for 2019-2020. (Ja Ian, 11/9/20, "Roundtable 12-2 on *Thucydides’s Trap? Historical Interpretation, Logic of Inquiry, and the Future of Sino-American Relations*", *H-Diplo | ISSF*, https://issforum.org/roundtables/12-2-thucydides)

Chan’s finding that misplaced worries about the PRC and its intentions stem in part from misunderstandings of perspectives on international politics that are informed by theories from “the West” rather than China deserves elaboration and debate. So-called “Western” international relations theories often have parallels in the Chinese tradition, broadly construed. Work analyzing Spring and Autumn, Warring States, Song, and Ming documents indicate that the strategic thought that is prominent in these periods closely resembles statecraft familiar to those in the contemporary “West.”[16] Texts as varied as the Han-era annals Records of the Grand Historian and the Ming-era fiction Romance of the Three Kingdoms will suggest the same.[17] Parallels between “Western” and “Chinese” approaches to politics are unsurprising. Several millennia of collective human experience, thought, and debate over statecraft, conflict, as well as governance are almost certainly bound to produce similarities in responses. Dividing the world into “Western” and “Chinese” views of the world ignores the fact the PRC has disagreements with ostensibly “non-Western” polities such as India, Indonesia, Japan, Korea, and Vietnam, each with their own distinct philosophical traditions.[18] Also, despite sharing cultural origins, people in the PRC and on Taiwan disagree fundamentally issues of political valAues and rights, not the relatively simple issues of who should rule China or what a Chinese state should entail geographically.[19] Moreover, the PRC’s ruling Chinese Communist Party draws at least some of its inspiration from European thinkers in the form of Karl Marx and Vladimir Lenin. Successive dynasties from historical China also proved themselves very adept at conquest—that is how regimes and empires get built.[20] Attributing tensions between the United States and PRC to culture suggests an overly monolithic view of the rich and varied philosophical and political traditions both major powers draw from, giving them less credit than is due.[21] To claim that contemporary international scholarship and U.S. policy are unable to adequately understand China because they are “Western” may oversimplify the nature and seriousness of problems dogging U.S.-China relations and their consequences for the world. Relegating difference to culture is not only Orientalizing, it can encourage a misplaced expectation that understanding can bring some sort of happy, mutually acceptable outcome. Perhaps Beijing and Washington understand each other well. They simply disagree fundamentally over values and interests in ways that make finding mutually acceptable accommodation increasingly difficult. This does not have to imply that either side is morally superior or normatively “better” than the other, just that understanding provides little promise for improving relations and avoiding confrontation. Better accounting for such possibilities invites fuller consideration of the roles that agency and contingency play in major power relations, two features that Chan clearly identifies as critical in the volume.

#### Our threat discourse exists because of actions, not the other way around.

**Jackson 15** May 19 [Van Jackson, Ph.D., is an associate professor at the Asia-Pacific Center for Security Studies and an adjunct senior fellow at the Center for a New American Security. He is the author of the forthcoming book Rival Reputations: Coercion and Credibility in US-North Korea Relations] The Truth About Anti-China Discourse in the United States There are some real problems with discourse analysis of this ilk. http://thediplomat.com/2015/05/the-truth-about-anti-china-discourse-in-the-united-states/

I’ve noticed a pattern of analysts and scholars who, being either sympathetic to Chinese government views or critical of U.S. Asia policy, point to an “anti-China” discourse in U.S. scholarly and policymaking circles. These discourse analyzers express concern that the United States is provoking China and, at the most logical extreme, threatening regional stability. **Their concerns are mostly misplaced**. Blaming U.S. discourse for Chinese assertiveness would be amusing were it not irresponsible; **it alleviates China of any accountability for its own actions**.

To the extent that there’s an “anti-China” discourse in U.S. circles, its roots **are not inherently with hawkish** propensities of U.S. policymakers but with regional and U.S. perceptions of Chinese word and deed.

In a recent Diplomat piece, Dingding Chen repeated an occasionally heard argument that U.S. discourse about China is worrying, not because it reflects an aggressive China, but because it reflects a potentially aggressive or reckless U.S. policy establishment; this is the subtext of such arguments. In 2013 Alastair Iain Johnston offered a similarly themed analysis, claiming there was an “assertive China” meme in U.S. discourse, and that it was not connected to any particularly assertive change in Chinese behavior. Indeed, a large body of work of uneven quality has tried to frame any friction in Sino-U.S. relations as the onus of the United States, declaring the latter should, among other things, stop reconnaissance mission in international waters and not deploy ballistic missile defense to protect allies.

**The logical error made** by discourse analysis of this ilk is not in pointing out that some in the United States routinely express concern about Chinese behavior; this is accurate. But **it does not** necessarily **follow that because an “anti-China” discourse exists** in the United States **that either U.S. perceptions are unfounded, or that U.S. behavior is to blame for Chinese behavior**. Both of these logical leaps require scrutinizing not primarily U.S. behavior and perceptions, but dyadic behavior and regional perceptions.

**Chinese discourse routinely calls for an end to U.S. alliances**, a return to multipolarity, **and a new regional architecture** in lieu of the post-Cold War liberal order. This is frequently written about, but was on display yet again during the Asan Plenum 2015, an international conference in which I recently participated in Seoul, South Korea. Unlike many conferences where these arguments are advanced, the Asan Plenum’s panel discussions involving Chinese friends making such statements are all available online here. **These** arguments are not only audience tone-deaf (telling a conference host they shouldn’t want or need a U.S. alliance); they also **constitute a Chinese discourse that is fundamentally revisionist** in the sense that it represents and seeks to foment deviations from an international status quo that has ironically accommodated China’s economic and military rise.

The Asan Plenum was not an isolated incident; attending international conferences with Chinese friends has often left me with the same impression, one summarized rather well by a loyal Diplomat reader: “I occasionally attend academic conferences in which there are Chinese participants. And usually some if not all of the theories about China — collapse, Asia for Asians, balancing, punishing– are discussed. One feature has been free wheeling, transparent discussions by all non-Chinese participants and only rigid presentations by the Chinese.” **Chinese discourse about China is crafted and controlled**; U.S. and Asian discourse about China explores all logical possibilities in open debate.

As a Pew Poll in 2014 evidenced, most **Asian countries are worried about China’s behavior** and intentions. This sentiment comes through even more compellingly in a survey of Asian policy elites conducted by the Center for Strategic and International Studies: while 83% of Chinese elites polled believed China’s impact on regional security was either “very positive” or “somewhat positive,” less than 20% of respondents from other countries on average shared that view. There is, in other words, a massive chasm between Chinese perceptions (and those who sympathize) and virtually everyone else.

These polls matter because they’re suggestive of regional perceptions, which is overwhelmingly concerned with Chinese intentions. Ignoring this ignores an important source of military modernization happening throughout the region. Worse still, **by focusing blame on the United States** rather than analyzing Chinese word and deed, **discourse analysts effectively give China a pass**; anything China does gets to be framed as defensive or reactive, and any friction can be blamed on U.S. provocativeness. Such framing also overlooks a great deal of contemporary research making both a logical and evidentiary case for contemporary Chinese assertiveness.

### AT: Antitrust Bad---2AC

#### Technical discussions of market interventions are good.

Oliver J. Bethell, Gavin N. Baird, & Alexander M. Waksman 20. Legal Director for Competition, EMEA. Legal Analyst, Google. Associate, Cleary Gottlieb Steen & Hamilton LLP. “Ensuring innovation through participative antitrust.” <https://academic.oup.com/antitrust/article-abstract/8/1/30/5550818>.

Antitrust can support innovation. That is to say, it can support risky, creative endeavours that add value, stand some chance of widespread adoption, and advance the creative destruction that gives vigour to economic life. This requires a balance between (i) forcefully challenging anti-competitive conduct that restricts rivals’ opportunities to innovate, and (ii) assuring firms that introducing innovative products or business models will not at some later date be recast as unlawful. The task for antitrust agencies, therefore, is to be open to hearing complaints, but resist calls to stand in the way of creative destruction. As the Court of Justice puts it, ‘Competition on the merits may, by definition, lead to the departure from the market or the marginalisation of competitors that are less efficient and so less attractive to consumers from the point of view of, among other things, price, choice, quality or innovation.’40 In other circumstances, market exit may result from anticompetitive foreclosure. It is not always easy to tell the two apart. A series of expert groups, competition agencies and academics have produced reports on how to reform competition policy in digital markets in Europe, the US, Australia, and elsewhere.41 Notwithstanding their diverse compositions, terms of reference, and policy prescriptions, there are three challenges that most of these reports tend to address: restrictions on access to data; foreclosure of downstream rivals by platform owners; and so-called ‘killer acquisitions’ that eliminate potential future competitors. These challenges are complex, require nuanced analysis, and carefully crafted solutions that protect and promote innovation rather than undermining it.

### AT: Alt---2AC

#### Presenting concrete solutions is key---alts must scale up solvency.

Gëzim Visoka 19. Associate Professor of Peace and Conflict Studies at Dublin City University. “Critique and Alternativity in International Relations”. International Studies Review, Volume 21, Issue 4, December 2019, pp. 678-704.

Critical IR theory needs to make more space for self-reflexivity and to open up to an epistemic transformation. The preceding discussion demonstrated that although peace and conflict studies are more pluralist than other critical IR branches, they are still affected by paradigmatic and disciplinary divides within IR. They operate in a conflictual theorizing logic that disregards certain ontological, methodological, and epistemological alternatives in order to remain loyal to one particular disciplinarity. For Laura Sjoberg (2017, 163–67), “disciplinarity has a narrowing effect,” suggesting that “an undisciplined IR would free space for more radical critique and more radical experimentation.” Disciplinary encampment among different branches of critical IR has suffocated the search for achievable emancipatory possibilities across a different range of cases. Endorsing alternativity requires a fluid onto-epistemology that would make it possible to bypass the epistemological entrapments caused by rigid academic rules of thought and of knowledge production and by the academic research process. Nonconflictual pathways of research would be beneficial for overcoming paradigmatic contempt, bypassing methodological holism and individualism, and making space for conciliatory heuristics and reality-congruent inquires (see Archer 1995; Hamati-Ataya 2018). Searching for nonconflictual critiques that are embedded in postparadigmatic logic means generating conceptually novel and reality-congruent knowledge about conflict-affected societies and the broader politics of international interventions. This should not be seen as an attempt to discipline the discipline of peacebuilding studies. On the contrary, it would be an attempt to break away from disciplinary entrenchments that have impeded a better understanding of complexity in postconflict societies. It would also be an attempt to avoid the normalization of entrenched research programs and open up the politics of knowledge production on peace, conflict, security, justice, and development.

More broadly, alternativity in critical IR theory needs to be rescued from never-ending conceptual reifications, which have ended up making ontological assentation about the world become completely detached from the world. In this regard, there is a growing realization in IR that “critique is a necessary but secondary task; the priority is to return to practical theory as quickly as possible” (Levine 2012, 69). Recalibrating the purpose of alternativity in critical theory requires recalibrating knowledge production, not only to unmask power relations and the dynamics of dominance and to create space for a politics of resistance but also to generate practical knowledge for political action that challenges, confronts, and disrupts existing power relations and offers alternative solutions for reshuffling social relations on more emancipatory and inclusive terms (see Duvall and Varadarajan 2003, 85; Murdie 2017; Deiana and McDonagh 2018). A feature of critical peace and conflict studies is a congruence between the emancipatory and problem-solving perspectives, which should be predicated on the conciliation of knowledge, the expansion of onto-politics of peace, and the pluralization of epistemological and methodological approaches. The recent methodological work by J. Samuel Barkin and Laura Sjoberg (2017) on interpretive quantification is a promising move toward this much-needed pluralist fertilization within critical theory. In particular, a stronger linkage between criticality, alternativity, and practicality could help critical security, peace, and conflict theories to offer alternatives that would maintain critical impetus while simultaneously strengthening ties to practical and societal problem-addressing solutions. Genealogical studies would blend well with a critical analysis of conceptual and policy alternatives (see Milliken 1999). Statistical analysis with an emancipatory hypothesis coupled with critical analysis would contribute to subverting policy practices and would normalize alternative knowledge about peace, justice, and emancipation.

The recent practice-turn in IR offers new bridges between scholars and practitioners, making it possible to translate critical knowledge into practice without compromising the normativity and criticality of scholarly works (see Bigo 2011). A forum on pragmatism published in this journal has implicitly highlighted the importance of alternativity in understanding global politics and generating impactful knowledge beyond the existing epistemological and methodological divides (see Hellmann 2009). Friedrichs and Kratochwil (2009, 701) have argued for “the orientation of research toward the generation of useful knowledge.” Practicality is essential for generating alternatives. For instance, Jonna Nyman (2016, 142) argues that “a pragmatic, practice-centred approach . . . can help us gain practical knowledge of how security works and understand the value of security better, as well as help us to suggest alternative possibilities.” Similarly, Navnita Chadha Behera (2016, 154) argues: “theorizing in IR needs to step out of the rarefied atmosphere of its academe, develop a healthy scepticism toward its canonical frames, and open up to the possibilities of learning from everyday life and experiences of people and their living traditions and practices.” Practicality shifts the focus from abstract criticality and normativity to contextual critiques that account for everyday practices and interactions. This would be essential for rescuing critique from becoming a postempirical endeavor.

Critical knowledge that engages with policy alternatives “is not only pragmatic, it is also politically enabling: it forces us away from instrumental problem-solving perspectives towards a wider framework of pragmatic thought where narrow instrumental goals are overridden by wider normative and political concerns” (Kurki 2013, 260). Such grounded critiques are crucial in order to expand non-prescriptive alternativity and exploring practical possibilities for social emancipation and change. For Steve Smith (2002: 202), “the acid test for the success of alternative and critical approaches is the extent to which they have led to empirically grounded work that explores the range and variety of world politics.” This would also be congruent with Daniel Levine's (2012, 30) concept of sustainable critique, which entails thinking in both practical and critical terms at once so that “IR could create a sustainably critical perspective on global politics that might then be turned back onto, and made to inform, ongoing policy debates and discourses.” Behera (2016, 154) further maintains that the “state-centric ontology of IR has effectively ended up dehumanizing the discipline in a way so that normally it has little to do with human relations, human needs, and the larger imperatives of humanity.” Generating practical alternatives would therefore require endorsing situated knowledge as an epistemological and methodological basis for any engagement with the real world. The work of feminists such as Donna Haraway (1988, 584) on situated standpoints is also relevant here because they offer “more adequate, sustained, objective, transforming accounts of the world.” Situated knowledge is, mostly, nonrepresentational knowledge, in that it is not firmly mediated through preexisting discourses. In this regard, promoting subjugated knowledge discourses and practices could be central to rejuvenating the emancipatory commitment of critical theory (see Doty 1996).

Situated alternatives could derive from emplaced and embodied knowledge and could have a more emancipatory character as they “bring forth the importance of recognizing, valuing, and employing marginalized voices by working from this perspective, as well as by reshaping research to include marginalized communities as part of knowledge production” (McHugh 2015, 62). For Robson and McCartan (2016, 3), “real world research looks to examine personal experience, social life and social systems, as well as related policies and initiatives. It endeavours to understand the lived in reality of people in society and its consequences.” Milja Kurki's (2013, 245) recent study of democracy promotion has approached alternativity from the perspective of policy provocations, which focus “on not prioritising one or another perspective, but rather on encouraging self-reflection by all practitioners, which in turn is considered as a key condition of seeking adequately pluralism-fostering reforms in concrete policy frameworks.” Kurki (2013, 248–51) further maintains that “instead of relying on objective knowledge and criteria, policy process can and should be attuned to the logic of interpretive, politicised and participatory judgements.” Her study is an excellent example of pragmatic congruence between criticality and alternativity, whereby policy alternatives are not geared toward totally improving or enhancing the current system but openly promote more pluralistic, reflexive, and emancipatory policies for democratization and peacebuilding.

Moreover, for these new grounds of critical alternativity to be introduced in practice, knowledge production should be decentered, decolonized, and “de-methodolised” (see Lisle 2014). R. B. J. Walker (2002, 265) has argued that “the key achievement of supposedly alternative and critical literatures over the past two decades has been to open up at least some possibility of asking questions about the location and character of the political.” As elaborated in this study, knowledge production in peace and conflict studies is predominantly based on Western epistemologies, which are shaped by specific cultures of thought, self-perpetuated epistemological superiority, and codified academic practices. Most of the international scholarship on postconflict societies derives from an unrepresentative body of knowledge, which tries to mediate, deviate, reinterpret, and, consequently, construct a different social reality that is interpreted through different measurements, reference points, and analytical concepts (see Latour 2005). This has greatly limited the possibility for proposing realizable alternatives. Due to these epistemological anomalies, there are growing calls in scholarship to decolonize knowledge from Eurocentric and Western dominance and instead to pursue more pluralist and particularist modes of knowledge (Smith 2012). For instance, Acharya and Buzan (2010, 2) have argued that IR theory should be “an open domain into which it is not unreasonable to expect non-Westerners to make a contribution at least proportional to the degree that they are involved in its practice.” Similarly, Andrew Hurrell (2016, 151) has proposed that “the pathway to a global IR will need to look beyond ‘IR’ and is likely to require new models for organizing social science research and knowledge production.” Decolonized epistemologies of peace would reverse the order of knowledge, placing the local first and then the regional and international as spatial and ontological scales for understanding peace processes (Visoka 2017). They would not operate in isolation but would engage in shaping global IR knowledge. Therefore, a genuine search for achievable alternatives should try to decolonize peace knowledge from Western and Eurocentric frameworks, interrogate decolonized knowledge and agencies, and explore the joint constitution of international intervention and local resistance (see Smith 2012; Memmi 2006). Local scholars often have rich knowledge, but the primary usage of it is not for instrumental purposes or for transferring and sharing with audiences of outsiders. Local knowledge is very much used to respond to narrow practical and everyday interests and needs and, as such, is embedded in the logic of generating sufficient knowledge to respond to specific circumstances.

In the context of peacebuilding, as examined in this article, generating alternatives from the ground up has the potential to bring about more sustainable forms of peace and reconciliation for groups and societies affected by violent conflict. Situated alternatives for emancipatory peace are more prone to avoiding co-optation by positivist and problem-solving epistemic predators, resulting thus in developing pluriversal political and peace orders beyond liberal peacebuilding and other Eurocentric impositions. From this situated perspective, emancipation could take the shape of “the transformation of structures and relationships of vulnerability through localized political action, aimed at the creation of spaces in people's lives so that they are enabled to make decisions and act beyond mere survival” (Basu and Nunes 2013, 69). Emancipatory alternatives would not be universal in their applications because such an attempt is not viable. Rather the focus should be on searching for practical emancipatory possibilities within a given context, time, space, and place (see Fierke 2007, 24). In other words, critiques with an adequate dose of alternativity are more likely to generate globally understandable and locally impactful knowledge. Nevertheless, alternativity does not necessarily have to be predicated on representative views of the world—it can also be a by-product of performing hope and imagined possibilities in global politics. Shapiro (2013, xiv) argues that critical thinking helps to “create the conditions of possibility for imaging alternative worlds.” That said, as the purpose of critical theory is emancipatory change, any alternative theoretical and empirical observation in service of improving the human conditions should generate a morally and practically acceptable standpoint. Because any attempt to establish an alternative interpretation inevitably “empowers a particular social and political standpoint” (Price and Reus-Smit 1998, 261). According to Ní Mhurchú and Shindo (2016, 5), “critique can help us to develop different ways of talking about, evaluating, doing and interrogating the changing nature of politics, relations and experiences of the international in a globalising world.” Hence, critique is inevitably implicated in world-making and, with a much clearer understanding of alternativity, can steer the thrust for world-changing in a more emancipatory, just, and inclusive direction.

Conclusion

Emancipation is a central feature of critical IR debates, but scholars often fail to develop alternatives or solutions achieving emancipation in practice. This article has examined the relationship between criticality and alternativity in IR in order to shed light on some of the most contested issues of critical theory, namely, the epistemological pathways for identifying the inconsistencies and flaws in existing knowledge and practices and the extent to which critical knowledge should generate alternative emancipatory possibilities. The article has argued that alternativity provides an opportunity for critical scholars to remain relevant without being affiliated with positivist logics of inquiry. In unpacking the conceptual contours, the article first explored how different branches of critical IR engage with the episteme of alternativity. The analysis found that although alternativity is often affiliated with problem-solving epistemologies, it has played a major role in shaping critical knowledge in IR. While this is acknowledged and endorsed at the epistemological level by a branch of critical scholars who engage in normative and reconstructive modes of critique, other scholars embedded in deconstructive modes of critique have disregarded the merits of alternativity in IR. The article has argued that, contrary to what is often assumed, alternativity is not incompatible with deconstructive or reconstructive critiques across different subdisciplines of IR. Yet critical IR debates, which have now become the new mainstream in IR, have failed to engage with the episteme of alternativity in a more empirical and practical sense. They preach emancipation but fail to develop tangible emancipatory alternatives.

As a result, there is a growing realization that, without tangible alternativity, critical theory risks losing its normative impetus and its ethical and emancipatory commitment, potentially becoming a post-epistemological vocation without politics. Critical knowledge without a dose of alternativity may examine the causes and consequences of subject matters but could fall short of reaching out to the wider policy community and the affected subjects where power relations reside, thus missing the opportunity to transform the structural, discursive, and performative practices that reproduce violence, inequality, and injustice on human and nonhuman ecology. To bridge this epistemological gap, the analysis in the second part of this article examined how alternativity features in peace and conflict studies, a disciplinary field known for adding normative, empirical, and practical substance to critical IR debates. The analysis offered a conceptual scoping of three modes of critique and alternativity in peace and conflict studies. The three modes of critique showed that a conjunction between criticality and alternativity is possible and that it is necessary to renew the practical and emancipatory potential of critical theory in IR. The three modes of alternativity in peace and conflict studies expose a spectrum of different critiques, ranging from those perspectives that disengage completely from conceptual and empirical alternatives, to more pragmatic and prescriptive approaches.

Critique-without-alternative represents one strand, which tends to avoid offering normative and practical alternatives to their critical reflections aimed at maintaining the conservative and radical impetus of critical theory and dissociating from problem-solving and policy-relevant methods of inquiry. This mode of critique is committed to revealing the weaknesses of peacebuilding interventions but refuses to offer any emancipatory and practical alternative on how to build sustainable peace after violent conflict. If the end goal of critical perspectives is achieving emancipation, then critique should not only be directed toward problematizing dominant discourses, practices, and policies but also needs to envisage political and practical alternatives rooted in ideational and material elements. In turn, the lack of an explicit emancipatory agenda limits their social and political impact and unintentionally validates the existing order. In response to this challenge, a new mode of critique has emerged, namely, critique-as-alternative, which exemplifies the optimal approach. Proponents of critique-as-alternative have remained committee to critical analysis, but most importantly, they have taken up the challenge of offering emancipatory knowledge that has practical relevance for vulnerable societies in global politics. Their main flaw, however, has been their inability to elaborate sufficiently their practical and emancipatory alternatives—a flaw that has opened up space for epistemic contestation and policy co-optation. Finally, the third mode of critique—critique-with-alternative—which is embedded in a positivist, problem-solving, and policy-driven logic of inquiry, offers alternatives that seek either to verify existing knowledge and the existing interventionary order or to reject other critical alternatives.

Looking at different modes of critique through the lens of alternativity in IR's subdiscipline of peace and conflict studies has provided interesting insights on the promise and limits of critical IR in shaping global politics. The analysis found that existing modes of critique have failed to develop elaborative emancipatory alternatives at both the conceptual and the practical levels. To infuse critique-with-alternative with emancipatory elements, expand the epistemological scope of critique-without-alternative, and operationalize further the practical solutions offered by this mode of critique, substantial changes are needed. This article has suggested exploring postparadigmatic approaches of inquiry in order to avoid existing epistemological entrapments and limitations, reclaiming the practical relevance of critical theory through pragmatic, reflexive, and situated alternatives—across the conceptual, normative, and empirical spectrums—and promoting decolonized, bottom-up methods of knowledge production. The existing modes of critique require pursuing more nonconflictual and postparadigmatic epistemologies, embracing situated knowledge and reclaiming and expanding its practical relevance, breaking away from geo-epistemological hierarchies, and opening up to post-Western IR. To conclude, promoting alternativity has the potential to rejuvenate critical scholarship embedded in the ethos of impactful engagement with the world without being co-opted by the policy world. The next challenge for scholars should not be whether alternativity and criticality are congruent but how emancipatory alternatives can renew the social and political purpose of critical theory and make an impact in the real world.

# 1AR

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### AT: Unsustainable---1AR

#### Market instability arguments are wrong.

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The diversity of financial institutions, with their differences in business models, liability structures, time horizons, and investment motivations could contribute greatly to financial resilience. Since the 2008 crisis, financial institutional diversity has helped sustain market liquidity while banks have curtailed their market-making activity [a readiness to buy and sell securities to accommodate their clients] due to regulatory changes and business strategies. Improving resiliency and liquidity in financial markets is critical to better finance the real economy, allocate risks properly, and support financial stability.

Many financial institutions and practices, together with regulatory and accounting requirements, however, tend to exacerbate cyclical fluctuations in the economy by buying assets or extending credit in good times and cutting back in bad times. It is important, therefore, to promote financial diversity and foster counter-cyclical behaviors among institutions capable of doing so. This helps reduce the risk of market imbalances leading to liquidity crises and offset self-reinforcing dynamics in times of financial stress. This risk has become important to guard against as the International Monetary Fund’s just-released World Economic Outlook finds the global economy entering a synchronized slowing phase.

The idea is to exploit the natural differences in the balance sheet structures of financial institutions like banks and investment funds on the one hand, and insurance companies and pension funds on the other, and develop regulatory and accounting regimes that encourage diversity of behaviors.

Banks and investment funds have a positive duration gap in their balance sheets—meaning the average duration of their assets tends to be longer than that of their liabilities. Consequently, banks and investment funds tend to act in a pro-cyclical manner. When asset quality deteriorates, prices fall, and interest rates rise, the value of banks’ assets declines by more than that of their liabilities. Regulatory capital and liquidity requirements increase under those circumstances, pressuring banks to liquidate falling assets.

Investment funds can sell into falling markets to meet redemption demand, according to research by the Bank for International Settlements. Funds can also buy and sell at the same time if they use similar investment strategies, sharing economic and market views.

The pro-cyclical practices described above can be ameliorated to some extent by regulations requiring higher capital and liquidity ratios for banks as well as heightened liquidity risk management. Better capitalized banks with sufficient liquidity can arguably contribute less, but more reliable, market liquidity—compared with the very liquid pre-crisis market conditions driven by high leverage, which turned out to be illusionary. Funds can also maintain adequate cash positions to meet possible redemption demand. In any event, pro-cyclicality remains a natural tendency for those institutions and needs to be managed.

By contrast, insurance companies and pension funds have a negative duration gap in their balance sheets and, under some circumstances, could play a stabilizing role in mitigating selling pressure. As their average asset duration is much shorter than that of their liabilities, when rates rise, the value of their assets fall by less than that of their liabilities. This strengthens their solvency, allowing them to acquire assets having fallen in prices. They thus can act in a counter-cyclical manner. However, some research indicates that this counter-cyclical behavior may need to be further supported. The International Monetary Fund’s Global Financial Stability Report observed that life insurance companies—but not property and casualty insurers—and pension funds act counter-cyclically in liquidity crises, but pro-cyclically in solvency crises.

More recent empirical research, using recently available granular data on security-by-security holdings by EU institutional investors, shows that their behavior is more nuanced. Overall, insurers and pension funds behaved in a counter-cyclical manner, but the intensity of such effect has weakened since the pre-crisis period. Other preliminary research notes that the counter-cyclical behavior of insurers and pension funds can be observed for safe assets whose value can be discounted by the same risk-free rate used for liabilities. However, these institutions tend to pro-cyclically reduce holding of risk assets, including equities and corporate bonds, as their values tend to fall by more than liabilities in a market correction.

Regulators should encourage insurers and pension funds to make more use of the counter-cyclical measures provided in the EU insurance regulatory regime Solvency II—as highlighted by the European Insurance and Occupational Pension Authority. While interventions by government authorities are necessary to stabilize severe financial turmoil, more counter-cyclical behaviors by insurers and pension funds, many of which likely stay resilient in a crisis, can help reduce the frequency and severity of financial crises. Remember: during the Great Depression in the United States and its aftermath, some 7,000 banks failed but most of the insurers remained financially healthy.

### AT: Growth Causes War---1AR

#### Growth pacifies foreign policy --- best studies.

J. Tyson CHATAGNIER AND Emanuele CASTELLI 16. \*\*Assistant Professor of Political Science, University of Houston. \*\*Assistant Professor of Political Science, University of Parma. “A Modern Peace? Schumpeter, the Decline of Conflict, and the Investment–War Trade-Off.” *Political Research Quarterly* 69(4): 852-64. Emory Libraries.

Table 2 displays the results from our dyadic analysis. Unsurprisingly, dyadic democracy fares better than monadic democracy. It is correctly signed across the four models, reaching significance in all but one. With respect to the capitalism variables, only one of the three—capital openness—attains significance at conventional levels (p≈ .096), though all are signed correctly. Industrialization, meanwhile, is correctly signed and attains significance in all four models. This supports Hypothesis 2 and provides us with greater confidence in our theory, as it demonstrates that industrialization operates at both the monadic and dyadic levels.19 Our statistical results suggest that industrialization has a clear and robust effect on the likelihood of fatal conflict. We see fairly consistent effects for democracy and little to no effect for capitalism. It is important, however, to examine not only the direction and precision of our estimates but also their substantive magnitudes. We turn now to an analysis of the substantive results of Table 2.

The dyad-level substantive results are depicted in Figure 2.20 A caveat to the substantive picture at the dyadic level is that we have relatively low probabilities and large confidence intervals. There is significant overlap across the three variables; however, we find relatively flat effects for both democracy and capitalism, with stronger effects for industrialization. For especially high values of industrialization, we see near-zero predicted probabilities of conflict. This is consistent with the powerful effect of modernization theorized above.

Both the statistical and substantive results provide support for our hypotheses, demonstrating the impact that industrialization can have on the likelihood of fatal conflict onset. For democracy and capitalism, our results are split: only capitalism seems to affect the probability of war at the monadic level, whereas democracy plays a larger role at the dyadic level. Industrialization, meanwhile, has a robust dampening effect at both levels of analysis, even when we control for various measures of liberalism. Taken together, this suggests that economic structure plays a critical role in explaining the conflict behavior of states.

Conclusion

This paper began by proposing an explanation for the decline of war, rooted in the writings of Joseph Schumpeter. We argued that modernization can have a pacifying effect upon a state’s foreign policy, providing an initial exploration of this concept, using industrialization to proxy for modernity. Our analysis demonstrates that this argument is consistent with the historical record. Over the period analyzed here, states with higher levels of industrialization were less likely to become involved in fatal militarized disputes than were their less heavily industrialized counterparts. These results suggest that the “conquest pays” argument (applied to industrialized societies) does not hold, at least over the last fifty years. More importantly, our hypotheses are borne out at both the monadic and dyadic levels, even when controlling for political and financial liberalism. This suggests that industrialization has an effect independent of liberalism (in both its democratic and capitalist variants), and may explain recent shifts to more peaceful foreign policy by authoritarian powers, such as China (see Kurlantzick 2007). Furthermore, unlike democratization, from which it is easy to backslide into authoritarianism (as has occurred repeatedly throughout Pakistan’s history, for example), states that have industrialized tend not to revert to pre-modern, agrarian societies (see Huntington 1971, 290).

### AT: Warming---1AR

#### We’re past the tipping point---only carbon capture solves warming.

Adele Peters 20. Staff writer. Citing Jorgen Randers, professor emeritus of climate strategy at BI Norwegian Business School. "We’re already past critical climate tipping points. Here’s why we still need to cut emissions now". Fast Company. 11-12-2020. https://www.fastcompany.com/90574545/were-already-past-critical-climate-tipping-points-heres-why-we-still-need-to-cut-emissions-now

If every country in the world cuts global greenhouse gas emissions to zero by the end of the century—or even if they managed to do it by the end 2020—the planet would still keep warming for hundreds of years, says a new study. Researchers found that humans would have had to stop all emissions sometime between 1960 and 1970 to stop the global temperature and sea levels from continuing to rise.

The study, published in Scientific Reports, modeled the global climate from 1850 to the year 2500, and found that we’ve already passed critical tipping points. The permafrost in the Arctic—which holds nearly twice as much carbon as the atmosphere now—is starting to melt, releasing both CO2 and methane, locking it into a cycle of warming even if emissions stop. As snow and ice melt, the surface of the Earth is getting darker, making it warmer, and triggering more melting. Water vapor is also keeping temperatures high. If human-caused emissions peak in the 2030s and reach zero by the end of the century, the study found, global temperatures will be 3 degrees Celsius hotter by 2500 than they were in 1850. The sea level will be more than 8 feet higher, putting current coastlines underwater.

That doesn’t mean, however, that it’s too late to act. In fact, it’s even more urgent to act quickly to cut emissions, and to take the additional step of large-scale carbon removal, using technology such as machines that can pull carbon from the atmosphere so it can be stored underground. If we suck 33 gigatons of CO2 from the atmosphere every year, warming could still stop. And the impacts of climate change get far worse by each half-degree the planet warms; the more we can slow the process down, the better. If the planet’s temperature is as low as possible when some of these warming cycles begin, it can mitigate some of their effects. If we do nothing now, they’ll be much more deadly.

#### Cap is key---only tech solves.

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High-efficiency solar cells produced from earth-abundant materials are an exception and have the potential to provide many tens of terawatts on a few percent of the Earth’s surface. Present-day solar technologies will require substantial innovation to meet this standard and the development of cheap energy storage technologies that are capable of dealing with highly variable energy generation at large scales.

Nuclear fission today represents the only present-day zero-carbon technology with the demonstrated ability to meet most, if not all, of the energy demands of a modern economy. However, a variety of social, economic, and institutional challenges make deployment of present-day nuclear technologies at scales necessary to achieve significant climate mitigation unlikely. A new generation of nuclear technologies that are safer and cheaper will likely be necessary for nuclear energy to meet its full potential as a critical climate mitigation technology.

In the long run, next-generation solar, advanced nuclear fission, and nuclear fusion represent the most plausible pathways toward the joint goals of climate stabilization and radical decoupling of humans from nature. If the history of energy transitions is any guide, however, that transition will take time. During that transition, other energy technologies can provide important social and environmental benefits. Hydroelectric dams, for example, may be a cheap source of low-carbon power for poor nations even though their land and water footprint is relatively large. Fossil fuels with carbon capture and storage can likewise provide substantial environmental benefits over current fossil or biomass energies.

#### The alt either damages the environment more or results in a massive human die-off.

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The processes of decoupling described above challenge the idea that early human societies lived more lightly on the land than do modern societies. Insofar as past societies had less impact upon the environment, it was because those societies supported vastly smaller populations.

In fact, early human populations with much less advanced technologies had far larger individual land footprints than societies have today. Consider that a population of no more than one or two million North Americans hunted most of the continent’s large mammals into extinction in the late Pleistocene, while burning and clearing forests across the continent in the process. Extensive human transformations of the environment continued throughout the Holocene period: as much as three-quarters of all deforestation globally occurred before the Industrial Revolution.

The technologies that humankind’s ancestors used to meet their needs supported much lower living standards with much higher per-capita impacts on the environment. Absent a massive human die-off, any large-scale attempt at recoupling human societies to nature using these technologies would result in an unmitigated ecological and human disaster.

#### The alt can’t solve warming.

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Meaningful climate mitigation is fundamentally a technological challenge. By this we mean that even dramatic limits to per capita global consumption would be insufficient to achieve significant climate mitigation. Absent profound technological change there is no credible path to meaningful climate mitigation. While advocates differ in the particular mix of technologies they favor, we are aware of no quantified climate mitigation scenario in which technological change is not responsible for the vast majority of emissions cuts.