# 1NC---NU Opener---Doubles

## 1NC

### T-USfg

#### Interpretation---the resolution should define the division of Aff and Neg ground---it was negotiated and announced in advance, providing both teams a reasonable opportunity to prepare---only a textual reading of the resolution provides a predictable basis for research.

#### The USFG means the three branches.

OECD 87. Organization for Economic Cooperation and Development. The Control and Management of Government Expenditure. 179. Google Book.

1. Political and organizational structure of government The United States America is a federal republic consisting of 50 states. States have their own constitutions and within each State there are at least two additional levels of government, generally designated as counties and cities, towns or villages. The relationships between different levels of government are complex and varied (see Section B for more information). The Federal Government is composed of three branches: the legislative branch, the executive branch, and the judicial branch. Budgetary decisionmaking is shared primarily by the legislative and executive branches. The general structure of these two branches relative to budget formulation and execution is as follows.

#### Resolved means to enact a policy by law.

Words & Phrases 64. Permanent Edition.

Definition of the word “resolve,” given by Webster is “to express an opinion or determination by resolution or vote; as ‘it was resolved by the legislature;” It is of similar force to the word “enact,” which is defined by Bouvier as meaning “to establish by law”.

#### The core antitrust laws are The Sherman Act, the Clayton Act, and the Federal Trade Commission Act.

Thomas Horton 10. Professor of Law and Heidepriem Trial Advocacy Fellow, University of South Dakota School of Law. “Rediscovering Antitrust's Lost Values.” The University of New Hampshire Law Review. https://scholars.unh.edu/cgi/viewcontent.cgi?article=1305&context=unh\_lr

Part II of this Article discusses Congress’s historical balancing and blending of fundamental political, social, moral, and economic values to create a constitutional-like set of flexible laws that can be adapted to unforeseen and changing economic and political circumstances.22 Part II.A. briefly reviews some of the extensive scholarship addressing Congress’s balancing of values and objectives in its core antitrust laws including the Sherman, Clayton, and FTC Acts. Parts II.B. and C. explore the less-studied balancing of political, social, moral, and economic values and objectives in more recent antitrust legislation.23 Part II.B. specifically examines the legislative debates undergirding the passage of the HSR Act. 24 Part II.C. then turns to the debates and discourse that led to the passage of the NCRA in 1984 and the subsequent National Cooperative Production Amendments of 1993 and 2004. 25

#### Violation---they don’t defend USFG action that substantially expands the scope of its core antitrust laws.

#### Vote Neg:

#### 1. Fairness---the Neg should win on average 50% of the time---any unfair advantage is a reason they should lose---their arguments are shaped by the drive to win, so presume their arguments are in bad faith.

#### 2. Clash---debate requires stasis to motivate research that develops third- and fourth-line responses---that’s key to effective politics and activism regardless of your personal beliefs---their interpretation explodes limits, makes the Aff conditional, and forces the Neg into concessionary ground.

### Case

#### Cap’s sustainable---solves resource scarcity and climate change.

Rainer Zitelmann 21. German historian and author of “The Rich in Public Opinion.” "Consumption Presumption: Are Human Beings Destroying the World?" National Interest. 2-12-2021. https://nationalinterest.org/feature/consumption-presumption-are-human-beings-destroying-world-178114

Some people claim that we need to cut our consumption or there will be no hope for the planet. Such claims are based on the thesis that continued growth increases the rate at which the earth’s finite resources are consumed and, moreover, leads to irreversible climate change. And such warnings are by no means new. In 1970, for instance, the Club of Rome attracted a great deal of attention with the publication of The Limits to Growth. A Report for the Club of Rome’s Project on the Predicament of Mankind, which has to date sold more than thirty million copies in thirty languages. The book warned people to change their ways and had a clear message: the world’s raw materials, and in particular, oil would soon be used up. In twenty years, the scientists predicted, we would have used the very last drop of oil. Of course, the Club of Rome’s models for the depletion of oil—and almost all other major raw materials—were wrong. According to the scenarios presented in The Limits to Growth, we should now be living on a planet that has been devoid of natural gas, copper, lead, aluminum and tungsten for decades. And we were supposed to have run out of silver in 1985. Despite the bleak forecasts, as of January 2020, the United States Geological Survey estimated silver reserves worldwide at 560,000 tons.

More from Less

Employing an extensive array of data, the American scientist Andrew McAfee proves in his book More from Less that economic growth is no longer coupled to the consumption of raw materials. Data for the United States, for example, show that of seventy-two resources, from aluminum to zinc, only six are not yet post-peak. Nevertheless, despite the fact that the U.S. economy has grown strongly in recent years, consumption of many commodities is actually decreasing.

Back in 2015, the American environmental scientist Jesse Ausubel wrote an essay, “The Return of Nature: How Technology Liberates the Environment,” showing that Americans are consuming fewer and fewer raw materials per capita. Total consumption of steel, copper, fertilizer, wood and paper, which had previously always risen in line with economic growth, had plateaued and was now in constant decline.

Such across-the-board reductions in natural resource consumption are only possible because of much-maligned capitalism: companies are constantly developing more efficient production methods and reducing the amount of raw materials they consume. Of course, they are not doing this primarily to protect the environment but to cut costs.

What's more, a constant stream of innovations has promoted the trend of miniaturization or dematerialization. Just think of your smartphone. How many devices has your smartphone replaced and how many raw materials did they use to consume?

Calculator

Telephone

Video camera

Alarm clock

Voice recorder

Navigation system

Camera

CD-player/radio

Compass

Nowadays, many people no longer have a fax machine or street atlas because they have everything they need on their smartphone. Some even use their phones instead of a wristwatch. You used to need four separate microphones in your telephone, cassette recorder, Dictaphone and video camera, today you just need one—in your smartphone.

Fighting climate change with nuclear energy

The finite nature of the world’s natural resources is one argument against growth, climate change is another. Let’s take China as an example: China currently emits more CO2 than any other country in the world and is building a number of new nuclear power plants in order to achieve carbon neutrality by 2060. With the new build program well underway, China’s first new-generation nuclear power plant recently went into operation.

In the very near future, China intends to start exporting power plants. The latest generation of nuclear power plants is much safer than earlier models—and can play a pivotal role in the fight against climate change. In the United States, Joe Biden is already evaluating the advantages of small modular reactor (SMR) nuclear power plants. As the name suggests, SMRs are smaller than traditional nuclear fission reactors and offer a maximum capacity of three hundred megawatts. In the United Kingdom, for example, a consortium led by Rolls-Royce has announced plans to build up to sixteen SMR power plants.

So far, two reactors of this type are in operation, both onboard the floating nuclear power plant  “\Akademik Lomonosov, which supplies heat and electricity to the Siberian city of Pevec and its one hundred thousand inhabitants.

Anticapitalists blame capitalism for resource consumption and climate change. But political decisions—such as Germany’s decision to phase out nuclear energy—frequently have a negative impact on climate change.

Telling people to cut their consumption must seem like pure mockery to the hundreds of millions of people around the world who are still living in extreme poverty. What they need is more capitalism and economic growth. Just like in China, where the number of people living in extreme poverty has fallen from 88 percent in 1981 to less than 1 percent today. Andrew McAfee’s book has an optimistic message about how we don't have to turn back the clocks and cut our consumption: capitalism and technological progress are allowing us to steward the world’s resources, rather than stripping them bare.

#### Regulated capitalism avoids their sustainability warrants AND claims about racism---solves war, environment, and quality of life---alternatives increase degradation and poverty---prefer empirical and measurable indicators

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Discourse on food ethics often advocates the anti-capitalist idea that we need less capitalism, less growth, and less globalization if we want to make the world a better and more equitable place, with arguments focused on applications to food, globalization, and a just society. For example, arguments for this anti-capitalist view are at the core of some chapters in nearly every handbook and edited volume in the rapidly expanding subdiscipline of food ethics. None of these volumes (or any article published in this subdiscipline broadly construed) focuses on a defense of globalized capitalism.1

More generally, discourse on global ethics, environment, and political theory in much of academia—and in society—increasingly features this anti-capitalist idea as well.2 The idea is especially prominent in discourse surrounding the environment, climate, and global poverty, where we face a nexus of problems of which capitalism is a key driver, including climate change, air and water pollution, the challenge of feeding the world, ensuring sustainable development for the world's poorest, and other interrelated challenges.

It is therefore important to ask whether this anti-capitalist idea is justified by reason and evidence that is as strong as the degree of confidence placed in it by activists and many commentators on food ethics, global ethics, and political theory, more generally.

In fact, many experts argue that this anti-capitalist idea is not supported by reason and argument and is actually wrong. The main contribution of this essay is to explain the structure of the leading arguments against the anti-capitalist idea, and in favor of the opposite conclusion. I begin by focusing on the general argument in favor of well-regulated globalized capitalism as the key to a just, flourishing, and environmentally healthy world. This is the most important of all of the arguments in terms of its consequences for health, wellbeing, and justice, and it is endorsed by experts in the empirically minded disciplines best placed to analyze the issue, including experts in long-run global development, human health, wellbeing, economics, law, public policy, and other related disciplines. On the basis of the arguments outlined below, well-regulated capitalism has been endorsed by recent Democratic presidents of the United States such as Barack Obama, and by progressive Nobel laureates who have devoted their lives to human development and more equitable societies, as well as by a wide range of experts in government and leading nongovernmental organizations.

The goal of this essay is to make the structure and importance of these arguments clear, and thereby highlight that discourse on global ethics and political theory should engage carefully with them. The goal is not to endorse them as necessarily sound and correct. The essay will begin by examining general arguments for and against capitalism, and then turn to implications for food, the environment, climate change, and beyond.

Arguments for and against Forms of Capitalism

The Argument against Capitalism

Capitalism is often argued to be a key driver of many of society's ills: inequalities, pollution, land use changes, and incentives that cause people to live differently than in their ideal dreams. Capitalism can sometimes deepen injustices. These negative consequences are easy to see—resting, as they do, at the center of many of society's greatest challenges.3

And at the same time, it is often difficult to see the positive consequences of capitalism.4 What are the positive consequences of allowing private interests to clear-cut forests and plant crops, especially if those private interests are rich multinational corporations and the forests are in poor, developing countries whose citizens do not receive the profits from deforestation? Why give private companies the right to exploit resources at all, since exploitation almost always has some negative consequences such as those listed above? These are the right questions to ask, and they highlight genuine challenges to capitalism. And in light of these challenges, it is reasonable to consider the possibility that perhaps a different economic system altogether would be more equitable and beneficial to the global population.

The Argument for Well-Regulated Capitalism

However, things are more complicated than the arguments above would suggest, and the benefits of capitalism, especially for the world's poorest and most vulnerable people, are in fact myriad and significant. In addition, as we will see in this section, many experts argue that capitalism is not the fundamental cause of the previously described problems but rather an essential component of the best solutions to them and of the best methods for promoting our goals of health, well-being, and justice.

To see where the defenders of capitalism are coming from, consider an analogy involving a response to a pandemic: if a country administered a rushed and untested vaccine to its population that ended up killing people, we would not say that vaccines were the problem. Instead, the problem would be the flawed and sloppy policies of vaccine implementation. Vaccines might easily remain absolutely essential to the correct response to such a pandemic and could also be essential to promoting health and flourishing, more generally.

The argument is similar with capitalism according to the leading mainstream arguments in favor of it: Capitalism is an essential part of the best society we could have, just like vaccines are an essential part of the best response to a pandemic such as COVID-19. But of course both capitalism and vaccines can be implemented poorly, and can even do harm, especially when combined with other incorrect policy decisions. But that does not mean that we should turn against them—quite the opposite. Instead, we should embrace them as essential to the best and most just outcomes for society, and educate ourselves and others on their importance and on how they must be properly designed and implemented with other policies in order to best help us all. In fact, the argument in favor of capitalism is even more dramatic because it claims that much more is at stake than even what is at stake in response to a global pandemic—what is at stake with capitalism is nothing less than whether the world's poorest and most vulnerable billion people will remain in conditions of poverty and oppression, or if they will instead finally gain access to what is minimally necessary for basic health and wellbeing and become increasingly affluent and empowered. The argument in favor of capitalism proceeds as follows:

Premise 1. Development and the past. Over the course of recorded human history, the majority of historical increases in health, wellbeing, and justice have occurred in the last two centuries, largely as a result of societies adopting or moving toward capitalism. Capitalism is a relevant cause of these improvements, in the sense that they could not have happened to such a degree if it were not for capitalism and would not have happened to the same degree under any alternative noncapitalist approach to structuring society. The argument in support of this premise relies on observed relationships across societies and centuries between indicators of degree of capitalism, wealth, investments in public goods, and outcomes for health, wellbeing, and justice, together with econometric analysis in support of the conclusion that the best explanation of these correlations and the underlying mechanism is that large increases in health, wellbeing, and justice are largely driven by increasing investments in public goods. The scale of increased wealth necessary to maximize these investments requires capitalism. Thus, as capitalist societies have become dramatically wealthier over the past hundred years (and wealthier than societies with alternative systems), this has allowed larger investments in public goods, which simply has not been possible in a sustained way in societies without the greater wealth that capitalism makes possible. Important investments in public goods include investments in basic medical knowledge, in health and nutrition programs, and in the institutional capacity and know-how to regulate society and capitalism itself. As a result, capitalism is a primary driver of positive outcomes in health and wellbeing (such as increased life expectancy, lowered child and maternal mortality, adequate calories per day, minimized infectious disease rates, a lower percentage and number of people in poverty, and more reported happiness);5 and in justice (such as reduced deaths from war and homicide; higher rankings in human rights indices; the reduced prevalence of racist, sexist, homophobic opinions in surveys; and higher literacy rates).6 These quantifiable positive consequences of global capitalism dramatically outweigh the negative consequences (such as deaths from pollution in the course of development), with the result that the net benefits from capitalism in terms of health, wellbeing, and justice have been greater than they would have been under any known noncapitalist approach to structuring society.7

Premise 2. Economics, ethics, and policy. Although capitalism has often been ill-regulated and therefore failed to maximize net benefits for health, wellbeing, and justice, it can become well-regulated so that it maximizes these societal goals, by including mechanisms identified by economists and other policy experts that do the following:

* optimally8 regulate negative effects such as pollution and monopoly power, and invest in public goods such as education, basic healthcare, and fundamental research including biomedical knowledge (more generally, policies that correct the failures of free markets that economists have long recognized will arise from “externalities” in the absence of regulation);9
* ensure equity and distributive justice (for example, via wealth redistribution);10
* ensure basic rights, justice, and the rule of law independent of the market (for example, by an independent judiciary, bill of rights, property rights, and redistribution and other legislation to correct historical injustices due to colonialism, racism, and correct current and historical distortions that have prevented markets from being fair);11 and
* ensure that there is no alternative way of structuring society that is more efficient or better promotes the equity, justice, and fairness goals outlined above (by allowing free exchange given the regulations mentioned).12

To summarize the implication of the first two premises, well-regulated capitalism is essential to best achieving our ethical goals—which is true even though capitalism has certainly not always been well regulated historically. Society can still do much better and remove the large deficits in terms of health, wellbeing, and justice that exist under the current inferior and imperfect versions of capitalism.

Premise 3. Development and the future. If the global spread of capitalism is allowed to continue, desperate poverty can be essentially eliminated in our lifetimes. Furthermore, this can be accomplished faster and in a more just way via well-regulated global capitalism than by any alternatives. If we instead opt for less capitalism, less growth, and less globalization, then desperate poverty will continue to exist for a significant portion of the world's population into the further future, and the world will be a worse and less equitable place than it would have been with more capitalism. For example, in a world with less capitalism, there would be more overpopulation, food insecurity, air pollution, ill health, injustice, and other problems. In part, this is because of the factors identified by premise 1, which connect a turn away from capitalism with a turn away from continuing improvements in health, wellbeing, and justice, especially for the developing world. In addition, fertility declines are also a consequence of increased wealth, and the size of the population is a primary determinant of food demand and other environmental stressors.13 Finally, as discussed at length in the next section of the essay, capitalism can be naturally combined with optimal environmental regulations.14 Even bracketing anything like optimal regulation, it remains true that sufficiently wealthy nations reduce environmental degradation as they become wealthier, whereas developing nations that are nearing peak degradation will remain stuck at the worst levels of degradation if we stall growth, rather than allowing them to transition to less and less degradation in the future via capitalism and economic growth.15 In contrast, well-regulated capitalism is a key part of the best way of coping with these problems, as well as a key part of dealing with climate change, global food production, and other specific challenges, as argued at length in the next section. Here it is important to stress that we should favor well-regulated capitalism that includes correct investments in public goods over other capitalist systems such as the neoliberalism of the recent past that promoted inadequately regulated capitalism with inadequate concern for externalities, equity, and background distortions and injustices.16

Conclusion. Therefore, we should be in favor of capitalism over noncapitalism, and we should especially favor well-regulated capitalism, which is the ethically optimal economic system and is essential to any just basic structure for society.

This argument is impressive because, as stated earlier in the essay, it is based on evidence that is so striking that it leads a bipartisan range of open-minded thinkers and activists to endorse well-regulated capitalism, including many of those who were not initially attracted to the view because of a reasonable concern for the societal ills with which we began. To better understand why such a range of thinkers could agree that well-regulated capitalism is best, it may help to clarify some things that are not assumed or implied by the argument for it, which could be invoked by other bad arguments for capitalism.

One thing the argument above does not assume is that health, wellbeing, or justice are the same thing as wealth, because, in fact, they are not. Instead, the argument above relies on well-accepted, measurable indicators of health and wellbeing, such as increased lifespan; decreased early childhood mortality; adequate nutrition; and other empirically measurable leading indicators of health, wellbeing, and justice.17 Similarly, the argument that capitalism promotes justice, peace, freedom, human rights, and tolerance relies on empirical metrics for each of these.18

Furthermore, the argument does not assume that because these indicators of health, wellbeing, and justice are highly correlated with high degrees of capitalism, that therefore capitalism is the direct cause of these good outcomes. Rather, the analyses suggest instead that something other than capitalism is the direct cause of societal improvements (such as improvements in knowledge and technology, public infrastructure, and good governance), and that capitalism is simply a necessary condition for these improvements to happen.19 In other words, the richer a society is, the more it is able to invest in all of these and other things that are the direct causes of health, wellbeing, and justice. But, to maximize investment in these things societies need well-regulated capitalism.

As part of these analyses, it is often stressed that current forms of capitalism around the world are highly defective and must be reformed in the direction of well-regulated capitalism because they lack investments in public goods, such as basic knowledge, healthcare, nutrition, other safety nets, and good governance.20 In this way, an argument for a particular kind of progressive reformism is an essential part of the analyses that lead many to endorse the more general argument for well-regulated capitalism.

Although these analyses are nuanced, and appropriately so, it remains the case that the things that directly lead to health, wellbeing, and justice require resources, and the best path toward generating those resources is well-regulated capitalism. And on the flip side, according to the analyses behind premise 1 described above, an anti-capitalist system would not produce the resources that are needed, and would thus be a disaster, especially for the poorest billion people who are most desperately in need of the resources that capitalism can create and direct, to escape from extreme poverty.21

#### 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.

#### 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

James Lewis 18. Senior vice president at the Center for Strategic and International Studies. “Technological Competition and China.” <https://www.csis.org/analysis/technological-competition-and-china>.

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.

#### Chinese technological rise is demonstrably worse---causes global instability and conflict

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If China is indeed the future, if China is primed to “rule the world,” if China remakes the international order in its image, it won’t be pretty. A future dominated by the People’s Republic of China (PRC) will be demonstrably worse than the world we know. Just look at how Xi Jinping’s regime treats its own subjects—and plays its current role on the global stage.

NO RIGHTS

Those predictions aren’t outlandish. China already is the world’s top manufacturing nation, top exporting nation and second-largest economy. The PRC was the only major economy to emerge from 2020 claiming GDP growth (if we are to trust Beijing’s books). In the pandemic’s wake, China dislodged the U.S. as the world’s primary destination for foreign direct investment. PRC-backed firms are leaders in the global 5G and AI race. On the strength of a 517-percent binge in military spending since 2000, China bristles with anti-ship and anti-aircraft missiles, deploys a high-tech air force, has a growing and openly hostile presence in space, is doubling its nuclear arsenal, and boasts a 350-ship navy (now the world’s largest). Beijing’s growing cultural reach is evident in everything from its influence over Hollywood, to its puppet-master relationship with the NBA, to its 480 Confucius Institutes (designated by Washington as “part of the Chinese Communist Party’s global influence and propaganda apparatus”).

As President Joe Biden concludes, China is “the only competitor potentially capable of combining its economic, diplomatic, military, and technological power to mount a sustained challenge to a stable and open international system.”

Xi is doing exactly that. But the China challenge starts inside the PRC.

Xi is pursuing what he calls the “China Dream,” which enfolds goals such as sustained economic development, military power modeled after and matching that of the U.S., ideological conformity, “rejuvenation of the Chinese nation” and “complete unification of our country.” Making Xi’s “China Dream” come true is turning into a nightmare for his subjects.

Before leaving his State Department post, Secretary of State Mike Pompeo described what Xi is doing to Uighur Muslims as “genocide,” noting that Beijing has “forced more than a million people into internment camps in the Xinjiang region” and detailing “torture, sexual abuse…rape, forced labor…and unexplained deaths in custody.” As he took the baton from Pompeo, Secretary of State Antony Blinken agreed, affirming that “The forcing of men, women and children into concentration camps, trying to, in effect, re-educate them to be adherents to the ideology of the Chinese Communist Party—all of that speaks to an effort to commit genocide.”

The U.S. government isn’t alone. The Uighur Muslim region, according to a UN human-rights watchdog, “resembles a massive internment camp…a no-rights zone.” More accurately, all of China is a no-rights zone.

Xi’s China is a place where Christian churches are smashed and followers of Christ are sent to reeducation camps; Buddhist temples are bulldozed; Uighur men are packed into freight trains, Uighur women are forcibly sterilized and Uighur babies are forcibly aborted; and bishops and Nobel Peace Prize laureates die in prison. Under Xi, “Religious persecution has increased…with four communities in particular experiencing a downturn in conditions—Protestant Christians, Tibetan Buddhists, and both Hui and Uighur Muslims,” Freedom House reports. Amnesty International adds that “hundreds of thousands of people” are subjected to arbitrary arrest and detention in China, many of them for “peacefully exercising their rights to freedom of expression and freedom of belief.”

There’s a brutal logic to Xi’s brutal response to religious activity. The common denominator of most every religion is that there’s something above, something beyond, something bigger, more enduring and more important than the state. That notion represents a mortal threat to the legitimacy and durability of Xi’s regime, which is founded on the premise that people exist to serve the state—not to use their God-given gifts to serve others and God.

Xi’s capacity to control is growing ever more insidious. The PRC’s new “social credit system” is using mega-databases to monitor and catalogue every aspect of life of China’s 1.3 billion people—financial transactions, civil infractions, social-media postings, online activity—and then reward or sanction Xi’s subjects by feeding all that information to the National Development and Reform Commission, banking system and judicial system. PRC subjects with good social credit scores enjoy waived fees, lower utility bills, promotions and expedited overseas-travel approval, while those with poor social credit scores can be fired from their jobs, expelled from school, blocked from universities, or barred from accessing transportation.

An Orwellian surveillance state, more than a billion people denied religious freedom and other human rights, uncounted numbers tortured in reeducation camps, physicians jailed for following the Hippocratic Oath—that’s the kind of future and the kind of world Xi wants to build. As dissident leader Xu Zhangrun observed in the wake of Beijing’s criminal mishandling of COVID-19, “A polity that is blatantly incapable of treating its own people properly can hardly be expected to treat the rest of the world well.”

NO LIMITS

That idea—the notion that the PRC is incapable of treating the world any better than it treats its own—is not particularly profound. After all, this is a regime that over the decades has erased some 35 million of its subjects and tortured millions more. Regimes like this see no limits on their power. Since they believe nothing is above the state, they rationalize everything they do in the name of the state, the revolution, the Supreme Leader, the Dear Leader, the Core Leader (Xi’s new title). With no moral constraints on what they do, they believe their ends always justify their means.

That backwards worldview informs every aspect of decision-making in the PRC. This doesn’t mean Washington should refuse to talk with Beijing. But we must be ever vigilant when dealing with Xi. A regime that can justify imprisoning, torturing and killing its own people for peacefully practicing their faith can and will justify anything: seizing foreign lands, annexing international waterways, absorbing free peoples, stealing proprietary information, leveraging a pandemic to gain geopolitical advantage, breaking treaties. The godless USSR did those sorts of things, and so has the godless PRC.

“It is difficult to imagine that a government that continues to repress freedom in its own country,” President Ronald Reagan said of the USSR, “can be trusted to keep agreements with others.” And here we are yet again.

Experts in policy analysis, academia and military-security affairs conclude that Xi’s response to COVID-19 “was in breach of international law.” It pays to recall that COVID-19 was a local public-health problem that metastasized into a global pandemic due to Beijing’s incompetence or intention (either cause is reason not to entrust the future to Xi); that Xi’s regime lied about human-to-human transmission; that Xi’s regime willfully allowed millions to leave the epicenter in Wuhan for destinations around the world; that Xi’s regime carried out a premeditated plan to hoard 2.5 billion pieces of protective equipment as the virus swept the globe; that Xi’s regime blocked scientists from sharing findings about genome sequencing for weeks; that Xi’s regime continues to refuse to cooperate with international health agencies.

Xi’s intervention in Hong Kong and assertion of rule by remote-control is a brazen violation of an international treaty.

In and above the East China Sea, Beijing is constantly violating Japanese airspace and illegally loitering PRC coast guard vessels in Japanese waters. All the while, Beijing illegally claims some 90 percent of the South China Sea. Xi has backed up those claims by building 3,200 acres of illegal islands beyond PRC waters. These islands feature SAM batteries and warplanes. Xi promised the PRC wouldn’t militarize these islands. But as America and its allies learned at enormous cost last century, words don’t matter to men like Xi. Strength and the will to wield it are all that matters. Xi has both.

His goal is to control the resource-rich South and East China Seas, assert sovereignty claims in fait accompli fashion, and bring Chinese-speaking lands under his heel. Hong Kong—where only PRC-approved “patriots” are allowed to serve in government—was his first objective. Taiwan is next. Xi has made clear that democratic Taiwan “must and will be” absorbed by the communist Mainland. “We make no promise to abandon the use of force,” he warns. That explains Beijing’s ground-unit exercises, naval drills and bomber sorties around the island democracy.

Nor are Xi’s dreams and designs limited to his immediate neighborhood. Beijing is buying loyalty via development projects (see the Belt and Road Initiative), gaining a toehold in strategically located regions (see PRC control over ports in 18 countries), building an authoritarian bloc (see Russia, Serbia, North Korea, Iran, Venezuela), and fielding a power-projecting military capable of challenging the Free World across every region and every domain—land, sea, air, space and cyberspace. Xi’s relentless cybersiege of the Free World is siphoning away inventions, discoveries, technologies and wealth, penetrating defense firms, and interfering in elections.

For those with eyes to see—who know about the laogai camps and brutalization of Muslims and oppression of Tibet and assault on Christianity—none of this comes as a surprise. What’s surprising is that for 40 years, the trade über alles caucus convinced itself that such a regime could somehow be reformed by access to Buicks and Kentucky Fried Chicken.

TAKING AIM

Xi vows to build what he calls “a more just and reasonable new world order”—one that would supplant the liberal democratic order the United States and its allies began building after World War II. Importantly, the PRC not only has the intent to build a new world order; it has the resources and capabilities to do so—which helps explain why those who designed and uphold the existing world order are answering China’s challenge.

The PRC is a country of 1.3 billion people. Its GDP is already $14.1 trillion. Its economic tendrils—trade, banking, manufacturing, logistics, shipping, technology, super-computing, artificial intelligence—stretch into every part of the globe. All of this is fueling the PRC’s relentless military modernization and buildup. The PRC’s annual military expenditure is at least $261 billion. (Beijing recently announced an increase in military spending of 6.8 percent for 2021). The PRC has a 2-million-man military, the world’s largest navy and an intense focus on its neighborhood.

None of this would be a particularly worrisome if China embraced the values of liberal democracy—the rule of law, individual freedom, religious liberty, free enterprise and free trade, majority rule with minority rights. These are the foundation stones of what Churchill and FDR envisioned when they drafted the Atlantic Charter in 1941. Their vision led to what some call the “rules-based democratic order,” others the “liberal international order,” still others the “free world order.” These terms aim to describe how the peoples of the West have tried to make the world work and indeed manage the world: They embraced and encouraged democratic governance; developed rules and norms of behavior; promoted liberal (freedom-oriented) political and economic institutions; and called upon governments to live up to the responsibilities of nationhood by respecting international borders and promoting good order within those borders. The result has been an unparalleled spread of prosperity, an unprecedented expansion of free government and an unexpected remission of great-power war (which had become an increasingly-destructive feature of the centuries leading up to 1945).

To be sure, many regimes reject the values of liberal democracy. But the PRC, like the USSR before it, not only rejects those values; it possesses the military-technological-industrial-economic assets to challenge those values, erode the liberal international order built upon those values, and forge a new international order or at least bend the existing order toward its own goals. But don’t take my word for it.

“Some seek to challenge the international order—that is, the rules, values and institutions that reduce conflict and make cooperation possible among nations,” Blinken and Defense Secretary Lloyd Austin warn, pointedly adding that “China in particular is all too willing to use coercion to get its way.”

Former national security advisor Gen H.R. McMaster concludes that PRC “leaders believe they have a narrow window of strategic opportunity to…revise the international order in their favor.”

Before he retired as Indo-Pacific commander ,Adm. Phil Davidson told the Senate Armed Services Committee that Xi and his lieutenants are “accelerating their ambitions to supplant the United States and our leadership role in the rules-based international order.”

A NATO panel noted late last year that Beijing’s “approach to human rights and international law challenges the fundamental premise of a rules-based international order.”

These political, diplomatic and military leaders recognize that the liberal order has promoted the peace and prosperity of the Free World for nearly 75 years. But it doesn’t run on autopilot. If we want the benefits of a liberal order that sustains our way of life, we need to sustain the liberal order. As Robert Kagan of the Brookings Institution observes, “The present order will last only as long as those who favor it and benefit from it retain the will and capacity to defend it.” He adds, “Every international order in history has reflected the beliefs and interests of its strongest powers, and every international order has changed when power shifted to others with different beliefs and interests.”

Indeed, the liberal order and its guarantors have arrived at a turning point or breaking point: Either they will marshal the means and will to update, strengthen and preserve the existing order, or Beijing will dramatically transform it. Xi’s callous treatment of his own subjects and contempt for international norms offer a glimpse of what his “more reasonable new world order” would look like.

#### 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.

#### 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.

#### Capitalism solves war on a massive scale – it creates lock-in mechanisms that bind countries together and economically dampens conflict – robust studies

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

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

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

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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.

#### Past the tipping point and the alt is dictatorship and genocide---only tech can solve.

Eric Levitz 5/17/21. Senior Writer at New York Magazine. MA Johns Hopkins. "We’ll Innovate Our Way Out of the Climate Crisis or Die Trying". Intelligencer. 5-17-2021. https://nymag.com/intelligencer/2021/05/climate-biden-green-tech-innovation.html

Today’s best-case ecological scenario was a horror story just three decades ago. In 1993, Bill Clinton declared that global warming presented such a profound threat to civilization that the U.S. would have to bring its “emissions of greenhouse gases to their 1990 levels by the year 2000.” Instead, we waited until 2020 to do so; in the interim, humanity burned more carbon than it had since the advent of agriculture. Now, it will take a historically unprecedented, worldwide economic transformation to freeze warming at “only” 2 degrees — a level of temperature rise that will turn “once in a century” storms into annual events, drown entire island nations, and render major cities in the Middle East uninhabitable in summertime (at least for those whose lifestyles involve “walking outdoors without dying of heatstroke”). This is what passes for a utopian vision in 2021. If we confine ourselves to mere optimism — and assume that every Paris Agreement signatory meets its current pledged target for decarbonization — then warming will hit 2.4 degrees by century’s end.

The reality of our ecological predicament invites denial of our political one. Put simply, it is hard to reconcile the scale of the climate crisis with the limits of contemporary American politics. Delusions rush in to fill the gap. Among these is the fantasy of national autonomy; the notion that the United States can save the planet or destroy it, depending on the precise timeline of its domestic decarbonization. A rapid energy transition in the U.S. is a vital cause, not least for its potential to expedite similar transformations abroad. But the battle for a sustainable planet will be won or lost in the developing world. Although American consumption played a central role in the history of the climate crisis, it is peripheral to the planet’s future: Over the coming century, U.S. emissions are expected to account for only 5 percent of the global total.

There is also the delusion of “de-growth’s” viability. The fact that there is no plausible path for global economic expansion that won’t entail climate-induced death and displacement has led some environmentalists to insist on global stagnation. Yet there is neither a mass constituency for this project, nor any reason to believe that there will be any time soon. Freeze the status-quo economy in amber, and you’ll condemn nearly half of humanity to permanent poverty. Divide existing GDP into perfectly even slices, and every person on the planet will live on about $5,500 a year. American voters may express a generalized concern about the climate in surveys, but they don’t seem willing to accept even a modest rise in gas prices — let alone a total collapse in living standards — to address the issue. Meanwhile, any Chinese or Indian leader who attempted to stymy income growth in the name of sustainability would be ousted in short order. It’s conceivable that one could radically reorder advanced economies in a manner that enabled living standards to rise even as GDP fell; Americans might well find themselves happier and more secure in an ultra-low-carbon communal economy in which individual car ownership is heavily restricted, and housing, healthcare, and myriad low-carbon leisure activities are social rights. But nothing short of an absolute dictatorship could affect such a transformation at the necessary speed. And the specter of eco-Bolshevism does not haunt the Global North. Humanity is going to find a way to get rich sustainably, or die trying.

Thus, the chasm between the ecologically necessary and the politically possible can only be bridged by technological advance. And on that front, the U.S. actually has the resources to make a decisive contribution to global decarbonization — and some political will to leverage those resources. Unfortunately, due to some combination of fiscal superstitions and misplaced priorities, the Biden administration’s proposed investments in green innovation remain paltry. An American Jobs Plan with much higher funding for green R&D is both imminently winnable and environmentally imperative. U.S. climate hawks should make securing such legislation a top priority.

The choice before us is techno-optimism or barbarism.

If governments are forced to choose between increasing income growth in the present, and mitigating temperature rise in the future, they are going to pick the former. We’ll get cheap, lab-grown Kobe beef before we get a U.S. Senate willing to tax meat, and steel plants powered by “green hydrogen” before we get anarcho-primitivism with Chinese characteristics.

The question is whether we’ll get such breakthroughs before it’s too late.

Techno-optimism has its hazards, but the progress we’ve made toward decarbonization has come largely through technological innovation. When India canceled plans to construct 14 gigawatts of new coal-fired power stations in 2019, it did not do so in deference to international pressure or domestic environmental movements, but rather to the cost-competitiveness of solar energy. The same story holds across Asia’s developing countries: Thanks to a ninefold reduction in the cost of solar energy over the past decade, the number of new coal plants slated for construction in the region has fallen by 80 percent. Meanwhile, the road to an electric-car revolution was cleared by a collapse in the cost of lithium batteries, the challenge of powering cities with solar energy on cloudy days was eased by a 70 percent drop in the price of utility-scale batteries, and wind power grew 40 percent cheaper. Our species remains lackluster at solidarity and self-government, but we’ve got a real knack for building cool shit.

The technological progress of the past decade was not sufficient to compensate for tepid climate policy. But real techno-utopianism has never been tried: As of 2019, global spending on clean energy R&D totaled $22 billion a year, or 3 percent of the Pentagon’s annual budget. Increasing spending on such research — while expediting cost-reductions in existing technologies by deploying them en masse — should be twin priorities of American climate policy.

The preconditions for green industrialization can be made in America.

The United States has more fiscal capacity and better-financed research universities than any nation on the planet. And, for all the pathologies of our politics, public investment in green tech inspires far weaker opposition than many less-indispensable climate policies. In fact, late last year, with Republicans controlling the Senate and Donald Trump in the White House, the U.S. increased funding for zero-emission technology R&D by $35 billion. America does not have sovereignty over enough humans to save the planet by slashing our domestic emissions. But we just might have the resources and political economy necessary to help the developing world save us all.

Although progress on renewables has exceeded optimistic expectations, the technical obstacles to global decarbonization remain immense. In the most optimistic scenario, scaling up existing, cost-competitive technologies can get us about 16 percent of the emissions reductions necessary for achieving net-zero by 2050, according to the International Energy Agency. Driving down the price of tech we already have will get us another 39 percent. The rest must come from technologies that have yet to be fully developed. We need electrified cement, hydrogen-powered steel plants, and evaporative cooling. We need utility-scale energy storage, electric airplanes, and ultra-high voltage transmission lines. And we’d be remiss to not toss a bit of our collective wealth at game-changing hail marys like nuclear fusion.

#### Regrowth is inevitable, but they doom renewables

Damir Tokic, 12, ((Damir, PhD in international finance, professor of finance @ University of Monaco. "The economic and financial dimensions of degrowth," Ecological Economics. Volume 84, December 2012, Pages 49–56. Science Daily.)

Following (or ideally during) the economic implosion (which happens quickly), we would logically expect a fiscal and monetary policy intervention as explained by Bernanke (2002). As a result, assuming that Bernanke is correct, the extraordinary monetary policy intervention would eventually create positive inflation and stabilize the economy and asset prices. Consequently, given pent-up consumer demand during the crisis and the lean inventories following the deflationary “scare”, we would expect a new long-term cycle of positive economic growth to resume. Thus, our key argument is that a gradual long-term negative GDP growth (as illustrated in Fig. 1) is unsustainable and not possible to achieve in a market economy. Rather, we argue that it is more likely that the economy would quickly adjust to long term negative GDP growth expectations, or implode, which would be followed by another long-term growth cycle, given the policy intervention during the implosion. In a broader sense, it is unlikely that even ecological concerns can be addressed by degrowth as illustrated in Fig. 1. First, the environmental issues would be less important during the economic implosion, which could delay the development of sustainable alternative energy. Second, while the environmental picture could temporarily improve during the economic implosion, the carrying capacity will eventually be exceeded yet again as the economic growth resumes, as we illustrate in Fig. 2. Third, given that crude oil is an investable asset, it is likely that the price of crude oil would correct during the implosion due to deleveraging, deflation, and the decrease in demand for energy, which are likely to be only temporarily positive for ecological concerns. However, the temporary lower crude oil prices would also put climate change issues on the backburner, and thus, limit the interest in development of alternative energy projects. Thus, in the long run, the economic implosion would be a net negative for ecological concerns. As soon as the economy rebounds, energy consumption growth would resume and eventually exceed the carrying capacity, this time perhaps even more damaging for the environment due to the significantly delayed development of effective alternative energy sources. To summarize our key argument, O'Neill (2012) illustrates degrowth in Fig. 1 as a sustainable transition phase, or a process, during which the size of the economy gradually declines to an environmentally sustainable level over a long period of time. However, our analysis suggests that the degrowth scenario would cause a shock to the overall economy. Thus, the degrowth phase would be very short and implosive, as illustrated in Fig. 2. We base our argument on the prediction that the stock market would crash if faced by a degrowth economic forecast, which would cause more deleveraging and reinforce the vicious cycle of deflation. Further, O'Neill (2012) suggests that the degrowth phase is likely to be followed by the SSE or a flat GDP growth within the environmental limits (Fig. 1). We suggest that the economic implosion caused by the degrowth scenario is likely to be followed by a new cycle of economic growth, which would eventually reach and exceed the environmental limits (Fig. 2). Thus, our key suggestion is that degrowth is unsustainable as an explicit economic policy.

#### Unchecked climate change causes extinction.

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Oh, it could get very bad.

In 2015, a study in the Journal of Mathematical Biology pointed out that if the world’s oceans kept warming, by 2100 they might become hot enough to “stop oxygen production by phyto-plankton by disrupting the process of photosynthesis.” Given that two-thirds of the Earth’s oxygen comes from phytoplankton, that would “likely result in the mass mortality of animals and humans.”

A year later, above the Arctic Circle, in Siberia, a heat wave thawed a reindeer carcass that had been trapped in the permafrost. The exposed body released anthrax into nearby water and soil, infecting two thousand reindeer grazing nearby, and they in turn infected some humans; a twelve-year-old boy died. As it turns out, permafrost is a “very good preserver of microbes and viruses, because it is cold, there is no oxygen, and it is dark” — scientists have managed to revive an eight-million-year-old bacterium they found beneath the surface of a glacier. Researchers believe there are fragments of the Spanish flu virus, smallpox, and bubonic plague buried in Siberia and Alaska.

Or consider this: as ice sheets melt, they take weight off land, and that can trigger earthquakes — seismic activity is already increasing in Greenland and Alaska. Meanwhile, the added weight of the new seawater starts to bend the Earth’s crust. “That will give you a massive increase in volcanic activity. It’ll activate faults to create earthquakes, submarine landslides, tsunamis, the whole lot,” explained the director of University College London’s Hazard Centre. Such a landslide happened in Scandinavia about eight thousand years ago, as the last Ice Age retreated and a Kentucky-size section of Norway’s continental shelf gave way, “plummeting down to the abyssal plain and creating a series of titanic waves that roared forth with a vengeance,” wiping all signs of life from coastal Norway to Greenland and “drowning the Wales-sized landmass that once connected Britain to the Netherlands, Denmark, and Germany.” When the waves hit the Shetlands, they were sixty-five feet high.

There’s even this: if we keep raising carbon dioxide levels, we may not be able to think straight anymore. At a thousand parts per million (which is within the realm of possibility for 2100), human cognitive ability falls 21 percent. “The largest effects were seen for Crisis Response, Information Usage, and Strategy,” a Harvard study reported, which is too bad, as those skills are what we seem to need most.

I could, in other words, do my best to scare you silly. I’m not opposed on principle — changing something as fundamental as the composition of the atmosphere, and hence the heat balance of the planet, is certain to trigger all manner of horror, and we shouldn’t shy away from it. The dramatic uncertainty that lies ahead may be the most frightening development of all; the physical world is going from backdrop to foreground. (It’s like the contrast between politics in the old days, when you could forget about Washington for weeks at a time, and politics in the Trump era, when the president is always jumping out from behind a tree to yell at you.)

But let’s try to occupy ourselves with the most likely scenarios, because they are more than disturbing enough. Long before we get to tidal waves or smallpox, long before we choke to death or stop thinking clearly, we will need to concentrate on the most mundane and basic facts: everyone needs to eat every day, and an awful lot of us live near the ocean.

FOOD SUPPLY first. We’ve had an amazing run since the end of World War II, with crop yields growing fast enough to keep ahead of a fast-rising population. It’s come at great human cost — displaced peasant farmers fill many of the planet’s vast slums — but in terms of sheer volume, the Green Revolution’s fertilizers, pesticides, and machinery managed to push output sharply upward. That climb, however, now seems to be running into the brute facts of heat and drought. There are studies to demonstrate the dire effects of warming on coffee, cacao, chickpeas, and champagne, but it is cereals that we really need to worry about, given that they supply most of the planet’s calories: corn, wheat, and rice all evolved as crops in the climate of the last ten thousand years, and though plant breeders can change them, there are limits to those changes. You can move a person from Hanoi to Edmonton, and she might decide to open a Vietnamese restaurant. But if you move a rice plant, it will die.

A 2017 study in Australia, home to some of the world’s highest-tech farming, found that “wheat productivity has flatlined as a direct result of climate change.” After tripling between 1900 and 1990, wheat yields had stagnated since, as temperatures increased a degree and rainfall declined by nearly a third. “The chance of that just being variable climate without the underlying factor [of climate change] is less than one in a hundred billion,” the researchers said, and it meant that despite all the expensive new technology farmers kept introducing, “they have succeeded only in standing still, not in moving forward.” Assuming the same trends continued, yields would actually start to decline inside of two decades, they reported. In June 2018, researchers found that a two-degree Celsius rise in temperature — which, recall, is what the Paris accords are now aiming for — could cut U.S. corn yields by 18 percent. A four-degree increase — which is where our current trajectory will take us — would cut the crop almost in half. The United States is the world’s largest producer of corn, which in turn is the planet’s most widely grown crop.

Corn is vulnerable because even a week of high temperatures at the key moment can keep it from fertilizing. (“You only get one chance to pollinate a quadrillion kernels of corn,” the head of a commodity consulting firm explained.) But even the hardiest crops are susceptible. Sorghum, for instance, which is a staple for half a billion humans, is particularly hardy in dry conditions because it has big, fibrous roots that reach far down into the earth. Even it has limits, though, and they are being reached. Thirty years of data from the American Midwest show that heat waves affect the “vapor pressure deficit,” the difference between the water vapor in the sorghum leaf’s interior and that in the surrounding air. Hotter weather means the sorghum releases more moisture into the atmosphere. Warm the planet’s temperature by two degrees Celsius — which is, again, now the world’s goal — and sorghum yields drop 17 percent. Warm it five degrees Celsius (nine degrees Fahrenheit), and yields drop almost 60 percent.

It’s hard to imagine a topic duller than sorghum yields. It’s the precise opposite of clickbait. But people have to eat; in the human game, the single most important question is probably “What’s for dinner?” And when the answer is “Not much,” things deteriorate fast. In 2010 a severe heat wave hit Russia, and it wrecked the grain harvest, which led the Kremlin to ban exports. The global price of wheat spiked, and that helped trigger the Arab Spring — Egypt at the time was the largest wheat importer on the planet. That experience set academics and insurers to work gaming out what the next food shock might look like. In 2017 one team imagined a vigorous El Niño, with the attendant floods and droughts — for a season, in their scenario, corn and soy yields declined by 10 percent, and wheat and rice by 7 percent. The result was chaos: “quadrupled commodity prices, civil unrest, significant negative humanitarian consequences . . . Food riots break out in urban areas across the Middle East, North Africa, and Latin America. The euro weakens and the main European stock markets lose ten percent.”

At about the same time, a team of British researchers released a study demonstrating that even if you can grow plenty of food, the transportation system that distributes it runs through just fourteen major choke-points, and those are vulnerable to — you guessed it — massive disruption from climate change. For instance, U.S. rivers and canals carry a third of the world’s corn and soy, and they’ve been frequently shut down or crimped by flooding and drought in recent years. Brazil accounts for 17 percent of the world’s grain exports, but heavy rainfall in 2017 stranded three thousand trucks. “It’s the glide path to a perfect storm,” said one of the report’s authors.

Five weeks after that, another report raised an even deeper question. What if you can figure out how to grow plenty of food, and you can figure out how to guarantee its distribution, but the food itself has lost much of its value? The paper, in the journal Environmental Research, said that rising carbon dioxide levels, by speeding plant growth, seem to have reduced the amount of protein in basic staple crops, a finding so startling that, for many years, agronomists had overlooked hints that it was happening. But it seems to be true: when researchers grow grain at the carbon dioxide levels we expect for later this century, they find that minerals such as calcium and iron drop by 8 percent, and protein by about the same amount. In the developing world, where people rely on plants for their protein, that means huge reductions in nutrition: India alone could lose 5 percent of the protein in its total diet, putting 53 million people at new risk for protein deficiency. The loss of zinc, essential for maternal and infant health, could endanger 138 million people around the world. In 2018, rice researchers found “significantly less protein” when they grew eighteen varieties of rice in high–carbon dioxide test plots. “The idea that food became less nutritious was a surprise,” said one researcher. “It’s not intuitive. But I think we should continue to expect surprises. We are completely altering the biophysical conditions that underpin our food system.” And not just ours. People don’t depend on goldenrod, for instance, but bees do. When scientists looked at samples of goldenrod in the Smithsonian that dated back to 1842, they found that the protein content of its pollen had “declined by a third since the industrial revolution — and the change closely tracks with the rise in carbon dioxide.”

Bees help crops, obviously, so that’s scary news. But in August 2018, a massive new study found something just as frightening: crop pests were thriving in the new heat. “It gets better and better for them,” said one University of Colorado researcher. Even if we hit the UN target of limiting temperature rise to two degrees Celsius, pests should cut wheat yields by 46 percent, corn by 31 percent, and rice by 19 percent. “Warmer temperatures accelerate the metabolism of insect pests like aphids and corn borers at a predictable rate,” the researchers found. “That makes them hungrier[,] and warmer temperatures also speed up their reproduction.” Even fossilized plants from fifty million years ago make the point: “Plant damage from insects correlated with rising and falling temperatures, reaching a maximum during the warmest periods.”

#### Public policy economics is progressive---empirical basis creates incentives to address inequalities.

Harold Meyerson 21. Editor at large of The American Prospect. "The Berkeley School". American Prospect. 3-25-2021. https://prospect.org/economy/berkeley-school-economics/

Today, however, practical men—and women—ain’t what they used to be. Jerome Powell, the Trump-appointed chair of the Federal Reserve, says he’s more concerned about unemployment than he is about inflation—by the historic standards of the Fed, an act of high heresy. Congress just passed President Biden’s economic-rescue package, which does more for poor Americans than any program since it enacted Medicaid 56 years ago. Congress may yet enact a $15 minimum wage, while its most progressive members advocate a tax on wealth.

The powers that be are not getting these ideas from dead economists, or from the mainstream American economists who have dominated the field between the 1970s and the past few years (though they remain a considerable force). They are getting these ideas from a group of labor and public-policy economists who’ve surged to the forefront of the profession over the past decade. And more than anyplace else, these economists are clustered at the University of California, Berkeley.

Much of the work that shaped the groundbreaking child benefits in the $1.9 trillion stimulus bill, and directed those benefits for the first time to the genuinely poor, was done by Hilary Hoynes, a professor in both Berkeley’s economics department and its public-policy school. As Hoynes has documented in a series of studies, both the welfare reform of the 1990s and the reliance on tax credits to provide the child benefits largely, and perversely, excluded children in poverty. The benefits in the new stimulus bill are specifically targeted to include poor kids.

As for scholarly work that made the case for the $15 minimum wage, the multiple studies produced over the past quarter-century by Michael Reich—like Hoynes, a Berkeley professor of both economics and public policy—have documented that the presumed downsides of mandating such a raise are largely fictitious. The senators who tried to persuade the Senate parliamentarian that the raise would have a positive effect on the federal budget over the next decade relied on Reich’s fiscal estimates that it would net an additional $65 billion to federal revenues.

And the wealth tax? When Elizabeth Warren and Bernie Sanders began advocating for it while on the presidential campaign trail in 2019, they based their advocacy on the research of two other Berkeley economists, Emmanuel Saez and Gabriel Zucman, whose studies had concluded that the wealthiest 0.1 percent of Americans held 19.3 percent of the nation’s wealth—three times what that group had held in 1979. Saez and Zucman also reported that the total tax rate for billionaires in 2018 was 23 percent; while for all taxpayers, it was 28 percent. Warren’s proposal, updated this February, called for a 2 percent tax on families with wealth exceeding $50 million, with an additional 1 percent surcharge on wealth exceeding $1 billion—which the Berkeley duo estimated would raise roughly $3 trillion over ten years.

What, we may wonder, has been going on at Berkeley?

In brief, a historic change. Over the past two decades, Berkeley’s economics department and associated institutes have been at the forefront of two critical changes in the practice of economics: a heightened emphasis on empirical research, and an increasing focus on inequality.

#### Humanism is contingently good and alternatives are far worse

Lester 12 – Alan Lester, Director of Interdisciplinary Research, Professor of Historical Geography, and Co-Director of the Colonial and Postcolonial Studies Network at the University of Sussex, 2012 (*Humanism, Race and the Colonial Frontier*, Published of the Institute of British Geographers, Volume 37, Issue 1, p. 132-148) //Xain

Anderson argues that it is not an issue of extending humanity to … negatively racialised people, but of putting into question that from which such people have been excluded – that which, for liberal discourse, remains unproblematised. (2007, 199) I fear, however, that if we direct attention away from histories of humanism’s failure to deal with difference and to render that difference compatible with its fundamental universalism, and if we overlook its proponents’ failed attempts to combat dispossession, murder and oppression; if our history of race is instead understood through a critique of humanity’s conceptual separation from nature, **we dilute the political potency of universalism. Historically, it was not humanism** that gave rise to racial innatism, it was the **specifically anti-humanist politics** of settlers forging new social assemblages through relations of violence on colonial frontiers. Settler communities became established social assemblages in their own right **specifically** **through the rejection of humanist interventions**. Perhaps, as Edward Said suggested, **we can learn from the implementation of humanist universalism in practice**, and insist **on its potential to combat racism**, and perhaps we can insist on the contemporary conceptual hybridisation of human–non-human entities too, without necessarily abandoning all the precepts of humanism (Said 2004; Todorov 2002). We do not necessarily need to accord a specific value to the human, separate from and above nature, in order to make a moral and political case for a fundamental human universalism that can be wielded strategically against racial violence. Nineteenth century humanitarians’ universalism was fundamentally conditioned by their belief that British culture stood at the apex of a hierarchical order of civilisations. From the mid-nineteenth century through to the mid-twentieth century, this ethnocentrism produced what Lyotard describes as ‘the flattening of differences, or the demand for a norm (“human nature”)’, that ‘carries with it its own forms of terror’ (cited Braun 2004, 1352). The intervention of Aboriginal Protection demonstrates that humanist universalism has the potential to inflict such terror (it was the Protectorate of Aborigines Office reincarnated that was responsible, later in the nineteenth and twentieth centuries, for Aboriginal Australia’s Stolen Generation, and it was the assimilationist vision of the Protectors’ equivalents in Canada that led to the abuses of the Residential Schools system). But we must not forget that **humanism’s alternatives,** founded upon principles of difference rather than commonality, **have the potential to do the same and even worse**. In the nineteenth century, Caribbean planters and then emigrant British settlers emphasised the multiplicity of the human species, **the absence of any universal ‘human nature’**, the **incorrigibility of difference**, in their **upholding of biological determinism**. Their assault on any notion of a fundamental commonality among human beings has **disconcerting points of intersection with the radical critique of humanism today**. The scientific argument of the nineteenth century that came closest to post-humanism’s insistence on the hybridity of humanity, promising to ‘close the ontological gap between human and non-human animals’ (Day 2008, 49), was the evolutionary theory of biological descent associated with Darwin, and yet this theory was adopted in Aotearoa New Zealand and other colonial sites **precisely to legitimate the potential extinction of other, ‘weaker’ races** in the face of British colonisation on the grounds of the natural law of a struggle for survival (Stenhouse 1999). Both the upholding and the rejection of human–nature binaries can thus result in racially oppressive actions, **depending on the contingent politics of specific social assemblages**. Nineteenth century colonial humanitarians, inspired as they were by an irredeemably ethnocentric and religiously exclusive form of universalism, at least combatted exterminatory settler discourses and practices at multiple sites of empire, and provided spaces on mission and protectorate stations in which indigenous peoples could be shielded to a very limited extent from dispossession and murder. They also, unintentionally, reproduced discourses of a civilising mission and of a universal humanity that could be deployed by anticolonial nationalists in other sites of empire that were never invaded to the same extent by settlers, in independence struggles from the mid-twentieth century. Finally, as Whatmore’s (2002) analysis of the Select Committee on Aborigines reveals, they provided juridical narratives that are part of the arsenal of weapons that indigenous peoples can wield in attempts to claim redress and recompense in a postcolonial world. The politics of humanism in practice, then, was riddled with contradiction, fraught with particularity and latent with varying possibilities. It could be relatively progressive and liberatory; it could be dispossessive and culturally genocidal. Within its repertoire lay potential to combat environmental and biological determinism and innatism, however, and **this should not be forgotten in a rush to condemn humanism’s universalism** as well as its anthropocentrism. It is in the tensions within universalism that the ongoing potential of an always provisional, **self-conscious, flexible and strategic humanism** – one that now recognises the continuity between the human and the non-human as well as the power-laden particularities of the male, middle class, Western human subject – resides.

#### 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.

#### Theory is too totalizing---economic empirics are best.

Harold Meyerson 21. Editor at large of The American Prospect. "The Berkeley School". American Prospect. 3-25-2021. https://prospect.org/economy/berkeley-school-economics/

“This is a place that does empirical economic research not tied to any particular theory,” Zucman says. “No one framework, like the neoclassical at Chicago, can make sense of everything. Neoclassical economics can’t deal with questions of income and wealth distribution, and so it can’t understand the U.S. economy since 1980.”

“During the postwar decades,” Zucman continues, “economics was almost entirely about questions of efficiency, about demonstrating that a market economy worked better than a planned one. But this was a historical parenthesis, economics in a Cold War context. Historically, economics was about questions of distribution—it’s in Ricardo, it’s in Marx. Now, in the 21st century, we’re rediscovering the importance of distributional issues.”

Saez readily admits that his kind of focus on inequality and taxation is only part of the picture. Many of his colleagues do empirical research on labor economics and labor policy, which is another leading component of Berkeley economics, bound up in the same post-1980 history. “After all, the Reagan ‘Revolution’ destroyed both progressive taxation and unions,” Saez says.

ZUCMAN IS ANOTHER Berkeley economist with a joint appointment at the university’s Goldman Public Policy School. “We’re here not just to study the economy because it exists, like the stars in the sky,” says Zucman. “The motivation for many of us is to do research in social science that improves public policy.”

Another key Berkeley institution is the Institute for Research on Labor and Employment (IRLE)—formerly the Institute for Industrial Relations, one of many such centers founded at the nation’s universities in response to the great strike wave of 1945–1946, with the intent of incorporating labor into the nation’s economic order in less disruptive ways. Nonetheless, the IRLE has long been a fount of progressive economic studies and policy advocacy. In October of last year, for instance, as Californians prepared to vote on Proposition 22, a measure conceived and funded by Uber and other employers of gig workers to repeal a state law that compelled them to treat their drivers as employees entitled to such commonplace privileges as the minimum wage, Reich authored an IRLE study showing that defeating the measure would enable the drivers to increase their incomes by 30 percent, which would require fare increases of only between 5 and 10 percent.

Reich was the director of the IRLE until 2015, when he was succeeded by another joint appointee in the economics department, Jesse Rothstein. For Rothstein, working at Berkeley was a homecoming of sorts: He’d received his doctorate there in 2003, with a dissertation on the shortcomings of school choice. (Writing on anything related to education, he says, was the last thing he wanted to do when he arrived, as his father, frequent Prospect contributor Richard Rothstein, was then the education columnist for The New York Times. Nonetheless, the younger Rothstein became a research assistant for Card, for whom he ran a study concluding that when offered a choice of schools for their children, parents tended to select those whose students were disproportionately well-off, rather than schools that were disproportionately well run. The study morphed into his dissertation, and he’s been writing about education and labor issues ever since.)

Rothstein began his teaching career at Princeton, then moved to Washington to serve as the chief economist in Barack Obama’s Labor Department. When he left, he took the joint appointment at Berkeley. As the head of the IRLE and as an economics professor, he has mentored a wide range of budding labor economists. One lesson that he and his colleagues try to instill is “being careful with the data. The mantra here,” he says, “is ‘Let the data speak.’ If you find a result, it should be clear how you found it, what your research strategy was, and that it should be replicable.”

## 2NC

### Case

#### 1NC said CCP was bad, not China---there’s a distinction

Josh Rogin 21. Columnist covering foreign policy and national security. George Washington University, BA in International Affairs 2001; Sophia University, Tokyo "Opinion: The United States must confront the Chinese Communist Party and racism at the same time". Washington Post. 3-25-2021. https://www.washingtonpost.com/opinions/global-opinions/the-united-states-must-confront-the-chinese-communist-party-and-racism-at-the-same-time/2021/03/25/63fe8308-8d9c-11eb-9423-04079921c915\_story.html

The United States must compete with China and confront the Chinese government on a range of issues while simultaneously combating the rise of anti-Asian racism at home. These two missions are not at odds with each other, as the Chinese Communist Party (CCP) would have you believe. In fact, they must go hand in hand.

In Alaska last weekend, Chinese government leaders sought to stoke our country’s racial divisions, accusing the United States of having “slaughtered” African Americans, to deflect criticism over Beijing’s mass atrocities against its Uyghur Muslim population. Meanwhile, CCP propaganda outlets have been using the killing last week in the Atlanta area of eight innocent people (six of them Asian) to cast aspersions on those who are condemning the Chinese government’s atrocities. Beijing’s goal is to conflate and confuse two related but distinct issues: challenging the Chinese government and the need to fight racism in the United States. But their gambit amounts to presenting a false choice between doing one or the other.

“It is part of a broader strategy that the Chinese Communist Party is enacting to undermine our democracy,” Rep. Stephanie Murphy (D-Fla.) told me in an interview. “So when you see them creating that false equivalency . . . it is their way to sow discord in our society, because they understand when we are not united, we are weaker in leading the world in confronting their bad behavior.”

Murphy, a former Pentagon official who came to the United States as a child refugee from Vietnam, said that the use of racist language by former president Donald Trump and other GOP officials plays into the CCP’s hands. Yet at the same she emphasized that U.S. leaders have to be able to speak honestly and critically about the CCP’s negative behaviors, including its mishandling of the covid-19 pandemic.

The rise of racism against Asian Americans not only hurts the United States’ ability to deal with China, but also it harms efforts to make common cause with our regional allies and partners such as Japan, South Korea and Vietnam. Those governments’ ability to join the United States in confronting China is hurt when members of their diaspora communities are mistreated in the United States.

“We have to be able to make a very clear distinction that our adversary and competitor is the Chinese Communist Party, not the Chinese people, and certainly not the Asian Americans who live here and who have contributed so much to this country,” Murphy said. “When we attack Americans of Asian descent, we attack ourselves.”

Some American commentators argue that the effort to confront the Chinese government’s behavior has fueled the staggering rise in hate and violence directed at Asians and Asian Americans in the United States. It’s certainly true that Trump’s racist rhetoric regarding the coronavirus fueled hate and conflated the two issues, tragically. And U.S. government efforts to confront CCP influence operations in our country have at times unfairly targeted people of Chinese origins.

Such targeting of Asians and Asian Americans makes us weaker at home and abroad. We must learn from, not repeat, examples from history when U.S. foreign policy negatively affected American minorities, including the mass internment of U.S. citizens and noncitizens of Japanese descent during World War II and the mistreatment of Arab and Muslim Americans after 9/11.

Rep. Ro Khanna (D-Calif.), the son of Indian immigrants, told me that the United States has to out-compete China without replicating the paradigms of the Cold War. But, he said, we must also stand up to the authoritarian and repressive model the Chinese government is putting forward without ceding our moral authority.

“That has to be the balance, enhance America’s strategic interest but clearly reject provocative rhetoric that’s intended to play to a base,” he said. “There’s a way to frame our moral position as a liberal democracy . . . without coming off as demonizing an entire civilization in a way that hurts Chinese or Chinese Americans.”

Khanna and Rep. Mike Gallagher (R-Wis.) have co-sponsored a bill, the Endless Frontier Act, to revamp the National Science Foundation to try to out-compete China through technological innovation. Senate Majority Leader Charles E. Schumer (D-N.Y.) and Sen. Todd C. Young (R-Ind.) are cooperating on companion legislation in the Senate. These efforts will be a major test of whether bipartisan cooperation on the China challenge is possible.

It’s not the drive to confront China that is fueling hate and racism against Asians in America. Political opportunists are abusing that effort by fueling bigotry to score political points. This makes a unified strategy to confront the Chinese government only more difficult to achieve. In fact, addressing racism at home is crucial to winning the competition with China in the long run.

“We have to be aggressive in our policies and working with our allies to combat the violations the Chinese are making, but at the same time, we can hold the CCP accountable without scapegoating Asian Americans,” Murphy said. “And we have a responsibility to do that.”

#### The K of China Threat Rhetoric is a self-fulfilling propaganda that plays into violent Chinese nationalism

David Martin Jones 14. Professor of Politics at the University of Glasgow. "Managing the China Dream: Communist Party politics after the Tiananmen Incident" Australian Journal of Political. Vol. 49, No. 1. 2-21-14. https://www.tandfonline.com/doi/abs/10.1080/10361146.2013.878897?journalCode=cajp20

Notwithstanding this Western fascination with China and the positive response of former Marxists, such as Jacques, to the new China, Pan discerns an Orientalist ideology distorting Western commentary on the party state, and especially its international relations (6). Following Edward Said, Pan claims that such Western Orientalism reveals ‘not something concrete about the orient, but something about the orientalists themselves, their recurring latent desire of fears and fantasies about the orient’ (16). In order to unmask the limits of Western representations of China’s rise, Pan employs a critical ‘methodology’ that ‘draws on constructivist and deconstructivist approaches’ (9). Whereas the ‘former questions the underlying dichotomy of reality/knowledge in Western study of China’s international relations’, the latter shows how paradigmatic representations of China ‘condition the way we give meaning to that country’ and ‘are socially constitutive of it’ (9). Pan maintains that the two paradigms of ‘China threat’ and ‘China opportunity’ in Western discourse shape China’s reality for Western ‘China watchers’ (3). These discourses, Pan claims, are ‘ambivalent’ (65). He contends that this ‘bifocal representation of China, like Western discourses of China more generally, tell us a great deal about the west itself, its self -imagination, its torn, anxious, subjectivity, as well as its discursive effects of othering’ (65). This is a large claim. Interestingly, Pan fails to note that after the Tiananmen incident in 1989, Chinese new left scholarship also embraced Said’s critique of Orientalism in order to reinforce both the party state and a burgeoning sense of Chinese nationalism. To counter Western liberal discourse, academics associated with the Central Party School promoted an ideology of Occidentalism to deflect domestic and international pressure to

democratise China. In this, they drew not only upon Said, but also upon Foucault and the post-1968 school of French radical thought that, as Richard Wolin has demonstrated, was itself initiated in an appreciation of Mao’s cultural revolution. In other words, the critical and deconstructive methodologies that came to influence American and European social science from the 1980s had a Maoist inspiration (Wolin 2010: 12–18). Subsequently, in the changed circumstances of the 1990s, as American sinologist Fewsmith has shown, young Chinese scholars ‘adopted a variety of postmodernist and critical methodologies’ (2008: 125). Paradoxically, these scholars, such as Wang Hui and Zhang Kuan (Wang 2011), had been educated in the USA and were familiar with fashionable academic criticism of a postmodern and deconstructionist hue that ‘demythified’ the West (Fewsmith 2008: 125–29). This approach, promulgated in the academic journal Dushu (Readings), deconstructed, via Said and Foucault, Western narratives about China. Zhang Kuan, in particular, rejected Enlightenment values and saw postmodern critical theory as a method to build up a national ‘discourse of resistance’ and counter Western demands regarding issues such as human rights and intellectual property. It is through its affinity with this self-strengthening, Occidentalist lens, that Pan’s critical study should perhaps be critically read. Simply put, Pan identifies a political economy of fear and desire that informs and complicates Western foreign policy and, Pan asserts, tells us more about the West’s ‘self-imagination’ than it does about Chinese reality. Pan attempts to sustain this claim via an analysis, in Chapter 5, of the self-fulfilling prophecy of the China threat, followed, in Chapters 6 and 7, by exposure of the false promises and premises of the China ‘opportunity’. Pan certainly offers a provocative insight into Western attitudes to China and their impact on Chinese political thinking. In particular, he demonstrates that China’s foreign policy-makers react negatively to what they view as a hostile American strategy of containment (101). In this context, Pan contends, accurately, that Sino–US relations are mutually constitutive and the USA must take some responsibility for the rise of China threat (107). This latter point, however, is one that Australian realists like Owen Harries, whom Pan cites approvingly, have made consistently since the late 1990s. In other words, not all Western analysis uncritically endorses the view that China’s rise is threatening. Nor is all Western perception of this rise reducible to the threat scenario advanced by recent US administrations. Pan’s subsequent argument that the China opportunity thesis leads to inevitable disappointment and subtly reinforces the China threat paradigm is, also, somewhat misleading. On the one hand, Pan notes that Western anticipation of ‘China’s transformation and democratization’ has ‘become a burgeoning cottage industry’ (111). Yet, on the other hand, Pan observes that Western commentators, such as Jacques, demonstrate a growing awareness that the democratisation thesis is a fantasy. That is, Pan, like Jacques, argues that China ‘will neither democratize nor collapse, but may instead remain politically authoritarian and economically stable at the same time’ (132). To merge, as Pan does, the democratisation thesis into its authoritarian antithesis in order to evoke ‘present Western disillusionment’ (132) with China is somewhat reductionist. Pan’s contention that we need a new paradigm shift ‘to free ourselves from the positivist aspiration to grand theory or transcendental scientific paradigm itself’ (157) might be admirable, but this will not be achieved by a constructivism that would ultimately meet with the approval of what Brady terms China’s thought managers (Brady: 6).

#### Specifically, decline massively reduces the opportunity costs for conflict

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The erosion of the trade and demographic drivers puts even more pressure on technological innovation to be the engine of economic growth in the developed world. As one McKinsey analysis concluded, “For economic growth to match its historical rates, virtually all of it must come from increases in labor productivity.”78 Growth in labor productivity is partially a function of capital investment, but mostly a function of technological innovation. The key question is whether the pace of technological innovation will sustain itself.¶ This remains a known unknown. The pace of innovation relative to global population has slowed dramatically over the past fifty years.79 Consider that the developed world still relies on the same general purpose technologies of modern society that were originally invented 50-100 years ago: the automobile, airplane, telephone, refrigerator, and computer. To be sure, all of these technologies have improved in recent decades, in some cases dramatically. But nothing new has replaced them. And even these improvements have not necessarily had dramatic systemic effects. For example, the average speed on a passenger aircraft has actually fallen since the introduction of the Boeing 707 in 1958, because of the need to conserve fuel. For all of the talk of “disruptive innovations,” the effect of these disruptions on both the business world and aggregate economic growth have been exaggerated.80¶ At present, many of the fields that seem promising for innovation—nanotechnology, green energy, and so forth—require massive fixed investments. Only large institutions, like research universities, multinational corporations and government entities, can play in that kind of game. Joseph Schumpeter warned that once large organizations became the primary engine of innovation, the pace of change would naturally slow down. Because large organizations are inherently bureaucratic and conservative, they will be less able to imagine radical innovations.81 What if the “secular stagnation” debate is really just a harbinger of a deeper debate about a return to pre-19th century growth levels?¶ An obvious counter to this argument is that the pace of technological innovation in laptops, smart phones, tablets, and the Internet of things has accelerated. This is undeniably true—but the problem is that the gains in utility have not been, strictly speaking, economic. Most of the important innovations that we think about with respect to the Internet—Facebook, Twitter, Wikipedia, YouTube and so forth —are free technologies for consumers. As Tyler Cowen argues, “The big technological gains are coming in revenue-deficient sectors.”82 They generate lots of enjoyment but little employment. The largest and most dynamic information technology firms, like Google and Apple, hire only a fraction of the people who worked for General Motors in its heyday. At the same time, Internet-based content has eroded the financial viability of other parts of the economy. Content-providing sectors—such as music, entertainment, and journalism—have suffered directly. The growth of “sharing economy” firms like Uber and Airbnb that develop peer-to-peer markets are causing similar levels of creative disruption to the travel and tourism sectors.83 The rapid acceleration of automation is also leading to debates about whether the “lump of labor” fallacy remains a fallacy—in other words, whether displaced workers will be able to find new employment.84¶ A slow-growth economic trajectory also creates policy problems that increase the likelihood of even slower growth. Higher growth is a political palliative that makes structural reforms easier. For example, Germany prides itself on the “Hartz reforms” to its labor markets last decade, and has advocated similar policies for the rest of the Eurozone since the start of the 2008 financial crisis. But the Hartz reforms were accomplished during a global economic upswing, boosting German exports and cushioning the shortterm cost of the reforms themselves. In a low-growth world, other economies will be understandably reluctant to engage in such reforms.¶ It is possible that concerns about a radical growth slowdown are exaggerated. In 1987, Robert Solow famously said, “You can see the computer age everywhere but in the productivity statistics.”85 A decade later, the late 1990s productivity surge was in full bloom. Economists are furiously debating whether the visible innovations in the information sector are leading to productivity advances that are simply going undetected in the current productivity statistics.86 Google’s chief economist Hal Varian, echoing Solow from a generation ago, asserts that “there is a lack of appreciation for what’s happening in Silicon Valley, because we don’t have a good way to measure it.”87 It is also possible that current innovations will only lead to gains in labor productivity a decade from now. The OECD argues that the productivity problem resides in firms far from the leading edge failing to adopt new technologies and systems.88 There are plenty of sectors, such as health or education, in which technological innovations can yield significant productivity gains. It would foolhardy to predict the end of radical innovations.¶ But the possibility of a technological slowdown is a significant “known unknown.” And if such a slowdown occurs, it would have catastrophic effects on the public finances of the OECD economies. Most of the developed world will have to support disproportionately large numbers of pensioners by 2036; slower-growing economies will worsen the debt-to-GDP ratios of most of these economies, causing further macroeconomic stresses—and, potentially, political unrest from increasingly stringent budget constraints.89¶ 2. Are there hard constraints on the ability of the developing world to converge to developed-country living standards?¶ One of the common predictions made for the next generation economy is that China will displace the United States as the world’s biggest economy. This is a synecdoche of the deeper forecast that per capita incomes in developing countries will slowly converge towards the living standards of the advance industrialized democracies. The OECD’s Looking to 2060 report is based on “a tendency of GDP per capita to converge across countries” even if that convergence is slow-moving. The EIU’s long-term macroeconomic forecast predicts that China’s per capita income will approximate Japan’s by 2050.90 The Carnegie Endowment’s World Order in 2050 report presumes that total factor productivity gains in the developing world will be significantly higher than countries on the technological frontier. Looking at the previous twenty years of economic growth, Kemal Dervis posited that by 2030, “The rather stark division of the world into ‘advanced’ and ‘poor’ economies that began with the industrial revolution will end, ceding to a much more differentiated and multipolar world economy.”91¶ Intuitively, this seems rational. The theory is that developing countries have lower incomes primarily because they are capital-deficient and because their economies operate further away from technological frontier. The gains from physical and human capital investment in the developing world should be greater than in the developed world. From Alexander Gerschenkron forward, development economists have presumed that there are some growth advantages to “economic backwardness”92¶ This intuitive logic, however, is somewhat contradicted by the “middle income trap.” Barry Eichengreen, Donghyun Park, and Kwanho Shin have argued in a series of papers that as an economy’s GDP per capita hits close to $10,000, and then again at $16,000, growth slowdowns commence.93 This makes it very difficult for these economies to converge towards the per capita income levels of the advanced industrialized states. History bears this out. There is a powerful correlation between a country’s GDP per capita in 1960 and that country’s per capita income in 2008. In fact, more countries that were middle income in 1960 had become relatively poorer than had joined the ranks of the rich economies. To be sure, there have been success stories, such as South Korea, Singapore, and Israel. But other success stories, such as Greece, look increasingly fragile. Lant Prichett and Lawrence Summers conclude that “past performance is no guarantee of future performance. Regression to the mean is the single most robust and empirical relevant fact about cross-national growth rates.”94¶ Post-2008 growth performance of the established and emerging markets matches this assessment. While most of the developing world experienced rapid growth in the previous decade, the BRICS have run into roadblocks. Since the collapse of Lehman Brothers, these economies are looking less likely to converge with the developed world. During the Great Recession, the non-Chinese BRICS—India, Russia, Brazil, and South Africa—have not seen their relative share of the global economy increase at all.95 China’s growth has also slowed down dramatically over the past few years. Recent and massive outflows of capital suggests that the Chinese economy is headed for a significant market correction. The collapse of commodity prices removed another source of economic growth in the developing world. By 2015, the gap between developing country growth and developed country growth had narrowed to its lowest level in the 21st century.96¶ What explains the middle income trap? Eichengreen, Park and Shin suggest that “slowdowns coincide with the point in the growth process where it is no longer possible to boost productivity by shifting additional workers from agriculture to industry and where the gains from importing foreign technology diminish.”97 But that is insufficient to explain why the slowdowns in growth have been so dramatic and widespread.¶ There are multiple candidate explanations. One argument, consistent with Paul Krugman’s deconstruction of the previous East Asia “miracle,”98 is that much of this growth was based on unsustainable levels of ill-conceived capital investment. Economies that allocate large shares of GDP to investment can generate high growth rates, particularly in capital-deficient countries. The sustainability of those growth rates depends on whether the investments are productive or unproductive. For example, high levels of Soviet economic growth in the 1950s and 1960s masked the degree to which this capital was misallocated. As Krugman noted, a lesser though similar phenomenon took place in the Asian tigers in the 1990s. It is plausible that China has been experiencing the same illusory growth-from-bad-investment problem. Reports of overinvestment in infrastructure and “ghost cities” are rampant; according to two Chinese government researchers, the country wasted an estimated $6.8 trillion in “ineffective investment” between 2009 and 2013 alone.99¶ A political explanation would be rooted in the fact that many emerging markets lack the political and institutional capabilities to sustain continued growth. Daron Acemoğlu and James Robinson argue that modern economies are based on either “extractive institutions” or “inclusive institutions.”100 Governments based on extractive institutions can generate higher rates of growth than governments without any effective structures. It is not surprising, for example, that post-Maoist Chinese economic growth has far outstripped Maoist-era rates of growth. Inclusive institutions are open to a wider array of citizens, and therefore more democratic. Acemoğlu and Robinson argue that economies based on inclusive institutions will outperform those based on extractive institutions. Inclusive institutions are less likely to be prone to corruption, more able to credibly commit to the rule of law, and more likely to invest in the necessary public goods for broad-based economic growth. Similarly, Pritchett and Summers conclude that institutional quality has a powerful and long-lasting effect on economic growth—and that “salient characteristics of China—high levels of state control and corruption along with high measures of authoritarian rule—make a discontinuous decline in growth even more likely than general experience would suggest.”101¶ A more forward-looking explanation is that the changing nature of manufacturing has badly disrupted the 20th century pathway for economic development. For decades, the principal blueprint for developing economies to become developed was to specialize in industrial sectors where low-cost labor offered a comparative advantage. The resulting growth from export promotion would then spill over into upstream and downstream sectors, creating new job-creating sectors. Globalization, however, has already generated tremendous productivity gains in manufacturing—to the point where industrial sectors do not create the same amount of employment opportunities that they used to.102 Like agriculture in the developed world, manufacturing has become so productive that it does not need that many workers. As a result, many developing economies suffer from what Dani Rodrik labels “premature deindustrialization.” If Rodrik is correct, then going forward, manufacturing will fail to jump-start developing economies into higher growth trajectories—and the political effects that have traditionally come with industrialization will also be stunted.103¶ Both the middle-income trap and the regression to the mean observation are empirical observations about the past. There is no guaranteeing that these empirical regularities will hold for the future. Indeed, China’s astonishing growth rate over the past 30 years is a direct contradiction of the regression to the mean phenomenon. It is possible that over time the convergence hypothesis swamps the myriad explanations listed above for continued divergence. But in sketching out the next generation global economy, the implications of whether regression to the mean will dominate the convergence hypothesis are massive. Looking at China and India alone, the gap in projections between a continuation of past growth trends and regression to the mean is equivalent to $42 trillion—more than half of global economic output in 2015.104 This gap is significant enough to matter not just to China and India, but to the world economy.¶ As with the developed world, a growth slowdown in the developing world can have a feedback effect that makes more growth-friendly reforms more difficult to accomplish. As Chinese economic growth has slowed, Chinese leader Xi Jinping’s economic reform plans have stalled out in favor of more political repression. Follows the recent playbook of Russian President Vladimir Putin, who has added diversionary war as another distracting tactic from negative economic growth. Short-term steps towards political repression will make politically risky steps towards economic reform that less palatable in the future. Instead, the advanced developing economies seem set to double down on strategies that yield less economic growth over time.¶ 3. Will geopolitical rivalries or technological innovation alter the patterns of economic interdependence?¶ Multiple scholars have observed a secular decline in interstate violence in recent decades.105 The Kantian triad of more democracies, stronger multilateral institutions, and greater levels of cross-border trade is well known. In recent years, international relations theorists have stressed that commercial interdependence is a bigger driver of this phenomenon than previously thought.106 The liberal logic is straightforward. The benefits of cross-border exchange and economic interdependence act as a powerful brake on the utility of violence in international politics. The global supply chain and “just in time” delivery systems have further imbricated national economies into the international system. This creates incentives for governments to preserve an open economy even during times of crisis. The more that a country’s economy was enmeshed in the global supply chain, for example, the less likely it was to raise tariffs after the 2008 financial crisis.107 Similarly, global financiers are strongly interested in minimizing political risk; historically, the financial sector has staunchly opposed initiating the use of force in world politics.108 Even militarily powerful actors must be wary of alienating global capital.¶ Globalization therefore creates powerful pressures on governments not to close off their economies through protectionism or military aggression. Interdependence can also tamp down conflicts that would otherwise be likely to break out during a great power transition. Of the 15 times a rising power has emerged to challenge a ruling power between 1500 and 2000, war broke out 11 times.109 Despite these odds, China’s recent rise to great power status has elevated tensions without leading to anything approaching war. It could be argued that the Sino-American economic relationship is so deep that it has tamped down the great power conflict that would otherwise have been in full bloom over the past two decades. Instead, both China and the United States have taken pains to talk about the need for a new kind of great power relationship. Interdependence can help to reduce the likelihood of an extreme event—such as a great power war—from taking place.¶ Will this be true for the next generation economy as well? The two other legs of the Kantian triad—democratization and multilateralism—are facing their own problems in the wake of the 2008 financial crisis.110 Economic openness survived the negative shock of the 2008 financial crisis, which suggests that the logic of commercial liberalism will continue to hold with equal force going forward. But some international relations scholars doubt the power of globalization’s pacifying effects, arguing that interdependence is not a powerful constraint.111 Other analysts go further, arguing that globalization exacerbates financial volatility—which in turn can lead to political instability and violence.112¶ A different counterargument is that the continued growth of interdependence will stall out. Since 2008, for example, the growth in global trade flows has been muted, and global capital flows are still considerably smaller than they were in the pre-crisis era. In trade, this reflects a pre-crisis trend. Between 1950 and 2000, trade grew, on average, more than twice as fast as global economic output. In the 2000s, however, trade only grew about 30 percent more than output.113 In 2012 and 2013, trade grew less than economic output. The McKinsey Global Institute estimates that global flows as a percentage of output have fallen from 53 percent in 2007 to 39 percent in 2014.114 While the stock of interdependence remains high, the flow has slowed to a trickle. The Financial Times has suggested that the global economy has hit “peak trade.”115¶ If economic growth continues to outstrip trade, then the level of interdependence will slowly decline, thereby weakening the liberal constraint on great power conflicts. And there are several reasons to posit why interdependence might stall out. One possibility is due to innovations reducing the need for traded goods. For example, in the last decade, higher energy prices in the United States triggered investments into conservation, alternative forms of energy, and unconventional sources of hydrocarbons. All of these steps reduced the U.S. demand for imported energy. A future in which compact fusion engines are developed would further reduce the need for imported energy even more.116¶ A more radical possibility is the development of technologies that reduce the need for physical trade across borders. Digital manufacturing will cause the relocation of production facilities closer to end-user markets, shortening the global supply chain.117 An even more radical discontinuity would come from the wholesale diffusion of 3-D printing. The ability of a single printer to produce multiple component parts of a larger manufactured good eliminates the need for a global supply chain. As Richard Baldwin notes, “Supply chain unbundling is driven by a fundamental trade-off between the gains from specialization and the costs of dispersal. This would be seriously undermined by radical advances in the direction of mass customization and 3D printing by sophisticated machines…To put it sharply, transmission of data would substitute for transportation of goods.”118 As 3-D printing technology improves, the need for large economies to import anything other than raw materials concomitantly declines.119¶ Geopolitical ambitions could reduce economic interdependence even further.120 Russia and China have territorial and quasi-territorial ambitions beyond their recognized borders, and the United States has attempted to counter what it sees as revisionist behavior by both countries. In a low-growth world, it is possible that leaders of either country would choose to prioritize their nationalist ambitions over economic growth. More generally, it could be that the expectation of future gains from interdependence—rather than existing levels of interdependence—constrains great power bellicosity.121 If great powers expect that the future benefits of international trade and investment will wane, then commercial constraints on revisionist behavior will lessen. All else equal, this increases the likelihood of great power conflict going forward.

#### Degrowth can’t solve---negative feedback effects would continue for 100 years even with 0 emissions

Longley citing Meehl 18 Robert, Writer for Thought Co, Citing a report by Gerald A. Meehl, a Senior Scientist at the National Center for Atmospheric Research (NCAR) and heads the Climate Change Research Section. He is also Chief Scientist of the Cooperative Agreement To Analyze variabiLity, change and predictabilitY in the earth SysTem (CATALYST), a project that involves NCAR and the U.S. Department of Energy (DOE). His research interests include studying the interactions between El Niño/Southern Oscillation (ENSO) and the monsoons of Asia; identifying possible effects on global climate of changing anthropogenic forcings, such as carbon dioxide and aerosols, as well as natural forcings, such as solar variability; quantifying possible future changes of weather and climate extremes in a warmer climate; and understanding the interplay between internally generated climate variability and the response to external forcings, particularly in the context of understanding and predicting decadal climate variability. He was a member of the Intergovernmental Panel on Climate Change (IPCC) science team that was awarded the Nobel Peace Prize in 2007. As part of that effort, he was an author on the first five IPCC climate change assessment reports, serving as contributing author (1990), lead author (1995), coordinating lead author (2001, 2007), and lead author on the near-term climate change chapter for the IPCC AR5 that was completed in 2013, 4/2/18 (“Global Warming Inevitable This Century, NSF Study Finds”, <https://www.thoughtco.com/global-warming-inevitable-this-century-3322005>, Accessed 1/22/19)//DG

The models also predict a weakening of the North Atlantic thermohaline circulation, which currently warms Europe by transporting heat from the tropics. Even so, Europe heats up along with the rest of the planet because of the overwhelming effect of greenhouse gases.

Though the study finds signs that the temperature rise will level off some 100 years after the greenhouse gases stabilize, it also finds that ocean waters will continue to warm and expand beyond then, causing global sea level to rise unabated.

According to the report, the inevitability of climate change results from thermal inertia, mainly from the oceans, and the long lifetime of carbon dioxide and other greenhouse gases in the atmosphere. Thermal inertia refers to the process by which water heats and cools more slowly than air because it is denser than air.

The studies are the first to quantify future “committed” climate change using coupled global 3-dimensional climate models. Coupled models link major components of Earth's climate in ways that allow them to interact with each other. Meehl and his NCAR colleagues ran the same scenario a number of times and averaged the results to create ensemble simulations from each of two global climate models. Then they compared the results from each model.

#### Regulated capitalism solves the environment---externalities can be priced in

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Applications to Food, Environment, and Climate Change

Let us turn to a concrete example. It is often claimed that we need less capitalism, less growth, and less globalization if we are to successfully address such challenges as climate change, population growth, air and water pollution, feeding the world, ensuring sustainable development for the world's poorest people, and other interrelated challenges at the environmental nexus.22

However, if the argument for well-regulated capitalism is sound, then these claims are wrong. Just because the aforementioned challenges may require pervasive changes throughout the economy does not mean that they require large changes to the basic structure of the economy such as a move away from capitalism.

Climate change—like many large-scale environmental harms—is the perfect example to illustrate why large environmental challenges that require pervasive changes to the economy need not require large changes to the economy's basic structure. The key point is that in that an unregulated marketplace polluters do not pay the true cost to society of their pollution, which incentivizes too much pollution; the best solution for society in the case of climate change and many other large environmental challenges is simply to use markets to regulate the relevant pollution by putting an appropriate price on emissions (reflecting the cost to society), so that people and firms have to pay the true cost of their emissions. This could be accomplished by putting a simple tax on emissions, or by instituting a more complicated market-based system.23

In more detail, the problem of climate change arises because humans do not have to pay the cost of the harms from greenhouse gas (GHG) emissions when they engage in emitting activities. As a result of not having to pay the true cost of these activities, we make decisions that lead to too many emissions, and a worse outcome than we could achieve if we behaved differently, which would require pervasive changes throughout the economy. But according to mainstream economics, the best solution to this problem is a textbook example of well-regulated capitalism that applies the theory of externalities to achieve pervasive changes across the economy at the least cost to society: We should tax24 GHG emissions at a rate equal to the harm they inflict if emitted, because this will (to a first approximation) create the right incentives to cause all of the pervasive changes throughout every aspect of the economy in the way that best achieves the optimal level of GHG emissions for society.25 And because one ton of GHG emissions does the same harm regardless of where it is emitted on the earth, there is just a single price that we should use as a tax on all emissions regardless of where they occur.

Many economists, including Nobel laureate William Nordhaus, argue that pricing the externality in this simple way is not only necessary to solving climate change but also essentially sufficient.26 Other economists argue that investments in public goods like basic knowledge and infrastructure might also be necessary, as well as measures to address equity and justice (such as investing the revenues from a carbon tax in a progressive way, having different carbon prices in different regions that collectively lead to the same globally optimal reductions that could be achieved with a single uniform global price, or even putting additional weight on co-benefits from air pollution reductions via climate policy in places where minorities have historically been unjustly saddled with disproportionately high exposure to pollutants). These additional measures would be taken on the grounds that climate policy will be enacted in a “nonideal”/“second-best” context in which background distortions, inequity, and injustice make them necessary to achieve the best outcome.27 But these measures are all part and parcel to well-regulated capitalism.

Furthermore, getting rid of capitalism would involve harm to the world's poorest and most vulnerable people that could exceed the harm that is at stake for the world in connection with climate change and other environmental harms. Evidence for this claim is provided by taking the quantitative magnitude of health, wellbeing, and justice gains due to capitalism, according to the argument for premise 1 above, projecting trends into the future, and comparing these gains to the quantitative magnitude of health, wellbeing, and justice losses at issue in connection with climate change and other environmental harms, as provided by leading estimates.28 Again, according to the argument for well-regulated capitalism, the essence of our situation is that humanity is better off with our current flawed forms of capitalism than we would be without capitalism; however, we are not as well off as we could be if we properly regulated the externalities that are causing environmental harms, so there is no argument in favor of the status quo. Instead, we should properly regulate externalities, and thus move toward well-regulated capitalism, which would yield the optimal trade-off for humanity between the benefits of capitalism and the costs of pollution and other ills.

Viewed through the lens of the argument for well-regulated capitalism, other environmental challenges have a similar structure, such as food-systems challenges (including feeding the world without destroying the environment), air and water pollution, ensuring sustainable development for the world's poorest, and other interrelated challenges at the environmental nexus. These problems are more complicated than climate change because they each involve multiple externalities and multiple background distortions, where the magnitude of those is sometimes highly location dependent, and issues of equity and justice are exceedingly complex. But the basic mechanisms for the best solutions are the same according to proponents of the argument for well-regulated capitalism, and indeed the best responses all require capitalism in order to work well and avoid a cure that is worse than the disease.

As a point of optimism in connection with these often-discouraging challenges, the relationship between the wealth of a society and environmental degradation often has an inverted U shape: As society initially gets wealthier, environmental degradation increases, until a point of peak degradation, after which the environment improves as society becomes rich enough to invest more and more in environmental quality rather than in basic needs. In the richest nations of the world, the peak of degradation arguably happened in the mid- to late twentieth century, and can be seen in measures of, for example, air and water pollution.29 In some emerging economies like China, there is hope that the peak has been reached and environmental degradation will now decline as society becomes richer and richer. For other developing nations, the peak has not been reached yet. Moreover, different forms of degradation (such as industrial air pollution and agricultural water pollution) might peak at different points within a nation. Putting this together, there is reason to hope that environmental challenges will reach a peak in our lifetime, and if we can meet them with well-regulated capitalism, they will begin to progressively improve over time in line with the end of extreme poverty for the entire world. Capitalism has brought these problems to a head because it has caused the world to get richer so quickly. But according to the argument for well-regulated capitalism, this is a good problem to have, as it is a symptom of a global society that is on the cusp of growing its way out of poverty and out of widespread environmental degradation. According to this argument, we should want to grow our way out of both of these problems as quickly as possible, rather than keep both problems around indefinitely by moving away from capitalism.30

#### The economy is sustainable---market mechanisms facilitate necessary breakthroughs in tech that solve the environment

Bosch 19 (Stephan Bosch, PhD, Institute of Geography, University of Augsburg; Matthias Schmidt, PhD, Institute of Geography, Chair for Human Geography, University of Augsburg; “Is the post-fossil era necessarily post-capitalistic? – The robustness and capabilities of green capitalism”, Ecological Economics, 161, 270–279. doi:10.1016/j.ecolecon.2019.04.001)

6. Conclusion

In this paper, we argued that capitalism is not only much more robust than presumed by its critics, but moreover features promising capabilities with regard to solving the environmental crisis.

At the beginning, we elucidated that capitalism is able to prevail even given the end of fossil energy carriers and to maintain its productivity also within a regenerative energy system. Innovative concepts of storage, direct current transmission, and smart grids play a core role herein. Moreover, we were able to show that crisis is an essential element of the capitalist social order, with critical situations even being able to provide the necessary preconditions for the economy's transformation towards sustainability. Innovation is an essential ingredient of this process. We argued that precisely the preconditions given in competitive capitalism generate innovations. Therefore, in our view, the decisive social advantage of a competition-oriented capitalist system is this: as expressed by Schumpeter's concept of creative destruction, it offers maximum incentive for entrepreneurial initiatives. According to the theory of economic development, this incentive cannot be given within the socialist markets or degrowth-oriented societies favoured, but not more specifically detailed, by Harris (2013) and Kallis (2011). Yet this stimulus is crucial as it is accompanied by greater innovational strength, thus providing more auspicious preconditions for groundbreaking innovations, e.g. regarding aspects of technology, education, vocational training, research, social infrastructure, medicine, and nature protection (Schumpeter, 1994; Iversen, 2005; Wangler, 2013). However, we again want to point out the numerous social problems of the deployment of renewable energies (e.g. Aitken, 2010), especially concerning large-scale infrastructure projects (e.g. Avila, 2018).

In the context of competitive capitalism as described by Schumpeter, the promising capabilities of green capitalism were presented in detail. Nevertheless, the predominant criticism of capitalism scarcely assumes the Schumpeterian concept of ‘creative destruction’. Rather, it focuses on a much later stage of evolution of the economic system, in which the socio-economic disparities as a result of economic, but also of other factors have manifested themselves distinctly and with great complexity (cf. trustified capitalism). The pure criticism of capitalism thus seems to us to be too superficial as an explanatory model, which relies on arguments that disregard precisely those fertile approaches to surmounting the energetic and environmental crisis that presently arise from numerous processes of creative destruction. The cradle-to-cradle approach illustrated above is only one example of a concept that, by means of innovation, abandons the old and establishes the new. Yet we also think that competition and the market alone will not suffice to concertedly solve the global environmental crisis. This calls for political action that, by creating suitable institutional frame conditions, succeeds in pooling society's forces with regard to the ecological questions of our time, thus specifically promoting innovation.

We demonstrated that the usefulness of state measures always also depends on the respective specific national and economic context. An objection to capitalist social orders in general disregards this diversity of contexts and is at risk of overlooking important determinants of crisis management. The decisive difference in the various capitalist systems' innovative strength lies in the degree to which the cooperation of the major market players – state, enterprises, science, and civil society – is institutionalised. This implies that a central part falls to the state in embedding the actions of the most important players into appropriate institutional structures. Only thereby will it be possible to shoulder the heavy load of material, costs, work, and coordination required for the energy system's transformation. A non-committal state runs the risk of failing this task. E.g., Solomon and Krishna (2011) showed that the intended transformation of the energy system in the USA after the oil crisis was unsuccessful due to the lack of suitable preconditions for innovation in niche markets. Moreover, Ćetković and Buzogány (2016) found that in liberal manifestations of capitalism, the deficiency of political and institutional instruments inhibits the necessary orchestration of activities on the part of state, industry, and financial sector.

In sum, even though fossil fuels and the capitalist system based upon them have given rise to the environmental crisis, surmounting the crisis does not necessarily call for surmounting market-based approaches; rather, market economies based on regenerative energy systems that are competition-oriented and guided by state measures may develop great ecological and socio-economic effectivity.

#### Tech solves biodiversity — it’s key to monitoring, policy agreements, and conservation

Berger-Tal 18 — Oded Berger‐Tal (Mitrani Department of Desert Ecology, Jacob Blaustein Institutes for Desert Research, Ben‐Gurion University of the Negev, Misreshet Ben‐Gurion, Israel Conservation Technology Working GroupSociety for Conservation Biology), 4-1-2018, "Conservation technology: The next generation," <https://onlinelibrary.wiley.com/doi/full/10.1111/conl.12458>, [accessed: 8/30/18] — JPark

Abstract

Attitudes among conservation biologists toward technological innovations and solutions have changed over the years from mistrusting and dismissive to widely accepting. However, the time has come for the conservation community to move from being technology consumers to become innovation leaders and to actively seek to create novel technologies to provide conservation tools and solutions. This challenging but critical mind‐set change requires thinking outside the box to establish and support the necessary bridges between the conservation community, technologists in both the public and the private sectors, and policy makers. The ingredients already exist, but success hinges on an open mind to new types of interactions, and bold but coordinated movements to nurture the organisational ecosystem in which such collaborations can thrive and be funded.

1 INTRODUCTION

The term ‘technology’ has a broad meaning which encompasses practically any expression of human ingenuity applied to solving practical problems and thriving as a species. A key distinction can be made between the design and production of physical tools, devices and machines, nowadays often requiring electronics, and more abstract methods such as mathematical algorithms, statistical techniques or computer software (Brian, 2009). Ecologists and conservation biologists play a prominent role in the advancement of the latter type of technological innovations (e.g., Anderson & May, 1992). However, for the purpose of this article we use the more restrictive definition of the term ‘technology’ found in the Oxford Dictionary—“Machinery and devices developed from scientific knowledge” (Oxford Living Dictionary Online, 2017). The role of such technological innovations in modern conservation biology has changed drastically over the last several decades. In fact, less than 30 years ago, the reliance on technology to solve conservation problems has been hailed as short‐sighted and self‐defeating, concentrating on treating the symptoms and not the disease (Meffe, 1992), and often considered only as a last possible resort (Conway, 1986). However, the field of conservation biology has grown through several paradigm shifts in the last few decades and the current prevailing approach to conservation is interdisciplinary at its core (Mace, 2014). These paradigm shifts, along with the continuous decline in biodiversity and the devastating effects of climate change on one hand, and the rapid development of better, cheaper and easily available technologies on the other, have made technological tools a common and indispensable part of conservation work today (Pimm et al., 2015; Snaddon, Petrokofsky, Jepson, & Willis, 2013). Technology provides key tools to collect more and better data and to improve the monitoring of wildlife, habitats and threats, thereby assisting management decisions (technological enablers). Monitoring is also an integral part of biodiversity‐related international policy agreements such as the Aichi Biodiversity Targets of the Convention on Biological Diversity and some of the United Nation's Sustainable Development Goals. Technology can also provide tools to aid conservation action on the ground, including fighting illegal activities that threaten biodiversity or reducing pollution (technological solutions). Such tools could empower conservation organisations as well as officials in charge of implementing related policy such as halting illegal harvesting and trafficking (e.g., CITES1). Examples of the uses of technology in conservation abound. GPS and other telemetry technologies (e.g., sensor tags, camera traps) are commonly used to monitor both extant and reintroduced populations in greater and greater detail (Berger‐Tal & Saltz, 2014; Hussey et al., 2015; Kays, Crofoot, Jetz, & Wikelski, 2015). Remote sensing, whether through satellites or drones, is increasingly applied to wildlife monitoring, land‐cover classification, and as a mitigation tool (e.g., early warning for poaching activities; Turner et al., 2003; Wich, 2015). The latest advancement in biotechnology and bioengineering are also increasingly changing our approach to species conservation. Pembient2 is offering to biofabricate wildlife products such as rhino horns or shark fins in order to combat poaching, the government of New Zealand is planning to use gene drive techniques such as CRISPR/Cas9 to assist with the eradication of all invasive predators by the year 2050 (Owens, 2017), and just as controversially, cloning technology is suggested as a driver of species de‐extinction (O'Brien, 2015). All of these examples and many more demonstrate that technology is both central for efficient conservation science and practice nowadays, as well as instrumental in defining the conservation paradigms of the future.

#### Empirical rigor and public policy focus drive correction

Harold Meyerson 21. Editor at large of The American Prospect. "The Berkeley School". American Prospect. 3-25-2021. https://prospect.org/economy/berkeley-school-economics/

BERKELEY HASN’T GONE it alone over the past three decades. Two Washington-based think tanks—the Economic Policy Institute and the Center for Economic Policy Research—have played key roles in studying our increasingly dysfunctional economy and developing policies to create more broadly shared prosperity. EPI, which was founded in 1986, has chiefly served as a tribune for the interests of American workers. In its long-running annual reports on The State of Working America and in a host of other papers, it has created some memorable explanations of the rise in inequality, including its graph charting the increases in productivity and income since the end of World War II (which rose in tandem until the 1970s, after which productivity continued to increase while median wages flatlined) and its yearly reports on the ratio of CEO pay to median worker pay. For its part, CEPR has highlighted a range of concerns, not least the several years of pre-2008-crash warnings from economist Dean Baker that the housing market had become a bubble that would soon and calamitously pop.

Berkeley builds on one other valuable and unsung tradition. Beyond the rarified debates of freshwater versus saltwater economics in elite universities, a few heroic radical economics departments kept alive the tradition of historical inquiry and critique of market folly. At the University of Massachusetts at Amherst, the New School in New York, and the University of California at Riverside, neo-Marxists and institutionalists created centers of scholarly dissent. Other schools, such as the Levy Institute at Bard College, were hospitable to the radicalism of Keynes, as opposed to watered down neo-Keynesianism. These critics proved prescient about the failure of markets and influenced the new mainstream at Berkeley and beyond. Heather Boushey, now on President Biden’s Council of Economic Advisers, has her Ph.D. from the New School.

Within the circuit of Berkeley, Harvard, MIT, and Princeton, there are frequent migrations of professors and newly minted Ph.D.s. “I have eight former Ph.D. students now on the Berkeley faculty,” says Harvard’s Katz. Sometimes, the migrations flow west to east, as in the case of Harvard’s Raj Chetty, one of the discipline’s leading empirical economists on such topics as intergenerational mobility (or the lack thereof), who began such work at Berkeley and is now continuing it in Cambridge.

That said, Berkeley sounds increasingly confident about its hard-won place in the economics ecosystem. “If you want to do labor economics, or public [policy] economics, you can make the case that Berkeley is the place to come,” says Rothstein. Ellora Derenoncourt, who was hired last year as an assistant professor both in the economics department and the Goldman School, says she came because Berkeley offered “a space to combine inequality studies with policy solutions.” Since she’s been on staff, she’s talked to a number of students who’d been admitted to several graduate economics programs at top-ranked schools and were deciding which to attend. For many, she says, “it’s the inequality issue that pushes them to come to Berkeley.”

Increasingly, that issue isn’t seen as one simply of income, education, and class. “Economics has not been the discipline at the forefront of understanding racism,” Derenoncourt notes, and, indeed, economics departments have long been the whitest and most male of any of the social sciences. Not surprisingly, a growing number of professors and graduate students are now working on issues of racial and gender inequality, and the experience of immigrants as well.

Nina Roussille is one of those students; she just completed her doctoral studies after five years at Berkeley and as an IRLE associate. Her dissertation used the database provided by Hired.com to research gender differences in salary, where she found that mid-career women generally ask for lower salaries than their male counterparts seeking the same jobs, as their networks tend to include more experienced women workers who’ve been accustomed to lower salaries than their male co-workers.

At Berkeley, she says, the emphasis in choosing your dissertation topic is often on whether the topic could address a question in a way that could change the way people work, or the policies that shape their work. “It’s certainly not the case in departments across the nation,” she says, “but at Berkeley, everyone is trying to be on that frontier.”

And that frontier may just be spreading. “Berkeley, Harvard, MIT, and Princeton are the leaders, but there’s a broad shift toward a more empirical focus,” says Harvard’s Katz. “You see it in young European economists. Even the young people at Chicago are using these methods.”

Indeed, a paper issued this February confirms Katz’s assessment. Using “anonymized bank account data covering millions of households,” the paper examined whether the federally funded increase in unemployment insurance benefits during the pandemic actually discouraged the recipients of the more-generous-than-usual UI from seeking work, as the standard economic models predicted (and as West Virginia Sen. Joe Manchin said he suspected). Instead, the authors wrote, while “simple job search models predict a sharp decline in search in the wake of a substantial benefit expansion … we instead find that the job-finding rate is quite stable.”

In not discouraging job hunting and in boosting economic activity generally, they concluded, “benefit expansions during the pandemic were a more effective policy than predicted by standard structural models.”

And the authors of this bit of empirically derived heresy? Three economists from the JPMorgan Chase Institute and three from the University of Chicago. And, the unkindest cut of all, the paper was published by Chicago’s Becker Friedman Institute, named after the university’s celebrated laissez-faire apostles Gary Becker and Milton Friedman.

The age of Berkeley economics may just be getting started.

#### Growth boosts well-being---outweighs inequality

Goklany 14 — Indur Goklany (science and technology policy analyst for the United States Department of the Interior, has represented the United States at the IPCC, was a rapporteur for the Resource Use and Management Subgroup of Working Group III of the IPCC First Assessment Report), “A Note from Indur Goklany”, 8-18-14, http://cafehayek.com/2014/08/a-note-from-indur-goklany.html

I would say that what matters most is not “living standards” but “quality of life”, and either matters more than income/wealth. [I recognize that "quality of life" is a subjective measure and, therefore, less amenable to quantitative analysis than "living standards", which can, for the most part, be measured indirectly. In my lexicon, the term “well-being” embraces both “living standards” and “quality of life”.] For the vast majority neither income nor wealth are ends in themselves; but they are desired because they provide them the wherewithal to afford a higher living standard and, more importantly, a higher “quality of life” [which I would equate to having the ability to live their own dreams rather than someone else's, no matter how well-intentioned that person or person's might be]. You may be interested in my take on this, summarized in The Globalization of Human Well-Being. Its Executive Summary goes as follows: “Controversy over globalization has focused mainly on whether it exacerbates income inequality between the rich and the poor. But, as opponents of globalization frequently note, human well-being is not synonymous with wealth. The central issue, therefore, is not whether income gaps are growing but whether globalization advances well-being and, if inequalities in well-being have expanded, whether that is because the rich have advanced at the expense of the poor.” More direct measures of human well-being than per capita income include freedom from hunger, mortality rates, child labor, education, access to safe water, and life expectancy. Those indicators generally advance with wealth, because wealth helps create and provide the means to improve them. In turn, those improvements can stimulate economic growth by creating conditions conducive to technological change and increasing productivity. Thus, wealth, technological change, and well-being reinforce each other in a virtuous cycle of progress. During the last half century, as wealth and technological change advanced worldwide, so did the well-being of the vast majority of the world’s population. Today’s average person lives longer and is healthier, more educated, less hungry, and less likely to have children in the work-force. Moreover, gaps in these critical measures of well-being between the rich countries and the middle- or low-income groups have generally shrunk dramatically since the mid-1900s irrespective of trends in income inequality. However, where those gaps have shrunk the least or even expanded recently, the problem is not too much globalization but too little. The rich are not better off because they have taken something away from the poor; rather, the poor are better off because they benefit from the technologies developed by the rich, and their situation would have improved further had they been better able to capture the benefits of globalization. A certain level of global inequality may even benefit the poor as rich countries develop and invest in more expensive medicines and technologies that then become affordable to the poor.”

#### Tech solves resources

Alex Epstein 14, Director of the Center for Industrial Progress, "Alex Epstein: The sustainability myth," 12/24/14, news.nationalpost.com/2014/12/24/alex-epstein-the-sustainability-myth/

Modified for gendered language – insertions bracketed

But nature gives us very few directly usable machine energy resources. Resources are not taken from nature, but created; from nature. What applies to the raw materials of coal, oil, and gas also applies to every raw material in nature — they are all potential resources, with unlimited potential to be rendered valuable by the human mind.

Ultimately, a resource is just matter and energy transformed via human ingenuity to meet human needs. Well, the planet we live on is 100% matter and energy, 100% potential resource for energy and anything else we would want. To say we’ve only scratched the surface is to significantly understate how little of this planet’s potential we’ve unlocked. We already know that we have enough of a combination of fossil fuels and nuclear power to last thousands and thousands of years, and by then, hopefully, we’ll have fusion (a potential, far superior form of nuclear power) or even some hyper-efficient form of solar power.

The amount of raw matter and energy on this planet is so incomprehensibly vast that it is nonsensical to speculate about running out of it. Telling us that there is only so much matter and energy to create resources from is like telling us that there is only so much galaxy to visit for the first time. True, but irrelevant.

Sustainability is not a clearly defined term. According to the United Nations, it has over a thousand interpretations, but the basic idea is “indefinitely repeatable.” For example, the idea of renewability, which is usually synonymous with sustainability in the realm of energy, is that the fuel source keeps replenishing itself over and over without the need to do anything different.

But why is this an ideal? In most realms, we accept and desire constant change. For example, you want the best phone with the best materials, regardless of whether those materials will be there in 200 years and regardless of whether it would be more “renewable” to use two cups and a string.

Why should we want to use solar panels or windmills over and over (leaving aside the fact that they quickly deteriorate and thus require a continuous series of mass-mining projects) if they keep giving us expensive, unreliable energy? Why not use the best, the most progressive form of energy at any given time, recognizing that this will change as we advance and the best becomes better?

At the beginning of this book, we observed that human beings survive by using ingenuity to transform nature to meet their needs — i.e., to produce and consume resources. And we observed that the motive power of transformation, the amplifier of human ability, the resource behind every other resource, is energy — which, for the foreseeable future, means largely fossil fuel energy. There is no inherent limit to energy resources — we just need human ingenuity to be free to discover ways to turn unusable energy into usable energy. This opens up a thrilling possibility: the endless potential for improving life through ever-growing energy resources helping create ever-growing resources of every kind. This is the principle that explains the strong correlation between fossil fuel use and life expectancy, fossil fuel use and income, fossil fuel use and pretty much anything good: human ingenuity transforming potential resources into actual resources — including the most fundamental resource, energy.

Growth is not unsustainable. With freedom, including the freedom to produce energy, it is practically inevitable. We are not eating the last slice of pizza in the box or scraping the bottom of the barrel; we are standing on the tip of an endless iceberg.

#### Financial stability is improving---ignore fear mongering.

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There are good news: near-term financial stability risks are lower, driven by a decline in macroeconomic and emerging market risks.

As outlined in the IMF’s most recent World Economic Outlook, the upswing in global activity has gained further steam, with global growth projected to rise to 3.6 percent in 2017 and 3.7 percent in 2018—in both cases 0.1 percentage point above our previous forecasts, and well above the global growth rate of 3.2 percent in 2016. This is laying hopes for a sustained recovery and should allow for the eventual normalization of monetary policies.

The core of the global financial system is stronger. Systemically important banks and insurers continue to enhance their resilience by raising capital and liquidity, addressing legacy issues, and adapting their business models to the evolving regulatory and market environment.

In emerging markets, capital flows are rebounding, driven in part by stronger fundamentals. Portfolio inflows to emerging market economies are on track to reach $285 billion in 2017, more than twice the total over the past two years. The cost of financing is low, and their currencies and equity prices have strongly appreciated this year.

Globally, supportive monetary and financial conditions and buoyant financial markets have helped foster growth and repair balance sheets.

#### Financial markets are key to a net-zero economy---it’s the only sector capable of supporting the transition.

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In light of increasing pressure from investors, regulators and society, sustainable finance is gathering significant momentum globally. Once regarded as a niche and futuristic concept within aspects of the investment community, it is rapidly becoming an immediate-term strategic priority and operational reality for all types of financial services players. Putting COVID-19 aside, over the next decade, sustainable finance might become the most pressing challenge and opportunity for the industry.

Sustainable finance can mean different things in different contexts. EY defines sustainable finance as any form of financial service that incentivizes the integration of long-term environmental, social and governance (ESG) criteria into business decisions, with the goal of providing more equitable, sustainable and inclusive benefits to companies, communities and society. Embedding ESG concepts into investing is perhaps the highest-profile manifestation of sustainable finance, alongside the rising prominence of stakeholder or inclusive capitalism. Sustainable finance also has a critical role to play relative to climate change in financing the transition to net-zero carbon emissions by 2050.

The magnitude of climate change globally presents an enormous range of potential risks, starting with floods, wildfires, super-storms and other physical events that not only disrupt economic activity on a broad scale, but the operations of individual companies. Changing weather patterns globally had already started to show the fragility of supply chains for certain industries; COVID-19 certainly exposed that even more. So-called transition risks are equally important. They involve the financial and commercial impacts of the shift to a greener economy (e.g., oil and gas companies affected by limits on fossil fuels). While physical risk is more visible and present today, the growing effects of transition risk over the coming decade and beyond must also be taken into account.

There is no road to a net-zero economy without financial services. Other sectors will need support – such as insurance and funding – to manage the impact of physical risks, and more importantly to change their strategies, business models and operations to make the transition. Brown only turns to green with finance. The financing needs are enormous. Conversely, companies not making the transition will find it harder to gain funding and attract investments. Customers will also be affected, especially those in areas that are subject to the increasing effects of extreme weather.

#### Peak oil is wrong---can’t assume new sources and innovation solves

Lynch 17 — Michael Lynch, (MasterResource —a blog dedicated to analysis and commentary about energy markets and public policy), 3-29-17. “Peak Oil: Not Just Wrong but Invalid” <https://www.masterresource.org/peak-oil-fixitydepletion/peak-oil-invalid/> Accessed 7/9/18 //WR-NCP

The original claim underlying peak oil was that resource scarcity would cause oil production to decline in the near future and that nothing could be done to alter that trajectory. Two retired oil geologists—Colin Campbell and Jean Laherrère—justified this idea by making their estimates of recoverable resources using a private database of oil field sizes fitted to the so-called Hubbert curve, a bell curve said to represent production for a region. Their theory was that since production followed a bell curve, fitting production data for a country or region to a curve would demonstrate the entire trajectory of supply and yield an estimate of the total resource. Also, once half the resource was produced, production would decline; and conversely, if production was declining, then the peak had been reached and half the resource produced. Actually, though, production in a region rarely follows a bell curve nor do regions necessarily experience a single peak. As a result, this method repeatedly predicted premature peaks for many countries and for the world itself. Laherrère attempted to reinforce his claims by the use of so-called creaming curves, ordering discoveries by date to show how their sizes decline over time; the asymptote of the curve would then represent the total resource. This method is employed by conventional petroleum geologists, but with this understanding: It works only for a given basin, not a combination of them; it cannot predict the discovery of new basins; and it requires stable estimates of field size. The peak-oil theorists ignored the first argument, insisted both that no new basins remain to be discovered and that their field size data was stable. (However, they elsewhere chided economists for not recognizing that field size data was often revised upwards.) The shortcoming was made worse by the insistence that the results were robust, which they were not; as regards the Middle East, for example, creaming curves yielded an estimate that was revised upwards three times. It was simply asserted that the final estimate was correct, and earlier ones not, without recognizing the implication that the method did not yield a stable estimate but one which evolved over time. Another freshman mistake was to rely on graphs of cumulative data, specifically discoveries and production, which Laherrère noted seem to resemble each other. The first thing taught in freshman statistics is that cumulative numbers are meaningless: next year’s GDP may change substantially compared to this year’s, but if you put a century’s cumulative GDP on a graph you can see no difference. However, Laherrère in particular believed he has created a ‘model’ whereby he could predict a country’s production by looking at its cumulative discovery trend, although his graphs showing individual discoveries in a country made it clear that they were highly variable and related poorly to subsequent production trends. The one thing in common with these methods was that they represented curve-fitting, just extrapolating discovery and production trends (and sometimes not accurately). Because some of the proponents are geologists, they claimed that the work was “scientific” and derided their opponents as economists, even though many petroleum engineers and geologists disagreed with their work. Kjell Aleklett, who took over the leadership of the Association for the Study of Peak Oil despite having little experience in the analysis of resources, insists that his work is “natural science” even though there is no real scientific content: he and his colleagues observe trends and assume they are determined by physical factors. Which is obviously wrong, given that the so-called scientific behavior is often violated. As mentioned, few countries exhibit a bell-curve shaped production trend, and many of the fields that are said to follow a mathematically precise behavior later violate it. Laherrère has noted that the Forties field production followed a declining trend for years, suggesting that the field’s total resource could be estimated by extrapolating it to the intersection with the x-axis. The addition of gas-lift caused production to differ from the trend briefly, but then the trend resumed to his great delight—proving, he insisted, that geology determined the profile of a field’s production. Nonsense. Since he published his graphs, the Forties oil production trend has changed, going flat instead of declining for roughly ten years, with an increase in the field’s proved reserves of 150 million barrels. Production patterns are determined by the geology and chemistry of the deposit, plus the engineering decisions on how to produce it, plus the fiscal regime in place. The latter two can change, as was the case with the Forties field and many others. New investment regularly adds reserves to mature fields, and the trade press is full of articles describing such additions. More Peak Oil Fallacy A certain amount of circular, reality-defying logic was also employed in peak-oil theory. Aside from the bizarre suggestion that only geology affected supply, not politics or economics, the insistence that estimates of field sizes did not change and that technology could not increase the recoverable portion of oil was nonsensical from the beginning. Recovery rates have been growing gradually over time, and numerous new methods and inventions have greatly increased the amount of oil that can be extracted. But for the creaming-curve method to function this had not to be so to function, and in response, peak oil advocates like Jean Laherrère would claim that overall field size increases occurred only in the United States, owing to its industry’s reliance on a more restrictive and conservative definition of reserves. Yet various other sources all noted field size increases in other international settings. And when asked about new technologies, peak-oil theorists claimed that they only increased production rates, not recovery. Again, all the evidence is to the contrary.

#### Growth’s sustainable---the pandemic has made firms more resilient and efficient.

James Manyika and Michael Spence 21. Chair and Director of the McKinsey Global Institute; Philip H. Knight Professor and Dean Emeritus at Stanford University’s Graduate School of Business. “A Better Boom: How to Capture the Pandemic’s Productivity Potential.” *Foreign Affairs*, Vol. 100, No. 4, July/August 2021. Pages 111-113.

POST-PANDEMIC POTENTIAL

The pandemic has primed advanced economies for another period of rapid productivity growth. It is too early to say for sure whether such growth will be the product of a virtuous or a vicious cycle, but signs point to the former. Despite uncertainty, stress, and plummeting economic activity in the early days of the COVID-19 crisis, many firms boldly deployed and used new general-purpose technology—especially digital technology—in ways that have driven virtuous productivity gains in the past. In October 2020, we surveyed 900 C-suite executives in various sectors and countries and found that many had digitized their business activities 20 to 25 times as fast as they had previously thought possible. Often, this meant shifting their businesses to online channels, since roughly 60 percent of the firms we surveyed experienced a significant increase in customer demand for online goods and services as a result of the pandemic.

Before the pandemic, e-commerce was forecast to account for less than a quarter of all U.S. retail sales by 2024. But during the first two months of the COVID-19 crisis, e-commerce’s share of retail sales more than doubled, from 16 percent to 33 percent. And that growth did not just reflect brick-and-mortar firms setting up shop online for the first time. Firms that were already highly digitized before the pandemic significantly expanded their online capabilities to meet the surge in demand. They also reorganized their operations, including their logistics, to complement what they were doing digitally—for example, by expanding their direct-to-home delivery capabilities.

Businesses also strove to become more efficient and agile. In Europe and North America, nearly half of the respondents to our survey said that they had reduced their operating expenditure as a share of revenue between December 2019 and December 2020. Two-thirds of senior executives said they had increased investment in automation and artificial intelligence, whether to help warehouse and logistics operations cope with higher e-commerce volumes or to enable manufacturing plants to meet surging demand. Many companies used technology to reduce the physical density of their workplaces or to enable contactless service—for instance, by expanding self-checkout in grocery stores and pharmacies and employing online ordering apps for restaurants and hotels. Other businesses, such as meatpacking and poultry plants, accelerated the deployment of robotics to reduce their need for labor. If there was one lesson from the pandemic, it was that digital capability and resilience go hand in hand.

But even as the arrival of vaccines has made it possible to imagine a return to relative normalcy in parts of the developed world, continued digitization and the adoption of other technological innovations promise to deliver still more productivity gains. The largest of these gains—roughly an additional two percentage points per year—could come in the health-care, construction, information technology, retail, pharmaceutical, and banking sectors. In health care, for instance, accelerating the use of telemedicine beyond the pandemic could drive incremental productivity growth for years. According to one recent U.S. poll, 76 percent of patients expressed interest in using telemedicine in the future, and industry experts project that the services for 20 percent of health-care spending could be delivered virtually—up from 11 percent before the pandemic. Other sectors, including automotive, travel, and logistics, show less—but still substantial—potential for productivity growth as a result of more flexible task scheduling, leaner operations, and smarter procurement.

Overall, these innovations and organizational changes could accelerate productivity growth by around one percentage point per year between now and 2024 in the United States and the six large European economies that we analyzed (France, Germany, Italy, Spain, Sweden, and the United Kingdom). This gain would result in a productivity growth rate twice as high as the rate after the 2008 global financial crisis, and in the United States, it would expand per capita GDP by roughly $3,500 by 2024. That would be a stunning outcome, but it will hinge on continued technology adoption by firms and the maintenance of robust demand.

Even more productivity gains could be on the horizon thanks to other advancements. The accelerating revolution in biology, for instance, could transform sectors from health care and agriculture to consumer goods, energy, and materials. Biological innovation has already enabled the rapid development of new vaccines for COVID-19. Equally impressive revolutions in energy could make possible the widespread adoption of solar and wind power, especially in light of recent progress toward better (and cheaper) batteries. Artificial intelligence is also advancing rapidly, but is still a long way from being deployed widely across companies and sectors. When and if that happens, the productivity gains could be enormous.