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### Plan

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

### Adv

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

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

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

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

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

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

#### The plan solves---an effective competition standard reinvigorates antitrust

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

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

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

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

#### It's enforceable and sufficient

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Crisis responses limited

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

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

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

From bust to bubble

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

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

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

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

Liberalization’s discontents

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

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

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

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

Insecurity, populism, conflict

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

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

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

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

Avoiding Thucydides’ iceberg

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6. Consent

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

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

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

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

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

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

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

I. Introduction

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

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

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

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

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

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

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

#### Expanding antitrust is necessary to sustain creative destruction---only that preserves innovation leadership

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

A balanced assessment

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

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

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

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

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

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

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

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

#### 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.

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

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

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

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

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

AMERICA’S INNOVATION CHALLENGE

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

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

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

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

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

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

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

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

THE CHINESE JUGGERNAUT

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

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

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

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

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

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

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

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

THINKING BIGGER

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

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

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

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

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

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

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

A MARKET MINDSET

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

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

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

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

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

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

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

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

INNOVATION EVER AFTER

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

On innovation, if the United States opts for just more of the same, its economy, its security, and its citizens’ well-being will all suffer

. The United States will thus further the end of its global leadership and the unfettered rise of China. Biden has the right instincts. Yet in order to sustain its technological dominance, the country will have to fundamentally reenvision the why and how of innovation. Biden will no doubt be consumed with addressing domestic challenges, but he has spent much of his career promoting the United States’ global leadership. By revamping American technological innovation, he could do both.

## 2AC

### Adv

#### lewis rehighlight—Read the last line---says China wants to displace the US-led order

James 1AC 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>.

Economic success has made China confident and assertive in international affairs. China’s return comes at a moment when the global rules and institutions created by the United States and its Western allies after 1945 are in flux. The international order created in 1945 no longer fits with the distribution of global power, and there is a broad but diffuse discontent with the status quo among emerging powers. China (and the others) believe that the international structures set up after 1945 are designed to provide economic and security advantage to the United States. Statements by Chinese leaders suggest they want to change or replace these structures to provide similar advantage to China and for China to assume a “guiding” role internationally.3

#### No self-fulfilling prophesy---securitizing the danger of US-China war creates the caution and risk-aversion necessary to avoid it.

Wang 20, Professor of Political Science at Western Michigan University. He holds a Ph.D. in political science from the University of Chicago. (Yuan-kang, 11/9/20, "Roundtable 12-2 on *Thucydides’s Trap? Historical Interpretation, Logic of Inquiry, and the Future of Sino-American Relations*", *H-Diplo | ISSF*, https://issforum.org/roundtables/12-2-thucydides)

Throwing the Baby Out with the Bathwater? Chan warns that the discourse on Thucydides’s Trap and power transition can create a self-fulfilling prophecy. If leaders believe in Thucydides’s Trap and act accordingly, it may create the anticipated conditions that make war more likely. Talking and thinking in terms of Thucydides’s Trap will influence the state’s construction of its identity as well as its definition of interests and preferences. The discourse is harmful because it encourages ‘othering’ the opponent and contributes to confrontation. Should we, then, throw out the proposition that war is more likely when the system is undergoing a power transition? It might be worthwhile to go back to what Thucydides’s Trap refers to: “the severe structural stress caused when a rising power threatens to upend a ruling one. In such conditions, not just extraordinary, unexpected events, but even ordinary flashpoints of foreign affairs, can trigger large-scale conflict.”[112] Instead of creating a self-fulfilling prophecy, this statement should induce caution from leaders in Beijing and Washington. Understanding the danger of war is the first step to avoid being trapped in it. Like Chan, Allison seeks to offer “a set of principles and strategic options for those seeking to escape Thucydides’s Trap and avoid World War III.”[113] Obviously, historical analogies cannot completely capture an ongoing event. Allison himself cautions against “facile analogizing” and emphasizes that “the differences matter at least as much as the similarities.”[114] The purpose of analogizing Thucydides’s Trap is not to shoehorn China and the United States into the roles of Athens and Sparta respectively, as Chan suggests (17-18), but to underscore the enduring feature of international politics throughout the ages. The dynamics of conflict highlighted by Thucydides remain as relevant today as it was two thousand years ago. Many scholars accuse structural theory of determinism, as Chan does, (14, 34), even though structuralists do not adopt it. States can go to war for a variety of reasons. Attempting to isolate a single cause for all wars is impossible. The proposition that war tends to break out during a power transition is better understood as a probabilistic—not deterministic—statement. The structural tensions cause by power shifts can substantially increase the probabilities of war, much like dry leaves waiting for a spark, but it does not mean that war will inevitably break out. Properly understood, Thucydides’s Trap cautions us to be prepared for the danger of war during a power transition. Overall, Chan’s book provides a stronger critique of power transition theory than of Thucydides’s Trap. Students of power shifts should take his argument seriously and avoid the pitfalls he identifies. We should not, however, hastily dismiss the warnings of Thucydides’s Trap.

#### American primacy solves every threat---decline emboldens rivals and causes miscalc and arms races that escalate.

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Much contemporary commentary favors the first option—reducing commitments—and denounces the third as financially ruinous and perhaps impossible.5 Yet significantly expanding American capabilities would not be nearly as economically onerous as it may seem. Compared to the alternatives, in fact, this approach represents the best option for sustaining American primacy and preventing a slide into strategic bankruptcy that will eventually be punished. Since World War II, the United States has had a military second to none. Since the Cold War, America has committed to having overwhelming military primacy. The idea, as George W. Bush declared in 2002, that America must possess “strengths beyond challenge” has featured in every major U.S. strategy document for a quarter century; it has also been reflected in concrete terms.6 From the early 1990s, for example, the United States consistently accounted for around 35 to 45 percent of world defense spending and maintained peerless global power-projection capabilities.7 Perhaps more important, U.S. primacy was also unrivaled in key overseas strategic regions—Europe, East Asia, the Middle East. From thrashing Saddam Hussein’s million-man Iraqi military during Operation Desert Storm, to deploying—with impunity—two carrier strike groups off Taiwan during the China-Taiwan crisis of 1995– 96, Washington has been able to project military power superior to anything a regional rival could employ even on its own geopolitical doorstep. This military dominance has constituted the hard-power backbone of an ambitious global strategy. After the Cold War, U.S. policymakers committed to averting a return to the unstable multipolarity of earlier eras, and to perpetuating the more favorable unipolar order. They committed to building on the successes of the postwar era by further advancing liberal political values and an open international economy, and to suppressing international scourges such as rogue states, nuclear proliferation, and catastrophic terrorism. And because they recognized that military force remained the ultima ratio regum, they understood the centrality of military preponderance. Washington would need the military power necessary to underwrite worldwide alliance commitments. It would have to preserve substantial overmatch versus any potential great-power rival. It must be able to answer the sharpest challenges to the international system, such as Saddam’s invasion of Kuwait in 1990 or jihadist extremism after 9/11. Finally, because prevailing global norms generally reflect hard-power realities, America would need the superiority to assure that its own values remained ascendant. It was impolitic to say that U.S. strategy and the international order required “strengths beyond challenge,” but it was not at all inaccurate. American primacy, moreover, was eminently affordable. At the height of the Cold War, the United States spent over 12 percent of GDP on defense. Since the mid-1990s, the number has usually been between 3 and 4 percent.8 In a historically favorable international environment, Washington could enjoy primacy—and its geopolitical fruits—on the cheap. Yet U.S. strategy also heeded, at least until recently, the fact that there was a limit to how cheaply that primacy could be had. The American military did shrink significantly during the 1990s, but U.S. officials understood that if Washington cut back too far, its primacy would erode to a point where it ceased to deliver its geopolitical benefits. Alliances would lose credibility; the stability of key regions would be eroded; rivals would be emboldened; international crises would go unaddressed. American primacy was thus like a reasonably priced insurance policy. It required nontrivial expenditures, but protected against far costlier outcomes.9 Washington paid its insurance premiums for two decades after the Cold War. But more recently American primacy and strategic solvency have been imperiled. THE DARKENING HORIZON For most of the post–Cold War era, the international system was— by historical standards—remarkably benign. Dangers existed, and as the terrorist attacks of September 11, 2001, demonstrated, they could manifest with horrific effect. But for two decades after the Soviet collapse, the world was characterized by remarkably low levels of great-power competition, high levels of security in key theaters such as Europe and East Asia, and the comparative weakness of those “rogue” actors—Iran, Iraq, North Korea, al-Qaeda—who most aggressively challenged American power. During the 1990s, some observers even spoke of a “strategic pause,” the idea being that the end of the Cold War had afforded the United States a respite from normal levels of geopolitical danger and competition. Now, however, the strategic horizon is darkening, due to four factors. First, great-power military competition is back. The world’s two leading authoritarian powers—China and Russia—are seeking regional hegemony, contesting global norms such as nonaggression and freedom of navigation, and developing the military punch to underwrite these ambitions. Notwithstanding severe economic and demographic problems, Russia has conducted a major military modernization emphasizing nuclear weapons, high-end conventional capabilities, and rapid-deployment and special operations forces— and utilized many of these capabilities in conflicts in Ukraine and Syria.10 China, meanwhile, has carried out a buildup of historic proportions, with constant-dollar defense outlays rising from US$26 billion in 1995 to US$226 billion in 2016.11 Ominously, these expenditures have funded development of power-projection and antiaccess/area denial (A2/AD) tools necessary to threaten China’s neighbors and complicate U.S. intervention on their behalf. Washington has grown accustomed to having a generational military lead; Russian and Chinese modernization efforts are now creating a far more competitive environment. Second, the international outlaws are no longer so weak. North Korea’s conventional forces have atrophied, but it has amassed a growing nuclear arsenal and is developing an intercontinental delivery capability that will soon allow it to threaten not just America’s regional allies but also the continental United States.12 Iran remains a nuclear threshold state, one that continues to develop ballistic missiles and A2/AD capabilities while employing sectarian and proxy forces across the Middle East. The Islamic State, for its part, is headed for defeat, but has displayed military capabilities unprecedented for any terrorist group, and shown that counterterrorism will continue to place significant operational demands on U.S. forces whether in this context or in others. Rogue actors have long preoccupied American planners, but the rogues are now more capable than at any time in decades. Third, the democratization of technology has allowed more actors to contest American superiority in dangerous ways. The spread of antisatellite and cyberwarfare capabilities; the proliferation of man-portable air defense systems and ballistic missiles; the increasing availability of key elements of the precision-strike complex— these phenomena have had a military leveling effect by giving weaker actors capabilities which were formerly unique to technologically advanced states. As such technologies “proliferate worldwide,” Air Force Chief of Staff General David Goldfein commented in 2016, “the technology and capability gaps between America and our adversaries are closing dangerously fast.”13 Indeed, as these capabilities spread, fourth-generation systems (such as F-15s and F-16s) may provide decreasing utility against even non-great-power competitors, and far more fifth-generation capabilities may be needed to perpetuate American overmatch. Finally, the number of challenges has multiplied. During the 1990s and early 2000s, Washington faced rogue states and jihadist extremism—but not intense great-power rivalry. America faced conflicts in the Middle East—but East Asia and Europe were comparatively secure. Now, the old threats still exist—but the more permissive conditions have vanished. The United States confronts rogue states, lethal jihadist organizations, and great-power competition; there are severe challenges in all three Eurasian theaters. “I don’t recall a time when we have been confronted with a more diverse array of threats, whether it’s the nation state threats posed by Russia and China and particularly their substantial nuclear capabilities, or non-nation states of the likes of ISIL, Al Qaida, etc.,” Director of National Intelligence James Clapper commented in 2016. Trends in the strategic landscape constituted a veritable “litany of doom.”14 The United States thus faces not just more significant, but also more numerous, challenges to its military dominance than it has for at least a quarter century.

#### Uses dyads- that’s garbage

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It is not valid to use dyadic methods in the face of hyperdyadic generative processes to draw model-based inferences. Model based inferences are only as accurate as the statistical model specification, and to relegate one’s specification to the class of dyadic independence models is to erect an artificial barrier to sound model specification and inferenece. A researcher may tolerate the use of an inferior class of statistical models in order to ease computational burdens, but such tolerance is a purely individual and subjective question, which is beyond the focus of our current commentary. Dyadic design is widespread, but we cannot quantify the extent to which false inferences have been made without individually replicating each analysis; we can be mathematically confident that all/most include some level of bias. The question then becomes how much stock should we put in results that are known to be biased? We do not believe that acknowledging the bias to readers and moving on is sufficient because the degree of bias is unquantified. Just like in a 12-step program, admitting you have a problem is important, but is not enough on its own.

We argued that dyadic design is problematic from both a theoretical and empirical perspective. To summarize, we can only expect unbiased statistical results in extremely unlikely situations, such as dyads not depending on one another in any way beyond the conditioning on relational measures within the dyad, and even in such situations, dyadic design imposes a strong and usually substantively untenable set of assumptions. We believe that these assumptions will rarely if ever be metin interesting international politics applications, and, when they do not cause bias or model misspecification, these assumptions result in treatments of the data that are wildly unrealistic to even the analyst with the most basic knowledge of geopolitics.

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Where does this leave us? We are of the opinion, and hope that the reader will also have been convinced by this discussion, that dyadic design is nearly never appropriate for international relations theory or data. The critical reader may convince herself that one or even several of the points mentioned above do not apply to her data or problem, but we would have to be outright wrong about every point we made above in order for dyadic design to be superior to other easily available approaches. We see reason to doubt many published results based on dyadic design, we do not believe that our critique should be cause for despair in the community of international relations scholars. Rather, the development of empirical tools that can account for nearly arbitrarily complex forms of interdependence present the opportunity for great strides to be made in international relations theory. Our previous work in this area would suggest, for example, that triadic closure (ties between all dyads in the ijk triple) is very common in positively valanced (e.g., a tie is a “good” thing) networks like alliances (Cranmer et al., 2012b,a) and very uncommon in negatively valanced networks like conflict (Cranmer and Desmarais, 2011). A wide variety of similar processes may be at work in international phenomena and are waiting to be discovered. We believe that the field of international relations is on the cusp of a revolution in how we treat complexity, both theoretically and empirically, and we look forward to an exciting period of innovation as such complexity-oriented approaches permeate the field.

#### The most comprehensive studies prove that financialization has heterogenous economic impacts---it strengthens developing economies and can’t individually tank developed economies.

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The study results show that more developed countries, regardless of their institutional quality, most likely experience a negative effect of financialisation on long-run economic growth. However, in countries with a lower level of development, we, in the majority of cases, find a statistically significant positive effect. The fact that the effect of financialisation, mediated by institutional quality, level of development, and interaction using the same proxies, differs across countries, shows that the effect on long-run growth is heterogeneous and depends on variables used to proxy the country’s development level and institutional quality. This finding, to some extent, explains the ambiguous conclusions of previous research.

4. Conclusions

Though there have been many attempts to study the relationship between financialisation and economic growth, this study contributes to the literature by examining the heterogeneous impact of financialisation on long-run economic growth. To the best of our knowledge, there is no other study in which the effect of financialisation on economic growth is examined by considering two simultaneous mediators and their interaction.

This study contributes to the methodological approaches used to estimate the effect of financialisation by augmenting a traditional model with a three-way multiplicative term. Contrary to previous research, which only allowed to estimate the effect of the financialisation on growth directly in different groups of countries, this study contributes to the direct estimation of the variability of the financialisation, which depends on the factors that could mediate the effect of financialisation. The suggested specification of the model and the computation of conditional standard errors could contribute to the analysis of any mediating factor.

Aiming to evaluate the heterogeneous effect of financialisation on long-run economic growth and by computing the conditional marginal effects and their standard errors, we showed that it is possible to find the positive and negative as well as significant and insignificant effect of financialisation in different countries.

The findings of the research support the view that the impact of financialisation on long-run economic growth is heterogeneous. In addition, we find evidence that the source of heterogeneity is the country’s development level and institutional quality, which work simultaneously. Using different combinations of proxies for institutional quality and level of development, we found that more developed countries, regardless of their institutional quality, experience a negative effect of financialisation on long-run economic growth. If investments are directed to stock markets to profit and create shareholder value, resources are shifted from the manufacturing sector to the financial sector, which has a negative impact on economic growth. Contrary, in countries with a lower development level, a positive and statistically significant effect was found. Since credit is channelled to investment in the service sector or the real sector to improve productivity and quality, the financial sector, by providing new opportunities for savers and investors, stimulates economic growth. In many cases, in relatively less-developed countries, the effect of financialisation, mediated by the interaction between secondary school enrollment or tertiary school enrollment and institutional quality indicators, is insignificant. The country’s level of development likely has a stronger impact on the effect of financialisation on economic growth than institutional quality. However, this study did not intend to investigate which factor has a stronger mediating effect on the financialisation-growth nexus. Moreover, including other variables of financialisation and other mediating factors could be considered as the scope for further research.

The results of this paper point out some policy recommendations. For developing countries, financialisation can be a driving force for economic growth. It is more common in countries with a lower development level to find a positive and statistically significant effect of financialisation, which is mediated by the interaction between the size of the service sector and institutional quality. Thus, it is important to allocate financial resources properly and direct investment to the service sector to stimulate its growth. In developed countries, financialisation has a positive effect on long-run economic growth only when it is driven by the interaction of secondary school enrollment and voice and accountability. Thus, for developed countries, other sources of heterogeneity that could reduce the negative effects of financialisation on economic growth should be sought.

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#### Regulated capitalism 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

#### 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 —aas 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.

#### Cap is sustainable.

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.

#### Capitalism is not collapsing---people will become more militant to save it---their ev goes aff.

#### 1nc Alan Woods 10-1, 10-1-2021, political editor of the IMT's In Defence of Marxism website, “Alan Woods on the deepest-ever crisis of world capitalism”, <https://www.marxist.com/alan-woods-on-the-deepest-ever-crisis-of-world-capitalism.html>, Rez.

Economic growth cannot mask the crying social and class contradictions that have been exposed by the pandemic, even in the advanced capitalist countries. It’s well established that the poorest sections, the blue-collar workers were hit hardest by the pandemic. That’s why Italy was the hardest hit. Everybody knows that the number of deaths was far higher in poorer areas than the richer ones. That’s why in all countries there is a burning sense of injustice, anger, bitterness, and rage, which is building up beneath the surface, creating the conditions for a social explosion. It’s impossible for me to overstate the importance of this. If the bourgeois, the Economist can see it clearly then we ought to be able to see this even clearer**.** There’s a story, a pacifist one time said to Lenin, during the First World War: “war is terrible.” And Lenin answered, “yes, terribly profitable!” Even during the pandemic, you see the figures, I haven’t got the time to quote them. The rich have gotten even more rich. We published the figures about Jeff Bezos, I think they’re in the document. What is outstanding is that they flaunt these riches, as if they’re proud of them. You have the disgusting spectacle of Mr. Bezos in his spacesuit engaged in his space-tourism with his ultrarich cronies. Space X Image Space X "The rich have gotten even more rich... What is outstanding is that they flaunt these riches, as if they’re proud of them" / Image: Space X On the other hand, hundreds of thousands of his workers are toiling in slave-like conditions for slave-like wages. These things do not pass unnoticed. This attitude by the way is even more glaring than the palace of Versailles of Louis the 14th and the slums of Paris. It is even more visible to everybody because of social media. This shows just how far this parasitic clique is removed from reality. That’s an important point because it’s happening to all of them. Politicians, economists, I won’t even mention philosophers, they’re on another planet. They’re as far removed as Marie Antionette, according to the famous story when she was told that the people had no bread. She cracked a joke, you know: “Let them eat cake!” No doubt she had occasion to meditate on these words a few years later when she was driven to the guillotine. These things have an effect you know, they’re noticed by the strategists of capital. Randall Lane, editor of Forbes magazine – this is of course a magazine for the ultra rich – wrote the following interesting lines on 7 April, about the colossal inequality between rich and poor. He writes the following: “These figures will engender endless amounts of consternation, most of it justified. There’s no getting around a collective $5 trillion wealth surge during a pandemic, when most of the world felt scared, sick and besieged. Capitalism, the greatest system ever for generating prosperity, rests upon a social compact of expansion, unequal by design, ultimately lifting all boats. The COVID-19 economy has strained that concept; yawning economic disparity poses arguably the greatest threat to modern social order.” Capitalism cannot solve the problems of the pandemic because it is the problem. Governments like to use military analogies to describe the current situation, we’re at war with the COVID and so on. But if we were really at war with the virus, governments would mobilise all resources to solve this one task. They would ramp up production to produce as many vaccines as possible. So why don’t they do it? They don’t do it because capacity needs to be expanded, spending money on new factories. And in reality, the big private vaccine manufacturers have no interest in expanding, because if they ramped up production capacity so that the whole world could be supplied vaccines within six months, which is quite possible, what would they do with the factories? They would stand empty and their profits would be lower. Therefore they have no interest, that’s the problem. In times of war, people are prepared to make sacrifices, to accept lower living standards, and even certain restrictions on democratic rights for a certain amount of time. But this crisis has exposed all the corruption, chaos, the inefficiency of the capitalist system and the obscene greed of the capitalists. And this is the basis of the unprecedented upswing of the class struggle everywhere. Insoluable contradictions Now in his opening remarks, Rob said this is the greatest economic crisis in the past 300 years. The governor of the Bank of England explained this. Lenin said capitalism can recover from even the deepest crisis, unless it is overthrown by the working class**.** And now there is a beginning of an economic rebound. We did predict this in the document. We thought it would take a little bit longer, because the vaccines have been discovered far quicker than anticipated. But many forecasters are saying America’s economy will grow by 6 percent. That’s quite a lot. Other countries are beginning to get unusually fast growth. But this growth is riddled with new and insoluble contradictions. We must understand another thing, I hear there cannot be any more reforms under capitalism. That is also false! It’s true in a general sense that there cannot be any more reforms. But when the ruling class is faced with losing everything, they will resort to the most desperate measures to save the system. It seems to me that, at the moment the bourgeois, they’re like a drunken man. They’re drunk with illusions of Keynesianism that they previously rejected. The ruling class is clutching at Keynesianism like a drowning man clutches at a straw. It’s quite incredible, they’re talking about spending billions of dollars or pounds or euros like they’re spending small change on a box of matches. They’ve forgotten an elementary truth: governments cannot pluck money out of thin air, and use this to get the economy out of a crisis, that’s an illusion. And yet, faced with horrendous collapse, they’ve been paying the wage bill of millions of workers out of the public budget. Central banks have been flooding the market with fake money, but this itself is a condemnation of the capitalist system. Ask yourself this, how can this be reconciled with the oft-repeated mantra of the Economist, who for the last three decades at least have been telling us that the state and the government have no role to play in the free market economy? And yet, at the present time, on a world scale, the so-called free market economy can only exist on the basis of a handout from the state. That same state was supposed to play no role at all. This is a confession of bankruptcy **i**n the most literal sense, because the central problem is clear and can be summed up in one word: debt. Global debt, that is to say, all debt: household debt, cooperative debt, state debt, the last figures I’ve got is more than 350 percent of the total world GDP. This is one of the greatest dangers facing the world capitalist system, there are others. It is a ticking time bomb of debt. Built into the foundations of the economy. And in the long run it is effectively far more devastating than any terrorist bomb. Under Trump for example, in just four years, the US public debt rose by $7tn, no less. Reaching a total of $21.6tn. That's more than 100 percent of US GDP. So in terms of public debt, the United States of America is now on the same level as Greece and Italy. But we don’t have to talk about that, do we? We don’t talk about when it’s going to be paid. Joe Biden 1 Image Gage Skidmore "Wall Street are pushing the Biden administration to increase state intervention in the economy... All of this amounts to a mountain of debt" / Image: Gage Skidmore Now, this policy is also a threat for a tremendous amount of inflation**.** The Italian comrades have added some interesting material on inflation which we have added. We’ll have to say more on this subject later. But I’ve noticed that Martin Wolf, quite a far-seeing economist from the FT, was quoting the Communist Manifesto in his own way, he says: “a spectre is haunting investors”. The return of inflation. What we are seeing is a recipe for an absolute explosion of hyperinflation at a certain stage. The rising prices in March and April seem to confirm this perspective already. But normally, you see, the role of a central bank like the Federal Reserve is to increase interest rates to dampen down inflation – that is the purpose of it – and also to bolster the currency (the dollar in this case). But the Federal Reserve is not doing that, it is not increasing interest rates. That is because they are terrified that any increase in interest rates would cause an immediate slump. That is a correct fear, by the way. And they are under pressure from Biden not to do this. Of course, Biden insists that the Federal Reserve is independent. That of course is a ridiculous fiction. There is no way that the Federal Reserve is independent. This is fake money – they talk about fake news, this is fake money! — that is coming from the Federal Reserve – it is only that that is propping up government finances. Wall Street are pushing the Biden administration to increase state intervention in the economy. Biden lost no time in unveiling his plan for a $1.9 trillion stimulus plan for the economy. All of this amounts to a mountain of debt. The problem with mountains, as the Swiss and Austrian comrades know, is that mountains eventually cause avalanches. But they are ignoring the danger. Serious economists like Martin Wolf are warning them. They are like a drunken man. You know what happens: you have a party and you have a few drinks and then a few more drinks – in the end you are completely drunk. There is always some guy, always some horrible guy, who comes up and taps you on the shoulder. A party pooper is what they’re known as in English: “You’d better stop drinking, you’ll have a terrible headache in the morning.” And what do you say? “Oh, leave me alone!” And the next day you do wake up. And what do you say then? “Oh, never again, never again, I’ve learned my lesson”. Yes, until the next party! The bourgeoisie: they are ignoring all the warning signs. There is an old Indian or Chinese proverb, you know: “A man who rides on the back of a tiger will find it difficult when the time comes to dismount.” The ruling class is riding on the back of the tiger of inflation. It’s full steam ahead! Until they hit a brick wall. That’s the perspective. That’s one danger – there are other dangers. You know, Trump’s protectionist policy: “America First”, which threatened the entire structure of globalisation, which was painfully put together over a period of decades. He picked a fight with China. But yes – Biden is now pursuing the same policy. One of his first acts was to order a 100 day review of the security of all of America’s supply chains. They are particularly concerned about microchips. Which is a key strategic question for American capitalism. I don’t know if you know this, but all the microchips in the world are produced in one of two places: Taiwan and South Korea, both places which China is trying to increase its influence in. This will have consequences across the entire region. Effect on consciousness I said earlier on: we must concentrate on the effects of the crisis on consciousness. As we said in the document: even an economic upswing, far from dampening the class struggle, will increase the class struggle. Particularly for the Trade Union front. Above all what you must understand is this enormous bitterness and anger of the population, that won’t go away because the economy is coming back. Already there are clear changes in consciousness. I have figures from an opinion poll, it clearly indicates a clear radicalisation of the population, particularly of young people**.** 54 percent of Americans between 18-24 of age view capitalism negatively. 52 percent view socialism positively. Even more interesting is a right-wing organisation's poll: the Victims of Communism Foundation. They found 18 percent of young people think that communism is a fairer system than capitalism and deserves consideration in America. The poll also found that 30 percent of young people have a favourable view of Marxism. And 26 percent support the gradual elimination of the capitalist system in favor of a more socialist system. 78 percent of people believe that political parties and politicians are distant and not interested in the views of young people. The same figures say we are living in a time of great injustice and exploitation. 66 percent of Republicans, aged 18-34, have a positive view of capitalism. That’s down from 81 percent in 2019. Now I’ve got too many figures, but I think you’ve got the picture. Here in embryo we have the outline of revolutionary developments in the future. Now I don’t have a lot of time to speak about China. That is a separate discussion. But as you remember from the document, China is recovering incredibly from the pandemic. Chinese exports have been rising every month since June 2020. This very success is also its undoing. Every action has an equal and opposite reaction. China has got to export in order to survive. But it faces a reaction from the US, the protectionist measures that have been taken. They have caused serious problems for Chinese exports. This in turn can cause serious problems for China internally. China needs to maintain 8 percent growth to keep up with the labor force. There have already been factory closures. So far they’ve managed to keep a lid on things. But what happened in Hong Kong is an indication of what can happen in any Chinese city. Therefore we must follow events in China very closely. Great events are being prepared in China. Which will change the destiny of China and the whole world. Now you see I’ve already dealt with the question of consciousness. I have figures from Britain and Latin America. COVID of course has had an extreme effect on Latin America. Extreme poverty levels have returned to the 1990s. There were already revolutionary developments before the COVID in 2019. There are developments in Chile, Colombia with the general strike, in Peru with the victory of Pedro Castillo, in Brazil with Fora Bolsonaro protests that are gaining momentum. In all of these movements, it is particularly the youth and women leading them, indicating that Latin America is on the point of retying the knot of revolutionary history. I don’t have time to deal at any length with the question of Cuba, which really requires a separate discussion, which we have at the next IEC. The situation in Cuba is very serious. It has spread to other towns and cities in Cuba, indicating a change in the situation. Partly because of the effect of the blockade. American imperialism tried to throttle Cuba. This creates a mood of discontent. Obviously directed against the bureaucracy, which is powerless to help because they are part of the problem. Naturally, the international meda is presenting the protestors as defenders of freedom and democracy. The demonstrations were far bigger than in the past, in the last few decades, but they exaggerate the size and lie through their teeth. They were widely supported by workers and ordinary people, not just police. There were many honest Cubans who supported the revolution against the counter revolution. They actually put pictures of protesters supporting the revolution as though they were counter-revolutionaries. And it is quite scandalous that so-called revolutionaries, so-called Marxists, so-called Trotskyists, like the SWP have capitulated to the bourgeois media. It is quite true there were peasants and workers at these demonstrations. But the presence of poor peasants and workers in such demonstrations is not sufficient to characterise the progressive or revolutionary character of the movement. The main slogans and political content of these demonstrations are clearly counter revolutionary, and anti socialist. Now in a situation like that, that is quite polarized, you have to take sides. We cannot remain indifferent. There cannot be any ambiguity whatsoever. We are against these demonstrations, we must actively defend the revolution. There might be confused elements involved but that is besides the point. As a tendency we have actively participated in Cuba for some time now. We’ve participated in the debates that have taken place for some time now. We have a degree of credibility… Among the left wing of the Cuban Communist Party who support that we’ve taken a firm position in favor of the revolution. That is not to say that we support the policies of the bureaucracy. They are in some ways responsible for what is happening in Cuba. It is a complicated question we have to return to, and we will at the next session. I don’t have to deal with very important developments in Myanmar. The articles we’ve produced have gone down very well. But the task of revolutionaries in Myanmar is very difficult. There is a ferocious repression taking place. At least at this point in time, the revolution has reached an impasse. Unfortunately some of the best youth have been drawn into guerrilla struggles, you can understand that. I understand that. But we must learn from history. He who does not learn from the past will be doomed to repeat it. We’ve been here before, comrades. They’ve got a particularly brutal and vicious regime. They will resort to any measures to crush these guerilla groups, leading to the tragic loss of many of the most courageous elements. The revolution in Myanmar is not lost. The masses have shown tremendous courage and revolutionary spirit. But in the last analysis we must tell the truth. They were let down by the lack of leadership, by a bad leadership, the bourgeois democrats and leaders, who have no real perspective of a revolutionary struggle. Napoleon said losing armies learn well. The task is now to assemble the loyal forces of the revolution that still survive and under difficult conditions of illegality to help them regroup and help them prepare for new conditions that will come as night follows day. Collapse of the centre But we don’t talk of any particular country. Anywhere you look you see the same picture. This is not a conjectural crisis, this is a crisis of the regime, a crisis of the system itself. I haven’t seen it in a long time, not for a long time, not for decades. A new element is the way in which the ruling class is losing control of the situation itself. Losing control of the traditional instruments for running society. The politicians have lost control of the situation, both in the USA and in Europe. Above all, what is really worrying the ruling class is the collapse of the political centre, this gigantic zero. What does that reflect? It reflects a sharp political and social polarisation, to the left and to the right – don’t forget that. That’s what causes alarm within the ruling class, which feels power slipping out of their hands. Everywhere you look, you see powerful establishment parties, which once had sizable influence: they are now identified among the masses not with progress but with austerity. Take Britain as an example. Dialectics tells us that sooner or later things turn into their opposites. Just think for a moment. It wasn’t so long ago, five, four years ago, Britain was regarded as a model of political stability in Europe. What’s the situation now? It’s one of perfect instability at all levels. For decades, the British ruling class ruled through two parties, the Labour Party and the Conservative Party. The Conservative Party was the main party, but sometimes they would get into difficulties. A cricket analogy: once you have done with your first eleven, they would put out their second eleven. If the Conservative government got into difficulties, they’d pull in the Labour government. Nothing much changes. But that’s not the case now. The British ruling class has lost control of the Conservative Party. Can you honestly say the Johnson government is controlled by the British ruling class, the bankers and capitalists? No, I don’t think so. It’s controlled by middle-class lunatics, with a circus clown as Prime Minister. And they lost control of the Labour Party under Corbyn, that was a very alarming development. We said this ourselves, there was no way the ruling class was going to allow that to continue. They mobilised all their forces to destroy Corbyn, and they did destroy Corbyn. And now the Labour Party has swung to the right. And now there is an ongoing struggle. Comrades will speak of that. Socialist Appeal, they did the honor of proscribing us. We’re getting a lot of support over that, we’re not worried. But they don’t control the Conservative Party. In the US, could you say that Trump was a representative of the ruling class? No, Donald Trump was a representative of Donald Trump. He escaped their control. There’s a movement under Sanders that also represented a serious threat. The biggest worry for the bourgeoisie is the collapse of the centre, they’re trying desperately to rebuild it. When we were practising the translation of this, I said a children’s nursery rhyme: “Humpty Dumpty sat on a wall, Humpty Dumpty had a great fall. All the king's horses and all the king's men Couldn't put Humpty together again.” Humpty Dumpty is the centre. The fundamental forces are driving the classes apart, away from the centre. The growing inequality is the reason for this. Big movements of the youth particularly, they’re the most affected by this crisis, these opinion polls are not an accident, they’re a consequence of this polarisation. This generation has no trust in capitalism. In America, they used to talk about the American dream. People used to believe this. If I work hard and sacrifice, I can run a business, I can be a multimillionaire, I can do that. What are the facts? This is the first generation in history in America that cannot expect a better living standard than their parents. The youth of America have been robbed of their future and they know it. That’s the reason for this radicalisation seen in the opinion polls. There's another for Britain and for Italy that shows the same thing. People know this, and that’s why revolutionary slogans find such an echo with the youth. I could say something about the role of women. Look at the huge demonstrations of women in Argentina, in Ireland, in Poland, in Spain. The fight for equal rights, against injustice, as well as against the dictatorship of the Roman Catholic Church, in places like Ireland. It made my heart warm to see that in Ireland, a place that the church dominated especially over the role of women, it’s finished. All these are symptoms of revolutionary tendencies. You also see another phenomenon that we must explain and understand. The mood of society is angry but it is also extremely mistrustful and volatile. The masses are desperately seeking a way out of this terrible crisis, and they will move in one direction or in another direction. If they are disappointed in one direction, then they will look in another direction. If they are disappointed in the left, then they will look to the right. But that is also true in the other direction: rapid swings to the left after disappointment in the right. The economic recovery, I won’t talk much about that. It has a very unstable character, because it is on an unsound basis. In any case it contains within itself the seeds of its own destruction. And by the higher it climbs, and it could climb quite a bit, because there’s been quite a big accumulation of spending power which couldn’t be used during the pandemic, plus the continued injection of massive amounts of fictitious capital into the economy. It can ride for so long. How long? I don’t know how long. How long is a piece of string? But one thing you can be certain of: the higher it climbs the more violent the collapse when it comes, and it will inevitably come. But that’s not a bad thing from our point of view, it will lead to a recovery on the industrial front. It is true that the union leaders, what a bankrupt bunch, they’ve been holding the movement back, it's true. They want a quiet life you see, that's all they ever want is a quiet life. In the past that was possible, but it’s not possible now. Of course, there will be new struggles opening up in which a new generation of class fighters emerge. The old leaders are dying or retiring or are about to be pushed out. And they'll be replaced by more militant elements. The unions are going to be shaken from top to bottom. I won’t talk much about Britain, at least I will only say a few things about it. The British comrades have plenty to report, very interesting things to report. And as I said earlier on, dialectically things turn into their opposite. The unions are subject to pressure like anything else. That can be seen in Britain already. UNISON is the biggest union in Britain. Many are health workers, such as porters. But you must understand this was controlled by the extreme right wing for decades, I can’t remember how long. And looking at it even six months ago I am certain that many people would say: “Oh you can’t change UNISON, it's solidly controlled by the right-wing, you can’t change a bureaucratic apparatus like that.” Well my friends it has changed, it's changing right now. That’s a revolution actually, it sent shock waves throughout the labour movement. There was a sweeping victory for the left on the NEC and it’s now purged the right wing and has got control over all the major committees in that union. And this has very serious implications for the whole of the trade union movement and also all of the Labour Party. The Johnson government has picked a fight with the nurses who saved his life. Not a very good place to pick a fight. These hypocritical bastards. They have a policy of getting people to applaud the nurses. These nurses are our heroes, but when it comes to a pay rise, they offer them 1 percent, which is an insult. Starmer, the leader of the Labour Party, was much more advanced. He said “no, no, don’t offer the nurses 1 percent, that’s a scandal, you should offer them 2.5 percent”... It turned out that the Tories offered them 3 percent. The healthcare workers turned on them and said no, 3 percent is an insult, it’s an insult to the people who put their lives on the line during this pandemic. You have a threat now of a strike. The Royal College of Nurses is the main union of nurses. It’s not even a union, it's a staff association. It’s unthinkable that they would go on strike. But now they’re talking about taking action and they probably will. Unless the government makes a better offer. But this shows what I said, the level of anger and indignation that is there. Not just among health workers, not just in Britain either, it’s a universal phenomenon and it will take place. It will express itself. Defeated on the political front, the workers will inevitably turn to the industrial front in the next period. We mustn’t look at the unions statically in a superficial sense. We must look at things dialectically, not as they were, but as they are, and as they necessarily will become. Even the most backward union will be shaken up to the foundation. The subjective factor So what’s the problem here? What's the problem? There’s only one problem here. The main problem is a problem of leadership. This angry mood that does exist finds no expression in the leadership. Of course we don’t write off the mass organisations, we’re not sectarians. But we must also be realists. We must not look at the mass organisations with rose-tinted glasses. It’s true we had the phenomenon of Corbyn, but that’s an exception. He played in the end a lamentable role like all the left reformists. The right-wing reformists are agents of the bourgeoisie clinging to the ruling class, it’s their greatest strength, and it’s also their greatest weakness. But the left-wing reformists cling to the right-wing reformists! “Oh, we must have unity, we must have unity!”

"We’re optimistic because our ideas are correct and they’ve been shown in practice. And that fills us with confidence for the future" / Image: Socialist Appeal

Corbyn could have carried out a purge of the right-wing, he could have done it with the support of the rank-and-file. That’s what Trump did with the Republicans. Why can’t the Republican establishment get rid of Trump? I’ll tell you why, it’s very simple: they’re terrified of him. With his demagogy, he’s got the active militant support of the rank-and-file. Any senator or congressman that goes against Trump, he’ll set the dogs on them, that’s what he’ll do. They’re terrified of him. And that’s what Corbyn should have done with the PLP. But he didn’t do that. He was very meek and mild with unity, unity, and they undermined him and destroyed him. And now that they’re in the saddle, they don’t talk about unity, they stick the boot in. Of course, that’s the difference between right-wing reformists and left-wing reformists.

These bureaucrats think they’re smart. They aren’t smart, they’re very stupid. They are clinging to the capitalist system at the same time as the capitalist system is collapsing and they will be dragged down, and the left-wing reformists will be dragged down with them. Which leaves a vacuum into which we can step, appearing clearly as a revolutionary tendency. These things in the last analysis will not be resolved by rules and regulations, they will be resolved in the streets and the factories.

In Italy for example – and again I don’t have time to deal with Italy – there is no mass workers’ party. But the mood of the workers is there, and that will be reflected in the class struggle in which new layers will be brought into the struggle. We saw it in France with the Gilets Jaunes. In India, with the farmers’ struggle. The whole tide of history is now moving in our direction.

But a word of warning comrades. This crisis will not be over quickly. It will be a long drawn-out crisis because of the absence of the subjective factor. It will not be a smooth protracted struggle. The present period will be one of sharp and sudden changes. Processes, which in the past took place many years to develop, can now develop overnight. The year 2021 will be a year like no other. The working class went through a very hard school. Many hard lessons will be learned, but they will be learned and that’s the point, and people will draw the necessary conclusions.

Now, I haven’t got much time left. I’ve forgotten to mention Iran, and the big strikes of the oil workers. Plenty of combustible material. And what is our role in this? Our International has experienced a very important development in the past two years. Our comrades have shown incredible resilience and audacity,and as a result we’ve grown massively, while other groups have experienced crises and splits and are disappearing into a well-deserved oblivion, disappearing over the horizon. We say bon voyage. Don’t call us, we’ll call you.

And the fact that we’ve seen growth fills us with optimism and confidence for the future. I think we’re the only optimistic people around. And some people say, “Why are you so cheerful?” We’re optimistic for one very simple reason: we are Marxists and revolutionaries, we base ourselves on science and perspectives. Pessimism and scepticism can influence nobody, they are useless.

We’re optimistic because our ideas are correct and they’ve been shown in practice. And that fills us with confidence for the future. But there’s no room for complacency. We must not exaggerate. We’re only at the beginning of the beginning. Our forces are small, they are growing but they’re still small, and we will face great challenges. And what I will ask is: great possibilities are opening up, you can see that in Britain right now, are we ready to take advantage of these great possibilities?

In Britain, the comrades have done very well. But we are not ready yet in many sections. And we must get ready as soon as possible to face these huge tasks. What we really require is an internal revolution. A psychological revolution, if you like. We must leave the old small circle mentality behind, we must leave this behind. We must professionalize from top to bottom, we must transform this into growth. We have the correct ideas and perspectives, but we must build a powerful army of cadres. That is the most urgent task. This Congress must play a fundamental role in realising this task. And with that prospect before you, I’ll draw my remarks to a close.

#### Transition causes global war.

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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.

#### we are anti-CCP not anti-Asian.

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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.”

#### doesn’t solve their offense---doesn’t mean people accept a transition who don’t want it, which means it can’t solve corporations.

Blake ALCOTT 8, Ecological Economist Masters from Cambridge in Land Economy [“The sufficiency strategy: Would rich-world frugality lower environmental impact?” *Ecological Economics*, Vol. 64, No. 4, February 2008, p. 770-786, Accessed Online through Emory Libraries]

The environmental sufficiency strategy of greater consumer frugality has become popular in ecological economics, its attractiveness increasing along with awareness that not much can be done to stem population growth and that energy-efficiency measures are either not enough or, due to backfire, part of the problem. Concerning the strategy's feasibility, effectiveness, and common rationale, several conclusions can be drawn.

• The consequences of the strategy's frugality demand shift – price reduction and the ensuing consumption rebound – are not yet part of mainstream discussion.

• Contrary to what is implied by the strategy's advocates, the frugality shift cannot achieve a one-to-one reduction in world aggregate consumption or impact: Poorer marginal consumers increase their consumption.

• The size of the sufficiency rebound is an open question.

• The concepts of ‘North’ and ‘South’ are not relevant to the consumption discussion.

• Even if the voluntary material consumption cuts by the rich would effect some lowering of total world consumption, changing human behaviour through argument and exhortation is exceedingly difficult.

• While our moral concern for present others is stronger than that for future others, this intragenerational equity is in no way incompatible with non-sustainable impact.

• Since savings effected by any one country or individual can be (more than) compensated by other countries and individuals, the relevant scale of any strategy is the world.

• No single strategy to change any given right-side factor in I=f(P,A,T) guarantees any effect on impact whatsoever.

• Right-side strategies in combination are conceptually complicated and perhaps more costly than explicitly political left-side strategies directly lowering impact.

• Research emphasis should be shifted towards measures to directly lower impact both in terms of depletion and emissions.

Lower consumption may have advantages on the individual, community, or regional level. There is for instance some truth in the view of Diogenes that happiness and quantity of consumption do not necessarily rise proportionally. Living lightly can offer not only less stress and more free time but also the personal boon of a better sense of integrity, fulfilling the Kantian criterion that one’s acts should be possible universally (worldwide). Locally it could mean cleaner air, less acid rain, less noise, less garbage, and more free space. And in the form of explicit, guaranteed shifts of purchasing power to poorer people it would enable others to eat better or to buy goods such as petrol and cars.

However, given global markets and marginal consumers, one person’s doing without enables another to ‘do with’: In the near run the former consumption of a newly sufficient person can get fully replaced. And given the extent of poverty and the temptations of luxury and prestige consumption, this near run is likely to be longer than the time horizon required for a relevant strategy to stem climate change and the loss of vital species and natural resources.

## 1AR

### Adv

#### Biden

Joffe 11/12/20 - Fellow at Stanford University’s Hoover Institution [Josef Joffe, “Back to Liberal American Hegemony,” Project Syndicate, Nov 12, 2020, pg. https://tinyurl.com/y43lubg3

After four years of Donald Trump, his impending departure has sent hopes soaring. The Great Disruptor will be replaced by Joe Biden, an internationalist and institutionalist. He likes Europe and NATO, and, unlike Trump, he will treat America’s friends better than its traditional foes, including by honoring free trade. In the realm of security, he won’t clobber allies with threats amounting to “pay up, or we pull out!” Multilateralism will again guide American policy. It will be back to liberal hegemony instead of Trump’s narrow-minded illiberal version. “Liberal” implies a rules-based international order, the promotion of democracy, and open societies. Trump not only ditched these principles, but also demonstrated a penchant for the world’s strongmen, alternately flirting with the likes of Russian President Vladimir Putin and North Korean dictator Kim Jong-un. (Of course, the United States’ coddling of Saudi Arabia cannot be pinned on Trump; every administration has adhered to the time-honored dictum: “He may be a bastard, but he’s our bastard.”) Trump’s game was strictly zero-sum, especially on trade. This was a marked departure from the post-war American tradition, which stressed positive-sum outcomes in which both sides won. Trump dragged the world back to nineteenth-century power politics: states have no permanent friends, on this view, only permanent interests. Naturally, we now hope for a restoration of the old liberal order. Some reconstruction will happen under Biden, a president schooled for nearly a half-century in the habits of America’s liberal empire. But note that Trump was not a total aberration. America’s shift toward “more for us” and “less for them” precedes the Tweeter-in-Chief. Recall that while Trump [ordered the withdrawal](https://www.cnbc.com/2020/07/29/us-is-bringing-6400-troops-home-from-germany.html) of thousands of US troops from Europe in 2020, Barack Obama’s administration (in which Biden served as vice president) [did the same thing](https://www.nytimes.com/2012/01/14/world/europe/europe-weighs-implications-of-shrinking-us-troop-presence.html) in 2012. For all of Trump’s Europe-bashing, Obama also [groused](https://www.theatlantic.com/magazine/archive/2016/04/the-obama-doctrine/471525/) that, “Free riders aggravate me.” It was he who initiated the retrenchment of US power in the Middle East, cutting troops in Afghanistan and Iraq while refusing to intervene against Bashar al-Assad’s chemical warfare in Syria. When Trump promised to end America’s “forever wars,” he was merely copying Obama. It was his progressive predecessor who began to experiment with neo-isolationism, [proclaiming](https://obamawhitehouse.archives.gov/the-press-office/2011/06/22/remarks-president-way-forward-Afghanistan) that “it is time to focus on nation-building here at home.” Trump echoed that line by pledging a $1 trillion infrastructure program – “America First” for the sake of domestic development and welfare. The point is to show that America’s inward turn predates Trump, and will not be completely reversed under Biden. After all, protectionism – holding off foreign competition – appeals to both the right and the left. A generous immigration policy was fine as long as Democrats were in the opposition, depicting Republicans as mean-spirited nativists. But the Biden administration will hardly throw open America’s doors to the world’s huddled masses and tear down those parts of the Mexican border wall built under Trump. Nor will the Biden administration abandon the power competition with China, whose own protectionist policies and appropriation of intellectual property are an abiding source of tension. The US will continue to assert itself in the Western Pacific, where a classic rivalry between a rising land power and an established sea power is escalating. Democrats and Republicans are largely committed to Containment 2.0, corralling regional players such as India, Japan, South Korea, Taiwan, and Australia. In the Middle East, Biden has already [confirmed](https://www.axios.com/joe-biden-iran-nuclear-deal-negotiate-jcpoa-44bee2ff-7fb4-446e-a24f-d7538bb30e1f.html) that he will try to restore the Iran nuclear deal, albeit not in the well-meaning ways of his old boss, Obama. The incoming administration will leave intact the new anti-Iran alliance between Israel and Arab Gulf states, and it will not repeat the Obama administration’s mistake of pursuing a “reset” with Russia. Since 2009, Putin’s Russia has turned into an expansionist power pressing on Europe, North Africa, and the Middle East. While Europeans cheer Biden’s victory, they should be prepared for renewed American demands that they increase their defense spending. By the same token, Germany should expect more US pushback against the Nord Stream-2 pipeline, a joint Russian-German project that bypasses Eastern Europe and increases Germany’s energy dependence on Russia. Even as Biden presents himself as the anti-Trump, he will continue to pursue some of the same core US strategic interests when it comes to China, Russia, and commercial competition with Europe. Still, as the French say, it is the tone that makes the music. The Biden administration will bring a most welcome change to the style of US diplomacy, replacing Trump’s brutishness with well-mannered professionalism. As in private life, respect and civility go a long way in international relations. Beyond improving the tone, Biden will pursue fewer zero-sum, and more positive-sum, games. He will focus on common interests and seek to restore American leadership by winning consent, rather than through boorish unilateralism. For example, he intends to stop the withdrawal of US troops from Europe ordered by Trump.In [abandoning](https://www.nytimes.com/2020/11/09/us/politics/biden-foreign-policy.html) Trump’s “America First” doctrine, Biden will offer relief – but not a free lunch – to the rest of the Western world. As he [wrote](https://www.foreignaffairs.com/articles/united-states/2020-01-23/why-america-must-lead-again) earlier this year in Foreign Affairs, his administration’s “policy agenda will place the United States back at the head of the table,” where it will lead “not just with the example of our power, but also with the power of our example.” At the end of the day, however, power is power, and American power remains unrivaled across the board. All those who feared and despised Trump should be reassured by the 2020 election result. Biden will undoubtedly wield America’s mighty sword more judiciously, and with a friendlier face. Come Inauguration Day in January, America will be open for business once again. But the world should be prepared for some hard bargaining.

#### Reject the ad-homs

Sammut 16 — Jeremy Sammut, Senior Research Fellow and the Director of the Culture, Prosperity ,and Civil Society Program at The Centre for Independent Studies—an Australian think tank, holds a Ph.D. in Australian Political and Social History from Monash University, 2016 (“The Role of Think Tanks: A Reply to the Critics,” Centre for Independent Studies Occasional Paper #145, June, Available Online at <https://www.cis.org.au/app/uploads/2016/06/op145.pdf>, Accessed 06-28-2019, p. 9)

Play by the rules, not the man With negligible access to the traditional channels of political and, indeed, cultural influence, think tanks can attain influence only by providing credible answers to the complex questions policymakers grapple with. Credibility is the only political asset a think tank can acquire, and credibility is achieved by work that is based on sound research. Think tank research is basically applied scholarship. This means that scholarly methods are used to accurately describe policy problems and suggest workable solutions. Findings and recommendations are also expressed in clear and direct language shorn of the jargon that mars academic writing, so the points made are effectively communicated and can be understood by the media, politicians and the general public. Any political impact achieved by dint of empirical graft among the academic journals, official statistics, and the assorted ephemera of public policy is not an example of ‘influence’ in the tainted pejorative sense. Rather, it is the product of rational analysis that has offered policymakers rigorous, evidence-based, and comprehensible guidance as they seek to plot a course between alternative approaches and amid competing priorities. Yes, think tanks are values-based organisations, and their research emits ideological convictions. (So too, of course, does academic research that doubles as left-wing advocacy.) But in seeking the support of fellow citizens and policymakers for those convictions, an effective think tank does not ask people to join a cult or take a leap of faith. Instead, they invite readers to acknowledge the logic of the ideas presented, and be convinced by the quality of the research and the facts and arguments adduced in support of the position set out. Critics who tar all think tanks on the centre-right as propagandist fronts and money launderers are particularly unfair to think tanks [end page 9] with high research standards. As a think tanker who works at one of the organisations singled out by critics like Menadue and Ackland, I personally resent the implications. These accusations dismiss without mention the blood, sweat, toil and tears of reading, thinking, and writing that goes into the production of think tank research.8 Ignored as well is the fact that not only does the best think tank research comply with the rules of scholarship, it also thereby encourages scholarly scrutiny, criticism and fair-minded debate. Some critics, unfortunately, do not return the courtesy. Regardless of whether you line up on the left or right of the political spectrum, it is intellectually lazy to simply point the finger of ‘special interest’ at think tanks whose work is disliked or disagreed with. Casting aspersions on the motives of opponents and alleging bad faith is a poor substitute for doing the hard work of refuting a think tank’s ideas by cogently marshalling the relevant evidence. In assessing the role of centre-right think tanks, critics would make a more considered and substantial contribution to the quality of public debate if they also played by the rules of scholarship, and did not indulge in ad hominem abuse. If this were to happen, we would have underway in this country, a debate about the work and worth of think tanks that

### K

Central planning can’t drive innovation

Alberto Mingardi 15. General Director of the Bruno Leoni Institute in Milan, Italy, and an Adjunct Scholar at the Cato Institute. “A Critique of Mazzucato’s Entrepreneurial State.” Cato Journal, Vol. 35, No. 3 (Fall 2015). https://www.cato.org/sites/cato.org/files/serials/files/cato-journal/2015/9/cj-v35n3-7.pdf

But this is hard to accept. On the one hand, the technologies behind those products may have benefited from public spending, but they were at best an unintentional consequence of government- funded research and development. “Luck” and “design” are not syn- onyms, and they do not become synonyms just because we are talking about industrial policy. On the other hand, Mazzucato does not and could not demonstrate that the development of some partic- ular technologies (like GPS) happened because government planners forecast their eventual point of arrival.

What private business does, in a market economy, is order fac- tors of production in a way consistent with its attempt to meet and anticipate consumer demand. Breakthrough innovation doesn’t happen in a vacuum and is seldom realised just because of brilliant ideas and new technological achievements. “Gadgets” alone are not the be-all and end-all of innovation. To be successful, they must also create excitement among buying customers, meet a demand, and thus cause a readjustment of the factors of produc- tion. Technological progress doesn’t add new products to the shelves by itself.

F.A. Hayek (1955: 98) once commented that “compared with the work of the engineer that of the merchant is in a sense much more ‘social,’ i.e., interwoven with the free activities of other people.” The entrepreneur’s role is not to create new inventions but to anticipate and meet consumers’ demands. Innovations, in turn, are useful because of the needs and desires they may satisfy. Government is typically a bad entrepreneur not because some economists or politi- cal philosophers deem it to be, but because the conditions under which it operates are radically different from those facing private entrepreneurs. Market-driven economies are dynamic; they have to be to survive. State-driven economies, or what Nobel laureate econ- omist Edmund Phelps (2013: 127) calls “social economies,” are “fatally lacking in dynamism.”

#### Only cap creates political will for mitigation and allocates resources to R&D

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According to the scale effect, given the level of technology, more resources and inputs are employed to produce more commodities at the beginning of economic growth path. Hence, more energy resources and production will induce more waste and pollutant emissions, and the level of environmental quality will get worse (Torras and Boyce [11], Dinda [2], Prieur [12]). The structural effect states that the economy will have a structural transformation, and economic growth will affect environment positively along with continuation of growth. In other words, as national production grows the structure of economy changes, and the share of less polluting economic activities increases gradually. Besides, an economy experiences a transition from capital-intensive industrial sectors to service sector and reaches technology-intensive knowledge economy (the final stage of the structural change). Due to the fact that technology-intensive sectors utilize fewer natural sources, the impact of these sectors on environmental pollution will be less. The last channel of the growth process is the technological effect channel. Since a high-income economy can allocate more resources for research and development expenditures, the new technological processes will emerge. Thus, the country will replace old and dirty technologies with new and clean technologies, and environmental quality will deepen (Borghesi [13], Copelan and Taylor [14]). Consequently, environmental pollution initially increases and later decreases as a result of scale, structural and technological effect emerging along with growth path.

Some studies of EKC hypothesis consider income elasticity of clean environment demand (Beckerman [15], Selden and Song [16], McConnel [17], Panayotou [18], Carson et al. [19], Brock and Taylor [20]). Accordingly, the share of low-income people’s expenditures for food and basic necessities is higher than that of high-income societies’ expenditures for the same type of commodities (Engel’s Law). As income level and life standards rise in conjunction with economic growth, the societies’ demand for clean environment advances. Besides, societies make often pressure on policy makers to protect the environment through new regulations. One might argue that, because of these reasons, clean environment is a luxury commodity and the demand elasticity of clean environment is higher than unity (Dinda [2]).

#### 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.

#### Creative destruction builds resilience into the system preventing future crises

Balland et al. 15

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In a global context of financial turmoil, rising inequality and environmental uncertainty, the question of how cities overcome crises has become increasingly prominent on the scientific and political agenda. Understanding urban resilience requires a dynamic view of the economic structure of cities and questions simple logics of urban development as a finite process. By asking how cities continuously re-invent themselves and create new growth paths, we challenge urban policy to explore geographies of creative-destruction in which sustained growth rests upon the abandonment of obsolete sectors, modes of work organization and institutional practices.

Cities that fail to adapt and change, those that get locked-in to specific practices, ultimately decline. Resilient cities, on the contrary, are able to maintain their essential functionality through short-run shocks and over the long run. For many cities this functionality has evolved over time. Once sites of protection for the local population, cities today play a critical role as centers of knowledge production and innovation. As they agglomerate in space, individuals and firms exchange information, learn from each other and recombine knowledge more easily. Major technological-hubs in the United States such as San José, Boston and Austin host large numbers of creative individuals and are responsible for a large share of the nation’s new technologies. These cities are also among the richest, fastest growing metropolitan areas of the country.

We make use of patent data to explore the technological resilience of U.S. cities. The data produced by the United States Patent and Trademark Office (USPTO) includes all utility patents and identifies the names of inventors and the nature of new technologies along with information on the geography and history of knowledge production. The patent data are used to define technological crises as periods of sustained negative growth in patenting activity. Analysis of patented inventions in metropolitan areas from 1975 to 2005 shows that the frequency, intensity and duration of technological crises vary considerably across American cities. Why? Why are some cities almost always in crisis while others manage to avoid periods of decline? Why do some cities suffer more than others when hit by a shock? And why do some cities recover much faster from crisis than others?

Differences in the vulnerability and the response of cities to technological crises can be explained to a large extent by differences in their socio-economic flexibility. The most important factor here is technological flexibility. Technological flexibility indicates how well the skills of inventors in a city can be redeployed to new technological activities (those not yet developed in the city). Technological flexibility provides a measure of the potential reconfiguration of local technological skills and assets, a measure of the relative ease with which a city might adjust or adapt its technological portfolio in the face of shocks that might render parts of that portfolio less competitive. Cities with more technological flexibility have a higher tendency to avoid crises and a greater capacity to limit the intensity and duration of crisis events.

Other socio-economic dimensions such as network flexibility and institutional flexibility seem to be less important. Network flexibility indicates how dependent inventors of a given cities are on inventors located in other cities. If knowledge can easily be accessed from different external sources, the city has high network flexibility. Institutional flexibility is based on the enforceability of non-competition agreements. Non-competition agreements are legal contracts that prevent the workers of one firm from joining a rival firm, including spin-offs that they might form themselves. As a result, non-competition agreements can reduce labor mobility and knowledge flows within cities, further reducing the capacity to adapt and change.

So what makes American cities resilient over time? An important element of response is that cities need a flexible socio-economic structure – in terms of skills, networks and institutions – to “re-invent” themselves and move from declining to emerging technological activities. Flexible socio-economic structures prevent lock-in by providing room for the process of creative destruction underlying urban resilience. This approach deeply challenges our understanding of the role of urban policy. If resilient cities are characterized by an intense process of creative-destruction, then sustained periods of growth require active transition policy to replace traditional jobs, sectors and technologies with new activities. This transition, by nature, conflicts with the interests of individuals and organizations in incumbent technologies or industries, as we witness today with the rise of the sharing economy.

In their fight for survival existing organizations might seek refuge through policy protections that are likely to slow adaptation and that may weaken the long-run resilience of cities. The challenge for policy-makers then is the creation of the set of institutions that provide and nurture spaces of urban creativity that build upon the sets of competencies and skills that are accumulated in cities ensuring that continual innovation supports growth for broad coalitions of economic agents.

#### Growth solves social shifts

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Inclusive growth catalyses structural transformation

Economic growth can catalyse seismic social shifts by generating new economic opportunities and possibilities, new ways of thinking and new technologies. Growth can encourage the evolution of new forms of institutions and new social relations, too, as society adapts to the new material status quo.

We see this structural transformation occur more frequently when deals are open and the benefits of growth are widely distributed. Transformation requires the interaction of different capitalists with new technical abilities to exploit new areas and put labour to work on new things. Closed deals are likely to block that transformative process.

Structural transformation is important because it can make the gains of growth more sustainable. This is because the productivity of capital increases with greater investment in technology and human capital. Economies move to produce higher value goods and services rather than focusing on backbreaking low value activities.

This is how historically countries have been able to move forwards and overcome poverty in a sustained way over time. Transformation shifts countries onto a different trajectory of productivity, with more and better jobs that create more value. We also see companies become more self-sufficient from a commercial point of view rather than needing to rely on direct support from the state.

#### Innovation’s sustainable

Economist 13 — Economist, Has the ideas machine broken down?, 2013, [www.economist.com/news/briefing/21569381-idea-innovation-and-new-technology-have-stopped-driving-growth-getting-increasing](http://www.economist.com/news/briefing/21569381-idea-innovation-and-new-technology-have-stopped-driving-growth-getting-increasing)

The fountains of paradise

Closer analysis of recent figures, though, suggests reason for optimism. Across the economy as a whole productivity did slow in 2005 and 2006—but productivity growth in manufacturing fared better. The global financial crisis and its aftermath make more recent data hard to interpret. As for the strong productivity growth in the late 1990s, it may have been premature to see it as the effect of information technology making all sorts of sectors more productive. It now looks as though it was driven just by the industries actually making the computers, mobile phones and the like. The effects on the productivity of people and companies buying the new technology seem to have begun appearing in the 2000s, but may not yet have come into their own. Research by Susanto Basu of Boston College and John Fernald of the San Francisco Federal Reserve suggests that the lag between investments in information-and-communication technologies and improvements in productivity is between five and 15 years. The drop in productivity in 2004, on that reckoning, reflected a state of technology definitely pre-Google, and quite possibly pre-web. Full exploitation of a technology can take far longer than that. Innovation and technology, though talked of almost interchangeably, are not the same thing. Innovation is what people newly know how to do. Technology is what they are actually doing; and that is what matters to the economy. Steel boxes and diesel engines have been around since the 1900s, and their use together in containerised shipping goes back to the 1950s. But their great impact as the backbone of global trade did not come for decades after that. Roughly a century lapsed between the first commercial deployments of James Watt’s steam engine and steam’s peak contribution to British growth. Some four decades separated the critical innovations in electrical engineering of the 1880s and the broad influence of electrification on economic growth. Mr Gordon himself notes that the innovations of the late 19th century drove productivity growth until the early 1970s; it is rather uncharitable of him to assume that the post-2004 slump represents the full exhaustion of potential gains from information technology. And information innovation is still in its infancy. Ray Kurzweil, a pioneer of computer science and a devotee of exponential technological extrapolation, likes to talk of “the second half of the chess board”. There is an old fable in which a gullible king is tricked into paying an obligation in grains of rice, one on the first square of a chessboard, two on the second, four on the third, the payment doubling with every square. Along the first row, the obligation is minuscule. With half the chessboard covered, the king is out only about 100 tonnes of rice. But a square before reaching the end of the seventh row he has laid out 500m tonnes in total—the whole world’s annual rice production. He will have to put more or less the same amount again on the next square. And there will still be a row to go. Erik Brynjolfsson and Andrew McAfee of MIT make use of this image in their e-book “Race Against the Machine”. By the measure known as Moore’s law, the ability to get calculations out of a piece of silicon doubles every 18 months. That growth rate will not last for ever; but other aspects of computation, such as the capacity of algorithms to handle data, are also growing exponentially. When such a capacity is low, that doubling does not matter. As soon as it matters at all, though, it can quickly start to matter a lot. On the second half of the chessboard not only has the cumulative effect of innovations become large, but each new iteration of innovation delivers a technological jolt as powerful as all previous rounds combined.

#### Debt arg’s wrong

Vague 14 (Richard Vague, managing partner of Gabriel Investments and the chairman of the Governor’s Woods Foundation, “Government Debt Isn't the Problem—Private Debt Is,” 9/9/2014) https://www.theatlantic.com/business/archive/2014/09/government-debt-isnt-the-problemprivate-debt-is/379865/

The Roaring Twenties, the Japanese boom of the '80s, and the U.S.'s in the early 2000s have one thing in common: They were debt-fueled binges that brought these economies to the brink of ruin. That’s misleading at best. The 2008 collapse was predictable. And, more generally, major financial crises of this type can be seen well in advance—and prevented—if you know what to look for. In fact, there’s a fairly simple formula that predicts such crises with a high amount of confidence. And it suggests that the world economy remains in more peril than is generally appreciated. This conclusion comes from an examination of financial crises around the world, dating back to the 19th century, that I conducted with my colleagues and summarize in my new book [The Next Economic Disaster](http://www.amazon.com/Next-Economic-Disaster-Coming-Avoid/dp/0812247043/ref=sr_1_1?s=books&ie=UTF8&qid=1410275251&sr=1-1&keywords=the+next+economic+crisis). The logic behind our conclusion can be seen in the diagrams below. Take a look at this graph: Note that, in the years prior to the crisis, the line representing federal government debt roughly parallels the line representing GDP; federal debt wasn’t growing dramatically as a fraction of GDP. So the big post-crisis standoff between Democrats and Republicans over the federal debt wasn’t focused on the big problem. What was the big problem? Look at the line representing private debt. It clearly is not parallel to the GDP line and, indeed, reflects a rapid growth of private debt relative to GDP. What’s alarming is that, of the two ingredients for an economic crisis—high private debt and rapid private-debt growth—one is still with us even after the 2008 collapse. By itself this isn’t shocking. We all know that a growth in home mortgages preceded the crash, and home mortgages are one kind of private debt—along with other consumer borrowing and borrowing by businesses. What’s more surprising is what we found when we looked at lots of other financial crises around the world, dating back to the 19th century: Though most of these crises aren’t thought of as being fundamentally caused by excessive private debt, the fact is that they were preceded by the same kind of runup in private debt that the U.S. saw prior to 2008. Just to take one example, look at this data from Japan prior to its financial crisis of 1991. Look familiar? Time and again, that’s the story we found: A major financial crisis is preceded by a runup in private debt relative to GDP. In fact, there seems to be only one other ingredient required for a crisis: that the absolute level of private debt is high to begin with. We found that almost all instances of rapid debt growth coupled with high overall levels of private debt have led to crises. To put a finer point on it: For major economies, if the ratio of private debt to GDP is at least 150 percent, and if that ratio grows by at least 18 percent over the course of five years, then a big crisis is likely in the offing. Until the moment of reckoning, things may seem wonderful. Rapid private-debt growth fueled what were viewed as triumphs in their day—the Roaring Twenties, the Japanese “economic miracle” of the ’80s, and the Asian boom of the ’90s—but these were debt-powered binges that brought these economies to the brink of economic ruin. What’s alarming is that, of the two ingredients for an economic crisis—high private debt and rapid private-debt growth—one is still with us even after the 2008 collapse. Private debt in the U.S., relative to GDP, stands at 156 percent. That’s lower than the 173 percent it reached in 2008, but it’s still nearly triple the level—55 percent—it was at in 1950. Indeed, across the globe there has been a steep climb in the ratio of private debt to GDP over that period. The situation in China is particularly alarming. Look at this graph, which shows changes in the ratio of private debt to GDP and the ratio of public debt to GDP: Applying our private-debt early-warning criteria to China, we can see that its economy is at risk of a major financial crisis in the near future—a significant concern because of its size and importance to the world economy. China's five-year growth in private credit to GDP is near 60 percent. Its private debt to GDP ratio stands is approaching 200 percent. (As always, data on China's economy must be considered provisional: The numbers for China include “shadow lending” but are somewhat difficult to pin down, and I have seen differing numbers for the current level of private debt in China that range from 167 percent to 200+ percent. But in all cases, the recent five-year private debt to GDP growth trends are above 40 percent.) To be sure, China, by virtue of the government’s large role in the economy, its fiscal assets, and other distinctive features, could forestall the day of reckoning a few years yet. Still the broader picture—extremely high private-debt levels—is alarming. What’s astonishing is how little attention the global debt problem—the extremely high ratio of private debt to GDP—has gotten. Not only does it leave the U.S. and other countries vulnerable to crisis should brisk growth in that ratio resume, but, quite apart from any crisis, the accumulation of higher levels of private debt over decades impedes economic growth. Money that would otherwise be spent on things such as business investment, cars, homes, and vacations is increasingly diverted to making payments on the growing debt— especially among middle- and lower-income groups that compose most of our population and whose spending is necessary to drive economic growth. Debt, once accumulated, constrains demand. What we need to do is remove some of the debt burden weighing down middle-income and low-income people. You can call it debt "restructuring" or you can call it (partial) debt forgiveness. Either way, it’s needed. The ideal condition for growth is to have less capacity (that is, the supply of housing, factories, etc.) than demand, coupled with low private debt. This was the case during the decades immediately after World War II. But now we have nearly the opposite situation. In the first decade of the 2000s, the United States and Europe built far too much capacity, especially in housing, and incurred too much private debt. In the 1980s, Japan built far too much capacity, saddling its banks with too much private debt and too many bad loans. While all these countries have been catching up to this capacity, none yet has less capacity than demand, and all still have high private debt. And now China, whose industrialization and urbanization long fueled global growth, has created its own overcapacity and private debt problem, building far too much capacity in the form of industrial and real estate projects while providing easy credit that fueled a rapid buildup of private debt. So no major global economic player now has that pivotal combination of undercapacity and low private debt that can fuel productive investment and help boost global growth. What’s more, excessive private debt may contribute to one of the great problems of our time: growing income inequality and the hollowing out of the middle class. The middle class tends to grow when there is too little capacity and low private debt (as after World War II). In contrast, the middle class plateaus or shrinks when there is too much capacity and too much debt (as at the present). Stated differently, inequality increases when there is high capacity and high debt; it decreases when capacity and debt are low. So what should we do? For starters, rid ourselves of the illusion that if we can rein in government debt we’ll have really tackled the problem. The ratio of government debt to GDP was relatively low, and its rate of growth flat, before the crash of 1929, the Asian crisis of 1997, and the Japan crisis of 1991. In the United States, even with its Middle Eastern wars and a major increase in social program expenditures, the ratio of federal debt to GDP was no higher in 2007 than it had been a decade before. The five-year increases in government debt to GDP in Japan as of 1991 and in South Korea as of 1997 were both near zero. In Spain, before its recent crisis, government debt to GDP declined by 16 percentage points. To be sure, low government debt has its virtues. Still, the main focus should now be on reducing private debt. This is known as “deleveraging,” and the U.S. did very little of it in the immediate aftermath of the 2008 crisis. One form of deleveraging is to provide relief for borrowers. This spurs economic growth, because by and large borrowers—especially middle-income and lower-income consumers—are likely to use the extra money to make purchases that stimulate the economy. So what we need to do is remove some of the debt burden weighing down middle-income and low-income people. You can call it debt “restructuring” or you can call it (partial) debt forgiveness. Either way, it’s needed. Of course, banks and other lenders may protest. For removing liabilities from the borrower’s balance sheet means removing assets from the lender’s balance sheet. But a one-time program to allow lenders to write down these assets over a long period—say 30 years—will make this sacrifice easily bearable. And as for the much-discussed “moral hazard” problem—the possibility that insulating people from the consequences of their bad decisions will lead to more bad decisions down the road: We briefly suspended our concern regarding moral hazard for lenders when the government rescued them during the crisis. We haven’t done the same for borrowers. And lenders, no less than borrowers, are responsible for the existence of loans that turn out to have been ill-advised. But none of this is likely to happen until we get over our exclusive political obsession with public debt and gain a proper appreciation of the role private debt plays in economic calamities.

#### 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.