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### 1AC – Dynamism

#### Contention one: Dynamism

#### Dominant digital platforms gatekeep access to markets by both operating a platform and marketing their own goods on it – only structural prohibitions prevent barriers to entries posed by companies’ structure, not just the scale of their market power.

Khan ’19 [Lina; Chairperson @ Federal Trade Commission, JD @ Yale Law School; “The Separations of Platforms and Commerce,” *Columbia Law Review* 119(4), p. 973-1098; AS]

A handful of digital platforms exert increasing control over key arteries of American commerce and communications. Structuring access to markets, these firms function as gatekeepers for billions of dollars in economic activity. By virtue of setting marketplace rules for the millions of merchants, producers, and developers dependent on their infrastructure, dominant platforms today “function as regulators.”3

As these platforms further concentrate market power, there are rising concerns about their size—usually in reference to the large share that each firm captures of its primary markets.4 Yet an equally important question concerns not the scale of these companies but their structure. One feature dominant digital platforms share is that they have integrated cross business lines such that they both operate a platform and market their own goods and services on it. This structure places dominant platforms in direct competition with some of the businesses that depend on them, creating a conflict of interest that platforms can exploit to further entrench their dominance, thwart competition, and stifle innovation.5 Consider Spotify’s effort to reach users through Apple’s iPhone while Apple sought to promote Apple Music. In 2016, Spotify revealed that Apple had blocked the streaming application from the App Store, “continu[ing] a troubling pattern of behavior by Apple to exclude and diminish the competitiveness of Spotify on iOS and as a rival to Apple Music.”6 Or take the challenge faced by Yelp, Foundem, and scores of online services to reach internet users while Google sought to build out its own competitor offerings.7

In Europe and India, competition authorities have found that Google ranks its own services higher than those offered by rivals, a “search bias” that means anyone competing with Google properties may effectively disappear from Google search results.8 Merchants that rely on Amazon to reach consumers are in a similar bind: Not only must they jostle for placement against Amazon’s own goods, but they also face the constant risk that Amazon will spot their bestselling items and produce them itself.9 Facebook, equipped with technology that lets it detect which rival apps are succeeding, would often give companies a choice: Be acquired by Facebook, or watch it roll out a direct replica.10 Competing with one of these giants on the giant’s own turf is rife with hazards.

Venture capitalists now factor this risk into their investment decisions.11 Indeed, the power of these gatekeeper platforms to steer the fate of countless other firms is described by entrepreneurs and investors as “having a profound impact on innovation in Silicon Valley”12 and “choking off the start-up world.”13 Venture capitalists now discuss a “kill-zone” around digital giants—“areas not worth operating or investing in, since defeat is guaranteed.”14 Discussing how tech platform giants today use their integrated structure to undermine rivals, a product manager who worked for Microsoft leading up to its antitrust suit observed, “It’s what we did at Microsoft.”15

Indeed, the way in which dominant online platforms threaten to undermine competition and distort markets today is not entirely new. At its core, the problem traces to a basic challenge posed by firms that capture control over a critical network or channel of distribution. Regulators and competition authorities have traditionally harnessed a set of tools to ensure that bottleneck facilities do not distort competition. These tools include common carriage, which requires firms to offer customers equal access on equal terms,16 as well as interoperability, which requires networks to maintain an open interface, enabling users to switch between platforms with ease.17 These policies respond, respectively, to problems of discrimination and lock-in.

In digital markets, however, third parties that depend on a platform risk not just discrimination and lock-in but also appropriation. Because dominant platforms monitor with unrivaled precision the business activity of third parties while also competing with them, a platform can harvest insights gleaned from a producer at the producer’s expense. This Article argues that these combined problems of discrimination and information appropriation invite recovering common carriage’s forgotten cousin: structural separations. Structural separations place clear limits on the lines of business in which a firm can engage. Rather than prohibit particular business practices, separations proscribe certain organizational structures. In antitrust, structural remedies are contrasted with behavioral ones: Whereas behavioral remedies seek to prevent firms from engaging in specific types of conduct, structural remedies seek to eliminate the incentives that would make that conduct possible or likely in the first place.18

Structural prohibitions have been a traditional element of American economic regulation. They have been applied as a standard regulatory tool and key antitrust remedy in network industries, often to prohibit a dominant intermediary from competing with the businesses that depend on it to get to market. While common carriage regimes prevent a firm from discriminating—requiring equal service on equal terms—structural prohibitions eliminate one source of the incentive to discriminate. In this way, common carriage and structural separations often functioned as complements in the service of nondiscrimination.

Today, structural separations have largely been abandoned.19 At the same time that lawmakers have significantly weakened or outright eliminated sector-specific regulatory regimes, judicial interpretation of antitrust law has drastically narrowed the forms of vertical conduct and structures that register as anticompetitive. And when antitrust enforcers have targeted these forms of conduct and structures in recent years, they’ve applied remedies that generally (1) fail to target the underlying source of the problem and (2) overwhelm the institutional capacities of the government actors assigned to oversee them.20 Neglecting structural separations results in both substantive harms and institutional misalignments—effects that are especially pronounced in digital markets.

#### Case-by-case adjudication creates slow, ambiguous enforcement and deprives legal participation – regulatory uncertainty substantially disadvantages entrants.

Chopra & Khan ’20 [Rohit; Commissioner @ Federal Trade Commission; and Lina; Chairperson @ Federal Trade Commission, JD @ Yale Law School; “The Case for “Unfair Methods of Competition” Rulemaking,” *The University of Chicago Law Review* *87*(2), p. 357-380; AS]

Antitrust law today is developed exclusively through adjudication. In theory, this case-by-case approach facilitates nuanced and fact-specific analysis of liability and well-tailored remedies. But in practice, the reliance on case-by-case adjudication yields a system of enforcement that generates ambiguity, unduly drains resources from enforcers, and deprives individuals and firms of any real opportunity to democratically participate in the process.

One reason that antitrust adjudication suffers from these shortcomings is that courts analyze most forms of conduct under the “rule of reason” standard. The “rule of reason” involves a broad and open-ended inquiry into the overall competitive effects of particular conduct and asks judges to weigh the circumstances to decide whether the practice at issue violates the antitrust laws. Balancing short-term losses against future predicted gains calls for “speculative, possibly labyrinthine, and unnecessary” analysis and appears to exceed the abilities of even the most capable institutional actors.1 Generalist judges struggle to identify anticompetitive behavior2 and to apply complex economic criteria in consistent ways.3 Indeed, judges themselves have criticized antitrust standards for being highly difficult to administer.4 And if a standard isn’t administrable, it won’t yield predictable results. The dearth of clear standards and rules in antitrust means that market actors face uncertainty and cannot internalize legal norms into their business decisions.5 Moreover, ambiguity deprives market participants and the public of notice about what the law is, thereby undermining due process—a fundamental principle in our legal system.6

Decades ago, former Commissioner Philip Elman observed that case-by-case adjudication “may simply be too slow and cumbersome to produce specific and clear standards adequate to the needs of business~~men~~[people], the private bar, and the government agencies.”7 Relying solely on case-by-case adjudication means that businesses and the public must attempt to extract legal rules from a patchwork of individual court opinions. Because antitrust plaintiffs bring cases in dozens of different courts with hundreds of different generalist judges and juries, simply understanding what the law is can involve piecing together disparate rulings founded on unique sets of facts. All too often, the resulting picture is unclear. This ambiguity is compounded when the Supreme Court assigns to lower courts the task of fleshing out how to structure and apply a standard, potentially delaying clarity and certainty for years or even decades.8

The current approach to antitrust also makes enforcement highly costly and protracted. In 2012, the American Bar Association (ABA) published the report of a task force that sought to “study ways to control the costs of antitrust litigation and enforcement.”9 The task force, the authors explained, was “a response to concerns” about both “the costs imposed on businesses by the American system of antitrust enforcement” and “the length of time required to resolve antitrust issues both in litigation and in enforcement proceedings.”10 Out-of-control costs undermine effective antitrust enforcement by agencies and private litigants, but may advantage actors who profit from anticompetitive practices and can treat litigation as a routine cost of business.

Professor Michael Baye and Former Commissioner Joshua Wright have noted that generalist judges may be ill-equipped to independently analyze and assess evidence presented by economic experts.11 Because determining the legality of most conduct now involves complex economic analysis, courts have effectively “delegate[d] both factfinding and rulemaking to courtroom economists,” making courtroom economics “not just inevitable but often dispositive.”12 In fact, paid expert testimony now is often “the ‘whole game’ in an antitrust dispute.”13

Paid experts are a major expense. Some experts charge over $1,300 an hour, earning more than senior partners at major law firms.14 Over the last decade, expenditures on expert costs by public enforcers have ballooned.15 In a system that incentivizes firms to spend top dollar on economists who can use ever-increasing complexity to spin a favorable tale, the eye-popping costs for economic experts can put the government and new market entrants at a significant disadvantage.16

Another component of the burden is that antitrust trials are extremely slow and prolonged.17 The Supreme Court has criticized antitrust cases for involving “interminable litigation”18 and the “inevitably costly and protracted discovery phase,”19 yielding an antitrust system that is “hopelessly beyond effective judicial supervision.”20 That it can easily take a decade to bring an antitrust case to full judgment means that by the time a judge orders a remedy, market circumstances are likely to have outpaced it.21 The same 2012 ABA report suggested that lengthy, costly litigation may be contributing to reduced government-enforcement efforts over time relative to the expansion of the US economy.22

Lastly, the current approach deprives both the public and market participants of any real opportunity to participate in the creation of substantive antitrust rules.23 The exclusive reliance on case-by-case adjudication leaves broad swaths of market participants watching from the sidelines, lacking an opportunity to contribute their perspective, their analysis, or their expertise, except through one-off amicus briefs.24 Nascent firms and startups are especially likely to be left out—despite the vital role they play in the competition ecosystem—given that they do not comprise a significant portion of the parties represented in litigated matters, and they usually lack the resources to engage in amicus activity. Furthermore future entrants, whose interests should be carefully considered in all aspects of competition law and policy, have no voice.

Firms, entrepreneurs, workers, and consumers across our economy vary wildly in their experiences and perspectives on market conduct. Enforcement and regulation of business conduct can more successfully promote competition when it incorporates more voices and evidence from across the marketplace.

The ambiguity of the laws, the administrative and resource burdens of enforcing them, and the exclusivity of the current process tend to advantage incumbents and suppress market entry. For example, when courts disagree with one another on the legality of particular conduct, new entrants are likely to eschew the practice, since the threat of litigation could prove fatal at an early stage. Incumbents, by contrast, will be more likely to conduct a cost-benefit analysis of engaging in a potentially unlawful practice, since they are likely to have higher tolerance for protracted litigation and deeper pockets to fund it. Continued ambiguity and complexity also create business opportunities for lawyers, economists, and lobbyists, who effectively profit from the lack of clarity

#### FTC rulemaking improves the speed, clarity and certainty of enforcement to level the playing field for market entrants.

Chopra & Khan ’20 [Rohit; Commissioner @ Federal Trade Commission; and Lina; Chairperson @ Federal Trade Commission, JD @ Yale Law School; “The Case for “Unfair Methods of Competition” Rulemaking,” *The University of Chicago Law Review* *87*(2), p. 357-380; AS]

II. THE CASE FOR RULEMAKING UNDER “UNFAIR METHODS OF COMPETITION”

Legislative history is clear that Congress sought to advance competition law outside the courts as well as through them.25 Two decades into enforcement of the federal antitrust laws, Congress was frustrated with the exclusively common law approach to antitrust. In particular, lawmakers worried that the case-by-case approach to enforcement was yielding a body of law that was inconsistent, unpredictable, and unmoored from congressional intent.26 The solution, lawmakers decided, was the creation of a new expert administrative agency: the Federal Trade Commission.

Congress established the FTC to supplement the authority of the Attorney General.27 While both institutions were tasked with enforcing the antitrust laws, lawmakers designed the FTC with two distinct features: (1) delegated authority to interpret and prohibit “unfair methods of competition,” as established by § 5 of the Federal Trade Commission Act28 (FTC Act) and (2) extensive authority to collect confidential business information and conduct industry studies, as established by § 6(b) of the FTC Act.29

By designing the Commission this way, Congress sought to create a regime where the law developed not just through the judiciary but also through an expert agency. Congress envisioned that the Commission’s data collection from market participants would ensure that the agency stayed abreast of evolving business practices and market trends, and that it would use this expertise to establish market-wide standards clarifying what practices constituted an “unfair method of competition,” even as the market evolved. This unique role would complement adjudication pursued by the Attorney General, state attorneys general, and private parties.30 Indeed, Congress expected that federal judges and other policymakers would defer to the Commission on competition matters because it would “serve as an indispensable instrument of information and publicity, as a clearinghouse for the facts by which both the public mind and the managers of great business undertakings should be guided.”31 It would, in other words, be “unusually expert.”32

The Commission, at times, has drawn on its expansive information collection authorities to follow market trends and establish expertise on industry practices. For example, in the 1970s the FTC ordered over 450 of the country’s largest firms to report certain financial information. The Commission used this data to identify uncompetitive areas of the economy and to guide industrywide investigations into potential antitrust violations.33 More recently, the FTC has used this § 6(b) authority to study the business practices of patent assertion entities and data brokers, as well as the efficacy of the FTC’s merger remedies.34

As a whole, however, the Commission has fulfilled its mandate to promote competition by functioning less as an expert agency and more as a generalist enforcer and adjudicator.35 This is not to say the agency lacks expertise; indeed, the Commission’s work with particular markets has provided indispensable insights into the marketplace. But, on competition matters, the agency has rarely used this expertise to affirmatively identify what conduct or practices constitute an “unfair method of competition.” Instead, the Commission has sought to define “unfair methods of competition” on a case-by-case basis.

Former Commissioner Wright and Jan Rybnicek have observed that relying exclusively upon adjudication has “thus far proved incapable of generating any meaningful guidance as to what constitutes an unfair method of competition,” resulting in a “boundless standard.”36 They have described this “failure to identify what precisely comprises an unfair method of competition” as “an unfortunate and persistent black mark on the Commission’s record.”37

We agree that relying solely on adjudication to define the substance of § 5 has generated persistent ambiguity. However, relying on courtroom battles to create precedents that set expectations for the marketplace is not the only vehicle through which the Commission can establish what conduct constitutes an “unfair method of competition.” The Commission has in its arsenal a far more effective tool that would provide greater notice to the marketplace and that is developed through a more transparent and participatory process: rulemaking. Through engaging in rulemaking, the Commission could define “unfair methods of competition” through processes established by the Administrative Procedure Act38 (APA).3

There is an enormous body of literature on the choice between adjudication and rulemaking, and this Essay does not seek to fully address the various trade-offs.40 Instead, our goal is to reflect on the current state of antitrust enforcement and consider ways to address the ambiguity, burdens, and democratic deficiency that we discuss above.

“Rulemaking” often evokes the idea of government imposing some inflexible prescription upon the marketplace. This is not what we are suggesting. As former Commissioner Elman rightly noted, rulemaking can also be related to “standards, guidelines, pointers, criteria, or presumptions.”41 Rules come from courts, legislative bodies, and agencies. While they were not promulgated as agency rules, certain elements of the merger guidelines eventually came to serve as rules once courts adopted them.42 The merger guidelines stipulate the analytical framework that the agencies rely on to enforce the merger law. Agency rulemaking could do the same for “unfair methods of competition.”

We see three major benefits to the FTC engaging in rulemaking under “unfair methods of competition,” even if the conduct could be condemned under other aspects of antitrust laws. As we describe above, the current approach generates ambiguity, is unduly burdensome, and suffers from a democratic participation deficit. Rulemaking can benefit the marketplace and the public on all of these fronts.

First, rulemaking would enable the Commission to issue clear rules to give market participants sufficient notice about what the law is, helping ensure that enforcement is predictable.43 The APA requires agencies engaging in rulemaking to provide the public with adequate notice of a proposed rule. The notice must include the substance of the rule, the legal authority under which the agency has proposed the rule, and the date the rule will come into effect.44 An agency must publish the final rule in the Federal Register at least thirty days before the rule becomes effective.45

These procedural requirements promote clear rules and provide clear notice. As the Supreme Court has stated, a “fundamental principle in our legal system is that laws which regulate persons or entities must give fair notice of conduct that is forbidden or required.”46 Clear rules also help deliver consistent enforcement and predictable results. Reducing ambiguity about what the law is will enable market participants to channel their resources and behavior more productively and will allow market entrants and entrepreneurs to compete on more of a level playing field.

Second, establishing rules could help relieve antitrust enforcement of steep costs and prolonged trials. Identifying ex ante what types of conduct constitute “unfair method[s] of competition” would obviate the need to establish the same exclusively through ex post, case-by-case adjudication. Targeting conduct through rulemaking, rather than adjudication, would likely lessen the burden of expert fees or protracted litigation, potentially saving significant resources on a present-value basis.47

Moreover, establishing a rule through APA rulemaking can be faster than litigating multiple cases on a similar subject matter. For taxpayers and market participants, the present value of net benefits through the promulgation of a clear rule that reduces the need for litigation is higher than pursuing multiple, protracted matters through litigation. At the same time, rulemaking is not so fast that it surprises market participants. Establishing a rule through participatory rulemaking can often be far more efficient. This is particularly important in the context of declining government enforcement relative to economic activity, as documented by the ABA.48

And third, rulemaking would enable the Commission to establish rules through a transparent and participatory process, ensuring that everyone who may be affected by a new rule has the opportunity to weigh in on it, granting the rule greater legitimacy.49 APA procedures require that an agency provide the public with meaningful opportunity to comment on the rule’s content through the submission of written “data, views, or arguments.”50 The agency must then consider and address all submitted comments before issuing the final rule. If an agency adopts a rule without observing these procedures, a court may strike down the rule.51

This process is far more participatory than adjudication. Unlike judges, who are confined to the trial record when developing precedent-setting rules and standards, the Commission can put forth rules after considering a comprehensive set of information and analysis.52 Notably, this would also allow the FTC to draw on its own informational advantage—namely, its ability to collect and aggregate information and to study market trends and industry practices over the long term and outside the context of litigation.53 Drawing on this expertise to develop rules will help antitrust enforcement and policymaking better reflect empirical realities and better keep pace with evolving business practices.

#### There are no neatly bounded ways to capture all dimensions platform power – delegating rulemaking authority to an expert agency allows separations regimes to match market realities.

Khan ’19 [Lina; Chairperson @ Federal Trade Commission, JD @ Yale Law School; “The Separations of Platforms and Commerce,” *Columbia Law Review* 119(4), p. 973-1098; AS]

D. Application: Challenges and Unresolved Questions

Implementing a separations regime presents some first-order questions and challenges. First, how do we define platforms and to which platforms should a separation apply? Second, how does one identify the parameters of the platform, especially when integration provides heightened functionality? Third, what should be the scope of the prohibited activity and how should the prohibition be structured? And fourth, what is the proper institutional mechanism for implementing the separation? This section offers some initial suggestions for how to approach these questions. Arriving at a complete analytical framework for structuring separations in digital markets will require deeper engagement with these issues.

1. Defining Platform. — Offering a clearly bounded definition of “platform” is challenging. Most definitions look to the role that the entity plays in intermediating activity by others. One definition, for example, is “a firm that controls a network, facility, or essential input that those providing a complementary good or service” must “rely on.”635 Another set of definitions focuses on the infrastructure-like role that these firms play, by structuring access to markets or facilitating transactions.636 And some discussions use the terms “network,” “infrastructure,” and “platform” interchangeably.637

Recent studies by policymakers have also settled on the idea that dominant platforms play a unique role that regulators should recognize. In March, the Digital Competition Expert Panel—a panel convened by the U.K. government to study digital markets—issued a report proposing, among other ideas, that dominant platforms that enjoy a “powerful negotiating position” be designated as having a “strategic market status” and be required to abide by a special code of conduct.638 A report commissioned by the European Commission, meanwhile, noted that, by designing marketplace rules that govern millions of users, dominant platforms “function as regulators” that should face a special responsibility to “ensure a level playing field” on their marketplace and “not use [their] rule-setting power to determine the outcome of competition.”639 Given the challenge of offering a bounded definition of “dominant platform,” any definition will likely be under- or over-inclusive. But any definition should seek to capture the degree of market power that the platform enjoys over users.640 How essential is the platform’s infrastructure? To what degree do other businesses depend on the platform to reach users, and what is the cost to businesses of avoiding this platform and using alternative channels? Relevant factors could include: (1) the extent to which the entity serves as a central exchange or marketplace for the transaction of goods and services, including the level of market power that it enjoys in its platform market; (2) the extent to which the entity is essential for downstream productive uses, and whether downstream users have access to viable substitutes for the entity’s services; (3) the extent to which the entity derives value from network effects, and the type of network effects at play; (4) the extent to which the entity serves as infrastructure for customizable applications by independent parties; and (5) the size, scope, scale, and interconnection of the company.

There are no neatly bounded ways to capture these dimensions of platform power. When implementing “maximum separation,” the FCC initially used operating revenue as the criterion for determining which carriers must comply.641 In the context of digital platforms, market share may prove a better proxy than operating revenues, given that it is the platform’s role as a gatekeeper or bottleneck—for which there are no real adequate substitutes—that gives rise to the relevant harms.

The prohibition should be centered on the activities that the platform facilitates as a bottleneck. Since a key goal of the separations regime is to eliminate the conflict of interest that arises when a dominant platform directly competes with the firms using the platform,642 only activity that would place platforms in direct competition in this way would be subject to the prohibition. This would not prevent platforms from integrating into lines of business that do not rely on the platform market. Nor would such a separations regime target conglomeration or vertical integration categorically; it would instead focus on platform entry into markets that creates the ability and incentive to discriminate, to leverage dominance, and to use information collected on firms as customers against them as competitors.

2. Distinguishing Between Platform and Commerce. — Applying separations to digital platforms would likely raise the challenge of identifying what constitute distinct products or services. In Microsoft, for example, the court had to determine whether the operating system and the browser—the two products the government claimed Microsoft had “tied”—should be considered a single integrated system.643 Microsoft argued that bundling new functionality into old products was a basic component of technological evolution.644 A similar issue may arise with digital platforms: Android, for example, could claim that certain apps must be integrated with its operating system in order to provide basic functionality or for technical necessity.

The traditional metric for assessing whether a set of bundled products constitute separate products is consumer demand. In Microsoft, the D.C. Circuit relied on Jefferson Parish’s consumer-demand test to determine whether consumers preferred a choice in browsers.645 Applying a similar inquiry in the platform context could similarly help identify whether integration of distinct functionalities should be viewed as an integrated system or as a platform. Regulators would also have the capacity to determine, over time, whether certain apps or features were necessary for basic functionality and whether the benefits of integration were sufficiently high to offset any potential harms to innovation. There may also be specific apps or functionalities where innovation is less likely to be transformative, and therefore where integration may prove fewer risks. As with earlier regimes, periodic reassessment and revisions would prove necessary to ensure the separation continued to accord with and reflect evolving market realities.

3. Institutional Mechanism and Timing. — A separations regime separating platforms and commerce could be implemented through statute or rulemaking or as antitrust remedies (under existing or new antitrust law). A statute from Congress could also establish the principle of separating platforms from commerce—as was the case with banking— with the specific authority to design and implement separations delegated to an agency. This approach would benefit from having an expert agency design and revisit the separation. Absent new legislation, the FTC could use its Section 5 authority to implement a separations principle through rulemaking.646 Designing separations only through rulemaking would require the agency to create rules of general applicability and— absent a specific congressional mandate—could limit the agency’s ability to structure highly tailored separations. Antitrust remedies would be costlier and take significantly longer, requiring the government or a private party to successfully show anticompetitive conduct and effects stemming from a digital platform’s involvement in multiple markets.

Given the enfeebling of antitrust doctrines that police single-firm anticompetitive conduct—and the judicial requirement that remedies be carefully tailored to competitive harm—this path is likely to be significantly more challenging.647 Previous instances of structural separations offer a few models for structuring these prohibitions. An operational or functional separation requires the firm to create separate divisions within the firm, requiring that a platform wishing to engage in commerce may do so only through a separate and independent affiliate, which the platform may not favor in any manner. A full structural separation, by contrast, requires that the platform activity and commercial activity be undertaken through separate corporations with distinct ownership and management. For example, the functional approach would permit Alphabet to operate Google search and vertical services that produce content so long as the two complementary services are structured as separate affiliates. The second option would prohibit Alphabet from running both the platform service and the complementary service, requiring that one be spun off and run by an independent owner.

It’s not clear that anything short of a full structural separation would be sufficient, especially given the risks of information misappropriation. While running complementary services as affiliates could be accompanied by information firewalls, the efficacy of firewalls requires close monitoring.648 Evidence shows that the antitrust agencies have neglected to fully monitor and enforce conduct remedies in the past.649 Moreover, firewalls may prove especially difficult to monitor in the context of digital platforms, given the heightened information asymmetries between private platform firms and public enforcers. It is possible that the risk of information misappropriation may vary by platform—but dominant platforms should carry the burden of establishing why operating complementary services as affiliates would not be anticompetitive.

Finally, a basic challenge facing regulators and enforcers when dealing with high-tech industries is the role of timing. Because these markets can evolve quickly, market changes can render regulatory interventions obsolete.650 Similarly, the failure to intervene can leave exclusionary conduct unchecked, resulting in path-dependent reductions in innovation. Any subsequent attempt to impose separations should include a built-in review process every two to three years, to ensure that the remedy still matches the market conditions.65

#### Start-up innovation creates the conditions for post-pandemic growth – competition generates a virtuous cycle of innovation and investment that locks in productivity gains.

Manyika ’21 [James; Chair and Director @ McKinsey Global Institute; and Michael Spence; Philip H. Knight Professor and Dean Emeritus @ Stanford University's Graduate School of Business; “A Better Boom: How to Capture the Pandemic's Productivity Potential,” *Foreign Affairs* 100(4), p. 107-117; AS]

Surprising as it may seem, out of the deepest economic crisis since World War II could come a new era of productivity gains and prosperity. Whether that happens will depend largely on the decisions that governments and businesses make as they prepare to exit the pandemic in the coming months. In the short and medium term, the prospects for increased productivity-and prosperity-are encourag2 ing, as the United States and other countries spend heavily on economic recovery and businesses reap the benefits of digitization. But the outlook is less optimistic over the long term, since governments cannot spend indefinitely and consumer and investment spending may not fill the gap.

Governments and businesses must therefore seek to create the conditions for sustained productivity growth and prosperity, in particular by facilitating the diffusion of technological and organizational innovations and bolstering consumer demand. Out of a major global crisis could come a major jolt of productivity growth-but only if policymakers and business leaders make the most of this moment.

THE PRODUCTIVITY PARADOX

The history of productivity growth can be understood as a succession of technological revolutions, from the steam engine to the computer. Each offered the promise of accelerated productivity and economic growth, and each eventually delivered. But there has often been a delay between innovation and adoption, and another between adoption and economic impact. The economist Robert Solow summed up these apparent discrepancies in a 1987 article in The New York Times Book Review, writing, "You can see the computer age everywhere but in the productivity statistics." His formulation became known as "the Solow paradox."

But then came the revolution in information and communication technologies between 1995 and 2005, a decade in which the Solow paradox was temporarily resolved. Widespread adoption of these technologies was accompanied by a simultaneous acceleration in productivity, which grew at an annualized rate of 2.5 percent in the United States, a full percentage point faster than the rate between 1970 and 1995. Companies invested heavily in information and communication technologies and reorganized their operations and managerial practices around them. They did so out of the desire to gain a competitive edge, but also because of relatively robust consumer demand for their products.

Productivity growth accelerated in several sectors as a result, driving growth in the U.S. economy as a whole. This period was characterized by an unusual combination of large spurts in productivity growth in a few big sectors employing many workers, such as retail and wholesale, and even larger productivity growth in smaller sectors, such as those that produced computers and electronic products. In both bi and small sectors, there was a virtuous cycle of employment growth to meet demand and even faster growth in the value of the output from these sectors. The value of outputs across all sectors of the economy grew by 3.4 percent per year between 1995 and 2005, whereas the total number of hours worked grew by only 0.9 percent per year.

But the boom did not last. Between 2005 and 2019, annual productivity growth in the United States fell by more than half, to 1.0 percent. In the aftermath of the 2008 global financial crisis, from 2010 to 2019, it was even lower, at 0.6 percent. Unlike the United States, z European countries had not experienced rapid productivity gains in the 1995-2005 period, but they did experience the postcrisis decline. r Between 2010 and 2019, annual productivity growth fell below one percent in France, Germany, and the United Kingdom.

The Solow paradox was back. After a decade of rapid productivity gains, the information technology revolution had reached a point of diminishing returns. But the next wave of technology-the digitization of processes, big data and analytics, cloud computing, the Internet of Things-was not yet ready to fill the gap. Despite early breakthroughs in image recognition and natural language processing, few firms had begun to make use of artificial intelligence technologies, and digitization was proceeding slowly. We estimated, based on a sector-by sector assessment, that in 2015, the United States had reached only 18 percent of its digital potential and Europe had reached only 12 percent. Moreover, a gap had opened up between the firms that were digital leaders and those that were digital laggards-a gap that other researchers found was correlated with a gap in labor productivity.

This gap in technology adoption was widening at a time of weak consumer demand for goods and services, in large part due to the aftereffects of the financial crisis. Firms scaled back their investments, and fewer new businesses were created. Making matters worse, the share of income that flowed to top earners and the owners of capital increased, while the share that went to labor decreased, further weakening demand.

Across the United States and Europe, the vast majority of sectors experienced declines in productivity growth. Only four percent of all sectors recorded productivity jumps in 2014, compared with an average of 18 percent of sectors that achieved substantial increases in productivity in the previous two decades. Growth in gross value added-a measure of a firm's or a sector's contribution to GDP-declined from 3.4 percent annually between 1995 and 2005 to 1.8 percent between 2005 and 2019. Growth in hours worked remained roughly unchanged, at 0.7 percent, throughout both periods.

These two very different periods of economic activity in the United States reveal much about the underpinnings of productivity growth. It stems first and foremost from the widespread adoption of technological innovations, especially general-purpose technologies such as electricity and the Internet. But it also stems from the managerial innovation and reorganization of functions and tasks that occur when firms adopt new technologies. Both of these processes must spur leaps in productivity growth in many sectors, or at least in a few large ones, so that productivity jumps in the economy as a whole. Finally, adoption and reorganization within and across sectors must be driven by competition, which incentivizes firms to innovate and helps spur technological diffusion.

Not all productivity growth is created equal, however. Productivity growth can be achieved through gains in the volume or value of outputs for a given number of hours worked, or it can come about as a result of a reduction in hours worked for a given output. Often both happen at the same time. But it is when the former exceeds the latter that a virtuous cycle is created in which innovation and investment generate growth in employment and wages, which in turn generates demand for increased (or more valuable) output. This is what happened during the period from 1995 to 2005. When the latter source of productivity growth exceeds the former, however, a vicious cycle results in which firms reduce labor costs faster than they grow the volume or value of their outputs, which in turn puts pressure on employment and incomes.

POST-PANDEMIC POTENTIAL

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

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

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

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

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

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

FOLLOW THE DIGITAL LEADER

Future gains in productivity, even those that boost overall growth, are likely to be uneven. We analyzed metrics that have the potential to unleash future productivity growth-such as research-and-development spending, revenue, capital expenditures (including digital expenses), and mergers and acquisitions-and found that especially in the United States, a small number of large superstar firms accounted for a disproportionately large share of the activity in all these categories. From the third quarter of 2019 to the third quarter of 2020, U.S. superstars (defined as the top ten percent of firms by profit) saw much shallower declines in capital expenditures and revenue than did other companies. During the same period, U.S. superstars spent $2.6 billion more on R & D than they did the previous year, while all other firms spent just $1.4 billion more.

If this investment, innovation, and technology adoption gap between superstars and the rest of the large firms and smaller, less profitable firms persists, any post-pandemic acceleration in productivity growth could fall short of its potential. Small and mediumsized enterprises have been hit disproportionately hard by the covID-19 crisis. As a result, many of them are unable to make big investments in future productivity and are therefore liable to fall even further behind the superstars. This is what happened in the aftermath of the 2008 global financial crisis, when only a minority of companies achieved productivity growth.

But there is room for cautious optimism about the ability of nonsuperstars to close some of the gap. Before the pandemic, the superstars tended to be highly digitized and innovative in their managerial approaches, as well as more profitable and resilient. They were therefore better placed to weather and even take advantage of the shock. But as the hardest-hit firms and sectors recover, and as early digital adaptors demonstrate the enormous potential of these technologies, many of the digital laggards could begin to catch up. Indeed, in another survey of executives we conducted in December 2020, about 75 percent of respondents in North America and Europe said they expected investment in new technologies to accelerate substantially between 2020 and 2024, up from 55 percent between 2014 and 2019. This expected uptick was similar across firm sizes.

Another reason for optimism is that in 2020, a year that saw the darkest economic days of the pandemic, 24 percent more new businesses were created in the United States than in 2019. Europe lagged behind the United States on this metric, with new business creation staying roughly flat in 2020 in France, Germany, and the United Kingdom and declining by more than 15 percent in Italy and Spain. If the American increase in business dynamism persists, however, it should contribute to more productivity growth.

Investment, innovation, and technology adoption are only one-half of the virtuous cycle of productivity growth, however. The other half is demand for the expanded output that results-in other words, income growth from increased productivity has to flow to people who will spend that additional money. In the short term, the outlook for demand is good, especially for countries that have made progress toward vaccinating their populations and could be among the first to open up their economies. Pent-up demand and savings from the pandemic could be unleashed all at once, resulting in a strong initial bounce in demand led by consumers. In the United States, President Joe Biden's $1.9 trillion economic support bill should push demand even higher.

In the medium term, the outlook for demand is also relatively solid, although it will depend on the size, deployment, and longevity of government spending. In the United States, Biden now has set his sights on a large infrastructure package. As his administration shifts its focus from economic relief to investment in productive areas, it could also increase productivity growth by raising demand to match potential supply, creating a high-pressure economy, that is, one with low unemployment and high growth. The outlook in continental Europe, where large-scale government economic support is harder to coordinate, is less certain. Nonetheless, the EU has put in place an unprecedented plan totaling some $900 billion to boost investment in the digital and green energy transitions.

But government spending on this scale will likely be time-limited, making the long-term outlook for demand less rosy. Moreover, long neglected problems, including the falling share of firms' income going to workers, rising inequality, and the long-term decline in private investment, could drag down demand. Roughly 60 percent of the postpandemic productivity gains that we estimate could come from innovations and organizational restructuring-the one percentage point of acceleration per year between now and 2024-would stem from firm-level measures, such as automation, designed to cut labor and other business costs. Unless firms do more to boost the volume or value of their output and help workers transition by acquiring new skills, the drive for efficiency will risk generating productivity gains through a vicious, rather than a virtuous, cycle, undermining wages and jobs and weakening consumption-driven demand and investment.

A NEW AGE OF DYNAMISM?

What can businesses and governments do to capitalize on the positive short- and medium-term outlook for productivity and to improve the long-term outlook? First, they should work to speed up technology adoption and managerial innovation, helping these changes spread within and across sectors. As the recovery begins, firms that have until recently been focused on crisis management and survival should follow the lead of superstar firms by investing in technology and reorganization. The superstars can assist in this process by supporting their broader ecosystems, in particular by doing business with smaller firms that offer complementary products and services. Governments can support the process, as well, by investing in research and development.

Policymakers should also seek to strengthen competition and business dynamism. In a healthy economy, the firms that add the most value prosper and grow, while the firms that add the least value shrink or disappear: so-called creative destruction. Policymakers can revive and reinforce this natural sorting process by revising competition rules, bankruptcy procedures, and product and labor-market regulations.

#### Incremental innovation by incumbents makes markets less dynamic and means ROI will soon equate the cost of capital – the plan ignites a gale of creative destruction to induce drastic innovation.

Rizzo ’21 [Andrea Minuto; Head of International Affairs @ Italian Competition Authority; “Digital Mergers: Evidence from the Venture Capital Industry Suggests That Antitrust Intervention Might Be Needed,” *Journal of European Competition Law & Practice* 12(1); AS]

In recent years, a debate about the possible existence of a kill zone around technology incumbents has gone beyond venture capital circles to involve a broader audience.33 In the kill zone, incumbents allegedly have both the ability and the incentive to foreclose promising potential competitors. Their position allows them to collect large amounts of data and to identify emerging trends early and to react to them, whether by adopting aggressive exclusionary practices to protect their core market or by pre-emptive acquisitions of innovative start-ups at generous multiples.34 Exclusionary conduct and acquisitions may actually be complementary strategies, rather than substitutive ones, as the former may allow the incumbent to reduce the acquisition price.35

Despite the growing concern that the possible existence of a kill zone might negatively impact innovation, the venture capital industry itself has diverse views about the need to increase antitrust scrutiny against large digital incumbents changing the current approach to M&As. In particular, among the venture capitalists that have actively engaged with US antitrust enforcers36, even those that acknowledge the existence of a problem at the same time express their fears for the possible unintended consequences of changes introduced with the best of intentions.

Tackling incentives to innovate in the digital sector represents a multifaceted phenomenon, where the opposing sides are nevertheless part of the same coin. On one hand, venture capital has so far greatly contributed to the transformation of high-risk start-ups into fully fledged independent companies, participating in the creation of the most valuable public companies globally. Moreover, start-ups benefit in many ways from the ecosystems created by large technology incumbents, among others, by using their platforms as effective distribution channels.

Furthermore, the incumbents might simply offer a better product or service. On the other hand, however, there seems to be evidence, on the investment side, highlighting a possible reduction of venture-backed start-ups operating in the same space where digital incumbents are active. As stated during these debates ‘funds have a limited size and they have to allocate capital and they would much rather pursue a market that has tailwinds behind it as opposed to a market that has matured and that has deep entrenched incumbents’.37 In markets dominated by incumbents, ‘(... ) start-ups building superior products (... ) may also find it difficult to secure VC investment’.38

In addition, some venture capitalists have expressed their views that competition to digital incumbents might likely arise from adjacent markets. A ‘viral’ success in a separate vertical could, as it grows, spill into the core market of a dominant player. These adjacent markets might be an area where antitrust agencies could focus more.

Some of the evidence described in the previous section is consistent with the existence of reduced first-time venture-backed funding in markets dominated by digital incumbents. Despite the evidence still being limited, it nevertheless provides suggestive food for thought and should trigger more detailed research on this complex topic. First of all, the existence and the magnitude of this reduction have to be further verified, for example, through a precise identification of the companies actually competing in the same space of digital incumbents and their evolution. The second step should then verify the existence of a causal link between the alleged aggressive behaviour of the incumbents in the kill zone and the reduction of venture capital financings, especially in the early stages of start-ups.

This reduction might, indeed, not necessarily pertain to the antitrust domain as it could stem from changing requirements of start-ups themselves as their technological and commercial needs evolve. The widespread ‘blitzscaling’ 39 strategy—where start-ups enter a digital niche with a narrow focus then gradually expanding—has been made possible by developments—such as the advent of smartphones, social media and cloud computing40—that allow for global reach and scalability41 at almost no initial technological cost, while marketing and human capital budgets may be on the rise at successive stages of the start-ups’ development.42

Moreover, changes have taken place also in the investment industry landscape through an expansion of the types of capital provided. Among others, non-traditional newer investors and sovereign wealth funds have invested in later-stage companies.43 Lastly, as for the exits through a sale, generous acquisitions might, as well, reflect prospective efficiencies deriving from the synergies between the acquirer and the acquired start-up.

However, the evidence thus far collected does suggest that current digital incumbents face very little threat of entry. Competition for the market dynamics are not necessarily symptomatic of the presence of the exploitation of market power, provided that incumbents still face, actual or potential, competitive pressures and could be substituted by a more efficient rival.44 What is needed is not just incremental innovation, but the drastic innovation that makes market leadership highly contestable. This is especially true for technology markets, where, as stated by Google itself, ‘changes tend to be revolutionary, not evolutionary’.45

Some recent studies and antitrust agency reports suggest that digital markets are becoming progressively less dynamic. Among others, the UK’s Digital Competition Expert Panel (UK Report46) observes that competition for the market does not appear to be able to solve competition issues linked to winner-take-all outcomes, as the next technological revolution is likely to focus on data that existing firms control to a large extent and that successful new entrants are generally acquired by incumbents. Moreover, Organisation for Economic Co-operation and Development (OECD) research suggests that, in digital-intensive sectors, mark-ups are increasingly higher47 while the decline in business dynamism occurs faster than in other sectors of the economy.48

As highlighted by the Stigler report49, key players in the digital industry remained the same over the last two technology waves, staying dominant through the shift to mobile and the rise of artificial intelligence, without significant impact on market share or profit margins.

Lastly, worrying evidence emerges also from the application of profitability analysis to digital incumbents. High profits substantially and persistently above the cost of capital 50 could signal that the market is not functioning properly, as in the long term, return on investment should equal the cost of capital. In that regard, the UK’s Competition and Markets Authority (CMA) has found, in the context of the sector enquiry into online platforms and digital advertising51, that the return on capital employed (ROCE) of Google and Facebook has been well above any reasonable estimate of a competitive benchmark for many years. In 2018, the estimated cost of capital for both Google and Facebook was around 9%, compared to actual returns on capital of over 40% for Google and around 50% for Facebook. Even though these results have to be interpreted with caution52, they seem to indicate that digital platforms are not facing the threat of entry and this evidence is consistent with the actual exploitation of market power.

Schumpeter 53 highlighted the prospect of new competition and innovation as incessantly playing a key role in fostering dynamic competition and economic efficiency. The evidence so far described may indicate that this impulse for creative destruction is fading in digital market.

#### Slow growth causes extinction.

Oppenheimer ’21 [Michael; Clinical Professor in Center for Global Affairs @ New York University, Senior Consulting Fellow @ Scenario Planning at the International Institute for Strategic Studies, Former Executive Vice President @ The Futures Group, Member @ Council on Foreign Relations, Member in the Foreign Policy Roundtable @ Carnegie Council on Ethics and International Affairs, Member @ The American Council on Germany; “The Turbulent Future of International Relations,” in *The Future of Global Affairs: Managing Discontinuity, Disruption and Destruction*, p. 23-43]

Four structural forces will shape the future of International Relations: globalization (but without liberal rules, institutions, and leadership)1; multipolarity (the end of American hegemony and wider distribution of power among states and non-states2); the strengthening of distinctive, national and subnational identities, as persistent cultural differences are accentuated by the disruptive effects of Western style globalization (what Samuel Huntington called the “non-westernization of IR”3); and secular economic stagnation, a product of longer term global decline in birth rates combined with aging populations.4 These structural forces do not determine everything. Environmental events, global health challenges, internal political developments, policy mistakes, technology breakthroughs or failures, will intersect with structure to define our future. But these four structural forces will impact the way states behave, in the capacity of great powers to manage their differences, and to act collectively to settle, rather than exploit, the inevitable shocks of the next decade.

Some of these structural forces could be managed to promote prosperity and avoid war. Multipolarity (inherently more prone to conflict than other configurations of power, given coordination problems)5 plus globalization can work in a world of prosperity, convergent values, and effective conflict management. The Congress of Vienna system achieved relative peace in Europe over a hundred-year period through informal cooperation among multiple states sharing a fear of populist revolution. It ended decisively in 1914. Contemporary neoliberal institutionalists, such as John Ikenberry, accept multipolarity as our likely future, but are confident that globalization with liberal characteristics can be sustained without American hegemony, arguing that liberal values and practices have been fully accepted by states, global institutions, and private actors as imperative for growth and political legitimacy.6 Divergent values plus multipolarity can work, though at significantly lower levels of economic growth-in an autarchic world of isolated units, a world envisioned by the advocates of decoupling, including the current American president.7 Divergent values plus globalization can be managed by hegemonic power, exemplified by the decade of the 1990s, when the Washington Consensus, imposed by American leverage exerted through the IMF and other U.S. dominated institutions, overrode national differences, but with real costs to those states undergoing “structural adjustment programs,”8 and ultimately at the cost of global growth, as states—especially in Asia—increased their savings to self insure against future financial crises.9

But all four forces operating simultaneously will produce a future of increasing internal polarization and cross border conflict, diminished economic growth and poverty alleviation, weakened global institutions and norms of behavior, and reduced collective capacity to confront emerging challenges of global warming, accelerating technology change, nuclear weapons innovation and proliferation. As in any effective scenario, this future is clearly visible to any keen observer. We have only to abolish wishful thinking and believe our own eyes.10

Secular Stagnation

This unbrave new world has been emerging for some time, as US power has declined relative to other states, especially China, global liberalism has failed to deliver on its promises, and totalitarian capitalism has proven effective in leveraging globalization for economic growth and political legitimacy while exploiting technology and the state’s coercive powers to maintain internal political control. But this new era was jumpstarted by the world financial crisis of 2007, which revealed the bankruptcy of unregulated market capitalism, weakened faith in US leadership, exacerbated economic deprivation and inequality around the world, ignited growing populism, and undermined international liberal institutions. The skewed distribution of wealth experienced in most developed countries, politically tolerated in periods of growth, became intolerable as growth rates declined. A combination of aging populations, accelerating technology, and global populism/nationalism promises to make this growth decline very difficult to reverse. What Larry Summers and other international political economists have come to call “secular stagnation” increases the likelihood that illiberal globalization, multipolarity, and rising nationalism will define our future. Summers11 has argued that the world is entering a long period of diminishing economic growth. He suggests that secular stagnation “may be the defining macroeconomic challenge of our times.” Julius Probst, in his recent assessment of Summers’ ideas, explains:

…rich countries are ageing as birth rates decline and people live longer. This has pushed down real interest rates because investors think these trends will mean they will make lower returns from investing in future, making them more willing to accept a lower return on government debt as a result.

Other factors that make investors similarly pessimistic include rising global inequality and the slowdown in productivity growth…

This decline in real interest rates matters because economists believe that to overcome an economic downturn, a central bank must drive down the real interest rate to a certain level to encourage more spending and investment… Because real interest rates are so low, Summers and his supporters believe that the rate required to reach full employment is so far into negative territory that it is effectively impossible.

…in the long run, more immigration might be a vital part of curing secular stagnation. Summers also heavily prescribes increased government spending, arguing that it might actually be more prudent than cutting back – especially if the money is spent on infrastructure, education and research and development.

Of course, governments in Europe and the US are instead trying to shut their doors to migrants. And austerity policies have taken their toll on infrastructure and public research. This looks set to ensure that the next recession will be particularly nasty when it comes… Unless governments change course radically, we could be in for a sobering period ahead.12

The rise of nationalism/populism is both cause and effect of this economic outlook. Lower growth will make every aspect of the liberal order more difficult to resuscitate post-Trump. Domestic politics will become more polarized and dysfunctional, as competition for diminishing resources intensifies. International collaboration, ad hoc or through institutions, will become politically toxic. Protectionism, in its multiple forms, will make economic recovery from “secular stagnation” a heavy lift, and the liberal hegemonic leadership and strong institutions that limited the damage of previous downturns, will be unavailable. A clear demonstration of this negative feedback loop is the economic damage being inflicted on the world by Trump’s trade war with China, which— despite the so-called phase one agreement—has predictably escalated from negotiating tactic to imbedded reality, with no end in sight. In a world already suffering from inadequate investment, the uncertainties generated by this confrontation will further curb the investments essential for future growth. Another demonstration of the intersection of structural forces is how populist-motivated controls on immigration (always a weakness in the hyper-globalization narrative) deprives developed countries of Summers’ recommended policy response to secular stagnation, which in a more open world would be a win-win for rich and poor countries alike, increasing wage rates and remittance revenues for the developing countries, replenishing the labor supply for rich countries experiencing low birth rates.

Illiberal Globalization

Economic weakness and rising nationalism (along with multipolarity) will not end globalization, but will profoundly alter its character and greatly reduce its economic and political benefits. Liberal global institutions, under American hegemony, have served multiple purposes, enabling states to improve the quality of international relations and more fully satisfy the needs of their citizens, and provide companies with the legal and institutional stability necessary to manage the inherent risks of global investment. But under present and future conditions these institutions will become the battlegrounds—and the victims—of geopolitical competition. The Trump Administration’s frontal attack on multilateralism is but the final nail in the coffin of the Bretton Woods system in trade and finance, which has been in slow but accelerating decline since the end of the Cold War. Future American leadership may embrace renewed collaboration in global trade and finance, macroeconomic management, environmental sustainability and the like, but repairing the damage requires the heroic assumption that America’s own identity has not been fundamentally altered by the Trump era (four years or eight matters here), and by the internal and global forces that enabled his rise. The fact will remain that a sizeable portion of the American electorate, and a monolithically proTrump Republican Party, is committed to an illiberal future. And even if the effects are transitory, the causes of weakening global collaboration are structural, not subject to the efforts of some hypothetical future US liberal leadership. It is clear that the US has lost respect among its rivals, and trust among its allies. While its economic and military capacity is still greatly superior to all others, its political dysfunction has diminished its ability to convert this wealth into effective power.13 It will furthermore operate in a future system of diffusing material power, diverging economic and political governance approaches, and rising nationalism. Trump has promoted these forces, but did not invent them, and future US Administrations will struggle to cope with them.

What will illiberal globalization look like? Consider recent events. The instruments of globalization have been weaponized by strong states in pursuit of their geopolitical objectives. This has turned the liberal argument on behalf of globalization on its head. Instead of interdependence as an unstoppable force pushing states toward collaboration and convergence around market-friendly domestic policies, states are exploiting interdependence to inflict harm on their adversaries, and even on their allies. The increasing interaction across national boundaries that globalization entails, now produces not harmonization and cooperation, but friction and escalating trade and investment disputes.14 The Trump Administration is in the lead here, but it is not alone. Trade and investment friction with China is the most obvious and damaging example, precipitated by China’s long failure to conform to the World Trade Organization (WTO) principles, now escalated by President Trump into a trade and currency war disturbingly reminiscent of the 1930s that Bretton Woods was designed to prevent. Financial sanctions against Iran, in violation of US obligations in the Joint Comprehensive Plan Of Action (JCPOA), is another example of the rule of law succumbing to geopolitical competition. Though more mercantilist in intent than geopolitical, US tariffs on steel and aluminum, and their threatened use in automotives, aimed at the EU, Canada, and Japan,15 are equally destructive of the liberal system and of future economic growth, imposed as they are by the author of that system, and will spread to others. And indeed, Japan has used export controls in its escalating conflict with South Korea16 (as did China in imposing controls on rare earth,17 and as the US has done as part of its trade war with China). Inward foreign direct investment restrictions are spreading. The vitality of the WTO is being sapped by its inability to complete the Doha Round, by the proliferation of bilateral and regional agreements, and now by the Trump Administration’s hold on appointments to WTO judicial panels. It should not surprise anyone if, during a second term, Trump formally withdrew the US from the WTO. At a minimum it will become a “dead letter regime.”18

As such measures gain traction, it will become clear to states—and to companies—that a global trading system more responsive to raw power than to law entails escalating risk and diminishing benefits. This will be the end of economic globalization, and its many benefits, as we know it. It represents nothing less than the subordination of economic globalization, a system which many thought obeyed its own logic, to an international politics of zero-sum power competition among multiple actors with divergent interests and values. The costs will be significant: Bloomberg Economics estimates that the cost in lost US GDP in 2019- dollar terms from the trade war with China has reached $134 billion to date and will rise to a total of $316 billion by the end of 2020.19

Economically, the just-in-time, maximally efficient world of global supply chains, driving down costs, incentivizing innovation, spreading investment, integrating new countries and populations into the global system, is being Balkanized. Bilateral and regional deals are proliferating, while global, nondiscriminatory trade agreements are at an end. Economies of scale will shrink, incentivizing less investment, increasing costs and prices, compromising growth, marginalizing countries whose growth and poverty reduction depended on participation in global supply chains. A world already suffering from excess savings (in the corporate sector, among mostly Asian countries) will respond to heightened risk and uncertainty with further retrenchment. The problem is perfectly captured by Tim Boyle, CEO of Columbia Sportswear, whose supply chain runs through China, reacting to yet another ratcheting up of US tariffs on Chinese imports, most recently on consumer goods:

We move stuff around to take advantage of inexpensive labor. That’s why we’re in Bangladesh. That’s why we’re looking at Africa. We’re putting investment capital to work, to get a return for our shareholders. So, when we make a wager on investment, this is not Vegas. We have to have a reasonable expectation we can get a return. That’s predicated on the rule of law: where can we expect the laws to be enforced, and for the foreseeable future, the rules will be in place? That’s what America used to be.20

The international political effects will be equally damaging. The four structural forces act on each other to produce the more dangerous, less prosperous world projected here. Illiberal globalization represents geopolitical conflict by (at first) physically non-kinetic means. It arises from intensifying competition among powerful states with divergent interests and identities, but in its effects drives down growth and fuels increased nationalism/populism, which further contributes to conflict. Twenty-first-century protectionism represents bottom-up forces arising from economic disruption. But it is also a top-down phenomenon, representing a strategic effort by political leadership to reduce the constraints of interdependence on freedom of geopolitical action, in effect a precursor and enabler of war. This is the disturbing hypothesis of Daniel Drezner, argued in an important May 2019 piece in Reason, titled “Will Today’s Global Trade Wars Lead to World War Three,”21 which examines the preWorld War I period of heightened trade conflict, its contribution to the disaster that followed, and its parallels to the present:

Before the First World War started, powers great and small took a variety of steps to thwart the globalization of the 19th century. Each of these steps made it easier for the key combatants to conceive of a general war.

We are beginning to see a similar approach to the globalization of the 21st century. One by one, the economic constraints on military aggression are eroding. And too many have forgotten—or never knew—how this played out a century ago.

…In many ways, 19th century globalization was a victim of its own success. Reduced tariffs and transport costs flooded Europe with inexpensive grains from Russia and the United States. The incomes of landowners in these countries suffered a serious hit, and the Long Depression that ran from 1873 until 1896 generated pressure on European governments to protect against cheap imports.

…The primary lesson to draw from the years before 1914 is not that economic interdependence was a weak constraint on military conflict. It is that, even in a globalized economy, governments can take protectionist actions to reduce their interdependence in anticipation of future wars.

In retrospect, the 30 years of tariff hikes, trade wars, and currency conflicts that preceded 1914 were harbingers of the devastation to come. European governments did not necessarily want to ignite a war among the great powers. By reducing their interdependence, however, they made that option conceivable.

…the backlash to globalization that preceded the Great War seems to be reprised in the current moment. Indeed, there are ways in which the current moment is scarier than the pre-1914 era. Back then, the world’s hegemon, the United Kingdom, acted as a brake on economic closure. In 2019, the United States is the protectionist with its foot on the accelerator. The constraints of Sino-American interdependence—what economist Larry Summers once called “the financial balance of terror”—no longer look so binding. And there are far too many hot spots—the Korean peninsula, the South China Sea, Taiwan—where the kindling seems awfully dry.

Multipolarity

We can define multipolarity as a wide distribution of power among multiple independent states. Exact equivalence of material power is not implied. What is required is the possession by several states of the capacity to coerce others to act in ways they would otherwise not, through kinetic or other means (economic sanctions, political manipulation, denial of access to essential resources, etc.). Such a distribution of power presents inherently graver challenges to peace and stability than do unipolar or bipolar power configurations,22 though of course none are safe or permanent. In brief, the greater the number of consequential actors, the greater the challenge of coordinating actions to avoid, manage, or de-escalate conflicts. Multipolarity also entails a greater potential for sudden changes in the balance of power, as one state may defect to another coalition or opt out, and as a result, the greater the degree of uncertainty experienced by all states, and the greater the plausibility of downside assumptions about the intentions and capabilities of one’s adversaries. This psychology, always present in international politics but particularly powerful in multipolarity, heightens the potential for escalation of minor conflicts, and of states launching preventive or preemptive wars. In multipolarity, states are always on edge, entertaining worst-case scenarios about actual and potential enemies, and acting on these fears—expanding their armies, introducing new weapon systems, altering doctrine to relax constraints on the use of force—in ways that reinforce the worst fears of others.

The risks inherent in multipolarity are heightened by the attendant weakening of global institutions. Even in a state-centric system, such institutions can facilitate communication and transparency, helping states to manage conflicts by reducing the potential for misperception and escalation toward war. But, as Waheguru Pal Singh Sidhu argues in his chapter on the United Nations, the influence of multilateral institutions as agent and actor is clearly in decline, a result of bottom-up populist/nationalist pressures experienced in many countries, as well as the coordination problems that increase in a system of multiple great powers. As conflict resolution institutions atrophy, great powers will find themselves in “security dilemmas”23 in which verification of a rival’s intentions is unavailable, and worst-case assumptions fill the gap created by uncertainty. And the supply of conflicts will expand as a result of growing nationalism and populism, which are premised on hostility, paranoia, and isolation, with governments seeking political legitimacy through external conflict, producing a siege mentality that deliberately cuts off communication with other states.

Finally, the transition from unipolarity (roughly 1989–2007) to multipolarity is unregulated and hazardous, as the existing superpower fears and resists challenges to its primacy from a rising power or powers, while the rising power entertains new ambitions as entitlements now within its reach. Such a “power transition” and its dangers were identified by Thucydides in explaining the Peloponnesian Wars,24 by Organski (the “rear-end collision”)25 during the Cold War, and recently repopularized and brought up to date by Graham Allison in predicting conflict between the US and China.26

A useful, and consequential illustration of the inherent challenge of conflict management during a power transition toward multipolarity, is the weakening of the arms control regime negotiated by the US and the Soviet Union during the Cold War. Despite the existential, global conflict between two nuclear armed superpowers embracing diametrically opposed world views and operating in economic isolation from each other, the two managed to avoid worst-case outcomes. They accomplished this in part by institutionalizing verifiable limits on testing and deployment of both strategic and intermediate-range nuclear missiles. Yet as diplomatically and technically challenging as these achievements were, the introduction of a third great power, China, into this twocountry calculus has proven to be a deal breaker. Unconstrained by these bilateral agreements, China has been free to build up its capability, and has taken full advantage in ramping up production and deployment of intermediate-range ground-launched cruise missiles, thus challenging the US ability to credibly guarantee the security of its allies in Asia, and greatly increasing the costs of maintaining its Asian regional hegemony. As a result, the Intermediate Nuclear Force treaty is effectively dead, and the New Start Treaty, covering strategic missiles, is due to expire next year, with no indication of any US–Russian consensus to extend it. The US has with logic indicated its interest in making these agreements trilateral; but China, with its growing power and ambition, has also logically rejected these overtures. Thus, all three great powers are entering a period of nuclear weapons competition unconstrained by the major Cold War arms control regimes. In a period of rapid advances in technology and worsening great power relations, the nuclear competition will be a defining characteristic of the next decade and beyond. This dynamic will also complicate nuclear nonproliferation efforts, as both the demand for nuclear weapons (a consequence of rising regional and global insecurity), and supply of nuclear materials and technology (a result of the weakening of the nonproliferation regime and deteriorating great power relations) will increase.

Will deterrence prevent war in a world of several nuclear weapons states, (the current nuclear powers plus South Korea, Iran, Saudi Arabia, Japan, Turkey), as it helped to do during the bipolar Cold War? Some neorealist observers view nuclear weapons proliferation as stabilizing, extending the balance of terror, and the imperative of restraint, to new nuclear weapons states with much to fight over (Saudi Arabia and Iran, for example).27 Others,28 examining issues of command and control of nuclear weapons deployment and use by newly acquiring states, asymmetries in doctrines, force structures, and capabilities between rivals, the perils of variable rates in transition to weapons deployment, problems of communication between states with deep mutual grievances, the heightened risk of transfer of such weapons to non-state actors, have grave doubts about the safety of a multipolar, nuclear-armed world.29 We can at least conclude that prudence dictates heightened efforts to slow the pace of proliferation, while realism requires that we face a proliferated future with eyes wide open.

The current distribution of power is not perfectly multipolar. The US still commands the world’s largest economy, and its military power is unrivaled by any state or combination of states. Its population is still growing, despite a recent decline in birth rates. It enjoys extraordinary geographic advantages over its rivals, who are distant and live in far worse neighborhoods. Its economy is less dependent on foreign markets or resources. Its political system has proven—up to now—to be resilient and adaptable. Its global alliance system greatly extends its capacity to defend itself and shape the world to its liking and is still intact, despite growing doubts about America’s reliability as a security guarantor. Based on these mostly material and historical criteria, continued American primacy would seem to be a good bet, if it chooses to use its power in this way.30

So why multipolarity? The clearest and most frequently cited evidence for a widening distribution of global power away from American unipolarity is the narrowing gap in GDP between the US and China. The IMF’s World Economic Outlook forecasts a $0.9 trillion increase in US GDP for 2019–2020, and a $1.3 trillion increase for China in the same period.31 Many who support the American primacy case argue that GDP is an imperfect measure of power, that Chinese GDP data is inflated, that its growth rates are in decline while Chinese debt is rapidly increasing, and that China does poorly on other factors that contribute to power—its low per capita GDP, its political succession challenges, its environmental crisis, its absence of any external alliance system. Yet GDP is a good place to start, as the single most useful measure and long-term predictor of power. It is from the overall economy that states extract and apply material power to leverage desired behavior from other states. It is true that robust future Chinese growth is not guaranteed, nor is its capacity to convert its wealth to power, which is a function of how well its political system works over time. But this is equally the case for the US, and considering recent political developments is not a given for either country.

As an alternative to measuring inputs—economic size, political legitimacy, technological innovation, population growth—in assessing relative power and the nature of global power distribution, we should consider outputs: what are states doing with their power? The input measures are useful, possibly predictive, but are usually deployed in the course of making a foreign policy argument, sometimes on behalf of a reassertion of American primacy, sometimes on behalf of retrenchment. As such, their objectivity (despite their generous deployment of “data”) is open to question. What is undeniable, to any clear-eyed observer, is a real decline in American influence in the world, and a rise in the influence of other powers, which predates the Trump administration but has accelerated into America’s free fall over the last four years. This has produced a de facto multipolarity, whether explainable in the various measures of power—actual and latent—or not. This decline results in part from policy mistakes: a reckless squandering of material power and legitimacy in Iraq, an overabundance of caution in Syria, and now pure impulsivity. But more fundamentally, it is a product of relative decline in American capacity—political and economic—to which American leadership is adjusting haphazardly, but in the direction of retrenchment/restraint. It is highly revealing that the last two American presidents, polar opposites in intellect, temperament and values, agreed on one fundamental point: the US is overextended, and needs to retrench. The fact that neither Obama nor Trump (up to this point in his presidency) believed they had the power at their disposal to do anything else, tells us far more about the future of American power and policy—and about the emerging shape of international relations—than the power measures and comparisons made by foreign policy advocates.

Observation of recent trends in US versus Russian relative influence prompts another question: do we understand the emerging characteristics of power? Rigorously measuring and comparing the wrong parameters will get us nowhere at best and mislead us into misguided policies at worst. How often have we heard, with puzzlement, that Putin punches far above his weight? Could it be that we misunderstand what constitutes “weight” in the contemporary and emerging world? Putin may be on a high wire, and bound to come crashing down; but the fact is that Russian influence, leveraging sophisticated communications/social media/influence operations, a strong military, an agile (Putin-dominated) decision process, and taking advantage of the egregious mistakes by the West, has been advancing for over a decade, shows no sign of slowing down, and has created additional opportunities for itself in the Middle East, Europe, Asia, Latin America, the Arctic. It has done this with an economy roughly the size of Italy’s. There are few signs of a domestic political challenge to Putin. His external opponents are in disarray, and Russia’s main adversary is politically disabled from confronting the problem. He has established Russia as the Middle East power broker. He has reached into the internal politics of his Western adversaries and influenced their leadership choices. He has invaded and absorbed the territory of neighboring states. His actions have produced deep divisions within NATO. Again, simple observation suggests multipolarity in fact, and a full explanation for this power shift awaiting future historians able to look with more objectivity at twenty-first-century elements of power.

When that history is written, surely it will emphasize the extraordinary polarization in American politics. Was multipolarity a case of others finding leverage in new sources of power, or the US underutilizing its own? The material measures suggest sufficient capacity for sustained American primacy, but with this latent capacity unavailable (as perceived, I believe correctly, by political leadership) by virtue of weakening institutions: two major parties in separate universes; a winnertake-all political mentality; deep polarization between the parties’ popular bases of support; divided government, with the Presidency and the Congress often in separate and antagonistic hands; diminishing trust in the permanent government, and in the knowledge it brings to important decisions, and deepening distrust between the intelligence community and policymakers; and, in Trump’s case, a chaotic policy process that lacks any strategic reference points, mis-communicates the Administration’s intentions, and has proven incapable of sustained, coherent diplomacy on behalf of any explicit and consistent set of policy goals.

Rising Nationalism/Populism/Authoritarianism

The evidence for these trends is clear. Freedom House, the go-to authority on the state of global democracy, just published its annual assessment for 2020, and recorded the fourteenth consecutive year of global democratic decline and advancing authoritarianism. This dramatic deterioration includes both a weakening in democratic practice within states still deemed on balance democratic, and a shift from weak democracies to authoritarianism in others. Commitment to democratic norms and practices—freedom of speech and of the press, independent judiciaries, protection of minority rights—is in decline. The decline is evident across the global system and encompasses all major powers, from India and China, to Europe, to the US. Right-wing populist parties have assumed power, or constitute a politically significant minority, in a lengthening list of democratic states, including both new (Hungary, Poland) and established (India, the US, the UK) democracies. Nationalism, frequently dismissed by liberal globalization advocates as a weak force when confronted by market democracies’ presumed inherent superiority, has experienced a resurgence in Russia, China, the Middle East, and at home. Given the breadth and depth of right-wing populism, the raw power that promotes it—mainly Russian and American—and the disarray of its liberal opponents, this factor will weigh heavily on the future.

The major factors contributing to right-wing populism and its global spread is the subject of much discussion.32 The most straightforward explanation is rising inequality and diminished intergenerational mobility, particularly in developed countries whose labor-intensive manufacturing has been hit hardest by the globalization of capital combined with the immobility of labor. Jobs, wages, economic security, a reasonable hope that one’s offspring has a shot at a better life than one’s own, the erosion of social capital within economically marginalized communities, government failure to provide a decent safety net and job retraining for those battered by globalization: all have contributed to a sense of desperation and raw anger in the hollowed-out communities of formerly prosperous industrial areas. The declining life expectancy numbers33 tell a story of immiseration: drug addition, suicide, poor health care, and gun violence. The political expression of such conditions of life should not be surprising. Simple, extremist “solutions” become irresistible. Sectarian, racial, regional divides are strengthened, and exclusive identities are sharpened. Political entrepreneurs offering to blow up the system blamed for such conditions become credible. Those who are perceived as having benefited from the corrupt system—long-standing institutions of government, foreign countries and populations, immigrants, minorities getting a “free ride,” elites—become targets of recrimination and violence. The simple solutions of course, don’t work, deepening the underlying crisis, but in the process politics is poisoned. If this sounds like the US, it should, but it also describes major European countries (the UK, France, Italy, Germany, Poland, Hungary, the Czech Republic), and could be an indication of things to come for non-Western democracies like India.

We have emphasized throughout this chapter the interaction of four structural forces in shaping the future, and this interaction is evident here as well. Is it merely coincidence that the period of democratic decline documented by Freedom House, coincides precisely with the global financial and economic crisis? Lower growth, increasing joblessness, wage stagnation, superimposed on longer-term widening of inequality and declining mobility, constitute a forbidding stress test for democratic systems, and many continue to fail. And if we are correct about secular stagnation, the stress will continue, and authoritarianism’s fourteen-year run will not be over for some time. The antidemocratic trend will gain additional impetus from the illiberal direction of globalization, with its growth suppressing protectionism, weaponization of global economic exchange, and weakening global economic institutions. Multipolarity also contributes, in several ways. The former hegemon and author of globalization’s liberal structure has lost its appetite, and arguably its capacity, for leadership, and indeed has become part of the problem, succumbing to and promoting the global right-wing populist surge. It is suffering an unprecedented decline in life expectancy, and recently a decline in the birth rate, signaling a degree of rot commonly associated with a collapsing Soviet Union. While American politics may once again cohere around its liberal values and interests, the time when American leadership had the self-confidence to shape the global system in its liberal image is gone. It may build coalitions of the like-minded to launch liberal projects, but there will be too much power outside these coalitions to permit liberal globalization of the sort imagined at the end of the Cold War. In multipolarity, the values around which global politics revolve will reflect the diversity of major powers, their interests, and the norms they embrace. Convergence of norms, practices, policies is out of the question. Global collective action, even in the face of global crises, will be a long shot. To expect anything else is fantasy

Unbrave New World and Future Challenges

At the outset of this chapter we described these structural forces as interacting to produce more conflict and diminished prosperity. We also predicted a world with shrinking collective capacity to address new challenges as they arise. What specifically will such a world look like? We address below three principal challenges to global problem solving over the next decade.

Interstate Conflict

In the world experienced by most readers of this volume, conflict is observed within weak states, sometimes promoted by regional competitors, by terrorist groups, or by great powers, acting through surrogates or by indirect means. Sometimes, as in Syria, this conflict spills over to contiguous states and contributes to regional instability, and challenges other regions to respond effectively, a challenge that Europe has not met. Much of this will continue, but the global significance of such local conflicts will be greatly magnified by increasing great power conflict, which will feed—rather than manage or resolve—local instabilities and will in turn be exacerbated by them. Great powers will jockey for advantage, support their local partners, escalate preemptively. Conflicts initially confined to failing states or unstable regions will be redefined by great powers as global in scope and significance.

This tendency of states to view local conflicts in the context of a zero-sum, global struggle for power is familiar to students of the Cold War, but now with the additional challenges to collective action, expanded uncertainty and worst-case thinking associated with the power transition to multipolarity. We can easily observe increased conflict in US–China relations, as we will in US–Russia relations as future US administrations try to make up for ground lost during the Trump presidency, especially in the Middle East. We can observe it among powerful states with mutual historical grievances, now with a weakening presence of the hegemonic security guarantor and having to consider the renationalization of their defense: Japan-South Korea, Germany-France. We can observe it among historical rivals operating in rapidly changing security landscapes: India-China. We can observe it within the Middle East, as internal rivalries are appropriated by regional powers in a contest for regional dominance. We can observe it clearly in Syria, where the regime’s violent suppression of Arab Spring resistance led to all-out civil war, attracted outside support to proxy forces by aspiring regional hegemons Saudi Arabia and Iran, enabled the rise of ISIS, and eventually to great power intervention, principally by Russia. In a world of effective great power collaboration or American primacy, the Syrian civil war might have been settled through power sharing or partition, or if not, contained within Syria. The collapse of Yugoslavia, occurring during a period of US “unipolarity” and managed effectively, demonstrates the possibilities. Instead, with the US retrenching, Middle East rivals unconstrained by great powers, and great power competition rising, the Syria civil war was fed by outside powers, then metastasized into the region, and—in the form of refugee flows—into Europe, fundamentally altering European politics. Libya may be at the early stages of this scenario.

This is not the end of the Syria story. Russia has established itself as a major player in Syria and the Middle East’s power broker, the indispensable country with leverage throughout the region. China is poised to reap the financial and power benefits of Syrian reconstruction. The US has just demonstrated, in its act of war against the Iranian regime, its willingness, without consultation, to put its allies’ security in further jeopardy, accentuating the risks of security ties with Washington and generating added opportunities for Russia and China. The purpose here is not to critique US policy, but to point out the dramatically shifting power balance in a critical region, toward multipolarity. The dangers of such a shift will become apparent as some future US president attempts to reassert US influence in the region and finds a crowded playing field.

Can a multipolar distribution of power among several states whose interests, values, and political practices are divergent, all experiencing bottom-up nationalist pressures, all seeking advantages in the oversupply of regional instability, be made to work? I think not. Will this more dangerous world descend into direct military confrontation between great powers, and could such confrontation lead to use of nuclear weapons? Here the question becomes, what will this more dangerous world actually look like; what instruments of coercion will be available to states as technology change accelerates; how will states employ these instruments; how will deterrence work (if at all) among several states with large but unequal levels of destructive capacity, weak command, and control, disparate— or opaque—strategies and simmering rivalries; can conflict management work in a world of weak institutions? The collapse of the Cold War era nuclear arms control regime, the threat to the Non-Proliferation Treaty represented by the demise of the JCPOA, and multiple indications of an accelerating nuclear arms race among the three principle powers, augurs badly. Given the structural forces at play, and without predicting the worst, we are indeed entering perilous times.

Global Poverty and Inequality

Despite the challenges of volatility and disruptive change inherent in globalization, the world under American liberal leadership has managed a dramatic reduction of extreme poverty. According to World Bank estimates, in 2015, 10 percent of the world’s population lived on less than $1.90 a day, down from nearly 36 percent in 1990.34 In fact, as of September 2018, half the world is now middle class or wealthier.35 The uneven success of the UN Millennium Development Goals (MDGs) exemplifies this achievement, and demonstrates what is possible when open markets are managed through strong global institutions, effective leadership and interstate collaboration. What this liberal hegemonic system did not achieve, however, was a fair distribution of the gains from globalization within states, and among those states that for various reasons were not full participants in this system.

This record of partial achievement leaves us with a full agenda for the next fifteen years, but without the hegemonic leadership, strong institutions, ascendant liberalism or robust global growth that enabled previous gains. There are powerful reasons to question the sustainability of these poverty reduction gains, leading to doubts about the realization of the Sustainable Development Goals, which have replaced the MDGs as global development targets.36 (See Jens Rudbeck’s chapter and Sidhu’s UN chapter for SDGs). Skeptics have pointed to slowing global growth, specifically in China, whose demand for imported commodities was a major factor in developing country growth and job creation; growing protectionism in developed country markets, fueled by bottom-up forces of nationalism, and from top-down by a weakened global trading regime and increased geopolitical rivalry; the effects of accelerating climate change on agriculture, migration and communal conflict in poor countries; and the growth burst among poor countries from the rapid transition to more efficient use of resources, a transition that is now slowing down.37

Perhaps the greatest concern in this scenario is a general deterioration in the developing country foreign investment climate. Foreign direct investment (FDI) has been a major contributor to growth, job creation, and poverty alleviation among poor countries. It has incentivized growthfriendly policies, reduced corruption, introduced technology and effective management practices, and linked poor countries to foreign markets through global supply chains.38 It has stimulated growth of indigenous manufacturing and service companies to supply new foreign investments.

It has been the major cause of economic convergence between rich and poor countries. From 2000 to 2009, developing economies’ growth rates were more than four percentage points higher than those of rich countries, pushing their share of global output from just over a third to nearly half.39 However, FDI flows into poor countries are imperiled by the structural forces discussed here. Political instability arising from slower growth and environmental stress will increase investors’ perception of higher risk, reinforcing their developed country bias. Protectionism among developed countries will threaten the global market access upon which manufacturing investment in developing countries is premised, causing firms to pare back their global supply chains. As companies retrench from direct investment in poor countries, the appeal to those countries of Chinese debt financed infrastructure projects, under the Belt-Road Initiative with little or no conditionality, but at the risk of “debt traps,” will increase.

Global Warming

The question posed at the beginning of this section is whether the international system, evolving toward multipolarity and rising nationalism, will find the collective political capital to confront challenges as they arise. Global warming is the mother of all challenges, and the weakness in the system’s capacity to respond is clear. With the two major political/economic powers and greenhouse gas emitters locked in deepening geopolitical conflict (and with one of them locked in climate change denial, possibly through 2024), the chances of significantly slowing global warming or even ameliorating its effects are very slim. We are reduced to the default option, nation-specific adaptation to climate change, which will impose rising human, political and economic costs on all, and will widen the gap between rich countries with adaptive capacity (of varying degrees), and the poor, who will suffer deteriorating economic, political, and social conditions. (For a contrary, optimistic view see Michael Shank’s chapter, which credits new actors—like cities—as playing a more constructive role in climate mitigation.) This would bring to a close liberal globalization’s greatest achievement; the raising of 1.1 billion people out of extreme poverty since 1990,40 with all its associated gains in quality of life (in the WHO Africa region, for example, life expectancy rose by 10.3 years between 2000 and 2016, driven mainly by improvements in child survival and expanded access to antiretrovirals for treatment of HIV).41

Several forces are at work here. The problem itself is graver—in magnitude and in rate of worsening—than predicted by climate scientists. The UN Intergovernmental Panel on Climate Change (IPCC), the major source of information on global warming, has consistently underpredicted the rate of climate deterioration. This holds true even for its “worst-case scenarios,” meaning that what was meant as a wake-up call has in fact reinforced complacency.42 (see Michael Shank’s chapter for further discussion of climate change). The IPCC, in its 2019 report, has tried to undo the damage by emphasizing the acceleration in the rate of warming and its effects, the only partially understood dynamic of climate change, and—given wide uncertainty—the possibility of unpleasant surprises yet to come. This strengthens the scientific case for urgency—to both severely limit greenhouse gas emissions, and to increase investment in ameliorating the effects.

Unfortunately, the crisis comes at a moment when the climate for collective action is ice cold. Geopolitical competition incentivizes states to out produce each other, regardless of the environmental effects. Multipolarity complicates collective action. Economic stagnation mandates job creation, making regulation politically toxic. Bottom-up nationalism/populism causes states to pursue “relative gains,” meaning that if the nation is seen as gaining in a no-holds-barred economic competition with others, the negative environmental effects can be tolerated. A post-Trump presidency would help, with the US rejoining the Paris Agreement, and lending its weight to tighter regulation, increased R and D, and stronger economic incentives to reduce carbon emissions. Keep in mind, however, that President Obama was fully behind such efforts, but in a deeply polarized America was unable to implement measures needed to fulfill the Paris obligations through legislation, and his executive orders to do this were swiftly overturned by Trump.

Conclusion

It may be tempting to hope that post-Trump, the US can regain its global leadership and exert its considerable power in a liberal direction, but with enough self-awareness of its relative decline to share responsibility with others. This was, I believe, the broad direction of the Obama strategy, evidenced by the JCPOA and the Trans-Pacific Partnership: liberal, collective solutions to global problems, as US dominance receded.

This would constitute an optimistic scenario, and it confronts two major problems: can US internal politics support it (can, for example, the country legislate controls on carbon, essential for the global credibility and durability of such commitments); and is the world ready to reengage with American leadership, given the damage to its reputation and the structural forces discussed in this chapter?

My educated guess is no, on both counts. The rot within is extensive, the concrete evidence clear in the economic inequality/immobility numbers, the life expectancy numbers, the deep political polarization, between the two major parties, between regions, between cities and rural areas. We are in fact a long way from fitness for global leadership, and the recognition of this by others will accelerate the decline of American influence. The rest of the world is well on its way toward adjusting to post-American hegemony, some by renationalizing their defense, or by cutting deals with adversaries, by building new alliances or by seizing new opportunities for influence in the vacuum left by American retrenchment. The evidence for this will accumulate. Observe the current and emerging Middle East, where all these post-hegemonic strategies are visible.

#### Platform dependency on China fuels digital authoritarianism – separations and start-up entrance decouples US platforms from Chinese markets.

Sitaraman ’20 [Ganesh; Co-founder and Director of Policy @ Great Democracy Initiative, Professor of Law @ Vanderbilt University; “Too Big to Prevail: The National Security Case for Breaking Up Big Tech,” *Foreign Affairs* 99(2), p. 116-126; AS]

But the national security case against breaking up Big Tech is not just weak; it is backward. Far from competing with China, many big technology companies are operating in the country, and their growing entanglements there create vulnerabilities for the United States by exposing its firms to espionage and economic coercion. At home, market concentration in the technology sector also means less competition and therefore less innovation, which threatens to leave the United States in a worse position to compete with foreign rivals. Rather than threatening to undermine national security, breaking up and regulating Big Tech is necessary to protect the United States’ democratic freedoms and preserve its ability to compete with and defend against new great-power rivals.

DESTINATION: CHINA

Competition with China will define U.S. national security conversations for decades to come, and Americans need to think carefully about the role technology will play in this increasingly competitive environment. But to claim that the likes of Amazon and Google are helping counter China’s technological and geopolitical rise simply because they are American companies makes little sense.

Almost all big U.S. technology companies have extensive operations in China today. Google announced plans for an AI research center in Beijing in 2017 and is exploring a partnership with the Chinese Internet behemoth Tencent. Microsoft is expanding its data centers in China and has recently built an entire operating system, Windows 10 China Government Edition, for the Chinese government. Amazon’s cloud service in China is second in popularity only to that of its Chinese counterpart, Alibaba. Apple famously designs its phones in California but manufactures them in China. Facebook, notably, does not operate in China—but not for lack of trying. The company repeatedly attempted to gain access to the Chinese market only to be blocked by Chinese government officials.

Merely operating in China may seem harmless. Yet according to scholars, U.S. government officials, and even American business associations, any U.S. technology company working in China could very well be supporting the Chinese state and the expansion of digital authoritarianism. In the course of their operations in the country, U.S. companies routinely interact with Chinese companies, some of which are run or partly owned by the state. Those that are not still have informal ties to state and Communist Party officials and face strong incentives to behave as the state wishes even without direct pressure from the government. Because the Chinese market and the state are intertwined in this way, Chinese companies that partner with foreign ones are highly likely to pass along operational and technological developments to the Chinese government and military, including in ways that could advance Beijing’s emerging surveillance state and accelerate its ability to spread its model of digital authoritarianism around the world.

These challenges are particularly clear in the case of AI, as commercial innovations in that field can also have military implications. Under Beijing’s doctrine of “civil-military fusion,” Chinese researchers and private companies are working ever more closely with the government and the military, which means that technological innovations that may have originated with a foreign company active in China can find their way to supporting the People’s Liberation Army. “If you’re working in China,” Ashton Carter, a former U.S. defense secretary, has said, “you don’t know whether you’re working on a project for the military or not.”

In addition to widely known concerns about Chinese espionage and surveillance, integration with the Chinese market also opens Big Tech—and the United States—to pressure from China, which can use that influence to hurt U.S. interests. Scholars refer to this tactic—turning economic interdependence into political leverage—by a variety of terms, including “geoeconomics,” “reverse entanglement,” and “weaponized interdependence.” Whatever it’s called, China has a long track record of doing it, across countries and industries. To retaliate against South Korea’s adoption of a U.S. missile defense system in 2017, China blocked Chinese travel agencies from offering trips to the country. And after the dissident Liu Xiaobo was awarded the Nobel Peace Prize in 2010, China temporarily blocked imports from Norway.

To avoid offending Chinese officials and potentially losing access to the country’s large market, companies are adapting their behavior even outside China’s borders. Hollywood studios have been accused of rewriting scripts and editing scenes for that purpose: choosing to blow up the Taj Mahal instead of the Great Wall of China in the movie Pixels, according to Reuters, and replacing China with North Korea as the main adversary in the 2012 remake of Red Dawn, according to the Los Angeles Times. In 2019, Daryl Morey, the general manager of the NBA basketball team the Houston Rockets, tweeted in support of pro-democracy protesters in Hong Kong; soon thereafter, he deleted the post. In the days that followed, the owner of the Rockets wrote that Morey did “NOT speak” for the team, and the NBA said it was “regrettable” that Morey’s views had “deeply offended many of our friends in China.” (After a public outcry, the NBA clarified that it would not censor or fire Morey.) A year earlier, Mercedes-Benz had posted a quote from the Dalai Lama on Instagram. After an online backlash in China, the automaker quickly erased the quote, and its parent company, Daimler, said that the post had contained an “erroneous message” and had “hurt the feelings of people” in China. The People’s Daily, China’s largest newspaper, later branded Mercedes-Benz as an “enemy of the people.”

Such conduct by Western companies illustrates a broader point: they act based on their commercial interests, not in the name of abstract democratic principles or for the cause of U.S. national security. The same is true when these companies try to influence government policy. The potential stakes are high. The U.S. Department of Commerce, for instance, has the power to set export restrictions on some sensitive technologies, including AI; those restrictions may be important from a national security standpoint, even if they negatively affect some companies’ bottom lines. Yet the dominant ideology among corporate lawyers today holds that the sole aim of managers is to maximize shareholder profits, and corporate lobbyists are thus likely to advocate public policies that support those profits even if they run counter to U.S. national interests.

Practically all U.S. companies active in China are subject to such pressures to one degree or another, and how to address that predicament is another question altogether. But the size and dominance of American technology companies are part of the problem. As the U.S. technology sector becomes more concentrated and the few players in it become more dependent on the Chinese market for consumers and profits, these firms—and, by extension, the United States—become more vulnerable to pressure from Beijing. Antimonopoly policies could help remedy this problem: in a fractured market with many players, the sheer number of firms would all but guarantee that some would build supply chains that circumvented China, or build their products wholly in the United States, or simply choose not to engage in the Chinese market—whether because of idiosyncratic preferences, competitive dynamics, product differentiation, higher costs, or other factors.

Consider another industry whose structure resembles that of Big Tech: Hollywood. Like the technology industry, today’s entertainment sector consists of a handful of studios that are increasingly dominant at the box office and able to pressure theaters to give their content preferential treatment. If these big, integrated companies comply with Chinese censors out of a concern for market access, then U.S. consumers will not see content that offends the Chinese government. By contrast, in a system with a large number of small studios and competitive distribution channels, many companies would lack the size, scope, or desire to cater to the Chinese market, let alone be dependent on it. Nor would they have the power or scale to lock out new competitors through vertical integration. The result would be a market in which Americans had a range of content choices, including entertainment that might not accord with the views of foreign censors.

Of course, in theory, it is possible that a small number of big U.S. technology firms, each with monopoly-like power, might be so profitable as to have no need for the Chinese market, whereas small companies with razor-thin profit margins might depend more on that market for consumers and profits. But this hypothesis has not been borne out. The current technology sector is already highly concentrated, and yet today’s technology companies are not forsaking the Chinese market; instead, they are desperate to expand their business there.

As they do so, they will likely be subject to the same pressures bearing down on Hollywood, the NBA, Mercedes, and other entities that want to operate in China. Companies such as Amazon and Google, which both produce their own content and distribute it through their platforms, may over time be tempted to make that content palatable to Chinese censors. And because those firms have immense market power within the United States, American consumers will be left with no serious, scalable alternatives.

A more competitive technology sector, with many smaller players, would also mitigate the ill effects of lobbying, for much the same reasons. Fewer companies would be dependent on the Chinese market, and those that were would be differentiated enough to often end up on different sides of policy debates. Their lobbying efforts would be less likely to cut in a single direction and thus less likely to capture government.

THE VIRTUE OF MONOPOLY

Big Tech’s market dominance, some will argue, has benefits: free of constant worries about vicious competition, technology giants can focus on the big questions. They have the time and resources to invest copiously in cutting-edge research, where success is rare but the potential payoff—for technological innovation and thus for U.S. competitiveness and national security—is massive.

Whether or not they say it explicitly, those who want to protect Big Tech from antitrust laws and other regulations are advocating a “national champions” model—a system in which the state shields a few select big companies from competition, allowing them to spend on research and development. But there is strong evidence that this approach is imperfect, at times even counterproductive. As the legal scholar Tim Wu has noted, it is usually competition, not consolidation, that fosters innovation. Competitors have to find ways to differentiate themselves in order to survive and expand. Large, protected firms become lethargic, are slow to innovate, and rest on their laurels.

Recall the race for supremacy in the electronics industry that played out between the United States and Japan in the 1980s. Japan, according to Wu, chose to protect its national champions, giving direct government support to such powerhouses as NEC, Panasonic, and Toshiba. The United States took the opposite tack. Its largest electronics firm at the time, IBM, came under antitrust scrutiny by U.S. authorities, and the ensuing decade-long legal battle discouraged the company from engaging in conduct that might run afoul of antitrust laws. That created the space for a variety of other hardware and software companies, among them Apple, Lotus, and Microsoft, to flourish. Competition led to innovation and the creation of some of the most forward-looking companies of the era.

National champions also have an incentive to hide breakthroughs that might undermine their market power. Bell Labs, one of the pillars of AT&T’s telecommunications empire, has long been celebrated for its role as an “ideas factory.” But Bell Labs and AT&T also suppressed innovations that threatened their business model. Starting in the 1930s, for example, AT&T’s management sat on recording inventions that could have been used for answering machines, for fear this innovation might jeopardize the use of the telephone.

Skeptics might argue that this time is different—that today’s next-generation technologies are so resource-intensive that smaller companies in a competitive environment couldn’t afford the necessary investments. But even if broken up and regulated, Big Tech’s main players would have considerable money left to spend on AI, robotics, quantum computing, and other next-generation technologies. Facebook would still have billions of users without Instagram and WhatsApp. Amazon’s platform would still have enormous market power in online sales even if it wasn’t allowed to produce its own products.

Whatever resource constraints did arise could be offset by greater public investment in R & D. As the economist Mariana Mazzucato has argued, such government spending has historically been a significant driver of innovation; the Internet, for example, began as a U.S. Defense Department network. There is no reason the government could not play the same role today.

Unlike research by national-champion firms, research funded by public investment would not be tied to the profit motive. It could therefore cover a wider range of subjects, extend to basic research that does not have immediate or foreseeable commercial applications, and include research that might challenge the incumbency and business models of existing companies. Public research could also de-emphasize areas of inquiry that may be profitable but are socially undesirable. For many of the biggest technology companies, surveillance, personalized targeting, and the eliciting of particular behavioral responses lie at the heart of their business models, which means that their efforts to innovate are geared in no trivial way toward improving those tactics. An authoritarian country may see those as valuable public goals, but it is not at all clear why a free and democratic society should.

Public investment in R & D also has the potential to spread the benefits of technology, innovation, and industry throughout the United States. At present, much of the country’s technological and innovative prowess is concentrated in a few hubs—the most prominent being Northern California, Seattle, and Boston. This is not surprising, as unlike the government, technology companies have no reason to want to spread development evenly. Amazon’s competition to decide the location of its second headquarters is a good example. After inviting countless pitches from cities across the country and much public attention, the company settled on New York and Washington, D.C.—two cities that hardly need an economic boost. Public investment, as the economists Jonathan Gruber and Simon Johnson have argued, could remedy these geographic imbalances and spur successful economies in dozens of midsize cities all over the country, with spillover benefits for their regions.

Mountains of data are needed to improve AI’s precision and accuracy, and some might think that only Big Tech can collect and handle data in such vast quantities. But this need not be the case, either. The United States could create a public data commons with data collected from a variety of government sources (and regulate it with strict rules about personal privacy), for use by businesses, local governments, and nonprofits to train machines. Any new data would be fed back into the data commons, allowing the quality and quantity of the information to improve over time. Alternatively, the government could require technology companies to make their data available in interoperable formats. If those companies effectively have monopoly power over data, then they could be regulated as monopolies—with public access to the data sets as a condition for their continued protection as monopolies. No legal obstacles stand in the way of these options, and both would enable innovation and expand the number of players working on important technological developments.

SQUEEZING THE GOVERNMENT

For the moment, such public initiatives exist only as proposals. Big technology companies have considerable market power, and the U.S. government increasingly relies on their services, including to run its national security apparatus. Technology is, of course, a crucial aspect of warfare, and firms such as Amazon and Microsoft have contracts to provide cloud services to U.S. defense and intelligence agencies. These technology companies are fast becoming part of the United States’ defense industrial base—the collection of industries that are indispensable for U.S. military equipment. As they do so, the curse of monopoly capitalism that already affects the country’s overconsolidated defense sector—causing higher costs, lower quality, reduced innovation, and even corruption and fraud—will likely grow worse.

To see the challenge ahead, consider the present state of the U.S. weapons industry, which is already remarkably uncompetitive. In 2019, the Government Accountability Office found that 67 percent of 183 contracts for major weapons systems did not have a competitive bidding process. Almost half the contracts went to one of five companies—a stunning testament to the dominance of a handful of firms. And in 2018, the Defense Department released a report on the military’s supply chain that listed numerous items for which only one or two domestic companies (and in some cases none) produced the essential goods. Perhaps most striking of all, the report found that the United States no longer had the capacity to build submarines on a rapid timetable because of single suppliers and declining competition.

Unsurprisingly, as Frank Kendall, a former head of acquisitions at the Pentagon, has pointed out, large defense contractors “are not hesitant to use this power for corporate advantage.” In a recent article in The American Conservative, the researchers Matt Stoller and Lucas Kunce argue that contractors with de facto monopoly at the heart of their business models threaten national security. They write that one such contractor, TransDigm Group, buys up companies that supply the government with rare but essential airplane parts and then hikes up the prices, effectively holding the government “hostage.” They also point to L3 Technologies, a defense contractor with ambitions, in the words of its one-time CEO, to become “the Home Depot of the defense industry.” According to Stoller and Kunce, L3’s de facto monopoly over certain products means that it continues to receive lucrative government contracts even after it admitted in the settlement of a 2015 civil fraud lawsuit that it had knowingly supplied defective weapons sights to U.S. forces.

As technology becomes more integral to the future of U.S. national security, Big Tech’s market power will likely lead to much the same problems. Technology behemoths will amass defense contracts, and the Pentagon will be locked into a state of dependence, just as it is currently with large defense contractors. Instead of healthy innovation, the government will have created what Michael Chertoff, a former homeland security secretary, has called a “technological monoculture,” which is unwieldy and vulnerable to outside attack. The cost to taxpayers will increase, whether due to higher prices or fraud and corruption, and much of their money—funding that could have been available for innovation—will become monopoly profits for technology executives and shareholders.

A WAY FORWARD

That technology companies do not want to be broken up is unsurprising. They are profitable, growing, and powerful. Nor is it a mystery why they try to play the trump card of invoking national security in their defense. But even from the viewpoint of national security, the case for shielding Big Tech from competition is weak. Technology companies are not competing with China so much as integrating with it, at significant risk to U.S. interests.In the United States, competition and public investment in R & D, not today’s consolidated technology sector, will provide the best path forward to innovation.

Policymakers should embrace proposals to break up and regulate big technology companies: to unwind mergers and acquisitions such as Facebook’s decision to buy the social networking and messaging services Instagram and WhatsApp. They should require technology platforms such as Amazon to separate from businesses that operate on their platforms. They should apply nondiscrimination principles drawn from public utilities and common carrier laws to digital platforms. And they should adopt stringent privacy regulations.

In this era of great-power competition, the best way to remain competitive and innovative is through market competition, smart regulations, and public spending on R & D. Breaking up Big Tech won’t threaten national security; it will bolster it.

#### Digital authoritarianism causes extinction.

Manstead ’20 [Katherine; Non-Resident Fellow @ Alliance for Securing Democracy and Senior Adviser for Public Policy @ Australian National University’s National Security College; “Strong Yet Brittle: The Risks of Digital Authoritarianism”; https://securingdemocracy.gmfus.org/wp-content/uploads/2020/05/Strong-Yet-Brittle-The-Risks-of-Digital-Authoritarianism.pdf]

While digital authoritarianism can enhance regime durability and national power, it also introduces deep-seated vulnerabilities, eight of which are considered below. Significantly, digital authoritarians may find themselves in a state of constant contest with other regime types, trapped in cycles of overreach and backlash, and prone to strategic miscalculations that pull them into interstate conflict. The current turn to digital authoritarianism therefore also has broader implications for international peace and stability.

Brittle Legitimacy

Reliance on information control makes authoritarians brittle. Small chinks in their information control armor could have existential consequences, particularly during political or economic crises (i.e. when the regime needs to rely on control for legitimacy because it is not delivering for citizens). The information and ideas most dangerous to authoritarians include:

• the identity of opposition groups and leaders and their levels of support; 17

• technical means for subverting control of communications and surveillance technologies;18

• ideas about values that transcend state sovereignty, such as liberalism and human rights;19

• evidence that the central government is not delivering efficient outcomes;20 and

• ideas that undermine the myths and narratives used to legitimize authoritarian rule or the power of the ruling elite.21

Constant Contest

Since technologies and ideas are dynamic, the battle for information control is a constant struggle. It can never be ‘won.’ Authoritarians are therefore in a perpetual state of information warfare, inside and outside their regime, and feel perpetually insecure. This dynamic may lead authoritarian governments to assess that it is worth engaging in information or cyberattacks to discredit liberal ideas at their foreign source or to shape or disable systems that jeopardize their information control—despite real risks of conflict escalation and global pushback.

Overreach and Backlash

The fundamental importance of information control to authoritarians increases the likelihood of overreach, leading to cycles of backlash and reprisal. Many perceive China’s heavy-handed narrative warfare in Hong Kong and confrontational efforts to control narratives about coronavirus to be strategic missteps. For example, CCP efforts to stifle dissent by punishing online gaming company Blizzard and the National Basketball Association (NBA) arguably aided Hong Kong protester narratives;22 while CCP obfuscation about coronavirus has prompted unprecedented diplomatic rebukes from world leaders.23 Despite rising international awareness and condemnation of China’s sharp power tactics,24 China is accelerating, not muting, these behaviors.25 One explanation for this is that the CCP calculates that the risks of international backlash (and occasional overreach by its officials) are acceptable, compared with the risk of letting domestic information control falter.

Impaired Feedback Mechanisms

Authoritarians embrace technology to increase the legibility of their societies. But legibility requires cooperation from society. It is facilitated by an open information ecosystem, robust civil society, mechanisms of transparency, and protections for political speech.26 Conversely, information control and technology-enabled systems of surveillance and enforcement discourage accurate reporting and punish whistleblowing, while incentivizing officials to conceal failures and exaggerate successes.27 In 2007, Le Keqiang (before he became China’s premier) described China’s national income figures as “man-made” and unreliable, and noted that more objectively verifiable proxies should be preferred to official statistics collected by provinces.28 Without elections, authoritarians can also struggle to understand public sentiment, a problem highlighted by the Chinese government’s mismanagement of massive ongoing protests in Hong Kong. Party leaders wrongly assessed that the protestors’ grievances were primarily economic rather than political and that they did not enjoy broader public support.29 As Zeynep Tufekci has observed, the costs of China’s “authoritarian blindness” have been immense: a solvable issue (demands to withdraw a relatively unimportant extradition treaty) became “a bigger, durable crisis” with ongoing political consequences.30

China’s delayed reaction to coronavirus is a stark example of the authoritarian legibility and feedback problem. Local officials and hospital administrators in Wuhan suppressed information about the outbreak and punished doctor whistleblowers—depriving other provinces and the central government (not to mention international authorities) of vital signals that would have allowed swifter action to control the pandemic.31 Once authorities acknowledged the pandemic, China deployed the full weight of its digital surveillance capabilities. It was able to implement top-down lockdowns quickly; marshal its tech sector to build health apps; force citizens to download these apps; and access vast commercial holdings of personal data to cross-check compliance. However, it lacked critical bottom-up feedback systems that may have obviated the need for such draconian measures in the first place.32 Indeed, controlling for income and population size, authoritarian regimes appear to be more lethal than democracies during epidemics, arguably because of their closed information ecosystems.33

Overreliance on Technological Systems which ‘Fail Hard’

Many authoritarian governments are embracing AI-driven surveillance and control methods—from ‘smart cities’ to digital currencies, e-payment platforms and social apps. However, when AI systems fail, they tend to fail in unpredictable, often catastrophic ways. While citizens in democracies lament slow adoption of digital governance, authoritarians’ speed comes with the risk that authorities roll out unsafe or vulnerable systems.34 Imagine a critical failure of China’s social credit system—whether by accident or sabotage—which affected the integrity of records. The implications for regime stability could be significant.

AI systems do not need to fail to produce problematic results. They draw insights and make predictions based on correlations in vast datasets but are not good at identifying causal mechanisms. This means that AI systems often produce outcomes which humans cannot reverse engineer or routinely evaluate. Like using asbestos to build a city, AI governance systems might produce good results in the short-term, but inconsistencies or oversights in their approaches could lead to cascading failures that humans struggle to identify, let alone rectify.35

Unintended Consequences from High-Tech Modernism

Fixation by central governments on achieving targets or deploying certain technologies creates incentives for local officials to deploy “technology placebos” that do little to address underlying economic and social concerns. For example, many so-called smart city projects in authoritarian societies have failed to meet development and economic goals. They are fraught with issues such as “unclear strategic goals” (e.g. they often optimize for surveillance, not development) and “inadequate implementation.”36 This problem may be particularly pronounced for less-developed authoritarian governments which have been persuaded, for strategic reasons, to buy Chinese-exported digital surveillance tools that are not customized to local circumstances. These cities may also become locked into unstable or insecure technical architectures37 and economic dependence on China.38

Commitments to targets, and ideological fervor about technology, can also distort commercial decisions and raise unrealistic public expectations. Analysis of China’s AI industry, for example, suggests that companies are eschewing investment in basic research and focusing on quick wins in applied research.39 Additionally, China is already behind on meeting a number of its technology targets40—a lag that will likely be exacerbated by the global economic downturn following the coronavirus pandemic, and rising security fears in foreign markets about the security of Chinese technology and IP theft by its companies.

From a strategic perspective, there are risks that authoritarian governments’ fixation on technology-centric strategies will lead them to overestimate what technology can in fact achieve. For example, Chinese military strategists have posited that AI could lift the ‘fog’ of war and eliminate uncertainty and confusion on the battlefield. This is an ahistorical and unlikely prediction that could inspire miscalculation.41 Russian strategists theorize about how psychological operations might subdue adversaries without a shot being fired—an approach that may overestimate what cognitive warfare can achieve, at least without being combined with other elements of national power.42

Challenges to Social Cohesion

The medium- and long-term social consequences of digital authoritarianism are yet untested. Overreliance on surveillance and enforcement systems could attenuate relationships within a society, exacerbating authoritarians’ underlying low trust problems. Since they tend to reduce citizens to data inputs, these systems may deny citizens’ intrinsic desire for dignity and identity—with unexpected results.43 Information control tactics—such as flooding—can repress opposition, but long-term may exacerbate public uncertainty and decrease business confidence and trust in official information, with implications for social cohesion and economic progress.44

Dysfunctional Innovation Ecosystems

Information control and state-led pushes for technology dominance risk hampering innovation. For example, to achieve Xi Jinping’s ‘Made in China 2025’ goals, the CCP is supporting high-tech monopolies, restricting international collaboration, and yoking the state and market together.45 However, monopolies are notoriously inefficient and cross-border collaboration is an important driver of innovation. Further, innovation works best under free market conditions and in open societies.46 Some analysts argue that China’s success in deploying AI applications is an exception to this rule. However, there is a risk that Chinese companies are prioritizing shortterm breakthroughs (e.g. analyzing existing datasets to find new insights) at the expense of long-term investment in basic research.47 While authoritarians may excel at developing and deploying AI applications, conceptual research is arguably the real engine of AI advancement—and something that will continue to thrive in open societies.

Summary and Further Research

All states face risks in the information age, but the extent to which regime type affects the relative likelihood of these risks materializing, and their magnitude, is understudied. For example, much has been written about liberal democracies’ vulnerabilities to propaganda and foreign interference via social media.48 But while information warfare against open societies is more likely, arguably it is a higher magnitude threat for authoritarians, where control of information is core to regime survival. Similarly, analysts often lament that democratic governments have been slow to digitize governance systems and craft forward-looking technology policy.49 But while digital authoritarians might outcompete democracies in the roll-out of advanced technologies, this creates new vulnerabilities and risks. Inappropriate safeguards and accidents may result in cascading failures, while heavily digitized governance systems may be susceptible to foreign attack. Regime type may also affect the relative ability of authoritarians and democracies to mitigate their information age risks. For example, a democracy can build resilience to cyber and information threats through a variety of civil society and market-based interventions. Digital authoritarians must rely on a more limited set of top-down policy tools. Ultimately, a more systematic effort to map the comparative strengths and vulnerabilities of authoritarians and democracies in the information age could help both to better understand the other’s threat perceptions and manage escalation risks. It might also highlight ways in which democracies can hold digital authoritarians’ core interests at risk, in order to deter authoritarian interference in their own digital environments.

### 1AC – Plan

#### The United States federal government should adopt the principle of separating platforms from commerce for platforms in the private sector.

### 1AC – Systemic Risk

#### Contention two: Systemic Risk

#### Societal collapse is inevitable – dominant platforms are too big to fail – digitalization is financialization on steroids.

Curran ’20 [Dean; Assistant Professor in Sociology @ University of Calgary, PhD in Sociology; “Connecting risk: Systemic risk from finance to the digital,” *Economy and Society* 49(2), p. 239-264; AS]

The risks of tightly-coupled universal intermediaries

Irrespective of the importance of these insights into systemic fragility, insofar as we are interested in its impacts on overall social life, then the identification of the fragility of a system is only part of the problem. The other key question is: how important is this specific system to the overall functioning of society? To provide one set of contrasting examples, both pre-2008 finance and the Ryanair flight network in the summer of 2017 were systems that exhibited extremely low levels of redundancy and significant fragility to disruption (see Financial Times, 2017). Yet, Ryanair’s cacophony of cancelled and delayed flights was an inconvenience to a small portion of the population of Europe, while the stuttering of the credit provision system in finance resulted in a massive social crisis. As such, not only is the risk that a system will cease to function properly important, but insofar as we are oriented to systemic social risk and the potential for social crises, we must also focus on the level of dependence of society on this system. While existing approaches have focused on the fragility of a network, insofar as the intention of the analysis is to tack closely to the point of the social science study of risk – the potential damages to society – then the vulnerability of society to breakdowns in the network is just as important as the vulnerability of the network in itself.

This is what makes systemic financial risk so problematic in the twenty-first century. Firstly, finance has become interconnected to the point where it is a single, though highly uneven, system in which almost all parts are vulnerable to any other part of the financial system. Secondly, society as a whole exhibits very little redundancy vis-à-vis this single private finance system. Through its monopoly on credit provision and the near universality of employment of credit by corporations and private individuals, this network of contemporary privately-run financial institutions is increasingly emerging as a universal intermediary. Finance itself does not make anything, but it has increasingly become a single network that is a fundamental means to the provision of a vast array of other social functionings.13 Credit has become so central to economic processes across society that some bankers could speculate that, if the state had not intervened after the Lehman bankruptcy, grocery stores could have run out of food as their credit ran dry (Luyendijk, 2015). In this context, through financial institutions’ role as fundamental intermediaries in complex financial networks of interdependence, the failure of the system of privately owned finance would have disrupted everything else that depends on these networks of financial interdependence for continued functioning. Consequently, the ‘financialization of daily life’ (Langley, 2008; Martin, 2002), in which credit plays an increasingly fundamental role in commercial transactions, is not merely a massive sea change in subjectivities and a financial strategy for financial institutions to increase the scope of profit-making activities – it is also a systemic increase in the tight-coupling of society vis-à-vis the financial system. In this way, the proper functioning of the credit system itself has become a necessary condition to the reproduction of an ever greater number of social functionings – thus causing a massive increase in social dependence on this single, private system of finance.

Insofar then as universal intermediaries exhibit systemic fragilities there is significant potential for systemic social risk that can result in social crises, as emerged from the global financial crisis of 2008. Reducing this vulnerability can proceed via either making the system that is the intermediary more stable or through reducing its power as a necessary condition by generating other, independent ways of securing the goods to which this system is a means. This point, while not made explicit in the risk literature, is an important insight that can be generated by bringing together literatures on organizational and legal power and ecological, systemic risk. Almost all of the literature on contemporary finance focuses on making the system more stable, though there are also important treatments on replacing the private system of credit provision with a public system. Yet, from a social systemic risk perspective, the contemporary financial system is so dangerous not only because it is fragile and susceptible to crises, but because there is no back-up or alternative to contemporary global private finance for society. Reducing social dependence on credit and/or providing other forms of credit provision, including public and non-profit that are not integrated into the networks of interconnection of the existing private system, could not only provide greater security from systemic financial risk, but also massively reduce the necessary-condition-power of private finance that makes bailouts so difficult to avoid.

This is likewise where the ‘networked digitalisation of daily life’, akin to the financialisation of daily life, is increasingly important. As with the role of finance as an intermediary, digital giants are developing massive platforms that increasingly mediate almost all the basic functionings that human beings seek to achieve (Mansell, 2012; Srnicek, 2017).14 With the status of increasingly a universal intermediary for different social functions, if any of these platforms were to fail, all of the networks of dependence that rely on that platform would in turn fail. As banks enjoyed intermediary power as a means of enjoying market power, the major digital companies, including Apple, Alphabet, Amazon, Facebook and Microsoft are doing all they can to heighten their intermediary power by making themselves increasingly indispensable to more and more social and economic functions.

As with finance, this growing systemic risk should not be viewed simply as a relatively exogenous process of growing interdependencies due to globalization and technological development (cf. Centeno et al., 2015; Goldin & Mariathasan, 2014; World Economic Forum, 2015), but rather as fundamentally intensified by the pursuit of private efficiencies and monopoly power so as to realize profit and value maximization. Exemplified in the Silicon Valley ideology of ‘Unless you are breaking stuff … you are not moving fast enough’ (Zuckerberg in Anthony, 2017), the dependence of society on specific digital platforms continues to grow. The potential for ‘Schumpeterian profits’ from impeding competition by occupying the role of essential intermediaries for different social functions thus likewise intensifies the systemic risk associated with the failure of any of these digital giants.

As with contemporary finance, these digital giants seek to exhibit universal intermediary power. Insofar as they are necessary conditions to key functionings of our life, they exhibit a kind of dual power, that enables them to appropriate massive levels of economic rents due to their monopolistic position (Mazzucato, 2018), while also creating immense risks for society when they fail to successfully fulfil their roles – thus making it a core social interest that they not fail in their function. In these cases, companies, through what has been called ‘infrastructural imperialism’ (Vaidhyanathan, 2011) have sought to insert themselves as a universal means to the goods of our lives. More recently, cities themselves have been increasingly targeted by ransomware, which have threatened to bring urban governance to a halt. After a cyber attack hobbled Atlanta in 2018, which cost millions of dollars to recover from, in 2019 more than 40 municipalities in the United States have been hacked. These include major cities such as Albany and Baltimore, several smaller cities in Florida, along with 22 towns across Texas, which have been simultaneously afflicted (Fernandez & Sanger, 2019). As Wu (2010), has shown, insofar as digital companies appropriate these public ‘common carrier’ positions – including providing the infrastructure through which cities function – they become part of the critical infrastructure of social life. Yet, by enabling such a systemically risky system as the contemporary digital economy to develop in a manner that both amplifies the risk of the system itself and the social dependence on this system, we repeat the mistakes that were made in the lead-up to the 2008 financial crisis.

While at this point these cyber-attacks may be considered a considerable harm rather than a crisis, the growing infiltration of networked devices throughout our basic infrastructure associated with the revolution in IoT 15 and the potential for an entire networked smart city means that a level of interconnectedness implicit in current dynamics of innovation would turn a penetration at the scale of WannaCry or NotPetya, or the cyber-security and safety failures of AWS or Mirai, into a social catastrophe, in which the basic infrastructure of the city or an entire region could be disabled, or used as a tool for even more damaging cyber or infrastructural attacks. While cybersecurity is sophisticated and more can be done on this front, it is in many ways fighting a losing battle of trying to patch over an excessively interconnected and fragile system, on which we are increasingly intensely dependent. As Hypponen declares, summarizing the security status of digitally interconnected devices, ‘Whenever an appliance is described as being ‘smart’, it’s vulnerable’ (Hypponen & Nyman, 2017, p. 5). And yet the current trajectory is ever-greater damages as companies continue to work towards their goals of ever-greater network integration of social, material and political life with the digital economy.

With the growing complexity of digital interconnections – both within the digital system and at the human-digital interface (see Greenfield, 2017) – mismatches between the knowledge of programmers who create the code for software and the impacts that software’s vulnerabilities have continue to grow. This mismatch thus further intensifies the space for avoiding responsibility for the damages promulgated across these systems. As Naughton (2017) has highlighted, legal responsibility in the digital economy is rarely even close to commensurate to the damages wreaked through the failures of their created products. That it has not been seriously broached that any of the companies above be held even partially legally culpable for the collateral damages due to the breaches of their software exemplifies the extent to which the digital economy is dominated by intermediaries that are always seeking to further install themselves in people’s basic functionings and general capabilities, but are not held responsible when their intermediary roles are suspended – even when there are enormous path-dependent negative side-effects from breaches and breakdowns. The massive complexity of the networks of information they have contributed to creating and the inchoate nature of the damages they enable, which interact with many other causes – that is, they are not solely responsible for Russian political influence or the damaging of political discourse, but their business models play a definite, but indeterminate role in these processes – institutionalizes a kind of structural recklessness and irresponsibility at the centre of digital innovation.

While a critical, reflexive systemic risk analysis cannot be used to predict the future, it can aid in identifying important vulnerabilities that create the potential for system-wide risks. High levels of interconnectedness, complexity, low redundancy and high levels of mismatch between activity and knowledge, alongside low culpability is a toxic combination that created the conditions for a social crisis in 2008. Likewise this toxic combination is increasingly being manifested in the contemporary networked digital economy, which could generate another systemic social crisis that, given the existing scope and granularity of dependence of social life on digitally networked devices, potentially could be of even greater proportions.

#### 1 – Interconnectedness and lack of redundancy – it guarantees global internet and infrastructure collapse.

Curran ’20 [Dean; Assistant Professor in Sociology @ University of Calgary, PhD in Sociology; “Connecting risk: Systemic risk from finance to the digital,” *Economy and Society* 49(2), p. 239-264; AS]

Systemic financial and digital risk

The digital economy, which comprises ‘those businesses that increasingly rely upon information technology, data, and the internet for their business models’ (Srnicek, 2017, p. 4), is increasingly presenting itself as a hegemonic business model, which requires its own analytical treatment (Srnicek, 2017; see also Bauer & Latzer, 2016; Elder-Vass, 2016). Issues of risk and crisis raised by the financial crisis are particularly relevant to the emerging study of the digital economy in the face of the significant impacts from recent cyberattacks WannaCry and NotPetya and several breaches of confidential data, including 145 million people’s data held by Equifax and over 100 million held by Capital One.

While the shorthand of ‘digital economy’ is often and usefully used (Bauer & Latzer, 2016; Elder-Vass, 2016), core to this revolution is not simply the shift from analogue to digital, but in particular, the shift towards the use of computing devices that are networked. 4 As such ‘digital economy’ is employed as shorthand for the ‘networked digital economy’. This section further develops the framework for investigating emerging systemic risk proposed above, while also advancing evidence for the claim that the contemporary digital economy is manifesting systemic risk characteristics that have important similarities to the systemic risk characteristics of pre-2008 crisis finance. To pursue this dual task, I briefly develop a comparative systemic risk analysis of pre-crisis finance and the digital economy with respect to the following characteristics: interconnectedness and redundancy; interactive complexity, and mismatches between scope of knowledge and activity. Each of these subsections introduces brief illustrative cases to both clarify how to use this framework, or ‘toolbox’ of the political economy of systemic risk, and to provide prima facie evidence that significant digital systemic risk, and as is subsequently shown below, significant social systemic risk, is emerging from the current trajectory of the digital economy.

Problems of interconnectedness and redundancy in finance and the digital economy

As has been widely discussed in the literature on the 2008 financial crisis, in the lead-up to the crisis, the financial institutions that comprised the financial network became much more interconnected to the rest of the network, which increased the likelihood that solvency problems of one financial institution could threaten many other institutions in the network (Goldin & Mariathasan, 2014; Haldane, 2009; May et al., 2008). Alongside the growing interconnectedness of the financial network was a trend towards reduced redundancy, as banks significantly increased their leverage levels (Haldane et al., 2010). With increasing levels of leverage (the ratio of assets to equity), each financial institution had less back-up equity to employ when one of its investments failed to provide its anticipated return.

In the context of high interconnectedness and low redundancy, the failure of a small number of investments (such as when two of Bear Stearns’ hedge funds collapsed in July 2007) or, alternatively failure by an institution’s counterparty to meet their obligations (as occurred with Lehman Brothers in September 2008) could propagate risk across the network as these losses in turn created problems of liquidity and solvency for other counterparties and so on throughout the entire network (see Haldane, 2009). As the literature has previously discussed, with many investment banks having leverage ratios of 30 to one, losses of little more than 3 per cent could cause a bank to be insolvent (Curran, 2015; Haldane et al., 2010). With such a tightly connected network of firms and such little redundancy, the network was primed to have losses cascade throughout the network, until an institution with much greater levels of redundancy, the state, stepped in and ended the cascading losses through bailouts and stimulus packages.

In terms of analysing interconnectedness in the digitally networked economy, it is one of those few sectors that is considered to be even more connected than global finance. The growing scale of computing devices and their connection via the internet is a widely noted phenomenon (see Goldin & Mariathasan, 2014), with the internet being described as the world’s largest network (Perrow 2007, p. 249), and as a ‘world-spanning living organism’ (Pentland 2009, in Zuboff, 2015, p. 85). Moreover, this growth of connectivity has been extremely rapid, with not only massive increases in the number of digitally interconnected devices, but also the types of devices that are being connected continuing to proliferate (Schneier, 2018).

In terms of redundancy, while the internet is a massive network – which enables potential connection between any two devices that have IP addresses – it has been noted that the physical infrastructure of the internet exhibits a reasonably high level of redundancy. Even if one of the root-level servers was to be disabled, the system would be able to adjust, thus enabling continued availability of internet services (Perrow, 2007). Nevertheless, on top of this physical infrastructure of the internet has developed a series of oligopolistic or monopolistic providers of key services on the web such as Amazon, Apple, Google, Facebook and Microsoft, while Alibaba, Baidu and Tencent, occupy similar levels of market dominance in China (Webb, 2019). While monopolistic market structures are primarily viewed from a pricing perspective, market dominance also raises important questions from a systemic risk perspective that have only been addressed within the sector of finance. As such, while there is some recognition of the importance of ‘systematically important financial institutions’ (FSB, 2011), there has not yet been a corresponding regulatory recognition of the systemic risk associated with ‘systematically important digital institutions’. These dominant firms have become key nodes that support a vast array of web services, which in turn support a multitude of social practices. Google has eight products that have over one billion users, while Amazon, Microsoft, and Facebook exhibit similar levels of market dominance in their respective markets (Lardinois, 2018; Mazzucato 2018). This political economic structure of the digital economy, which benefits from the network effects of digital information markets (Hindman, 2018; Srnicek, 2017), alongside light-touch regulation (Curran, 2018), consequently has built a much more centralized functional web onto of the distributed technology of the internet.

Given the interoperability and interdependencies within these companies, the monopolistic, centralized nature of the web provision creates the potential for vulnerabilities to cascade widely through the web, even if the physical infrastructure is distributed. As Perrow (2007) has emphasized, having many systems that utilize the same software systems leaves them open to ‘commonmode’ failures, where a potential failure or breach anywhere in the network can lead to multiple, potentially cascading failures due to the systems being vulnerable to the same failure. The economic centralization of the infrastructure of the web thus leads to the potential for the identification and exploitation of a single vulnerability leading to the failure of thousands or even potentially millions of computing devices, which are vulnerable to the same weakness.5

The WannaCry cyberattack exemplifies the growing importance of the systemic fragilities involved with cyber risk, and on a truly global scale – affecting over 100 countries worldwide – based on the identification and exploitation of a single key vulnerability in Microsoft software (Larson, 2017). In terms of its impacts, one-third of the UK’s National Health Service (NHS) was rendered inoperative, Chinese students were locked out of their university files, over 1,000 computers at Russia’s interior ministry were disrupted, as were billion dollar businesses, such as FedEx and Telefónica. In total it is estimated that over 230,000 computers were infected by WannaCry (Thomas, 2019) and the costs of the attack are estimated at somewhere between $4–8 billion (Greenberg, 2018). For WannaCry, the malware took advantage of a vulnerability in Windows, which had been previously developed by the US-based NSA into an attack tool for its own hacking operations. This penetration tool, EternalBlue – based on a key ‘zero-day vulnerability’ for Windows operating systems – was stolen from the NSA and subsequently leaked on the internet in 2017 so that others could use it for cyber-attacks.

In evaluating cyber-threats there are three commonly discussed criteria for computer security: confidentiality, availability and integrity (Schneier, 2018). Confidentiality is that only parties that are authorized gain access to the information held on a system. Availability involves the continued access and functionality of computing services to authorized parties. Integrity involves only authorized parties making changes in a computer system.6 In the lead-up to WannaCry, one of, if not the most, sophisticated hacking groups in the world, the NSA, were unable to keep their own hacking tools confidential.

The EternalBlue vulnerability was again used the following year in the NotPetya malware. The NotPetya ransomware attack is considered the most costly attack yet, with estimates that it cost companies over $20 billion, while also shutting down key infrastructure (Clarke & Knake, 2019, p. 18). In this case, it was vulnerabilities in the update servers of a Ukrainian software company, Linkos, that provided a back door to thousands of computers in Ukraine, which enabled the hackers to release the NotPetya malware (Greenberg, 2018). NotPetya ‘crippled multinational companies including Maersk, pharmaceutical giant Merck, FedEx’s European subsidiary TNT Express, French construction company Saint-Gobain, food producer Mondele¯z, and manufacturer Reckitt Benckiser. In each case, it inflicted nine-figure costs’ (Greenberg, 2018).

Again, as with WannaCry, there were cascading effects on economic and material life. One example of its impacts is instructive, especially given the primary business model of the internet of maximizing connectivity and data collection and analysis.7 The Danish logistics company, Maersk, was hobbled by the attack. While Ukraine was the original target, given Maersk’s role in the global supply chain, ‘an attack on Maersk strikes everywhere at once’ (Greenberg, 2018). With a single breach of Maersk’s systems due to the installation of the unknowingly infected software in Odessa, this led to problems around the globe, as the malware caused the failure of a key ‘choke point’ in its shipping terminal system. This led to the closure for the day of 17 of its 76 terminals, including New Jersey, Los Angeles, Algericas (Spain), Rotterdam, and Mumbai, leading to massive delays and further problems given the focus on efficiencies and just-in-time deliveries in the global supply chain (Greenberg, 2018; see also Goldin & Mariathasan, 2014). While the software on Maersk’s ships were not infected, the terminals’ software had been wiped away, such that for ‘days to come, one of the world’s most complex and interconnected distributed machines, underpinning the circulatory system of the global economy itself, would remain broken’ (Greenberg, 2018).

The NotPetya attack is estimated to have cost Maersk $300 million; however, luckily the fundamental principle of the digital economy – connect (and collect) everything – was unintentionally violated in this case. In seeking to rebuild the logistics systems that plan how to sort and arrange their shipping process, a copy of the ‘domain controllers’, which serve as a map to the network, needed to be found. Maersk though had been syncing together all 150 domain controllers, and hence, in a clear case of the risks of the ethos of growing, almost reckless interconnectivity, all were wiped out by the NotPetya malware, except one, which remained exempt from the syncing process because a blackout in the Ghanaian office prior to the NotPetya infection had rendered the machine offline and disconnected from the network when NotPetya struck.8

As this case illustrates, a component can only serve effectively as redundancy if it is not too tightly-coupled to the network. If there is a high correlation between the failure of the part and its ‘back-up’ then there is not effective redundancy; yet the push to connectivity tends to infect all the parts in the case of an infection. In this case, redundancy was achieved, through a core principle of systemic risk minimization (modularity) unintentionally trumping the business model of the digital economy, of maximizing connectivity and interdependence.

Software increasingly functions as a core part of the infrastructure of our economic, social and political world. Yet, unlike the modularity of conventional infrastructure, networked software exhibits a series of interdependencies and potentialities for ‘common-mode’ failures that provides scope for an initial, single infection somewhere in the globe to cascade across the globe. Yet, despite the growing accumulation of costly ‘near-misses’ (see Perrow, 1984) little has changed in the fundamental business model of the digital economy, or of governments’ refusal to regulate for the systemic risk that is emerging from this massive growth in interconnectedness. In fact the digital economy aims to ever further increase the connectedness of life through the Internet of Things (IoT) (Schneier, 2018).

#### 2 – Complexity – monopolization of the digital economy makes the IoT vulnerable to cyber-attacks.

Curran ’20 [Dean; Assistant Professor in Sociology @ University of Calgary, PhD in Sociology; “Connecting risk: Systemic risk from finance to the digital,” *Economy and Society* 49(2), p. 239-264; AS]

Complexity in finance and the digital economy

In addition to the risks emerging from being a highly interconnected and low redundancy network, high levels of complexity in finance played a key role in the lead-up to the financial crisis of 2008. Perrow (1984) provides a basis for distinguishing between the risk properties of different types of complexity through his differentiation between linear complexity and interactive complexity. Linear complexity involves a system with many parts, but the interactions between these parts are linear, visible and generally predictable. Interactive complexity involves relations between parts that are not linear, such that there is a much greater chance of one component of the system interacting with and impacting components in many different parts of the system.9 This distinction is akin to Haldane’s (2009) distinction between more modular complexities, where there are relatively separable sub-structures, and interactively complex systems, where any part of the system exhibits a higher likelihood of dependence on any other part of the system in highly unpredictable, irregular ways. For the purpose of exposition, these two types of complexity will be called separable complexity and interactive complexity.

The lead-up to the financial crisis is widely acknowledged as having experienced a massive increase in the complexity of the financial system. Simple, short-chain securitization is consistent with risk reduction strategies (Engelen et al., 2011); however, complex forms of securitization led to such a level of opacity and unpredictable interactions between different financial transactions, and ultimately financial institutions, that a ‘modest increase of seriously delinquent subprime mortgages’ of 3 per cent ($34 billion) led to the fundamental disruption of the $57 trillion US financial system (Dodd, 2007).

In terms of the level of complexity that was reached in the years leading up to the 2008 crisis, ABS CDOs (Collateralized Debt Obligations in which the underlying assets are Asset-Backed Securities), can provide a useful illustrative case. ABS CDOs were a particularly complex security, in which the underlying components were bundles of different tranches of a series of ABSs. The tranches of these ABSs were built out of thousands of mortgages, with the different tranches classified based on the probability of default of their underlying mortgages, with the AAA tranches offering lower rates of return due to greater security, while the lower tranches (including BBB and BB) offering higher rates of return in compensation for a higher probability of default (see Financial Crisis Inquiry Commission, 2011, p. 73). ABS CDOs (which the Financial Crisis Inquiry Commission just calls ‘CDOs’) were then made out of the ‘mezzanine tranches’ of ABSs, in particular the AA, A, BBB and BB tranches, which were more difficult to sell because of the higher risk attached to them. Through constructing a new security by pooling together these different tranches, the sellers of these investments were able to claim that the process of creating ABS CDOs reduced correlation between assets through diversification and hence these mezzanine tranches were then sold as securities in which the majority of the ABS CDO was rated AAA (80 per cent), despite being made almost solely of higher probability of default securities (see Financial Crisis Inquiry Commission, 2011, pp. 127–129). The repackaging of these securities provided important arbitrage opportunities, especially because of the symbolic value attached to AAA rated investments. The resulting losses from these complex forms of securitization though played a key role in the lead-up to the 2008 financial crisis (MacKenzie, 2011, pp. 1779, 1782–1786).

In addition to high levels of interconnectedness and low redundancy, high levels of complexity are another key feature of the digital economy. In particular, the digital economy manifests not just a high level of complexity, but in particular a high level of interactive complexity, in which wide-ranging and unpredictable interconnections between different parts of a system are possible. Many of the software programs that are necessary to the web are immensely complex – much too complex for even the most sophisticated programmers in the world to adequately understand. Windows, for example, has over 60 million lines of code (Gisel & Olejnik, 2018).

Pasquale (2015) highlights an important element of contemporary power dynamics in that digital companies implement a two-sided mirror. They seek to know everything about their users, while their users know nothing about how they function. Yet, from a risk perspective there is also the larger point that given this level of complexity of these programs, no one, whether inside the company or outside, can hope to have a comprehensive picture of the interactions between these different lines of code – much less, how this software interacts with the external, social world. Even with the best programmers in the world, the complexity of these software systems regularly creates unanticipated mistakes in coding.10 When this level of complexity intersects with how tightly-coupled many software systems are, the exploitation of a single key vulnerability can lead to the complete breakdown of a computer or network of computers, as occurred with WannaCry and NotPetya. This complexity is so much more problematic in the context of the particularities of cyber-security. That is, it does not matter how many attacks are repelled because a single breach is enough to potentially generate a ‘class break’, in which a number of devices with similar software vulnerabilities can have their confidentiality, availability, or integrity breached (Schneier, 2018).

Yet, despite the continuing failures of cyber-security and the fragility of the system, the current trajectory of the business model of the digital economy, of seeking monopolistic network effects and of collecting as much data as possible, incessantly drives further growth in the size and complexity of the network (Hindman, 2018; Srnicek, 2017; Zuboff, 2019). While this is manifested by many trends, the pivot towards the Internet of Things (IoT) – as associated with projects such as the ‘smart home’ of surveillance capitalism (Zuboff, 2019) and ‘smart cities’ (Kitchin & Dodge, 2019) – exemplifies this in particularly stark terms. The addition of billions of further devices to the internet has not only immensely increased the ‘attack surface’ of interconnected devices on which cyber-security depends; it has also amplified the complexity of potential interactions between internet connected devices (see Schneier, 2018).

The Mirai botnet11 exemplifies well the potential risks of the interactive complexity of the contemporary networked digital economy, as well as some of the particular risks involved in shifting from a modular infrastructure to an interconnected infrastructure that is exposed to weaknesses anywhere across the global digital network. Unlike WannaCry and NotPetya, which involved sophisticated teams of computer hackers, the original source code for Mirai was developed by three 21 year olds in the United States. The botnet in turn was built out of this source code – which the original hackers had released onto the web (as an attempt to hide their identities from the FBI). Other, as of yet unidentified hackers, using the Mirai botnet to take control of IoT devices that had default passwords (security cameras, DVRs, routers (Graff, 2017)) used them to pursue a Distributed Denial of Service (DDoS) against the company Dyn. This attack caused widespread problems across the web because of Dyn’s core infrastructural role in the internet through its role as a Domain Name System (DNS) for other websites. This attack led to large parts of the internet on the Eastern Coast of the United States not working, causing disruptions to Twitter, Amazon, Spotify, PayPal, Reddit and Airbnb amongst others, while also disrupting parts of the internet in the rest of North America and in Europe (Graff, 2017). As a DNS, Dyn helps web browsers translate written addresses into numbered IP addresses and vice versa and thus is a core part of the functionality of the web. At the height of the attack, hackers were able to use over 600,000 infected devices through the Mirai botnet to launch an unprecedented record attack of 1.2 terrabits of network-clogging traffic to Dyn’s servers, which overloaded their servers, thus disrupting their ability to fulfil their normal functions (Graff, 2017).

While the disruption from this attack was felt in the United States and Europe, the insecure, infected devices did not come from these areas. Highlighting the complex interdependencies of the global nature of the internet and how any two devices with an IP address can be directly and instantaneously connected, this was ‘harm at a distance’ at its best, as the infected devices were primarily from Brazil, Columbia and Vietnam, while China, South Korea, Russia, Turkey and India also exhibited significant levels of infection (listed in descending order (Bursztein, 2017)). Contrary to separable complexity, interactive complexity functioned across the system as devices of different types (DVRs versus core infrastructure DNS) and geographical locations (Asia and South American versus the United States and Europe) became intricately interconnected because of a breach of a seemingly distant and disparate part of the system.

#### 3 – Mismatch between knowledge and activity – malfunctions are likely and trigger a global domino effect.

Curran ’20 [Dean; Assistant Professor in Sociology @ University of Calgary, PhD in Sociology; “Connecting risk: Systemic risk from finance to the digital,” *Economy and Society* 49(2), p. 239-264; AS]

Mismatches between scope of knowledge and activity

In addition to high interconnectedness, low redundancy and high interactive complexity, pre-crisis finance also exhibited a significant mismatch between the scope of knowledge and activity. As Tett (2009, p. xiv) argues ‘The modern world is littered with these silos – pockets of specialist knowledge, where technical experts work in mental and structural silos. Indeed, these silos are proliferating, for as the pace of innovation speeds up, and spreads further and further around the globe, our world is becoming more technologically complex by the day’. As such, while Tett (2009, 2015) primarily focuses her critique on increasing silos of knowledge, as her quote suggests we are witnessing an even more dangerous process in which we have a dual process of the production of increasingly complex and interconnected systems, alongside the increasingly narrow, cordoned bases of knowledge and responsibility for those who are cumulatively producing this externalized complexity. This process is clearly on display in the lead-up to the financial crisis.

While, as discussed above, the complexity of interconnections between Mortgage Backed Securities grew the scope of knowledge of its producers did not correspondingly grow – in fact, in many ways it constricted. Rather than carefully investigating the different potential risks, ‘Mortgage lending had become an assembly-line affair in which loans were made and then quickly reassembled into bonds immediately sold to investors’ (Tett, 2009, p. 112). Even when key additional layers of complexity were added through the development of ABS CDOs, there was little additional knowledge or orientation to the additional connections that were being generated. Ultimately, the primary knowledge base and orientation of the producers and sellers of ABS CDOs was how to attain the desired credit rating on these investments – all other portions of complexity were externalized by the vast majority of those formulating these investments. Consequently, once the model of the Gaussian copula was identified as a way to solve the problem of estimating correlations, the complexities were neglected, with the Gaussian copula functioning as the ‘combustion engine of the CDO world’ (Tett 2009, p. 119–122). As MacKenzie’s (2011) discussion of different clusters of evaluation practices likewise shows, those who made and rated the ABS CDOs lacked a sufficient basis of knowledge to fully understand their actual activity – both in terms of the vulnerabilities of the investments they packaged and the vulnerability of the financial system to these extremely complex investment vehicles. As emphasized above, these mismatches between knowledge and activity not only left open the potential for creating extremely risky financial transactions, but also tended to shield those who created and benefitted from the risk from responsibility for the consequences of these risks.

The digital economy likewise manifests extreme mismatches between the scope of knowledge of those developing computing programs and the interdependencies that emerge on top of them. As emphasized above, contemporary computer programs exhibit a level of complexity well beyond the comprehension of a single person or group of people. Alongside this complexity then is a massive mismatch between the extremely small part of an overall program that any one set of programmers develop and understand – which even then can contain flaws in itself (Schneier, 2018) – and the emergent intersections of these units into larger systemic fragilities across the network. As interactive complexities build on top of interconnected and low redundancy systems and intensify the problems emerging from these features, this mismatch between scope of knowledge and activity intensifies these problems of interactive complexity. Moreover, problems of interactive complexity are amplified by how tightly-coupled computing systems can be – massive automated systems can be ~~disabled~~ [harmed] by even a single mistake as computers do not possess the type of hermeneutic interpretability that living agents do (see Kernighan, 2017). Yet, it is not only the physical nature of computing that leads to the potential for a single mistake to cascade through a computing device; the emerging monopolistic business model of the digital economy creates greater interdependencies as large digital companies seek to insert themselves as a universally necessary part of the ‘stack’ of digital computing services (Nunan & Di Domenico, 2017). An illustrative example, the cascading failure of websites in February 2017, exemplifies well how the interconnectedness and complexity of the web interacts with mismatches between the knowledge of specific individuals and the massive ramifications that their actions can have.

In February 2017, several websites on the East Coast of the United States stopped functioning properly, including the websites of Slack, GitHub, GitLab, Quora, Medium, Expedia, Adobe Cloud, with reports of Xero, SiriusXM, and Nest internet-connected devices also ceasing to function properly (Nichols, 2017). In fact, outage monitoring sites DownDetector and isitdownrightnow.com were also not functioning properly due to the overloading of the sites because of a massive spike in internet users checking on the functionality of these other websites (Nichols, 2017). Ultimately, this five-hour breakdown in availability of these websites and services was traced back to the malfunctioning of Amazon Web Services (AWS), a core cloud computing provider. The malfunctioning had occurred due to a single typo by an Amazon employee. The employee was debugging a billing system and ended up taking offline more servers than were intended. This ‘error started a domino effect that took down two other server subsystems and so on … ’ (Del Rey, 2017). AWS had also suffered a significant outage due to human error years earlier in 2011. In upgrading its primary servers, the traffic that the server usually manages was sent to a back-up server rather than being sent to the rest of the network. This back-up server was not intended to handle this much higher level of traffic, thus causing a significant amount of the traffic to get ‘stuck’. Despite this single mistake of redirection to the back-up server, if the system had functioned properly, the problem would not have cascaded in this way, but this mistake interacted with other as of yet previously unidentified bugs, thus amplifying the breakdown in service (Goldman, 2011).

The massive outage in February 2017 is estimated to have damaged the business of 54 of the top 100 internet retailers, with an estimated total economic impact of $150 million (Bort, 2017). This has led to the incident being described as ‘Amazon and the $150 million typo’ (Hersher, 2017). Reflecting on the systemic importance of a single cloud computing company, it was noted that AWS has ‘quietly become responsible for keeping much of the internet running’ and that ‘AWS has come to underpin so much of our daily life that we hardly even notice how important it’s become — until it stops working’ (Swearingen, 2018). Yet, different parts of AWS malfunctioned again in September 2017 and then in March 2018, hitting Alexa, Slack and Capital One. While Amazon apologized and promised changes, the cascading impacts of AWS outages continue to be felt. As with interconnectedness and low redundancy, the growing complexity and mismatch between knowledge and impacts in the digital economy, though shaped by the technology, is not an inevitable dimension of the technology, but rather massively intensified by the monopolistic characteristics of the digital economy and the goal of digital giants to grow as large as quickly as possible (see Hindman, 2018).

#### Cascading collapse escalates global hotspots, including reactor meltdowns – extinction.

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But what exactly is a global system? Our planet itself is an autonomous and selfsustaining mega-system, marked by periodic cycles and elemental vagaries. Human activities within however are not system isolates as our banking, utility, farming, healthcare and retail sectors etc. are increasingly entwined. Risks accrued in one system may cascade into an unforeseen crisis within and/or without (Choo, Smith & McCusker, 2007). Scholars call this phenomenon “emergence”; one where the behaviour of intersecting systems is determined by complex and largely invisible interactions at the substratum (Goldstein, 1999; Holland, 1998).

The ongoing COVID-19 pandemic is a case in point. While experts remain divided over the source and morphology of the virus, the contagion has ramified into a global health crisis and supply chain nightmare. It is also tilting the geopolitical balance. China is the largest exporter of intermediate products, and had generated nearly 20% of global imports in 2015 alone (Cousin, 2020). The pharmaceutical sector is particularly vulnerable. Nearly “85% of medicines in the U.S. strategic national stockpile” sources components from China (Owens, 2020).

An initial run on respiratory masks has now been eclipsed by rowdy queues at supermarkets and the bankruptcy of small businesses. The entire global population – save for major pockets such as Sweden, Belarus, Taiwan and Japan – have been subjected to cyclical lockdowns and quarantines. Never before in history have humans faced such a systemic, borderless calamity.

COVID-19 represents a classic emergent crisis that necessitates real-time response and adaptivity in a real-time world, particularly since the global Just-in-Time (JIT) production and delivery system serves as both an enabler and vector for transboundary risks. From a systems thinking perspective, emerging risk management should therefore address a whole spectrum of activity across the economic, environmental, geopolitical, societal and technological (EEGST) taxonomy. Every emerging threat can be slotted into this taxonomy – a reason why it is used by the World Economic Forum (WEF) for its annual global risk exercises (Maavak, 2019a).

As traditional forces of globalization unravel, security professionals should take cognizance of emerging threats through a systems thinking approach.

METHODOLOGY

An EEGST sectional breakdown was adopted to illustrate a sampling of extreme risks facing the world for the 2020-2030 decade. The transcendental quality of emerging risks, as outlined on Figure 1, below, was primarily informed by the following pillars of systems thinking (Rickards, 2020):

• Diminishing diversity (or increasing homogeneity) of actors in the global system (Boli & Thomas, 1997; Meyer, 2000; Young et al, 2006);

• Interconnections in the global system (Homer-Dixon et al, 2015; Lee & Preston, 2012);

• Interactions of actors, events and components in the global system (Buldyrev et al, 2010; Bashan et al, 2013; Homer-Dixon et al, 2015); and

• Adaptive qualities in particular systems (Bodin & Norberg, 2005; Scheffer et al, 2012)

Since scholastic material on this topic remains somewhat inchoate, this paper buttresses many of its contentions through secondary (i.e. news/institutional) sources.

ECONOMY

According to Professor Stanislaw Drozdz (2018) of the Polish Academy of Sciences, “a global financial crash of a previously unprecedented scale is highly probable” by the mid-2020s. This will lead to a trickle-down meltdown, impacting all areas of human activity.

The economist John Mauldin (2018) similarly warns that the “2020s might be the worst decade in US history” and may lead to a Second Great Depression. Other forecasts are equally alarming. According to the International Institute of Finance, global debt may have surpassed $255 trillion by 2020 (IIF, 2019). Yet another study revealed that global debts and liabilities amounted to a staggering $2.5 quadrillion (Ausman, 2018). The reader should note that these figures were tabulated before the COVID-19 outbreak.

The IMF singles out widening income inequality as the trigger for the next Great Depression (Georgieva, 2020). The wealthiest 1% now own more than twice as much wealth as 6.9 billion people (Coffey et al, 2020) and this chasm is widening with each passing month. COVID-19 had, in fact, boosted global billionaire wealth to an unprecedented $10.2 trillion by July 2020 (UBS-PWC, 2020). Global GDP, worth $88 trillion in 2019, may have contracted by 5.2% in 2020 (World Bank, 2020).

As the Greek historian Plutarch warned in the 1st century AD: “An imbalance between rich and poor is the oldest and most fatal ailment of all republics” (Mauldin, 2014). The stability of a society, as Aristotle argued even earlier, depends on a robust middle element or middle class. At the rate the global middle class is facing catastrophic debt and unemployment levels, widespread social disaffection may morph into outright anarchy (Maavak, 2012; DCDC, 2007).

Economic stressors, in transcendent VUCA fashion, may also induce radical geopolitical realignments. Bullions now carry more weight than NATO’s security guarantees in Eastern Europe. After Poland repatriated 100 tons of gold from the Bank of England in 2019, Slovakia, Serbia and Hungary quickly followed suit.

According to former Slovak Premier Robert Fico, this erosion in regional trust was based on historical precedents – in particular the 1938 Munich Agreement which ceded Czechoslovakia’s Sudetenland to Nazi Germany. As Fico reiterated (Dudik & Tomek, 2019):

“You can hardly trust even the closest allies after the Munich Agreement… I guarantee that if something happens, we won’t see a single gram of this (offshore-held) gold. Let’s do it (repatriation) as quickly as possible.” (Parenthesis added by author).

President Aleksandar Vucic of Serbia (a non-NATO nation) justified his central bank’s gold-repatriation program by hinting at economic headwinds ahead: “We see in which direction the crisis in the world is moving” (Dudik & Tomek, 2019). Indeed, with two global Titanics – the United States and China – set on a collision course with a quadrillions-denominated iceberg in the middle, and a viral outbreak on its tip, the seismic ripples will be felt far, wide and for a considerable period.

A reality check is nonetheless needed here: Can additional bullions realistically circumvallate the economies of 80 million plus peoples in these Eastern European nations, worth a collective $1.8 trillion by purchasing power parity? Gold however is a potent psychological symbol as it represents national sovereignty and economic reassurance in a potentially hyperinflationary world. The portents are clear: The current global economic system will be weakened by rising nationalism and autarkic demands. Much uncertainty remains ahead. Mauldin (2018) proposes the introduction of Old Testament-style debt jubilees to facilitate gradual national recoveries. The World Economic Forum, on the other hand, has long proposed a “Great Reset” by 2030; a socialist utopia where “you’ll own nothing and you’ll be happy” (WEF, 2016).

In the final analysis, COVID-19 is not the root cause of the current global economic turmoil; it is merely an accelerant to a burning house of cards that was left smouldering since the 2008 Great Recession (Maavak, 2020a). We also see how the four main pillars of systems thinking (diversity, interconnectivity, interactivity and “adaptivity”) form the mise en scene in a VUCA decade.

ENVIRONMENTAL

What happens to the environment when our economies implode? Think of a debt-laden workforce at sensitive nuclear and chemical plants, along with a concomitant surge in industrial accidents? Economic stressors, workforce demoralization and rampant profiteering – rather than manmade climate change – arguably pose the biggest threats to the environment. In a WEF report, Buehler et al (2017) made the following pre-COVID-19 observation:

The ILO estimates that the annual cost to the global economy from accidents and work-related diseases alone is a staggering $3 trillion. Moreover, a recent report suggests the world’s 3.2 billion workers are increasingly unwell, with the vast majority facing significant economic insecurity: 77% work in part-time, temporary, “vulnerable” or unpaid jobs.

Shouldn’t this phenomenon be better categorized as a societal or economic risk rather than an environmental one? In line with the systems thinking approach, however, global risks can no longer be boxed into a taxonomical silo. Frazzled workforces may precipitate another Bhopal (1984), Chernobyl (1986), Deepwater Horizon (2010) or Flint water crisis (2014). These disasters were notably not the result of manmade climate change. Neither was the Fukushima nuclear disaster (2011) nor the Indian Ocean tsunami (2004). Indeed, the combustion of a long-overlooked cargo of 2,750 tonnes of ammonium nitrate had nearly levelled the city of Beirut, Lebanon, on Aug 4 2020. The explosion left 204 dead; 7,500 injured; US$15 billion in property damages; and an estimated 300,000 people homeless (Urbina, 2020). The environmental costs have yet to be adequately tabulated.

Environmental disasters are more attributable to Black Swan events, systems breakdowns and corporate greed rather than to mundane human activity.

Our JIT world aggravates the cascading potential of risks (Korowicz, 2012). Production and delivery delays, caused by the COVID-19 outbreak, will eventually require industrial overcompensation. This will further stress senior executives, workers, machines and a variety of computerized systems. The trickle-down effects will likely include substandard products, contaminated food and a general lowering in health and safety standards (Maavak, 2019a). Unpaid or demoralized sanitation workers may also resort to indiscriminate waste dumping. Many cities across the United States (and elsewhere in the world) are no longer recycling wastes due to prohibitive costs in the global corona-economy (Liacko, 2021).

Even in good times, strict protocols on waste disposals were routinely ignored. While Sweden championed the global climate change narrative, its clothing flagship H&M was busy covering up toxic effluences disgorged by vendors along the Citarum River in Java, Indonesia. As a result, countless children among 14 million Indonesians straddling the “world’s most polluted river” began to suffer from dermatitis, intestinal problems, developmental disorders, renal failure, chronic bronchitis and cancer (DW, 2020). It is also in cauldrons like the Citarum River where pathogens may mutate with emergent ramifications.

On an equally alarming note, depressed economic conditions have traditionally provided a waste disposal boon for organized crime elements. Throughout 1980s, the Calabria-based ‘Ndrangheta mafia – in collusion with governments in Europe and North America – began to dump radioactive wastes along the coast of Somalia. Reeling from pollution and revenue loss, Somali fisherman eventually resorted to mass piracy (Knaup, 2008).

The coast of Somalia is now a maritime hotspot, and exemplifies an entwined form of economic-environmental-geopolitical-societal emergence. In a VUCA world, indiscriminate waste dumping can unexpectedly morph into a Black Hawk Down incident. The laws of unintended consequences are governed by actors, interconnections, interactions and adaptations in a system under study – as outlined in the methodology section.

Environmentally-devastating industrial sabotages – whether by disgruntled workers, industrial competitors, ideological maniacs or terrorist groups – cannot be discounted in a VUCA world. Immiserated societies, in stark defiance of climate change diktats, may resort to dirty coal plants and wood stoves for survival. Interlinked ecosystems, particularly water resources, may be hijacked by nationalist sentiments. The environmental fallouts of critical infrastructure (CI) breakdowns loom like a Sword of Damocles over this decade.

GEOPOLITICAL

The primary catalyst behind WWII was the Great Depression. Since history often repeats itself, expect familiar bogeymen to reappear in societies roiling with impoverishment and ideological clefts. Anti-Semitism – a societal risk on its own – may reach alarming proportions in the West (Reuters, 2019), possibly forcing Israel to undertake reprisal operations inside allied nations. If that happens, how will affected nations react? Will security resources be reallocated to protect certain minorities (or the Top 1%) while larger segments of society are exposed to restive forces? Balloon effects like these present a classic VUCA problematic.

Contemporary geopolitical risks include a possible Iran-Israel war; US-China military confrontation over Taiwan or the South China Sea; North Korean proliferation of nuclear and missile technologies; an India-Pakistan nuclear war; an Iranian closure of the Straits of Hormuz; fundamentalist-driven implosion in the Islamic world; or a nuclear confrontation between NATO and Russia. Fears that the Jan 3 2020 assassination of Iranian Maj. Gen. Qasem Soleimani might lead to WWIII were grossly overblown. From a systems perspective, the killing of Soleimani did not fundamentally change the actor-interconnection-interactionadaptivity equation in the Middle East. Soleimani was simply a cog who got replaced.

#### Grid collapse causes extinction.

Weiss ’19 [Matthew and Martin; May 29; National Sales Director at United Medical Instruments, UMI and Research assistant at the American Jewish University; Neurosurgeon at UCLA-Olive View Medical Center; Energy, Sustainability, and Society, “An assessment of threats to the American power grid,” vol. 9]

Consequences of a sustained power outage

The EMP Commission states “Should significant parts of the electrical power infrastructure be lost for any substantial period of time, the Commission believes that the consequences are likely to be catastrophic, and many people will die for the lack of the basic elements necessary to sustain life in dense urban and suburban communities.” [67].

Space constraints preclude discussion on how the loss of the grid would render synthesis and distribution of oil and gas inoperative. Telecommunications would collapse, as would finance and banking. Virtually all technology, infrastructure, and services require electricity.

An EMP attack that collapses the electric power grid will collapse the water infrastructure—the delivery and purification of water and the removal and treatment of wastewater and sewage. Outbreaks that would result from the failure of these systems include cholera. It is problematic if fuel will be available to boil water. Lack of water will cause death in 3 to 4 days [68].

Food production would also collapse. Crops and livestock require water delivered by electronically powered pumps. Tractors, harvesters, and other farm equipment run on petroleum products supplied by an infrastructure (pumps, pipelines) that require electricity. The plants that make fertilizer, insecticides, and feed also require electricity. Gas pumps that fuel the trucks that distribute food require electricity. Food processing requires electricity.

In 1900, nearly 40% of the population lived on farms. That percentage is now less than 2% [69]. It is through technology that 2% of the population can feed the other 98% [68]. The acreage under cultivation today is only 6% more than in 1900, yet productivity has increased 50 fold [69].

As stated by Dr. Lowell L Wood in Congressional testimony:

“If we were no longer able to fuel our agricultural machine in the country, the food production of the country would simply stop, because we do not have the horses and mules that used to tow agricultural gear around in the 1880s and 1890s”. “So the situation would be exceedingly adverse if both electricity and the fuel that electricity moves around the country……… stayed away for a substantial period of time, we would miss the harvest, and we would starve the following winter” [70].

People can live for 1–2 months without food, but after 5 days, they have difficulty thinking and at 2 weeks they are incapacitated [68]. There is typically a 30-day perishable food supply at regional warehouses but most would be destroyed with the loss of refrigeration [69]. The EMP Commission has suggested food be stockpiled for a possible EMP event.

A prescription for failure

Even if all the recommendations of the Congressional EMP Commission were implemented, there is no guarantee that the grid will not sustain a prolonged collapse. There should therefore be contingency plans for such a failure.

There is also another consideration. The foundational pillars of prior American nuclear defense policy, in today’s climate, are of uncertain validity. Mutual assured destruction is the Maginot line of the 21st century. Nonproliferation will prove difficult to resurrect.

The consequences of a widespread nuclear attack have been positioned to the public as massive deaths from blast effects, and then further lingering deaths from the effects of radiation. We suspect there will be no electricity, and there will be no electricity for a very long time.

There should be an actionable plan in anticipation of a possible prolonged collapse of the grid—a retro-structure and a skill set to provide a framework for survival. Our sense is there is no plan.

#### Cyber-attacks go nuclear – extinction.

Orlov ’20 [Vladimir, Founder & Director of the PIR Center, President of the Trialogue Club International, Head of the Center for Global Trends and International Organizations at the Diplomatic Academy, Ministry of Foreign Affairs of the Russian Federation, Co-Founder and Academic Supervisor of the International Dual Degree MA Program in Nonproliferation and Global Security Studies, MGIMO University, Professor at MGIMO University, author (or coauthor) of more than a dozen books and monographs and more than three hundred research papers, articles, and essays, publishes his views in Russian and foreign periodicals, “‘No Holds Barred’ and the New Vulnerability: Are We in for a Re-Run of the Cuban Missile Crisis in Cyberspace?,” SSRN Scholarly Paper, ID 3538078, Social Science Research Network, 02/14/2020, papers.ssrn.com, doi:10.2139/ssrn.3538078]

Not hundred per cent of the dialogue has been frozen, fortunately. Certain informal, mostly offthe-record, meetings of US and Russian experts on cyber agenda continue taking place, both through Track 2 and Track 1.5. One of the most intellectually stimulating meetings, with frank exchanges, took place in Vienna in December 2018. The report produced after the meeting stressed “the significant risk […] that cyber-attacks could conceivably lead to a military escalation that may further trigger a nuclear weapons exchange, a fact that became more explicit with the adoption of the current Nuclear Posture Review. This issue gets complicated given that third parties may have the capabilities to invoke a cyber conflict between Russia and the United States. Whether a country or a non-state actor, they could put the two countries on the verge of an armed conflict by attacking critical infrastructure of either of them and making it look as if the aggressor were the other one”[22]. However, one should have no illusion: such informal meetings may be fully fruitful only when their reports and policy recommendations are utilized by the governments. And for that, a warmer climate in bilateral relations is a must. So far, we see exactly the opposite: mercury falling to freezing levels.

Risk of cyber clashes growing into a chaotic global cyber war has been emphasized by the UN Secretary-General Antonio Guterres in his Agenda for Disarmament: “Malicious acts in cyberspace are contributing to diminishing trust among States… States should implement the recommendations elaborated under the auspices of the General Assembly, which aim at building international confidence and greater responsibility in the use of cyberspace.[23]” However, as the members of the US-Russian Track 1.5 working group on strategic stability recently concluded, “without a constructive dialogue on cyber issues between the United States and Russia, the world would most likely fail to agree on any norms of responsible behavior of states in cyber space”[24].

Do we really have to survive a cyber equivalent of the Cuban Missile Crisis to realize the importance of achieving some kind of agreement on cyber issues, and on the broader agenda of international information security?[25] Or is that kind of talk plain old alarmism?

I don’t want to sound a fatalist, but I am even less keen on sounding like an ostrich that’s buried its head in the sand. We cannot ignore the obvious: whether the world’s most powerful actors like it or not, the world is sliding to another major crisis like the one in 1962. The cyber war is already raging. There are no rules of engagement in that war. The uncertainty is high. The spiral of tension is getting out of control. The cyber arms race is gaining momentum. And there are no guarantees that the next crisis will be controllable, or that it will result in a catharsis as far as international information security regulation is concerned. There’s no telling what will happen once the cyber genie is out of the bottle.

#### Internet collapse causes extinction.

Eagleman ’10 [Dr. David; 11/9/2010; PhD in Neuroscience @ Baylor University, Adjunct Professor of Neoroscience @ Stanford University, Former Guggenheim Fellow, Director of the Center for Science and Law, BA @ Rice University; “Six Ways The Internet Will Save Civilization”; https://www.wired.co.uk/article/apocalypse-no]

Many great civilisations have fallen, leaving nothing but cracked ruins and scattered genetics. Usually this results from: natural disasters, resource depletion, economic meltdown, disease, poor information flow and corruption. But we’re luckier than our predecessors because we command a technology that no one else possessed: a rapid communication network that finds its highest expression in the internet. I propose that there are six ways in which the net has vastly reduced the threat of societal collapse.

Epidemics can be deflected by telepresence

One of our more dire prospects for collapse is an infectious-disease epidemic. Viral and bacterial epidemics precipitated the fall of the Golden Age of Athens, the Roman Empire and most of the empires of the Native Americans. The internet can be our key to survival because the ability to work telepresently can inhibit microbial transmission by reducing human-to-human contact. In the face of an otherwise devastating epidemic, businesses can keep supply chains running with the maximum number of employees working from home. This can reduce host density below the tipping point required for an epidemic. If we are well prepared when an epidemic arrives, we can fluidly shift into a self-quarantined society in which microbes fail due to host scarcity. Whatever the social ills of isolation, they are worse for the microbes than for us.

The internet will predict natural disasters

We are witnessing the downfall of slow central control in the media: news stories are increasingly becoming user-generated nets of up-to-the-minute information. During the recent California wildfires, locals went to the TV stations to learn whether their neighbourhoods were in danger. But the news stations appeared most concerned with the fate of celebrity mansions, so Californians changed their tack: they uploaded geotagged mobile-phone pictures, updated Facebook statuses and tweeted. The balance tipped: the internet carried news about the fire more quickly and accurately than any news station could. In this grass-roots, decentralised scheme, there were embedded reporters on every block, and the news shockwave kept ahead of the fire. This head start could provide the extra hours that save us. If the Pompeiians had had the internet in 79AD, they could have easily marched 10km to safety, well ahead of the pyroclastic flow from Mount Vesuvius. If the Indian Ocean had the Pacific’s networked tsunami-warning system, South-East Asia would look quite different today.

Discoveries are retained and shared

Historically, critical information has required constant rediscovery. Collections of learning -- from the library at Alexandria to the entire Minoan civilisation -- have fallen to the bonfires of invaders or the wrecking ball of natural disaster. Knowledge is hard won but easily lost. And information that survives often does not spread. Consider smallpox inoculation: this was under way in India, China and Africa centuries before it made its way to Europe. By the time the idea reached North America, native civilisations who needed it had already collapsed. The net solved the problem. New discoveries catch on immediately; information spreads widely. In this way, societies can optimally ratchet up, using the latest bricks of knowledge in their fortification against risk.

Tyranny is mitigated

Censorship of ideas was a familiar spectre in the last century, with state-approved news outlets ruling the press, airwaves and copying machines in the USSR, Romania, Cuba, China, Iraq and elsewhere. In many cases, such as Lysenko’s agricultural despotism in the USSR, it directly contributed to the collapse of the nation. Historically, a more successful strategy has been to confront free speech with free speech -- and the internet allows this in a natural way. It democratises the flow of information by offering access to the newspapers of the world, the photographers of every nation, the bloggers of every political stripe. Some posts are full of doctoring and dishonesty whereas others strive for independence and impartiality -- but all are available to us to sift through. Given the attempts by some governments to build firewalls, it’s clear that this benefit of the net requires constant vigilance.

Human capital is vastly increased

Crowdsourcing brings people together to solve problems. Yet far fewer than one per cent of the world’s population is involved. We need expand human capital. Most of the world not have access to the education afforded a small minority. For every Albert Einstein, Yo-Yo Ma or Barack Obama who has educational opportunities, uncountable others do not. This squandering of talent translates into reduced economic output and a smaller pool of problem solvers. The net opens the gates education to anyone with a computer. A motivated teen anywhere on the planet can walk through the world’s knowledge -- from the webs of Wikipedia to the curriculum of MIT’s OpenCourseWare. The new human capital will serve us well when we confront existential threats we’ve never imagined before.

Energy expenditure is reduced

Societal collapse can often be understood in terms of an energy budget: when energy spend outweighs energy return, collapse ensues. This has taken the form of deforestation or soil erosion; currently, the worry involves fossil-fuel depletion. The internet addresses the energy problem with a natural ease. Consider the massive energy savings inherent in the shift from paper to electrons -- as seen in the transition from the post to email. Ecommerce reduces the need to drive long distances to purchase products. Delivery trucks are more eco-friendly than individuals driving around, not least because of tight packaging and optimisation algorithms for driving routes. Of course, there are energy costs to the banks of computers that underpin the internet -- but these costs are less than the wood, coal and oil that would be expended for the same quantity of information flow.

The tangle of events that triggers societal collapse can be complex, and there are several threats the net does not address. But vast, networked communication can be an antidote to several of the most deadly diseases threatening civilisation. The next time your coworker laments internet addiction, the banality of tweeting or the decline of face-to-face conversation, you may want to suggest that the net may just be the technology that saves us.

#### Structural separations maintain system stability by valuing redundancy over efficiency.

Khan ’19 [Lina; Chairperson @ Federal Trade Commission, JD @ Yale Law School; “The Separations of Platforms and Commerce,” *Columbia Law Review* 119(4), p. 973-1098; AS]

Preserving System Resiliency

Another justification that recurs is promoting the resiliency of systems. Because several of the entities subject to structural separations serve an “infrastructural” role—structuring access to markets or to an essential good or service—the public has a strong interest in maintaining their stability and shielding them from disruption.497 Crashes that cripple these infrastructural services can have an outsized effect on economic activity, and involvement in multiple lines of business can increase the likelihood of system crashes. For this reason, policymakers treated strict limits on entry and exit as one way to shield critical services from undue risk.498 Structural separations in banking and telephony, too, were partly justified on grounds of promoting system stability.499

Precisely because banking services constitute a critical good, ensuring the soundness and stability of banking is a central goal of banking policy. Lawmakers and regulators have argued that preventing banks from expanding into commercial activities may help insulate banks from the vagaries of other sectors.500 This line of argument is premised on the idea that exposing banks to manufacturing, physical trading, or other commercial activities “increases the vulnerability of the banking and payments systems, the federal deposit insurance fund, and thereby the broader economy.”501 A question frequently raised during the 2013 debates around banks’ expansion into physical commodity trading was: What would happen if Morgan Stanley repeated the BP oil spill? Would taxpayers be on the line for the $61.2 billion in damages? In this way, a structural separation helps eliminate the risk that instability or disruption in commercial markets could necessitate a financial bailout.502 To be sure, not all commercial activities are inherently more risky than financial activity—and, some might argue, expanding into these spheres may help banks diversify risk. That said, it is true that some commercial activities—like drilling oil or mining—pose particularly expensive risks to which federally insured depository institutions should not be exposed.503

Concerns about system stability and resiliency also informed the FCC’s Computer Inquiries. The carriers argued that, in order to promote efficiency, they should be permitted to use excess capacity for data processing.504 The Commission stated, first, that “the potential abuses inherent” in the system far outweighed any purported efficiencies,505 and, second, the carriers should have a “‘back-up’ system” that “should be designed to meet foreseeable breakdowns of equipment dedicated to public service” and “should be available instantly for that purpose without the conflicting claims of other users.”506 In other words, the FCC privileged redundancy over efficiency, recognizing that the former would serve the public by helping to ensure the stability of communications services and networks. Although expanding into data processing wouldn’t necessarily heighten the risk of a crash, keeping that capacity for backup would enable the system to absorb any shocks, helping promote resiliency.

### 1AC – Democracy

#### Contention three: Democracy

#### Dominant platforms subvert democracy – power in and of itself corrupts.

Lande & Vaheesan ’20 [Robert; Professor of Law @ University of Baltimore School of Law and Sandeep; Legal Director @ Open Markets Institute, JD @ Duke; “Preventing the Curse of Bigness Through Conglomerate Merger Legislation,” *Ariz. St. LJ* 52; AS]

Corporate size often translates to political power. An extensive body of research has found that firm size is correlated with more political activity.41 Larger firms make larger contributions to political campaigns and devote more resources to lobbying members of Congress and government agencies.42 Judicial reinterpretations of the First Amendment have granted corporate political activity broad constitutional protection. 43 Their power is not confined to these “narrow” political activities. Large businesses also use their wealth power to fund sympathetic media coverage and scholarly research. This corporate political activity benefits executives and shareholders at the expense of the rest of society.

Corporate power in politics and public life is not an academic concern and today attracts critics from across much of the political spectrum.44 A large segment of the public is deeply concerned about corporate clout and influence in American politics. From the progressive left to the nationalist or conservative right, many individuals and organizations have expressed worries about powerful corporations capturing the political system and using it to advance their narrow aims. An ideologically diverse set of figures and groups have raised concerns about the political power of large corporations and started offering remedies.

A. Corporate Size Translates to Political and Economic Power

Corporate size often translates to political and economic power. An extensive body of research has found that firm size is correlated with political activity. 45 Larger firms make larger contributions to political campaigns and other activities and devote more resources to lobbying members of Congress and government agencies. 46 They can also use their power to fund sympathetic media coverage and scholarly research.47 This corporate political activity has tangible benefits for executives and shareholders. An influential 2014 study found that members of Congress in voting on bills are responsive to the views of two groups: large businesses and the wealthy.48 In contrast, they are largely indifferent to the political concerns and preferences of the middle and working classes.49

Large firms exercise political power through campaign contributions. An extensive body of empirical literature has found that large firms make larger campaign contributions to members of Congress and political action committees than small firms do.50 Campaign contributions are an important way to build and maintain political influence. While the findings on the question are mixed, campaign contributions may increase the likelihood that the member’s votes and other actions are aligned with the donor’s interests.51

Political contributions can give corporate donors access to those in power. Lending credence to what research had found,52 Mick Mulvaney, the current director of the Office of Management and Budget and former acting director of the Consumer Financial Protection Bureau, openly admitted this dynamic in a speech before bank lobbyists.53 He stated that, as a member of Congress, he granted preferential access to lobbyists who had donated to his political campaigns.54

Large firms also wield political power through lobbying, an arguably much more important form of political activity than political contributions.55 They often have large staffs of lawyers and lobbyists to present their messages to politicians and regulators.56 Relative to smaller firms, large firms devote more resources to lobbying activity. 57 This lobbying allows corporations to shape the narrative around an issue and influence members of Congress and regulators. Lobbying is often an effective strategy for casting doubt on the public benefits of legislation and regulation. 58 Corporate lobbyists can create counter-narratives that proposed legislation restricting their client’s activities would either not advance or undermine the public interest.59 For instance, despite triggering the worst economic crisis in nearly eighty years, large banks and financial institutions in the United States, through all-encompassing lobbying and public relations blitz, subsequently avoided structural breakups and significant restrictions on their activity.60

Indeed, the present weak enforcement of antitrust may, in part, be a product of corporate power and influence over the federal antitrust agencies.61 “Regulatory capture” occurs when a regulatory agency or enforcer is so greatly influenced by businesses that it fails to act in the public’s interest.62 Instead it acts in ways that benefits the players in the industry that the regulators were charged with policing.63 One possible cause of regulatory capture is that the agency often has limited resources compared to the regulated companies. 64 When the regulated business is a multi-billion-dollar company, the disparity in resources can be especially large and regulatory capture becomes more probable.65

The FTC and DOJ’s reluctance and unwillingness to challenge some huge mergers could, in part, be caused by the considerable influence massive companies have over them and the political environment in which they operate. For instance, FTC Commissioner Rohit Chopra recently voiced concern over the power of big tech in a trade regulation context, stating: “All too often, the government is too captured by those incumbents that use their power to dictate their preferred policies.”66 Consistent with the “capture” theory, mergers can produce large companies with substantial resources to hire the requisite numbers of lawyers, lobbyists, and experts to “capture” a regulatory agency or enforcer.

The power of large corporations extends beyond the political, regulatory, and legal realms. Their power can be characterized as hegemonic. They can shape the parameters of public debate through a variety of means. They use their advertising dollars to boost supportive outlets and voices and marginalize critical ones 67—and even co-opt individual and organizational voices that are conventionally perceived as progressive.68 They also own media outlets (think of Amazon founder Jeff Bezos and his ownership of the Washington Post) and fund think tanks that can propagate their preferred narrative on a range of issues.69 Big businesses have also become adept at manipulating academic debates to their own ends, donating to universities, sponsoring new academic centers, and paying ideologically-aligned scholars to produce academic defenses.70 Indeed, present-day antitrust embodies the extraordinary influence of corporations. Over the past several decades, corporate-funded economists and lawyers have played an outsized role in antitrust debates.71

Furthermore, corporate size confers power through the control of economic resources. At a large corporation, a handful of individuals— executives and directors—make decisions that affect entire cities, regions, and even the nation. A decision to open a plant in one city, instead of another, or to relocate a plant from the United States to a foreign country can affect large numbers of people. Senator Sherman recognized how concentration of assets in a few hands amounted to private government. 72 He asked his colleagues to “consider . . . whether, on the whole, it is safe in this country to leave the production of property, the transportation of our whole country, to depend upon the will of a few men sitting at their council board in the city of New York.”73

Corporate size means that every nominally private decision has major public implications.74 They can use their control of key resources to stop unfavorable government action and induce favorable action.75

Consider the recent contest among states and cities to host Amazon’s second headquarters. Amazon invited state and local governments across the country to compete for this second headquarters in exchange for a pledge to create 50,000 local jobs.76 States and cities showered Amazon with a range of carrots amounting to billions of dollars in tax incentives. 77 Exemplifying the lengths to which governments were willing to go to lure Amazon, New York Governor Andrew Cuomo (half-) jokingly even offered to change his first name to Amazon if Amazon chose New York City. 78 This frenzied competition illustrates the power of a large corporation over democratically elected governments. And this episode is not an outlier but representative of how large corporations use their power and the threat of relocation to pressure and twist governments for their own ends.79

#### Concentration holds consumers hostage to the whims of corporate power – reviving antitrust enforcement is key to economic democracy.

Sitaraman ’18 [Ganesh; Co-founder and Director of Policy @ Great Democracy Initiative; Professor of Law @ Vanderbilt University; “Taking Antitrust Away from the Courts”; The Great Democracy Initiative, September 2018; *Vanderbilt Law Research Paper* 19(2); AS]

Introduction: The Second Age of Monopoly Power

We live in a second age of monopoly power. The first age, which spanned from the Gilded Age of the late 19th century through the Progressive Era in the early 20th century was marked by the growth of corporations into “trusts.” From 1894 to 1904, hundreds of corporations disappeared as the “Great Merger Movement” led to consolidation and concentration in many sectors of the economy.1 Decried in the general public, the trusts were caricatured as octopuses with tentacles extending across sectors of the economy and into government.

In response to the first age of monopoly power, Americans across party lines rallied to fight the trusts and monopolies that threatened freedom and democracy. Republican John Sherman of Pennsylvania authored the Sherman Anti-Trust Act of 1890 and was joined by the Republican “Trustbuster” Teddy Roosevelt in seeking to rein in powerful corporations. Democrat Woodrow Wilson signed the Clayton Anti-Trust Act and the Federal Trade Commission Act, supported by advocate and later Supreme Court Justice Louis Brandeis. Right and left, Americans of that era understood that massive economic concentration was a threat not just to a free and competitive marketplace, but a threat to our constitutional democracy. As Theodore Roosevelt put it, “There can be no real political democracy unless there is something approaching an economic democracy.”

In recent years, we have entered a second era of monopoly power, with growing concentration across sectors of the economy. Four airlines now control 80 percent of the market.2 Three drug stores control 99 percent of the market.3 Four beef companies control 85 percent of the market.4 The Fortune 100 now makes up nearly 50 percent of GDP, with the top 20 firms capturing more than 20 percent.5

Commentators across the ideological spectrum have noticed and criticized America’s monopoly problem: from progressives like Joe Stiglitz and neoliberals like Bloomberg’s Noah Smith to conservative Breitbart columnist Virgil and establishment centrists at the Brookings Institution and The Economist. 6 Even Congress has gotten involved, with members of the House creating an Antitrust Caucus and the Senate Judiciary Committee holding hearings on the question of the goals of antitrust.

There is widespread interest in corporate consolidation because the concentration of economic power is a threat not just to the American economy but also to freedom and democracy. Economically, monopolists have the ability to hold consumers hostage, raise prices on goods and services, and deliver worse quality goods and services – which is especially problematic when their goods or services are essential in a modern economy. Rising concentration also contributes to widening inequality. As mega-corporations use their market power to squeeze suppliers and consumers to gain higher profits, those benefits accrue to their executives and shareholders, most of whom are on the wealthier side of the population.7 Some economists have shown that growing concentration is leading to inter-firm inequality and with it, increased inequality in society.8 Others have found that concentrated markets lead to lower wages.9 The rise of monopolies also threatens America’s innovative and entrepreneurial status. Powerful companies don’t want competition and are likely to use their market (and political power) to stop, delay, or otherwise prevent disruptive innovators from gaining traction. In recent years, economic researchers have confirmed this: not only is the rate of new companies plummeting across sector and geographies, but consolidation is an important factor contributing to the decline in new business formation.10

#### The plan solves – structural separations preserve democratic governance.

Khan ’20 [Lina, Chairperson @ Federal Trade Commission, JD @ Yale Law School; “The End of Antitrust History Revisited,” *Harvard Law Review* 133(5), p. 1655-1683; AS]

I. THE CURSE OF BIGNESS

Wu's The Curse of Bigness is structured around three key tenets: (i) that antitrust and antimonopoly are central to America's political tradition and critical safeguards of a democratic republic (pp. 16-19); (2) that the structure of our economy inextricably shapes our experience as citizens (pp. 39-44); and (3) that the decades-long project to defang antitrust is the product of an intellectual revolution that redefined how we assess competition through adopting "consumer welfare" as the law's only goal (pp. 88-91, 135).

First, Wu makes clear that his aim is to help recenter antitrust as a key “check on private power as necessary in a functioning democracy” (p. 19). Revisiting the legislative history of antitrust, he notes that lawmakers passed antitrust laws with the expressly political goal of preventing economic autocracy and prohibiting coercive conduct (pp. 30– 31).14 He analogizes antitrust to constitutional law, both in function and in import, following a tradition of scholars who have explored what it means for antitrust to serve a constitutional role (p. 54).15 Wu draws out two distinct aspects of this constitutional dimension. He argues that the passage of the antitrust laws reflected a “[c]onstitutional choice in industrial and national policy,” suggesting that lawmakers passed antitrust laws in order to codify a set of foundational principles that were to set the backdrop of American life (p. 17). Analogizing antitrust to the checks and balances of the U.S. constitutional system, Wu also underscores how constitutional design and antitrust law both reflect a distrust of concentrated power (p. 31). The steady erosion of antitrust, then, is a threat not just to open markets and fair competition, but to the basis of democratic governance.

Second, Wu makes the case that economic concentration inextricably shapes our experience as citizens and that how we structure our markets is foremost a political question that demands critical public engagement (p. 33).16 This tenet is most directly an echo of Justice Brandeis, whose 1934 book is a namesake for Wu’s.17 Justice Brandeis analyzed the phenomenology of concentrated private power, examining how living in a nation of monopolies and oligopolies — being subject to their whims and arbitrary dictates — shaped the experience of civic life.18 Wu, channeling Justice Brandeis, answers that it leads to “a certain inhumanity,” likely to both “rob the American people of their character” and “suppress[] industrial liberty” (p. 41).19 The analysis focuses on how having one’s life largely governed by unaccountable private power tends to undermine liberty and self-determination. “We like to speak of freedoms in the abstract, but for most people, a sense of autonomy is more influenced by private forces and economic structure than by government” (p. 40), Wu writes, explaining that Justice Brandeis viewed “real freedom as freedom from both public and private coercion” (p. 41). The threat to liberty posed by monopoly — which can be understood as a form of private sovereign — remains a “major blind spot for contemporary libertarianism, which is rightly concerned with government overreach but bizarrely tolerant of mistreatment or abuse committed by so-called private actors” (p. 41 n.\*).20

A striking corollary to the idea that extreme economic concentration undermines personal and political liberty is that it can also facilitate the rise of fascism. A major current underlying Wu’s book is that failing to police the growth and incursion of extreme concentrations of private power will not just come at the expense of certain republican ideals but, instead, threatens democracy altogether (p. 139). Wu argues that the German Republic’s acceptance of monopolies and concentrated industry in key markets helped give rise to Hitler, and that the mid-century push for reviving antitrust in the United States was driven, in part, by fears that — absent intervention — America, too, could fall subject to the same fate (pp. 79–82).21 In the lead-up to the passage of the Anti-Merger Act of 1950, both of the bill’s chief sponsors discussed how halting the rising tide of economic concentration was critical for avoiding totalitarianism.22

Third, Wu pegs the enfeebling of antitrust to an intellectual shift ushered in by the Chicago School (pp. 83-92). The Chicago School began with a group of economists and lawyers primarily associated with the University of Chicago (pp. 84-85). Its key founders included Professors Aaron Director, Milton Friedman, and George Stigler and the group grew to include figures such as Professor Ward Bowman and then-Professors Frank Easterbrook, Richard Posner, and Robert Bork (pp. 84-85). Backed by money from the Volker Fund, the group established a project to "promote private enterprise."123 Their scholarship applied neoclassical price theory to the study of legal rules and, in particular, to the analysis of antitrust.24 Under the guidance of Director, students and researchers studied various antitrust doctrines through the lens of price theory, criticizing prevailing case law and theories of harm.25 Perhaps the "most influential" of these efforts, Wu notes, was Bork's paper revisiting the legislative history of the Sherman Act and concluding that the sole purpose of the antitrust laws was to maximize consumer welfare (p. 88). Although a long list of scholars would subsequently debunk Bork's claim,26 the Supreme Court adopted Bork's fictitious account.2 7

The embrace of consumer welfare by courts and enforcers alike "threw out the broader concerns that had long animated the [Sherman] Act and its enforcement" (p. 89). Under the new paradigm, harm to competition would manifest solely as harm to allocative efficiency in the form of higher prices or lower output. Wu observes that Chicago's framework pledged economic rigor yet neglected to consider a host of economic costs, including stagnation and stunted innovation (p. 90). "In truth," Wu writes, "Robert Bork's attack on antitrust was really laissezfaire reincarnated" (p. 91). With the codification of Chicago's ideas, antitrust "lost its traditional goals" (p. 103).

Several factors enabled ideas once considered "lunatic fringe" 28 to redefine antitrust. Channeling the work of Professor William Kovacic, Wu notes that Chicago's triumph relied on key concessions from and alliances with the Harvard School, comprised of centrist scholars and enforcers such as Professors Donald Turner and Phil Areeda and thenJudge Stephen Breyer (p. 103).29 Kovacic's analysis focuses on how the institutional concerns that occupied Harvard School thinkers (such as their misgivings about expansive private rights of action under the U.S. antitrust system) led them to embrace some of the same prescriptions as Chicago. 30 Wu adds that these scholars were also haunted by critiques that antitrust enforcement had become arbitrary and unjustifiably aggressive, nothing short of "the blind firing of muskets at companies that just seemed bad" (p. 103). Meanwhile price theory, along with the consumer welfare standard, appeared to promise a disciplined and rigorous approach to enforcement. A decades-long attack by Chicago on the existing paradigm had left Harvard School academics more susceptible to - and perhaps less critical of - Chicago's interventions (p. 105). As the ideological makeup of the federal judiciary shifted, courts adopted Chicago's theories much more readily.

Within a decade the Chicago movement began encountering some resistance from what is referred to as the "Post-Chicago School," a group of economists and lawyers that "emerged to challenge many of [Chicago's] basic premises" (p. 107). Whereas Chicago scholars had introduced general theories, Post-Chicago academics sought to qualify them, circumscribing the set of conditions under which Chicago's predictions would hold. Yet despite their interventions, "the antimonopoly provisions of the Sherman Act went into a deep freeze from which they have never really recovered" (p. 108). Our economy today reflects this neglect, with highly concentrated product and labor markets along with a tech industry that, while once open and dynamic, is increasingly closed and controlled (pp. 114-26).

Wu closes by sketching the outlines of a Neo-Brandeisian agenda that would resuscitate antitrust. He recommends a merger enforcement program that would fulfill Congress's mandate to arrest mergers even when concentration is in its incipiency, and he proposes that antitrust agencies open up merger review to greater public scrutiny and accountability (pp. 127-30). He urges a return to the "big case" tradition that targeted AT&T and Microsoft (pp. 93-101), and implores enforcers to recover corporate breakups as a mainstay antitrust remedy, observing that the administrative difficulty of structural remedies is often overstated and the benefits (including the "self-executing" nature of breakups) underappreciated (pp. 132-33). Finally, Wu calls for antitrust to abandon consumer welfare as its stated goal and return to a "protection of competition" test, which is more faithful to legislative history and earlier precedent (pp. 135-37). Building on scholarship by Professors Barak Orbach and Eleanor Fox, 31 among others, Wu observes that the goal of preserving competition is "focused on protection of a process," whereas promoting consumer welfare prioritizes "the maximization of a value" (p. 136). Refocusing antitrust on protecting the competitive process, Wu argues, would bring enforcement more in line with actual business realities while also reflecting congressional intent.

#### Democratic governance solves existential threats.

Kolodziej ’17 [Edward; May 19; Emeritus Research Professor of Political Science at the University of Illinois at Urbana-Champaign; EUC Paper Series, “Challenges to the Democratic Project for Governing Globalization,” https://www.ideals.illinois.edu/bitstream/handle/2142/96620/Kolodziej Introduction 5.19.17.pdf?sequence=2&isAllowed=y]

The Rise of a Global Society

Let me first sketch the global democratic project for global governance as a point of reference. We must first recognize that globalization has given rise to a global society for the first time in the evolution of the human species. We are now stuck with each other; seven and half billion people today — nine to ten by 2050: all super connected and interdependent. In greater or lesser measure, humans are mutually dependent on each other in the pursuit of their most salient values, interests, needs, and preferences — concerns about personal, community, and national security, sustainable economic growth, protection of the environment, the equitable distribution of the globe’s material wealth, human rights, and even the validation of their personal and social identities by others. Global warming is a metaphor of this morphological social change in the human condition. All humans are implicated in this looming Anthropogenic-induced disaster — the exhausts of billions of automobiles, the methane released in fracking for natural gas, outdated U.S. coal-fired power plants and newly constructed ones in China. Even the poor farmer burning charcoal to warm his dinner is complicit.

Since interdependence surrounds, ensnares, and binds us as a human society, the dilemma confronting the world’s diverse and divided populations is evident: the expanding scope as well as the deepening, accumulating, and thickening interdependencies of globalization urge global government. But the Kantian ideal of universal governance is beyond the reach of the world’s disparate peoples. They are profoundly divided by religion, culture, language, tribal, ethnic and national loyalties as well as by class, social status, race, gender, and sexual orientation. How have the democracies responded to this dilemma? How have they attempted to reconcile the growing interdependence of the world’s disputing peoples and need for global governance?

What do we mean by the governance of a human society?

A working, legitimate government of a human society requires simultaneous responses to three competing imperatives: Order, Welfare, and Legitimacy. While the forms of these OWL imperatives have differed radically over the course of human societal evolution, these constraints remain predicable of all human societies if they are to replicate themselves and flourish over time. The OWL imperatives are no less applicable to a global society.

1. Order refers to a society’s investment of awesome material power in an individual or body to arbitrate and resolve value, interest, and preference conflicts, which cannot be otherwise resolved by non-violent means — the Hobbesian problematic.

2. The Welfare imperative refers to the necessity of humans to eat, drink, clothe, and shelter themselves and to pursue the full-range of their seemingly limitless acquisitive appetites. Responses to the Welfare imperative, like that of Order, constitute a distinct form of governing power and authority with its own decisional processes and actors principally associated either with the Welfare or the Order imperative. Hence we have the Marxian-Adam Smith problematic.

3. Legitimacy is no less a form of governing power and authority, independent of the Order and Welfare imperatives. Either by choice, socialization, or coerced acquiescence, populations acknowledge a regime’s governing authority and their obligation to submit to its rule. Here arises the Rousseaunian problematic.

The government of a human society emerges then as an evolving, precarious balance and compromise of the ceaseless struggle of these competing OWL power domains for ascendancy of one of these imperatives over the others. It is against the backdrop of these OWL imperatives — Order, Welfare, and Legitimacy — that we are brought to the democratic project for global governance.

The Democratic Project

For Order, open societies constructed the global democratic state and, in alliance, the democratic global-state system. Collectively these initiatives led to the creation of the United Nations, the World Bank, the International Monetary Fund, the World Trade Organization, and the European Union to implement the democratic project’s system of global governance.

The democratic global state assumed all of the functions of the Hobbesian Westphalian security state — but a lot more. The global state became a Trading, Banking, Market, and Entrepreneurial state. To these functions were added those of the Science, Technology and the Economic Growth state. How else would we be able to enjoy the Internet, cell phones and iPhones, or miracle cures? These are the products of the iron triangle of the global democratic state, academic and non-profit research centers, and corporations. It is a myth that the Market System did all this alone. Fueled by increasing material wealth, the democratic global state was afforded the means to become the Safety Net state, providing education, health, social security, leisure and recreation for its population. And as the global state’s power expanded across this broad and enlarging spectrum of functions and roles, the global state was also constrained by the social compacts of the democracies to be bound by popular rule. The ironic result of the expansion of the global state’s power and social functions and its obligation to accede to popular will was a Security state and global state-system that vastly outperformed its principal authoritarian rivals in the Cold War. So much briefly is the democratic project’s response to the Order imperative.

Now let’s look at the democratic project’s response to the Welfare imperative. The democracies institutionalized Adam Smith’s vision of a global Market System. The Market System trucks and barters, Smith’s understanding of what it means to be human. But it does a lot more. The Market System facilitates and fosters the free movement of people, goods and services, capital, ideas, values, scientific discoveries, and best technological practices. Created is a vibrant global civil society oblivious to state boundaries. What we now experience is De Tocqueville’s Democracy in America on global steroids.

As for the imperative of Legitimacy, the social compacts of the democracies affirmed Rousseau’s conjecture that all humans are free and therefore equal. Applied to elections each citizen has one vote. Democratic regimes are also obliged to submit to the rule of law, to conduct free and fair elections, to honor majority rule while protecting minority rights, and to promote human rights at home and abroad.

The Authoritarian Threat to the Democratic Project

The democratic project for global governance is now at risk. Let’s start with the challenges posed by authoritarian regimes, with Russia and China in the lead. Both Russia and China would rest global governance on Big Power spheres of influence. Both would assume hegemonic status in their respective regions, asserting their versions of the Monroe Doctrine. Their regional hegemony would then leverage their claim to be global Big Powers. Moscow and Beijing would then have an equal say with the United States and the West in sharing and shaping global governance. The Russo-Chinese global system of Order would ascribe to Russia and China governing privileges not accorded to the states both aspire to dominate. Moscow and Beijing would enjoy unconditional recognition of their state sovereignty, territorial integrity, and non-interference in their domestic affairs, but they would reserve to themselves the right to intervene in the domestic and foreign affairs of the states and peoples under their tutelage in pursuit of their hegemonic interests. President Putin has announced that Russia’s imperialism encompasses the millions of Russians living in the former republics of the Soviet Union. Russia contends that Ukraine and Belarus also fall under Moscow’s purported claim to historical sovereignty over these states. Forceful re-absorption of Crimea and control over eastern Ukraine are viewed by President Putin as Russia’s historical inheritances. Self-determination is not extended to these states or to other states and peoples of the former Soviet Union. Moscow rejects their right to freely align, say, with the European Union or, god forbid, with NATO.

In contrast to the democratic project, universal in its reach, the Russo-Chinese conception of a stable global order rests on more tenuous and conflict-prone ethno-national foundations. Russia’s proclaimed enemies are the United States and the European Union. Any means that undermines the unity of these entities is viewed by Moscow as a gain. The endgame is a poly-anarchical interstate system, potentially as war-prone as the Eurocentric system before and after World War I, but now populated by states with nuclear weapons.

Global politics becomes a zero-sum game.

Moscow has no compunctions about corrupting the electoral processes of democratic states, conducting threatening military exercises along NATO’s east border, or violating the more than 30-year old treaty to ban the deployment of Intermediate-Range missile launchers, capable of firing nuclear weapons. Nothing less than the dissolution of the democratic project is Moscow’s solution for global Order.

China also seeks a revision of the global Order. It declares sovereignty over the South China Sea. Rejected is The Hague Tribunal’s dismissal of this claim. Beijing continues to build artificial islands as military bases in the region to assert its control over these troubled waters. If it could have its way, China would decide which states and their naval vessels, notably those of the United States, would have access to the South China Sea.

Where Moscow and Beijing depart sharply are in their contrasting responses to the Welfare imperative. Moscow has no solution other than to use its oil and gas resources as instruments of coercive diplomacy and to weaken or dismantle existing Western alliances and international economic institutions. China can ill-afford the dismantling of the global market system. In his address to the Davos gathering in January of this year, Chinese President Xi asserted that “any attempt to cut off the flow of capital, technologies, products, industries and people between economies, and channel the waters in the ocean back into isolated lakes and creeks is simply not possible.” Adam Smith could not have said it better. Both Moscow and Beijing have been particularly assiduous to legitimate their regimes. President Putin’s case for legitimacy is much broader and deeper than a pure appeal to Russian nationalism. He stresses the spiritual and cultural unity of Russianspeaking populations spread across the states of the post-Soviet space. A central core of that unity is the Russian Orthodox Church, a key prop of the regime. Reviled is Western secularism, portrayed as corrupt and decadent, viewed by Putin as an existential threat to the Russian World. The Chinese regime, secular and atheistic, can hardly rely on religion to legitimate the regime. Beijing principally rests its legitimacy on its record of economic development and nationalism. The regime’s success in raising the economic standards of hundreds of millions of Chinese reinforces its claim to legitimacy in two ways. On the one hand, the Communist Party can rightly claim to have raised hundreds of millions of Chinese from poverty within a generation. On the other hand, the Communist Party insists that its model of economic growth, what critics scorn as crony capitalism, is superior to the unfettered, market-driven model of the West. Hence capitalism with Chinese characteristics is more effective and legitimate than the Western alternative.

Where Moscow and Beijing do converge is in fashioning their responses to the Legitimacy imperative. They repudiate Western liberal democracy. Both reject criticisms of their human rights abuses as interventions into their domestic affairs. Dissidents are harassed, incarcerated, or, in some instances, assassinated. Journalists are co-opted, selfcensored, silenced, or imprisoned. Social media is state controlled. Both the Putin regime and the Chinese Communist Party monopolize the public narratives evaluating governmental policy. Transparency and accountability are hostage to governmental secrecy. Civil society has few effective avenues to criticize governmental actions. Moscow adds an ironic twist to these controls in manipulating national elections to produce an elected authoritarian regime.

Whether either of these authoritarian responses to the Legitimacy imperative will survive remains to be seen. Beijing’s use of economic performance and nationalism to underwrite its legitimacy is a double-edged sword. If economic performance falters, then legitimacy suffers. Whether top-down nationalism will always control nationalism from the bottom-up is also problematic. In resting legitimacy on nationalism, dubious historical claims, and crypto-religious beliefs, Moscow is spared Beijing’s economic performance test. That said, there is room for skepticism that in the long-run Russians will exchange lower standards of living for corrupt rule in pursuit of an elusive Russian mission antagonistic to the West. The implosion of the Soviet Union, due in no small part to its retarded economic and technological development, suggests that the patience of the Russian people has limits. Demonstrations in March 2017 against state corruption in 82 Russian cities, led largely by Russian youth, reveal these limits. They are an ominous omen for the future of the Putin kleptocracy. Meanwhile, neither Russia nor China offers much to solve the Legitimacy imperative of global governance.

# 2AC

## K

### 2AC – AT: K

#### Policymakers should privilege prudence above other values. Weighing of concrete policy possibilities is a prerequisite for any ethical assessment.

Stefano **RECCHIA** IR Grad Student @ Columbia **‘7** “Restraining Imperial Hubris: The Ethical Bases of Realist International Relations Theory” *Constellations* 14 (4)

The content of this ethics of lesser evil – or ethics of responsibility – becomes further clarified in the emphasis put by several realist scholars on the concept of prudence as a guideline for responsible statecraft. Morgenthau called prudence "the supreme virtue in politics."47 In a first approximation, prudence can be seen as stressing the consequentialist aspect of realist IR theory; prudence first of all implies a careful weighting of the consequences of alternative political actions. However, it would be wrong to reduce the concept of realist prudence to a mere consideration of "what is possible" in international relations, implying a dispassionate strategic calculus aimed at selecting the most appropriate means to achieve some given end. Rather, it appears that in most traditional realist scholarship, "means are matched to ends within a context in which the choice of means and ends alike is constrained by ethical principles."48 This suggests that the entire notion of political ethics underpinning American realism is quite heavily influenced, not by Machiavellian raison d'état, but by the older Thomistic notion of prudent statecraft, which itself has deep roots in the Aristotelian conception of practical wisdom. It was Reinhold Niebuhr, the Protestant theologian and an important realist figure in his own right, who combined Augustine's utter pessimism about human nature with the Thomistic notion of prudent self-restraint. Niebuhr thus established a coherent and deeply moral political theory that seems to have had great appeal for secular scholars such as Morgenthau and Wolfers. Niebuhr crucially believed that individuals and nations alike are largely driven by egoism and pride, which he saw as resulting in an inherent "will-to-power" and domination. Yet he also laid the foundations for the ethical outlook that was to characterize subsequent generations of realist scholars, emphasizing that "even the collective behavior of men stands under some inner moral checks;" and in the mid-twentieth century more than ever "the peace of the world require[d] that these checks be strengthened."49 In many regards, Morgenthau did little more than reformulate Niebuhr's Christian universalism and his ethics of lesser evil for a secular audience of foreign-policy experts. The realists' absorption of the Aristotelian/Thomistic view of practical wisdom can be seen as one of the main reasons why they did not accept that international relations can be a fully rule-governed activity. If international relations were fully moralized and specific rules governed each individual foreign-policy decision, this would presumably eliminate the need to engage in complex moral trade-offs when state survival is believed to be at stake. However, once again, political realists believed that this would be impossible and probably undesirable. The uncertain nature of international politics, with unexpected feedback-loops resulting from complex patterns of strategic interaction, necessarily requires sustained political and moral judgment by the actual policy maker. As Robert Tucker adequately put it, "whether prudence permits the observance of restraints, and if so what restraints, are dependent upon circumstance and cannot be answered in the abstract."50 Hence the central role of the morally responsible statesman in realist international relations theory; someone who is allowed substantial discretion in deciding what morality requires under particular circumstances and when conditions of "supreme necessity" apply.

Notwithstanding their pessimistic outlook on human affairs, most traditional American realists recognized that "survival" is not always immediately at stake in international relations. As Arnold Wolfers put it in his famous analogy: even in the darkest days of the Cold War international relations did not fully resemble a "house on fire," which would have left individual statesmen with no room for deliberation, simply compelling them to run towards the exit. Rather, the appropriate analogy was that of a house merely "overheated," thus leaving sufficient room for moral and political choice although the temperature was not always comfortable.51 The traditional American realists all seem to have agreed – either explicitly, or more implicitly in the context of their broader theory – that whenever national survival is not unequivocally at stake, responsible statecraft cannot be simply reduced to a matter of choosing the lesser evil among available policy options. In slightly different terms: whenever international systemic imperatives are not compelling, responsible foreign policy makers ought to choose the most effective policy actually compatible with the moral good, with the latter defined by universal standards. Morgenthau himself came to stress in some of his later writings that whenever survival is not at stake, morality should be seen as proscribing any deviation from the moral code altogether:Morality is not just another branch of human activity, co-ordinate to the substantive branches, such as politics or economics. Quite to the contrary, it is superimposed upon them, limiting the choice of ends and means and delineating the legitimate sphere of a particular branch of action altogether. This latter function is particularly vital in the political sphere."52Notwithstanding the almost Kantian overtones of this latter quote, it seems that for Morgenthau and his fellow American realists, the possibilities for moral behavior in international relations depend almost entirely on the qualities of the statesman; i.e. essentially his moral and political wisdom. Morgenthau is representative of much realist thinking, when he argues that politics is an art, not a science, and that what is required for its mastery is "the wisdom and the moral strength of the statesman."53 What the scholar can do is to illuminate the inherent tensions between the moral code and the empirical constraints that influence the determination of foreign policy, and this the traditional American realists attempted to do throughout their academic careers.

#### Critiques requires specific alternatives to existing economic methods. Failure to specifically explain an alternative crushes hope for transition.

Andrew **SAYER** Reader in Political Economy @ Lancaster **’95** *Radical Political Economy: A Critique* p. 7-8

Radical political economy is of course a critical social science, both explaining and criticizing the practices it studies, with the explicit aim of reducing illusion and freeing people from domination and unwanted forces. But it can only hope to have an emancipatory effect if it considers its own critical standpoints and the alternative social arrangements they imply. Unfortunately it rarely does this, with the result that its stand- points and implicit alternatives are often contradictory, infeasible, or undesirable even if they are feasible. Marxist-influenced work still bears the traces of the tension between the standpoints of a socialist or communist society which has pre-industrial communitarian qualities and one in which the forces of production are developed beyond current levels of industrialization. More generally, there is a strong modernist tendency in which it is assumed that problems can be progressively unravelled without creating new ones at the same time, as if eventually all trade-offs or dilemmas could be overcome through a triumph of reason. We shall argue through substantive examples that such optimism is not only misplaced but likely to be counterproductive, limiting progress. There are always likely to be 'dilemmas of development' (Toye, 1987. The problem of critical standpoints has become more acute in recent years, indeed it is central to the crisis of the Left. There is no longer asingle standpoint or alternative (socialism/communism) counterposed to a single, overarching target (capitalism). Now there are many targets -patriarchy, racism, homophobia, militarism, industrialism - and corre- spondingly many critical standpoints with complex relations between them. That critical social science is no longer seen as synonymous with a socialist perspective is a sign of considerable progress, and cause for optimism too, as failure on the traditional front of class politics is compensated by progress on other, newer fronts such as the politics of gender. But it is also a source of heightened uncertainty. While there was always a problem of inconsistencies between critical standpoints, it has deepened and widened with the rise of 'green' concerns, for they bring into question the feasibility and desirability of non-capitalist as well as capitalist industrial societies. Is the problem capitalism, industrial society in general, or modernity?; and what are the alterna- tives? Equally, increasing awareness of problems of ethnocentrism and value pluralism throws doubt over the familiar, implicit critical stand- points of Western radical social science. How do we decide what is a problem? What if we cannot reach a consensus on this? Until recently, it seemed that the problems or targets of critical social science could be relied upon to emerge from the investigation of existing practices, where one would encounter the felt needs, frustrations and suffering of actors, and in discovering the sources of these problems, work out what changes would lead towards emancipation (e.g. Fay, 1975, 1987; Collier, 1994h(. This was coupled with an implicit view that emancipation was a form of escape from domination, illusion and unwanted constraints, with little or no acknowledgement that it depended on the construction of superior, alternative, progressive frameworks which could replace the old ones. But it is now increasingly apparent that normative questions of possible alternatives and what is good or bad about them cannot be evaded. How, without addressing such questions, could one decide what constitutes a superior alternative? Should there be a presumption in favour of community as a basis of social organiz- ation over other forms? Does liberalism provide the best framework for multicultural societies? What should be people's rights and responsibili- ties? What are our responsibilities to distant others, future generations, and to other species? There is little hope of achieving the goal of an emancipatory social science if it shuns normative discussions of issues such as these.

#### Extinction link:

#### Extinction’s the worst possible impact---it causes the painful death of billions, destruction of future generations, and loss of all value

Dr. Simon Beard 19, Postdoctoral Researcher at the Centre for the Study of Existential Risk at University of Cambridge, PhD in Moral Philosophy from the London School of Economics, and Phil Torres, Affiliate Scholar at the Institute for Ethics and Emerging Technologies, Founder of the X-Risks Institute, Writer Appearing in Skeptic, Free Inquiry, Bulletin of the Atomic Scientists, Salon, Truthout, Erkenntnis, Metaphilosophy, “How Tragic Would Human Extinction Be? Convergent Arguments for Making the Survival of Our Lineage a Global Priority”, p. 1-6 [https://docs.wixstatic.com/ugd/d9aaad\_fe220e5010754cc080e0149c3dae2c4a.pdf]

Would it be wrong if humanity were to go extinct like most species that have so far existed? If so, how wrong, and for what reasons? The present paper aims to synthesize a wide range of arguments for why human extinction would be *very bad*, if not *one of the worst things that could possibly happen*. We will call this “Conclusion C.” Although there are some moral and axiological positions that see the extinction of humanity as desirable, such as Benatarian anti-natalism, our aim will be to show that there are multiple independent lines of reasoning that all converge upon Conclusion C, and thus imply that humanity ought to make the avoidance of extinction a top global priority this century and beyond. Here it is useful to distinguish between (E) the event or process of going extinct, and (S) the state or condition of being extinct. At the very least, all of the most prominent moral theories identify (E), if caused or allowed by moral agents, as wrong; other theories, however, affirm the moral badness of both (E) and (S), even going so far, in certain cases, to assert that most of what is bad about human extinction is the subsequent loss of value that could have been realized if only we had survived.

This topic is not one of mere philosophical curiosity. As one of us has elsewhere shown, the very idea of human extinction is a quite recent addition to our shared conceptual repertoire; e.g., not even Charles Darwin entertained the idea in his work on human evolution. Consequently, very little scholarly 3 attention has focused on the ethical implications of either (E) or (S). Yet the most informed probability estimates of human extinction occurring this century suggest that this could be the most dangerous moment of our species’ 200,000-year history. For example, Nick Bostrom (2005) estimates that the likelihood of extinction before 2100 is not less than 20 percent; an informal survey of experts at the Future of Humanity Institute (FHI) yields a median probability of 19 percent (Sandberg and Bostrom 2008); and Toby Ord conjectures a 1-in-6 chance of extinction before 2100 (see Wiblin 2017; author). For ease of discussion, we can call this the “unique hazards hypothesis,” defined as follows:

*Unique hazards hypothesis*: Humanity finds itself in a period of historically unprecedented dangers to our survival.

If this hypothesis is even remotely accurate, then the question of whether and to what extent Conclusion C is well-supported by cogent philosophical argumentation is not only of paramount importance but extremely urgent as well. Thus, the present paper aims to fill-in a significant lacuna in the contemporary 4 literature on existential risks, offering a robust point-of-departure for future discussions of whether and to what extent human extinction would be tragic.

This paper will proceed as follows: Section 2 examines five potential reasons why human extinction might be tragic. Section 3 explores how the four main classes of moral theories would evaluate these reasons. Section 4 addresses the issue of normative uncertainty in the context of human extinction. It should become clear by the end of this fairly exhaustive tour through a philosophical labyrinth of argumentation that one need not espouse any particular moral or axiological perspective to see human extinction as a tragedy of immense proportions. Indeed, some lines of reasoning that converge upon Conclusion C are not only independent but mutually exclusive, meaning that people with incompatible moral or axiological commitments can still agree that ensuring our survival into the far future should constitute a global priority for human civilization.

Section 2. Five Potential Tragedies of Human Extinction

There are at least five aspects of human extinction that moral and axiological theories could appeal to in arguing that such an event would constitute a tragedy of the highest order. These are:

2.1 *Human extinction will very likely harm those alive at the time*. Although no scientific surveys of normative beliefs about human extinction have been conducted, there are reasons for suspecting that most people would pre-theoretically see (E) as tragic for at least one morally relevant reason, namely, that it would entail the death of ~7.6 billion people (as of this writing); yet many would also see this as only slightly worse than a catastrophe that kills a much smaller number of people. Even more, most probably wouldn’t view (S) as being bad at all.5 Taking these in reverse order, many philosophers and non-philosophers alike hold “person-affecting” intuitions according to which we should care most, or only, about the effects of our actions on currently existing people and consequently little, or not at all, about those who will only exist in the future. Thus, since no one will be around to bemoan the non-existence of humanity, who cares? On the other hand, while many agree that any bodily or psychological harm that going extinct causes would be bad, the badness of such harm does not scale multiplicatively as the number of deaths increases due to cognitive biases like “scope neglect” and “psychophysical numbing” (see Slovic 2017). The first bias refers to our inappropriate emotional responses to large numbers and the second denotes the rapid decline in compassion for other humans as the absolute number of casualties rises above one. Thus, most people interpret the difference between 0 and 1 deaths as greater than the difference between 2,154,489,204 and 2,154,489,205 deaths; most people would rather spend some quantity of resources to prevent a single death rather than to prevent 2,154,489,204 deaths from becoming 2,154,489,205. Yet there is no reason why this should be carried over into our moral evaluations as such, and once we evaluate human extinction according to the actual number of people who will die it seems that, even if we do hold person affecting views, an extinction event would still be one of the worst things that could ever happen.

Furthermore, even if people preserve such biases, there remains the fact that an event of this sort could, depending on the timing, cause the death of oneself or living creatures that one cares about, such as parents, siblings, friends, pets, or celebrities. Consider that if the risk of human extinction were only 0.1 percent per year—a relatively conservative estimate—and if the only life one cared about was one’s own, then one should still be willing to take precautions against such extinction that are at least as costly as those one takes against dying in a road traffic accident, since the chance of death from both causes would be comparable (Global Challenges Foundation 2017; author) But death itself isn’t the only personal harm 6 that the scenario above could entail. People often seek to acquire a form of “vicarious immortality” by contributing in some way to culture, sports, academia, and so on; the thought of such accomplishments, or “traces,” persisting through time give many people a deep sense of meaning in life. Or, as Wilhelm Ostwald’s put it in 1906, “every man leaves after his death certain things in the world [that are] changed by his influence,” adding that “there is a very general desire in mankind to leave such impressions.” Along 7 these lines, Ernest Partridge (1981) argues that human beings manifest a

desire to extend the term of one’s influence and significance well beyond the term of one’s lifetime—a desire evident in arrangements for posthumous publications, in bequests and wills, in perpetual trusts (such as the Nobel Prize), and so forth. In such acts and provisions, we find clear manifestations of a will to transcend the limits of personal mortality by extending one’s self and influence into things, associations, and ideals that endure.8

This gestures at yet another idea that Janna Thompson (2009) calls “lifetime-transcending concerns,” or “interests concerning states of affairs that will, or could, occur in the future beyond one’s lifetime.” It follows that merely believing that humanity will go extinct in the foreseeable future could lead to a sense of despondency by undercutting the promise of vicarious immortality. In the words of Allen Tough (1991), if humanity fails to survive, “then most other values and goals will lose their point. No other goals are more important than humanity’s survival at a satisfactory level.” Elsewhere he writes that “if humanity goes out of existence or back to the caves, then our personal efforts and achievements also disappear. Career success, national prestige, battlefield victories, business as usual, books, paintings, and children will not provide any of us with long-lasting benefits if human civilization destroys itself.”9 Thus, not only would human extinction entail actual mortality, but it would also eliminate vicarious immortality.

2.2 *Human extinction will cause a great loss in the quantity of human welfare and other values*. Many of the scholars and philanthropists who are most committed to averting human extinction are motivated not only by the harm of (E), but also by considerations of the lost value inherent in (S). There are several possible routes to this conclusion depending on one’s interpretation of the astronomical value thesis:

*Astronomical value thesis*: The potential value of the future could be astronomically huge, if only

we play our cards right.

The question immediately arises as to what “value” means, and one answer is: “Whatever you would like it to mean.” The point is that if humanity survives and spreads through the universe, there could be far more of whatever one values in the future than in the contemporary world. In fact, philosophers have argued that, insofar as one genuinely values a property P, one should strive to ensure its continued existence into the future, if not work to multiply the number of instances of the universal (see Scheffler 2007, 2018). It follows that one should see human extinction as bad not just because of the possible bodily and 10 psychological harm that going extinct could cause, but because of the loss of potentially astronomical amounts of value that we could actualize. In this way, given what it means to value something and that 11 people do value thing, the descriptive proposition of the astronomical value thesis yields the normative proposition of Conclusion C.

A popular moral interpretation of the axiological component of the astronomical value thesis comes from what is called the “Total View.” This identifies value as a property of individual lives, 12 where “value” can be defined in very many ways including hedonistic, desire-satisfaction, or objective list-theoretic terms. The central idea is that morally good acts are those that increase the total amount of value across all lives, present and future. A weaker interpretation of “astronomical value” arises from what is called the “Simple View.” On this view, value is still a property of individual lives, but one is not necessarily committed to maximizing it. Rather, all this view implies about morally good acts is that some lives are “good” and that the addition of any of these lives would always be in itself good and make the world better in at least one way. It follows that, on either of these views, since human extinction would 13 permanently preclude the realization of potentially vast amounts of future value, “to end the human race would be about the worst thing it would be possible to do,” a sentiment that goes back at least to Henry Sidgwick (1907). From this perspective, the difference between 99 and 100 percent of humanity dying out is far greater than the difference between 1 and 99 percent perishing (Parfit 1984). The reason is that, as H.G. Wells—the founder of future studies —put it in 1902, is that 14

all the past is but the beginning of a beginning, and that all that is and has been is but the twilight of the dawn. It is possible to believe that all that the human mind has ever accomplished is but the dream before the awakening. We cannot see, there is no need for us to see, what this world will be like when the day has fully come. We are creatures of the twilight.

Indeed, according to Carl Sagan, if humans remain on Earth with an average lifespan of 100 years, there could come to exist 500 trillion humans in the future. But it appears likely that, if we survive the next few centuries, humanity will spread into the cosmos, which could vastly increase the total number of people— and thus the total amount of well-being in the universe. For example, Bostrom (2003b) calculates that if a single star can sustain ~10 billion people, then the Virgo Supercluster could house ~100 sextillion future humans per century; yet there are about 10 million superclusters in the observable universe and 1 billion trillion stars in total. (We will leave it to readers to do the math!) Even more, if mind-uploading is possible, then based on calculations of the computational capacity of planets that are converted into giant supercomputers, there could exist ~100 decillion (or 1038) people per century in the Virgo Supercluster alone, although Milan Ćirković (2002) puts the number even higher at 10 quattuordecillion (or ~1046). If such people have worthwhile lives, then the potential well-being that our descendants could realize in the future could be truly astronomical. Notice here that even if one highly discounts future lives, the sheer 15 number that could come into existence still suggests that existential risk reduction ought to be highly prioritized.

2.3 *Human extinction will cause a great loss in the quality of human welfare and other values*. The astronomical waste thesis, though, does not need to be understood solely in terms of the total number of people with worthwhile lives that could come to exist in the future. Indeed, it should also take account of the potential for people in the future to acquire lives that are not merely worthwhile but *extraordinarily*, perhaps *unimaginably* (from our current vantage point), good. There are two trends worth mentioning here, the first being societal: As Steven Pinker (2011) outlines in great detail, humanity has made significant moral progress throughout history, and especially since the end of World War II. One happy symptom of this is the steady, if uneven, decline of violence. According to Pinker, humanity is not only in the midst of the “Long Peace” but also the “New Peace,” during which organized conflicts of all kinds—civil wars, genocides, repression by autocratic governments, and terrorist attacks—[have] declined throughout the world.” Although Pinker does not extrapolate these trends into the future, there are some reasons for expecting them to continue. For example, Pinker identifies the primary driver of moral progress in recent decades as the Flynn effect, the long term increase in human intelligence observed during the twentieth century. While this appears to have slowed, stopped, or reversed in certain regions of the world (see, e.g., Bratsberg and Rogeberg 2018), it is very likely that future innovation will yield safe and effective cognitive and moral enhancements. If the former augments our capacity for “abstraction from the concrete particulars of immediate experience,” which is “the cognitive skill that is most enhanced in the Flynn effect,” then we might expect a further expansion of our circles of moral concern (Pinker 2011). There could be similar gains from moral bioenhancement, which Ingmar Persson and Julian Savulescu (2012) describe as any biomedical intervention that augments our moral dispositions of altruism and a sense of justice (or fairness). The first consists of empathy—the cognitive property that Pinker focuses on—and sympathetic concern—the motivational element of moral action. Although Persson and Savulescu’s proposal has proven to be controversial for both philosophical and practical reasons (see author), it is not unthinkable that future breakthroughs yield highly effective *mostropics*, i.e., morality-boosting drugs, and that these drugs become as commonly ingested as fluoride is via the public drinking water.

This leads to the second trend, which is transhumanist: Human enhancement technologies could enable a phase transition from humanity to posthumanity, where posthumans are beings with significantly augmented capacities in the broad domains of cognition, emotion, and healthspan (see Bostrom 2008). For example, nootropics, transcranial magnetic stimulation, brain-computer interfaces (BCIs), genetic modifications, iterated embryo selection, mind-uploading, and so on, could potentially increase our intellectual abilities, while advanced biotechnology and molecular nanotechnology could stop or even reverse aging, thus enabling people to live indefinitely long lives. The result could be a population of beings 16 who experience degrees of well-being that far exceed the intensity and amount that any current human

could possibly attain. Even more, enhancement technologies could expand our “cognitive space” such that our posthuman progeny have mental access to concepts that are in principle beyond our ken (see author). It follows that, insofar as (say) some theory T requires a concept C to understand, and insofar as C falls outside of our current cognitive space but within the cognitive space of a species of posthuman, then that species could devise T—a theory about which we might be second-order ignorant, meaning that we can’t even know that we can’t know T. Thus, insofar as one values knowledge, there could be any number of marvelous new ideas in the future that forever linger beyond our epistemic reach.

This being said, people have been speculating about utopian futures in which people live qualitatively (much) better lives since at least the nineteenth century, and it has become natural to view these with a strong degree of skepticism. Yet 200 years ago, very few individuals were permitted the freedom of thought and self-expression that many now take for granted; violence, sickness, and disability where far more common than they are today; people’s understanding of the world around them was quite impoverished and their access to science, art, and technology almost unimaginably lower than such access is today. Even if twenty-first century utopian visions remain unrealized, the prospects for a qualitative improvement in future people’s lives, we would argue, ought not be underestimated. Thus, there both quantitative and qualitative aspects to, at the very least, a Totalist interpretation of the astronomical value thesis.

2.4 *Human extinction will remove our rational/moral agency from the earth/universe*. The physicist Enrico Fermi once observed that the sheer size of the universe should entail that interstellar civilizations are relatively common, and we should be able to detect them with our current technology, however so far we have found no real evidence of their existence. This is known as the “Fermi Paradox.” Yet there is a growing body of research that resolves (or dissolves) the paradox by arguing that intelligent life could be rare in the universe; at the extreme, humanity could be something of a cosmic *hapax os*, i.e., a “thing existing only once.” Peter Ward and Donald Brownlee (2000), for example, defend a version of the “rare 17 Earth hypothesis,” and a more recent analysis calculates that there is a 38 to 85 percent chance that humanity is alone in the observable universe and a 53 to 99.6 percent chance that humanity is alone in our galaxy (Sandberg et al. 2018). It follows that, as Toby Ord declares, “it’s very possible that we might be the most amazing and rare part of the whole universe, the only part of the universe capable of understanding the universe itself and appreciating its wonders” (quoted in Wiblin 2017).

For some, this observation provides additional support for the notion that humanities extinction would be a tragedy of cosmic proportions. As Derek Parfit (2016) argues,

if we are the only rational beings in the Universe, as some recent evidence suggests, it matters even more whether we shall have descendants or successors during the billions of years in which that would be possible. Some of our successors might live lives and create worlds that, though failing to justify past suffering, would give us all, including some of those who have suffered, reasons to be glad that the Universe exists (emphasis added)18

#### Democracy links:

#### Liberal democracy is good – they undermines all liberal gains and causes right wing takeover

Strunz and Bartkowski 18 – Sebastian Strunz is a professor at the Helmholtz Center for the Environment. Bartosz Bartkowski works at the Department of Economics of the Helmholtz Centre for Environmental Research (UFZ) in Leipzig, Germany. He has a PhD degree in economics from Martin Luther University. (Degrowth, the project of modernity, and liberal democracy, Journal of Cleaner Production (2018), doi: 10.1016/j.jclepro. 2018.06.148)//gcd

Given the co-evolution of technological and social structures, it seems straightforward that a strong overall disenchantment with modernity often aligns with a rejection of existing liberal democracies. To be sure, most of the radical critiques presumably aim to preserve and nurture liberal values such as free speech, freedom of religion and sexual orientation. Yet, we would like to point out a crucial risk here: the value foundation of liberal democracy cannot be taken for granted – doing so might rather endanger these values. In this sense, radical approaches to degrowth run the risk of undermining and eventually losing in their quest for “true”, “unalienated”, “reembedded”, free, democratic society those freedom-guaranteeing institutions that are already in place. Indeed, it has been argued that modern mindsets, institutions and technologies are inextricably linked: “capitalism, psychological individuation and liberalism emerged together, remain interwoven and mutually dependent in complex ways, and depend absolutely on a continually expanding throughput of energy” (Quilley 2013: 263). By implication, it would be “highly questionable” whether liberal “social and institutional forms would survive the transition to a low-energy regime” (279; see also Bailey 2015). This points to the risk of inadvertently sacrificing liberal values. Note that argumentative patterns such as “true democracy”, “real democracy” vs. “technofascism” and “so-called democratic countries” where people live “at the mercy of immense and impersonal powers” share a structural affinity (i.e. not necessarily substantial conceptual agreement) with some of the more radical modernity critiques sketched in Section 2 (e.g. Heidegger’s juxtaposition of authenticity as opposed to modern life’s in-authenticity). The problem is that if existentialist vocabulary (truth, authenticity) enters the political domain, this jeopardizes political freedoms. Such vocabulary lends itself to engender disdain for all existing institutions and, in consequence, to justify violent means in order to overthrow democracies-in-name-only. In fact, the basic values of liberal democracy have been explicitly questioned in the name of preventing ecological disaster (Heilbroner 1974, Ophuls 1977; see also the critical analysis of eco-authoritarianism in Shahar 2015). Finally, consider that someone as Illich, who clearly championed an anti-authoritarian position, nevertheless proposed Maoist China as a possible example of a society that could be restructured along convivial lines (Illich 1975: 29). Thus he spectre of authoritarianism creeping in through the back door should not be lightly dismissed. Again, we presume that the core values of liberal democracy are cherished by a majority of degrowthists. We just point to the fundamental risk that these liberal values be unintentionally abandoned. Imagine this scenario: disappointment with existing institutions leads to welcoming institutional breakdown in the hope of rebuilding a more just society out of the debris, whereupon “true democracy” fails to materialize and the values of liberal cosmopolitanism are sacrificed somewhere along the way.

#### Reformist democratic discourse more successful than revolutionary withdrawal. Successful American leftist movements appealed to different constituencies.

Michael **KAZIN** History @ Georgetown **’11** “Has the US Left Made a Difference” *Dissent* Spring p. 52-54

But when political radicals made a big difference, they generally did so as decidedly junior partners in a coalition driven by establishment reformers. Abolitionists did not achieve their goal until midway through the Civil War, when Abraham Lincoln and his fellow Republicans realized that the promise of emancipation could speed victory for the North. Militant unionists were not able to gain a measure of power in mines, factories, and on the waterfront until Franklin Roosevelt needed labor votes during the New Deal. Only when Lyndon Johnson and other liberal Democrats conquered their fears of disorder and gave up on the white South could the black freedom movement celebrate passage of the civil rights and voting rights acts. For a political movement to gain any major goal, it needs to win over a section of the governing elite (it doesn’t hurt to gain support from some wealthy philanthropists as well). Only on a handful of occasions has the Left achieved such a victory, and never under its own name. The divergence between political marginality and cultural influence stems, in part, from the kinds of people who have been the mainstays of the American Left. During just one period of about four decades—from the late 1870s to the end of the First World War— could radicals authentically claim to represent more than a tiny number of Americans who belonged to what was, and remains, the majority of the population: white Christians from the working and lower-middle class. At the time, this group included Americans from various trades and regions who condemned growing corporations for controlling the marketplace, corrupting politicians, and degrading civic morality. But this period ended after the First World War—due partly to the epochal split in the international socialist movement. Radicals lost most of the constituency they had gained among ordinary white Christians and have never been able to regain it. Thus, the wageearning masses who voted for Socialist, Communist, and Labor parties elsewhere in the industrial world were almost entirely lost to the American Left—and deeply skeptical about the vision of solidarity that inspired the great welfare states of Europe. Both before and after this period, the public face and voice of the Left emanated from an uneasy alliance: between men and women from elite backgrounds and those from such groups as Jewish immigrant workers and plebeian blacks whom most Americans viewed as dangerous outsiders. This was true in the abolitionist movement—when such New England brahmins as Wendell Phillips and Maria Weston Chapman fought alongside Frederick Douglass and Sojourner Truth. And it was also the case in the New Left of the 1960s, an unsustainable alliance of white students from elite colleges and black people like Fannie Lou Hamer and Huey Newton from the ranks of the working poor. It has always been difficult for these top and- bottom insurgencies to present themselves as plausible alternatives to the major parties, to convince more than a small minority of voters to embrace their program for sweeping change. Radicals did help to catalyze mass movements. But furious internal conflicts, a penchant for dogmatism, and hostility toward both nationalism and organized religion helped make the political Left a taste few Americans cared to acquire. However, some of the same qualities that alienated leftists from the electorate made them pioneers in generating an alluringly rebellious culture. Talented orators, writers, artists, and academics associated with the Left put forth new ideas and lifestyles that stirred the imagination of many Americans, particularly young ones, who felt stifled by orthodox values and social hierarchies. These ideological pioneers also influenced forces around the world that adapted the culture of the U.S. Left to their own purposes—from the early sprouts of socialism and feminism in the1830s to the subcultures of black power, radical feminism, and gay liberation in the 1960s and 1970s. Radical ideas about race, gender, sexuality, and social justice did not need to win votes to become popular. They just required an audience. And leftists who were able to articulate or represent their views in creative ways often found one. Arts created to serve political ends are always vulnerable to criticism. Indeed, some radicals deliberately gave up their search for the sublime to concentrate on the merely persuasive. But as George Orwell, no aesthetic slouch, observed, “the opinion that art should have nothing to do with politics is itself a political attitude.” In a sense, the radicals who made the most difference in U.S. history were not that radical at all. What most demanded, in essence, was the fulfillment of two ideals their fellow Americans already cherished: individual freedom and communal responsibility. In 1875, Robert Schilling, a German immigrant who was an official in the coopers, or caskmakers, union, reflected on why socialists were making so little headway among the hard-working citizenry: ….everything that smacks in the least of a curtailment of personal or individual liberty is most obnoxious to [Americans]. They believe that every individual should be permitted to do what and how it pleases, as long as the rights and liberties of others are not injured or infringed upon. [But] this personal liberty must be surrendered and placed under the control of the State, under a government such as proposed by the social Democracy. Most American radicals grasped this simple truth. They demanded that the promise of individual rights be realized in everyday life and encouraged suspicion of the words and power of all manner of authorities—political, economic, and religious. Abolitionists, feminists, savvy Marxists all quoted the words of the Declaration of Independence, the most popular document in the national canon. Of course, leftists did not champion self-reliance, the notion that an individual is entirely responsible for his or her own fortunes. But they did uphold the modernist vision that Americans should be free to pursue happiness unfettered by inherited hierarchies and identities. At the same time, the U.S. Left—like its counterparts around the world—struggled to establish a new order animated by a desire for social fraternity. The labor motto “An injury to one is an injury to all” rippled far beyond picket lines and marches of the unemployed. But American leftists who articulated this credo successfully did so in a patriotic and often religious key, rather than by preaching the grim inevitability of class struggle. Such radical social gospelers as Harriet Beecher Stowe, Edward Bellamy, and Martin Luther King, Jr., gained more influence than did those organizers who espoused secular, Marxian views. Particularly during times of economic hardship and war, radicals promoted collectivist ends by appealing to the wisdom of “the people” at large. To gain a sympathetic hearing, the Left always had to demand that the national faith apply equally to everyone and oppose those who wanted to reserve its use for privileged groups and undemocratic causes. But it was not always possible to wrap a movement’s destiny in the flag. “America is a trap,” writes the critic Greil Marcus, “its promises and dreams…are too much to live up to and too much to escape.” In a political culture that valued liberty above all, the Left had more difficulty arguing for the collective good than for an expansion of individual rights. Advocates of the former could slide into apologizing for totalitarian rule in the Soviet Union and elsewhere. But to give primacy to individual freedom could deprive the Left of its very reason to exist. In trying to advance both ideals, radicals confronted a yawning contradiction: in life as opposed to rhetoric, the desire for individual liberty routinely conflicts with the yearning for social equality and altruistic justice. The right of property holders and corporations to do what they wish with their assets clashes with environmentalists’ desire to preserve the natural habitat, with the desire of labor unionists to restrict an employer’s right to hire and fire, and with the freedom of consumers of any race to buy any house they can affordLeftists who claimed to favor both liberty and equality could not resolve such conflicts. Neither could major-party politicians. But Whigs, Republicans, and Democrats basked in the glow of legitimacy, which often shielded them from charges of hypocrisy that bedeviled the Left.

#### Land paradigm turns all defined outside the land into colonizers – this separation justifies genocide.

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National Autochthonies

National autochthonous discourses are a legacy of imperialism. Having constructed a Manichean binary of European/Native, fearful imperial states, beginning with the British Empire’s containment of the Indian Rebellion of 1857, regained control by separating colonized Natives into two, supposedly distinct, groups: “Indigenous-Natives” and “Migrant-Natives,” with the former regarded as more native than the latter (Mamdani 2012). The basis of this imperial distinction was the idea that a primordial relationship existed between a certain group of people and a designated place. Indigenous-Natives, not unlike certain flora and fauna, were portrayed as being “of the place,” further naturing them in the process. Migrant-Natives, on the other hand, were portrayed as being subsequent settlers from outside the colony and therefore not of it.

Both categories were codified in imperial law so that the two categories of colonized Natives were governed by dif­ferent laws. These laws, which included differential allocations of land, political rights, and power for people in the two groups, materialized the differences between Indigenous-Natives and Migrant-Natives. Indigenous-Natives were granted formal access to territories and political rights on it through “Native authorities.” Migrant-Natives were not. Such imperial distinctions profoundly reshaped politics in the colonies and informed how national liberation movements imagined which people were the People of the nation. Nationalists took the imperial idea of indigeneity as a stable and static group and retooled it to fit the nations they were in the process of creating. With “independence,” the imperialist meanings attached to both Natives and Migrants were relocated to nationalized territory. When the colonies and, later, imperial metropoles nationalized their sovereignties from the late nineteenth century, claims to national status were underpinned by claims to autochthonous belonging. Being Native, once the denigrated Other to the colonizer, has, in the Postcolonial New World Order, become the quintessential criterion for being a member of the nation. Migrants, unable to cross the racialized boundary of Nativeness (at least in the places they actually live) and unable to organize themselves into a nation, remain “out of place.”

Placing people into separated categories of National-Natives and Migrants is no trifling matter. People’s relationship to nation-states, to national political bodies, and to one another are organized by the rights associated with the category people find themselves in. Across the world system of nation-states, a further contraction of the already limited criteria of national belonging has taken place around the figure of the National-Native. At the same time, an expansion of the term “colonizer” has occurred, one that encompasses all those seen to be Migrants. Borrowing the imperial meaning of Natives as colonized people, National-Natives see themselves as “colonized” by Migrants. In turn, Migrants’ own experience of colonization is seen as unimportant—and unpolitical. Instead Migrants are demonized as destroyers of nations.

Today, national autochthony is increasingly important to nationalist projects, both from above and from below. Most troubling, the legal and/or social separation of National-Natives and Migrants animates deadly conflicts around the world. A particularly stark example of this is taking place in Myanmar (formerly Burma), where the separation of National-Natives and Migrants is the basis for what has been termed the world’s most recent genocide, this time against Rohingya people (International State Crime Initiative, Queen Mary University of London, 2015). Nation-state officials and popular Buddhist monks categorize (mostly) Muslim Rohingya people as “illegal Bengali migrants” and argue that expelling them from both the nation and its sovereign territory is necessary for the defense of national society (see Foucault 1978, 137; Foucault 2003). Over the past four decades, Rohingya people have had their homes and property destroyed; they have been tortured, killed, and placed in camps; their citizenship has been removed; and a growing number have been forced to flee. Having already been socially constituted as Migrants, many have been made Migrants both in national law and in everyday life.

Treating Rohingya people as deportable people without rights, Myanmar has constructed approximately sixty-seven camps and moved about 140,000 Rohingya people into them since 2012. Many observers regard these camps as nothing less than concentration camps (Motlagh 2014; Fortify Rights 2015; Kristof 2016). Since 2015, violence against Rohingya people has intensified further. From late August 2017 to January 2018, two-thirds of all Rohingya people in Myanmar—an estimated 688,000 people—fled to Bangladesh to escape attacks from Myanmar’s military (see Ibrahim 2018; unhcr 2018). Bangladesh, meanwhile, is trying to force them “home.” Rohingya people are thus simultaneously victims of both the hardening criteria for national citizenship in Myanmar and the intensification of national immigration controls in Bangladesh and other nation-states, which try to deny them a new life elsewhere. Made stateless, Rohingya people have thus been made subject to the coercive power of all nation-states.

Another stark example of the political work done by separating NationalNatives from Migrants is the popular “Save Darfur” movement, which has successfully reframed the economic, political, and ecological legacies of European imperialism in the Darfur region of Sudan as a racialized conflict between “Black African” National-Natives and “light-skinned Arab” Migrants. Playing directly into the hands of oil companies, this division has further fueled the Islamophobic U.S.-led war on terror in the region. Probably the best-studied example of the violence ensuing from the separation of National-Natives and Migrants is the 1994 Rwandan Genocide, when those acting in the name of Hutus killed approximately 800,000 Tutsis and those Hutus who opposed this mass murder. Such state-organized killings were evident at least as far back as the first murderous attacks against Tutsis by Hutus in the lead-up to Rwanda’s 1961 declaration of national independence. From that time on, the self-identification of Hutus as the National-Natives of Rwanda and the categorization of Tutsis as colonizing Migrants was consistently used to violently expunge Tutsis from the national political body.

A not dissimilar process took place in the 1991–2002 Yugoslav Wars. Ideas of National-Native belonging fueled the claims to Serbian, Croatian, Slovenian, and Bosnian homelands. In each national territory, people targeted for “ethnic cleansing” were said to be Migrants and thus foreign elements in the national homelands of others. A total of 140,000 people were killed, with another two million people displaced. In Myanmar, Sudan, Rwanda, the former Yugoslavia, and elsewhere, women’s bodies were abstracted as national symbols. Consequently, rape was a major weapon of war used to define national populations (Chinkin 1994; Agamben 1998; Kesic 2002). No one was spared. Combatants on all sides targeted women for either being Native to the enemy or being the Migrant enemy.

These are only some of the better reported—and most murderous— events where the politics of separating National-Natives from Migrants has been central. Organized through a politics of autochthony, each has employed the politics of home rule to exclude, expel, and even to systematically exterminate those constituted as Migrants. However, autochthonous politics have also been the prime basis for the indigenization of numerous African states, such as Idi Amin’s forced expulsion of “Asians” from Uganda in 1972; they are also fundamental to military coup d’états unseating democratically elected “Asian” parliamentary leaders in Fiji; and they are at the core of moral panics over “Migrant invasions” across Europe.

#### Regulated capitalism best. Plan challenges market concentration and consumer welfare standard. Blanket critique totalizes.

Smith, PhD, 19

(Noah, https://www.bloomberg.com/opinion/articles/2019-03-08/letting-16-year-olds-vote-is-a-good-idea)

Depending on who you ask, the term "neoliberal" can apply to anyone from Ronald Reagan to Barack Obama. Some on social media have turned the term into a running joke, holding ironic Twitter polls to see who is the “chief neoliberal shill” (the winner last year was none other than yours truly). But at least one economist has articulated a coherent vision of neoliberalism -- Brad DeLong, a professor at the University of California-Berkeley who worked at the Treasury Department during the Bill Clinton administration. In 1999, DeLong wrote that a combination of market liberalization in developing countries and trade opening by rich nations would allow the poor countries of the world to end centuries of poverty. The plan seems to have worked. Market liberalization in countries such as India and China seems to have precipitated a shift to faster growth, while trade and investment links with rich countries have helped these and other developing countries tremendously: These changes helped pull a billion people out of desperate poverty, and billions more are on the way to becoming middle class. But there was a big hole in DeLong’s neoliberal plan. While the developing world surged forward, the U.S. began to encounter a host of economic problems. Wage stagnation, reduced mobility and rising inequality eroded the foundations of the New Deal society that had sustained the U.S.'s middle class during the second half of the 20th century. The U.S. resisted nationalizing its health-care system, resulting in a cumbersome public-private hybrid arrangement that allowed costs to mushroom while letting some people go uninsured. And financial deregulation led to a crisis and a huge, long recession throughout much of the developed world. Now, DeLong is ready to throw in the towel. In a recent interview, he declared that left-leaning advocates of neoliberal policies in the U.S. were mistaken in thinking they would find a political partner on the center-right. The plan was always to cushion the blow of international trade and easing of regulations on business using government programs, such as universal health care and a robust social safety net, to make sure the working class wasn’t left behind. But, DeLong argues, Republicans rejected that compromise, insisting that any neoliberalism be of the free-market-fundamentalist variety: Barack Obama rolls into office with Mitt Romney’s health care policy, with John McCain’s climate policy, with Bill Clinton’s tax policy…[but] John Boehner, Paul Ryan, and Mitch McConnell [were] the leaders of the Republican Party, and…decided on scorched earth[.] As a result, DeLong declared that old-line neoliberals need to pass the baton to the political left. Others aren’t ready to let DeLong off so easily. In the Boston Review, a panel of economists writes that neoliberalism got the policy wrong as well as the politics. Their various suggestions for post-neoliberal policies include increasing labor’s power with greater unionization and wage boards, tighter regulation of the finance industry and restriction on trade in order to protect U.S. workers. Mike Konczal of the Roosevelt Institute echoes their assessment. Many of these are good ideas. But in rejecting neoliberalism as a concept, the critics go too far. First, progress in the developing world has been impressive -- something for which neoliberalism probably deserves a lot of credit -- but it is far from complete; most of South Asia is still very poor, and much of Africa is just beginning to industrialize. To curb the flows of trade and investment with these countries would be a grave abdication of the U.S.’s international and humanitarian responsibilities. Second, neoliberal policies might have led to faster productivity growth in the 1990s and early 2000s: Tech Boom or Something More? Total factor productivity\* Source: Federal Reserve Bank of St. Louis \* Index 2011 = 1 Contrary to popular belief, wages also increased during that period. The spurt of growth is commonly attributed to the information-technology boom, but that boom might not have been possible if the U.S. had more strictly regulated emerging industries in order to protect favored incumbents. It’s worth noting that West Europe and Japan, whose policies were somewhat less neoliberal than the U.S.’s, ended up producing relatively few big new tech companies, and have failed to catch up to U.S. levels of per capita income in the years since 1990. Finally, although economic blunders have come from the political right in the U.S. in recent decades, it’s also possible for the left to make big mistakes -- not just in poor countries, but in rich ones too. Germany suffered high unemployment in the 1980s and 1990s, thanks to its rigid labor market regulations; eventually, it eased those restrictions, which substantially lowered the unemployment rate. Sweden had a very progressive tax system, but scaled back redistribution in the 1990s in order to speed growth. France, too, has sometimes been forced to curb its ambitions for redistribution and regulation when these produced economic instability and slow growth. The U.S. needs a neoliberal contingent to help insure against missteps like these. So neoliberals’ ideas are still needed. A move toward social democracy should help correct much of the inequality that has arisen in the U.S., while fixing dysfunctional industries like health care and finance. But left-leaning neoliberals like DeLong will still be needed in order to restrain social democrats’ more ambitious impulses, to protect the U.S. economy’s entrepreneurial private sector, and to make sure that technological progress and international trade don’t get forgotten.

#### Knowledge, tech, and innovation make cap sustianbel.

Zimet 20 (Saul, Writer for the the Foundation for Economic Education. Capitalism or the Climate? 5-17-20. [https://quillette.com/2020/05/17/capitalism-or-the-climate /](about:blank)/shree)

Knowledge, Deutsch argues, is the variable most relevant to our potential flourishing. When Arctic populations survive in the Arctic and Amazonian populations survive in the Amazon, they do it by means of specific knowledge. If Deutsch were suddenly transported to the primeval Great Rift Valley, he would die for lack of knowledge. Without the requisite knowledge, humans will die virtually anywhere. With the requisite knowledge, encoded in brains, genes, computers, or other substrates, humans can survive virtually anywhere, on the Earth or elsewhere in space:

Whether humans could live entirely outside the biosphere—say, on the moon—does not depend on the quirks of human biochemistry. Just as humans currently cause over a tonne of vitamin C to appear in Oxfordshire every week (from their farms and factories), so they could do the same on the moon—and the same goes for breathable air, water, and comfortable temperature and all their other parochial needs. Those needs can all be met, given the right knowledge, by transforming other resources.

Deutsch explains that even today humans possess the technology to colonize the Moon and other stereotypically harsh environments. At this time in history, colonizing the moon would be prohibitively expensive. But right now you can buy a 4-terabyte hard-drive on Amazon for under 100 dollars. In 1980, that much storage cost about 772 million dollars. The price of technology frequently undergoes enormous reductions as science moves forward. Given that the price of digital memory was divided by millions in just a few decades, imagine the extraterrestrial societies we could conceivably build after perhaps a few centuries of compounding scientific and economic growth.

However, my argument is not that we will ever colonize space, nor that we should plan to do so. As Neil deGrasse Tyson argues, it will probably be trivial to adapt to a wide range of Earth climates long before it is feasible to colonize the Moon or Mars. Rather, I am pointing out that any dependence we have on specific environmental conditions is the result of insufficient knowledge.

Capitalism and the production of knowledge

Throughout nearly all of human history, widespread economic growth per capita did not exist. Productivity per capita was ubiquitously stagnant; generation after generation, millennium after millennium, extreme poverty remained nearly universal and large-scale economic progress was not even imaginable. Virtually everyone lived on less than $3.50 per day in today’s dollars according to research from University of Oxford economist Max Roser, and the average person lived on much less. That’s even worse than it sounds, because (among other reasons) most of the things we can buy today had yet to be invented, and people didn’t have access to most of the information that informs our purchases in the 21st century.

Then, starting in Western Europe in the 16th, 17th, and 18th centuries, an unprecedented breadth of optimism emerged and turned wealth (resources hoarded away in vaults and mattresses) into capital (resources invested in future production and discovery). Thus, capitalism was born, and with it, exponential economic growth began to spread across most of the Earth (a process that continues to this day). As a result, both the rich and the poor are consistently getting rapidly richer for the first time in human history. Whereas 94 percent of the population was in extreme poverty as recently as 1820, in 1990 the number was down to 36 percent, and in 2015 the number was less than 10 percent. And as the world gets wealthier, countless important things proliferate, such as access to nutrition, freedom from violence, improvements in life expectancy, and of course, the access to and production of scientific and technological knowledge.

Knowledge is produced and spread in many ways. Education is one crucial variable, for the purpose of having both an educated population of innovators and a thriving research community. According to research from the Brookings Institute, educational opportunities and outcomes for the affluent radically exceed those for the poor—not just between countries, or within them, but everywhere. This is to be expected. Whether funded by individuals or government programs, it costs a lot of resources to build strong educational institutions and invest in educating generations of students. Poor populations who can barely afford shelter, clean water, food, and medicine don’t have much left over to invest in less immediate necessities such as education. And of course, this creates a feedback loop with causation running in both directions—if a population is uneducated, escaping poverty is much more difficult; if a population is poor, investing in education is much more difficult.

Another foundational tool for knowledge production is innovation, which capital and profit motive facilitate. A large amount of innovation comes from excess capital being invested in new research and development. Poorer populations, whether subnational, national, or global, have less to invest in prospective new inventions and processes of which the details are unpredictable in advance. No system incentivizes useful investments and disincentivizes wasteful investments better than the capitalist system, in which the investor’s own capital is on the line. Incentives and wealth are two main reasons why all of the most innovative nations, such as the top 10 on the 2020 Bloomberg Innovation Index, are capitalist countries. The sociologist Susan Cozzens at the Georgia Institute of Technology offers a succinct description of the process:

In the classic literature of the economics of innovation, private firms are the driving force. They seek competitive advantage in the market by introducing new products that give them a temporary monopoly. By charging high prices during the period of temporary monopoly, the firm makes profits and grows. Introducing new processes can result in competitive advantage if that step reduces costs or increases productivity. In this view, firms drive innovation in order to survive and win in the marketplace.

Indeed, no serious critics of capitalism argue that any other system produces greater material wealth and innovation. Even Marxists, capitalism’s most vehement antagonists, generally acknowledge that no system has ever produced more innovation and abundance. In The Communist Manifesto in 1848, Marx and Engels wrote this:

The bourgeoisie [capitalist class], during its rule of scarce one hundred years, has created more massive and more colossal productive forces than have all preceding generations together. Subjection of Nature’s forces to man, machinery, application of chemistry to industry and agriculture, steam-navigation, railways, electric telegraphs, clearing of whole continents for cultivation, canalisation of rivers, whole populations conjured out of the ground—what earlier century had even a presentiment that such productive forces slumbered in the lap of social labour?

If only Marx and Engels could see how drastically the affluence of the proletariat has grown under global capitalism since then.

Environmental technology

In 1894, just 21 years before Einstein’s theory of general relativity, the Nobel Prize-winning physicist Albert Michelson famously proclaimed, “The more important fundamental laws and facts of physical science have all been

discovered, and these are now so firmly established that the possibility of their ever being supplanted in consequence of new discoveries is exceedingly remote.” Some phenomena, like blizzards and thunderstorms, are somewhat predictable to those with the requisite equipment and training. But the future of human knowledge is no such phenomenon. Discoveries, by their very nature, are unknown until they are not. Innovations are often unimaginable until they occur because the act of imagining them is what brings them into existence.

The history of failures to predict future knowledge is long and robust. In 1901, two years before they both achieved flight by aircraft, Wilbur Wright said to his brother, “Don’t think men will fly for a thousand years.” In 1932, just six years before the successful splitting of the atom, Albert Einstein said, ”There is not the slightest indication that nuclear energy will ever be obtainable.” In 1957, 12 years before Neil Armstrong set foot on the Moon, the father of radio Lee de Forest stated, “Man will never reach the Moon regardless of all future scientific advances.”

Even after world-changing technologies are invented, estimates of their utility are often wildly inaccurate. The Internet, cars, and telephones were all dismissed as insignificant inventions in the years preceding their universal ascendance. So we should be skeptical when we see publications like the BBC, Bloomberg, and Forbes denying the plausibility of imminent technological advances on our climate problems. The truth is nobody has any idea what salutary innovations and discoveries do or do not exist in our imminent future.

Many popular technological solutions to environmental issues have already been proposed in recent years. Carbon capture and sequestration technology is endorsed by climate scientists at the Intergovernmental Panel on Climate Change (IPCC) as well as by United States Congress members from both the Democratic and Republican parties. Inventions are being implemented to remove plastic from the oceans. Sea walls are being engineered in some coastal communities and considered at larger scales to mitigate sea level rise.

In The Climate Casino, Nordhaus writes: “Current estimates are that geoengineering would cost between one tenth and one hundredth as much as reducing CO2 emissions for an equivalent amount of cooling.” But at their present level of development, such technologies are inadequate to the full scope of the problem because they don’t sufficiently address certain dangers such as ocean acidification. Therefore, many environmentalists prefer extreme reductions in carbon emissions, which would stop anthropogenic climate change at its root. But anthropogenic climate change is not just a phenomenon of the future. The Washington Post, the Los Angeles Times, CNN, and other news organizations have noted that it is already having serious effects here and now. The transition from predicted impact to experienced impact took place decades ago. So, how well are we adapting so far?

Scientific American reports that global warming may already be responsible for 150,000 deaths worldwide each year due to its effects on the frequency and scale of floods and hurricanes, droughts and heat waves, spread of vector-borne diseases, and other factors. However, research from the Reason Foundation shows that deaths caused by extreme weather events have declined by more than 90 percent since 1920. University of Oxford economist Max Roser’s research shows that the burden of disease, famine, and other relevant problems have also declined in recent years and decades (the disease statistics cited above are older than the COVID-19 pandemic, but there is no evidence that COVID-19 is directly exacerbated by climate change like vector-borne diseases such as malaria and dengue are). And overall life expectancy has risen globally from about 34 years in 1900 to about 72 years in 2019.

Why are climate-related death rates declining overall while climate change seems to be causing more deaths? Because as economic activity continues to drive up carbon emissions, the resulting growth rates give more communities access to strongly built and climate-controlled buildings, medical education and supplies, life-saving infrastructure such as hospitals and clean water, and many other enormous advantages. When the media and activists argue that burning fossil fuels has not been worth the climate-related damage to human life, they are counting the victims of climate catastrophe while ignoring the beneficiaries of economic growth in developing countries and elsewhere. That is a mistake because the two are inextricably linked.

Choose your own extinction

Of course, just because we’ve adapted extremely well so far doesn’t mean the trend will continue. Dangerous tipping points may yet accelerate the problem beyond our capacity to respond. As living organisms, we have a problem of evolutionary magnitude: we adapt gradually in an environment that can change rapidly. If we go on existing like any other animal, our niche will eventually change so quickly that we won’t be able to adapt fast enough. This has happened to 99.9 percent of all known species since the beginning of life on Earth roughly four billion years ago. These changes have ranged from asteroid impacts, to volcanic eruptions, to viral pandemics, and of course to human activity in recent millennia, and are typically unpredictable to the species they eliminate because they come from outside the limited context in which those species evolved.

Some argue that humans are just another mammal like any other, and that all our claims of exceptionality have been ignorant hubris. If this is true, we are almost certainly doomed to relatively imminent extinction by forces beyond our influence. But thinking this way about the human species does not quite account for the implications of the economic growth trend of the last few centuries. In his book Scale, former Santa Fe Institute president Geoffrey West, whose renowned scientific research put him on Time Magazine’s 2006 list of the 100 most influential people in the world, discusses a profound biological fact about mammal species: they virtually all have the same average number of heartbeats per capita. An average elephant has a long lifespan but a slow heart-rate, and an average mouse has a short lifespan but a fast heart-rate. It all balances out to roughly one-and-a-half billion heartbeats over the course of a lifetime. Other classes of animals follow similar metabolic scaling laws.

A few hundred years ago, before the rise of capitalism, humans were no different—they lived roughly 35 years on average and had about one-and-a-half billion heartbeats just like any other mammal. But gains in knowledge since then, such as innovations in medicine, agriculture, and government, have roughly doubled our life expectancy and with it our average number of heartbeats per lifetime (some dogs and other domesticated animals have been similarly altered by access to human innovations). This constitutes a totally unprecedented departure from the biological status quo.

Technological knowledge, fueled by capital, has allowed us to do many things categorically unlike the achievements of other species as far as we know. The universal extinction paradigm, which has limited all mammal species so far to one million years or less, should be high on our list of patterns to break. We don’t know what existential threats will come or how long we have to prepare for them, but we can’t expect human ingenuity to rush us past the finish line at the last minute without a context of widespread continuous technological and scientific progress until that point—a project it seems only capitalism can hope to fund.

David Deutsch observes that the word “sustain” generally refers to the absence or prevention of change. This is what environmentalists such as Naomi Klein and Alexandria Ocasio-Cortez would like to do with our environment by ending capitalism. Their solution to climate change is what all non-human animals have always done: leave the environment basically unaltered by refraining from large-scale production, and wait around to go extinct. Unfortunately, as Deutsch writes, “Static societies eventually fail because their characteristic inability to create knowledge rapidly must eventually turn some problem into a catastrophe.” Thus, it is not that capitalism is the problem and sustainability is the solution, but that sustainability is the problem and capitalism is the solution.

Every year, global capitalism allows more research and development departments to be funded. Every day it gives more citizens of affluent and developing nations the material wealth required for better education and information technology. Economic growth, coupled with rising carbon emissions, might lead to a climate apocalypse—or it might continue to bring us material and technological salvation. We cannot really know in advance. But we would be crazy to choose the time-tested alternative to capitalism: extinction by stagnation.

#### Alternative causes backlash, fails to resolve environmental challenges, and causes transition wars – growth solves.

Karlsson 21 – (Rasmus, "Learning in the Anthropocene" Soc. Sci. 10, no. 6: 233. <https://doi.org/10.3390/socsci10060233> 18 June 2021)// gcd

Unpacking this argument, it is perhaps useful to first recognize that, stable as the Holocene may have seemed from a human perspective, life was always vulnerable to a number of cosmic risks, such as bolide collisions, risks that only advanced technologies can mitigate. Similarly, the Black Death of the 14th century should serve as a powerful reminder of the extreme vulnerability of pre-industrial societies at a microbiological level. Nevertheless, it is reasonable to think of the Holocene as providing a relatively stable baseline against which the ecological effects of technological interventions could hypothetically be evaluated. With most human activities being distinctively local, nature would for the most part “bounce back” (even if the deforestation of the Mediterranean basin during the Roman period is an example of that not always being the case) while larger geophysical processes, such as the carbon cycle, remained entirely beyond human intentional control. Even if there has been some debate about what influence human activities had on the preindustrial climate (Ruddiman 2007), anthropogenic forcing was in any case both marginal and gradual. All this changed with the onset of the Great Acceleration by which humans came to overwhelm the great forces of nature, causing untold damage to fragile ecosystems and habitats everywhere, forever altering the trajectory of life on the planet (Steffen et al. 2011b). In a grander perspective, humanity may one day become an interplanetary species and thus instrumental in safeguarding the long-term existence of biological life, but for the moment, its impact is ethically dubious at best as the glaciers melt, the oceans fill up with plastics, and vast number of species are driven to extinction. Faced with these grim realities, it is of course not surprising that the first impulse is to seek to restore some kind primordial harmony and restrain human activities. Yet, it is important to acknowledge that, even if their aggregate impact may have been within the pattern of Holocene variability, pre-modern Western agricultural societies were hardly “sustainable” in any meaningful sense. Experiencing permanent scarcity, violent conflict was endemic (Gat 2013), and as much as some contemporary academics like to attribute all evils to “capitalism” (Malm 2016), pre-capitalist societies exhibited no shortage of religious intolerance and other forms of social domination. It is thus not surprising that some have argued the need to reverse the civilizational arc further yet and return to a preliterate hunter-gather existence (Zerzan 2008) even if this, obviously, has very little to do with existing political realities and social formations. Under Holocene conditions, the short-term human tragedy may have been the same, but it did not undermine the long-term ability of the planet to support life. In a world of eight billion people, already accumulated emissions in the atmosphere have committed the planet to significant warming under the coming centuries, with an increasing probability that committed warming already exceeds the 1.5-degree target of the Paris Agreement even if all fossil-fuel emissions were to stop today (Mauritsen and Pincus 2017). This means that sustained negative emissions, presumably in combination with SRM, will most likely be needed just to stabilize global temperatures, not to mentioning countering the flow of future emissions. According to the Intergovernmental Panel on Climate Change (IPCC), assuming that all the pledges submitted under the Paris Agreement are fulfilled, limiting warming to 1.5 degrees will still require negative emissions in the range of 100—1000 gigatons of CO2 (Hilaire et al. 2019, p. 190). The removal of carbon dioxide at gigaton scales from the atmosphere will presumably require the existence of an advanced industrial society since low-tech options, such as afforestation, will be of limited use (Gundersen et al. 2021; Seddon et al. 2020), especially in a future of competing land-uses. It is against this backdrop of worsening climate harms that the limits of “precaution”, at least as conventionally understood, become apparent. While degrowth advocates tend to insist that behavioral change, even explicitly betting on a “social miracle” (Kallis 2019, p. 195), is always preferable to any technological risk-taking (Heikkurinen 2018), that overlooks both the scope of the sustainability challenge and the lack of public consent to any sufficiently radical political project (Buch-Hansen 2018). While there may be growing willingness to pay for, say, an electric vehicle (Hulshof and Mulder 2020), giving up private automobile use altogether is obviously a different animal, to say nothing about a more fundamental rematerialization of the economy (Hausknost 2020). Again, the problem is one in which change either (a) remains marginal yet ecologically insufficient or (b) becomes sufficiently radical yet provokes a strong political counterreaction. A similar dynamic can be expected to play out at the international level where countries that remain committed to growth would quickly gain a military advantage. To make matters worse, there is also a temporal element to this dynamic since any regime of frugality and localism would have to be policed indefinitely in order to prevent new unsustainable patterns of development from re-emerging later on. All this begs the obvious question, if the political and economic enforcement of the planetary boundaries are fraught with such political and social difficulties, would it not be better to instead try to transcend them through technological innovation? Surprisingly, any high-energy future would most likely be subject to many of the same motivational and psychological constraints that hinder a low-energy future. While history shows that existing nuclear technologies could in theory displace all fossil fuels and meet the most stringent climate targets (Qvist and Brook 2015), it seems extremely unlikely, to put it mildly, that thousands of new reactors will be built over the course of the coming decades in response to climate change. Outside the world of abstract computer modelling, real world psychological and cultural inertia tends to ensure that political decision-making, at least for the most part, gravitates to what is considered “reasonable” and “common sense”—such as medium emissions electricity grids in which wind and solar are backed by biomass and gas—rather than what any utilitarian optimization scenario may suggest. Even if the global benefits of climate stabilization would be immense, the standards by which local nuclear risks are assessed, as clearly illustrated by the Fukushima accident which led to a worldwide retreat from nuclear energy despite only causing one confirmed death (which, though obviously regrettable, has to be put in relation to the hundred and thousands of people dying every year from the use of fossil fuels), underscores the uneven distribution of perceived local risks versus global benefits and the associated problem of socio-political learning across spatial scales. Almost two decades ago, Ingolfur Blühdorn identified “simulative eco-politics” as a key strategy by which liberal democracies reconcile an ever-heightened rhetoric of environmental crisis with their simultaneous defense of the core principles of consumer capitalism (Blühdorn 2007). Since then, declarations that we only have “ten years to save the planet” have proliferated, and so have seemingly bold investments in renewable energy, most recently in the form of US President Joseph Biden’s USD 2.25 trillion climate and infrastructure plan. Still, without a meaningful commitment to either radical innovation or effective degrowth, it is difficult to see how the deployment of yet more wind turbines or the building of new highways will in any way be qualitatively different from what Blühdorn pertinently described as sustaining “what is known to be unsustainable” (Blühdorn 2007, p. 253). However, all is not lost in lieu of more authentic forms of eco-politics. Independent of political interventions, accelerating technological change, in particular with regard to computing and intelligent machine labor, may one day make large-scale precision manipulation of the physical world possible in ways that may solve many problems that today seem intractable (Dorr 2016). Similarly, breakthroughs in synthetic biology may hold the key to environmentally benign biofuels and carbon utilization technologies. Yet, all such progress remains hypothetical and uncertain for now. Given what is at stake, there is an obvious danger in submitting to naïve technological optimism. What is less commonly recognized is that naïve optimism with regard to the prospects of behavioral change may be equally dangerous. While late-capitalist affluence has enabled many postmaterial identities and behaviors, such as bicycling, hobby farming, and other forms of emancipatory self-expression, a collapsing economy could quickly lead to a reversal back to survivalist values, traditional hierarchical forms of domination, and violence (Quilley 2011, p. 77). As such, it is far from obvious what actions would actually take the world as a whole closer to long-term sustainability. If sustainability could be achieved by a relatively modest reduction in consumption rates or behavioral changes, such as a ban on all leisure flights, then there would be a strong moral case for embracing degrowth. Yet, recognizing how farreaching measures in terms of population control and consumption restrictions that would be needed, the case quickly becomes more ambiguous. While traditional environmentalism may suggest that retreating from the global economy and adopting a low-tech lifestyle would increase resilience (Alexander and Yacoumis 2018), it may do very much the opposite by further fragmenting global efforts and slowing the pace of technological innovation. Without an orderly and functioning world trade system, local resources scarcities would be exacerbated, as seen most recently with the different disruptions to vaccine supply chains. In essence, given the lack of a stable Holocene baseline to revert to, it becomes more difficult to distinguish proactionary “risk-taking” from “precaution”, especially as many ecosystems have already been damaged beyond natural recovery. In this context, it is noteworthy that many of the technologies that can be expected to be most crucial for managing a period of prolonged overshoot (such as next-generation nuclear, engineering biology, large-scale carbon capture and SRM) are also ones that traditional environmentalism is most strongly opposed to. 3. Finding Indicators From the vantage point of the far-future, at least the kind depicted in the fictional universe of Star Trek, human evolution is a fairly straightforward affair along an Enlightenment trajectory by which ever greater instrumental capacity is matched by similar leaps in psychological maturity and expanding circles of moral concern. With the risk of sounding Panglossian, one may argue that the waning of interstate war in general and the fact that there has not been any major nuclear exchange in particular, does vindicate such an optimistic reading of history. While there will always be ups and downs, as long as the most disastrous outcomes are avoided, there will still be room for learning and gradual political accommodation. Taking such a longer view, it would nevertheless be strange if development was simply linear, that former oppressors would just accept moral responsibility or that calls for gender or racial justice would not lead to self-reinforcing cycles of conservative backlash and increasingly polarizing claims. Still, over the last couple of centuries, there is little doubt that human civilization has advanced significantly, both technologically and ethically (Pinker 2011), at least from a liberal and secular perspective. However, unless one subscribes to teleology, there is nothing inexorable with this development and, it may be that the ecological, social, and political obstacles are simply too great to ever allow for the creation of a Wellsian borderless world (Pedersen 2015) that would allow everyone to live a life free from material want and political domination. On the other hand, much environmental discourse tends to rush ahead in the opposite direction and treat the c limate crisis as ultimate evidence of humanity’s fallen nature when the counter-factual case, that it would be possible for a technological civilization to emerge without at some point endangering its biophysical foundations, would presumably be much less plausible. From an astrobiological perspective, it is easy to imagine how the atmospheric chemistry of a different planet would be more volatile and thus more vulnerable to the effects of industrial processes (Haqq-Misra and Baum 2009), leaving a shorter time window for mitigation. Nick Bostrom has explored this possibility of greater climate sensitivity further in his “vulnerable world hypothesis” (Bostrom 2019) and it begs to reason that mitigation efforts would be more focused in such a world. However, since climate response times are longer and sensitivity less pronounced, climate mitigation policies have become mired in culture and media politics (Newman et al. 2018) but also a statist logic (Karlsson 2018) by which it has become more important for states to focus on their own marginal emission reductions in the present rather than asking what technologies would be needed to stabilize the climate in a future where all people can live a modern life.

#### “smashing the means of production” does not equate to change.

Andrew **HOM** School of Social and Political Science, University of Edinburgh **’18** “Silent Order: the Temporal Turn in Critical International Relations” *Millennium* 46(3) p. 324-330

These silent assumptions and hidden logics help ‘characterize’ and thus ‘control’ times of rupture,200 transforming it from a description of traumatic and unlivable conditions to the foundation of a novel ethics that insists we ‘remain with uncertainty’ and ‘hope that something different’ will emerge.201 They are what take us from difference itself to a future ‘deemed worthy of being aspired towards’.202 They thus obscure the need to make alternatives tangible, which is vital for critique’s sake and for the everyday politics of individuals who do not enjoy the privilege of remaining in sheer contingency and indeterminacy.203 And they inhibit any evaluation of ruptured time as a ‘practical question’ of what it actually ‘does’, its ‘effects’, and how it works.204

To drive this point home, recall an earlier vision of novelty and difference tinged by tragedy. Hannah Arendt embraced ‘natality’ as moments of pure possibility but insisted these be tempered by a political sensitivity to potentially catastrophic unintended consequences. Each birth, in her formulation, is ‘uniquely new’ but includes no guarantees – ‘authentic’ novelty might be ‘all-destructive’.205 Ignoring these implications depoliticises and gentrifies novelty and leaves us poorly prepared to resist depredation when it (re-) emerges.206 Only by ignoring or sublimating the heavy lifting can critical scholars pass over a ‘rainbow bridge’207 of sorts that turns the start of the political problem – radical change – into the self-sufficient conclusion of ‘another politics’**,** which occludes the need to reduce contingency while avoiding catastrophe. So while deeply suspicious of promises to ‘take us from here to there’ or move us from past through present toward a better future,208 the critical discourse of rupture works – like the rapture itself – on the assumption ‘of being carried onward or swept along’ by ‘forces of movement’ that emerge independent of conscious effort.209 The rapture of rupture thus marks a missed opportunity, beginning with a legitimately ‘different perspective on time and politics’210 but producing a concept with ‘little relevance to life’211 because it demurs at precisely the point when it becomes necessary to lean on the scales, to encourage this time (or these times) instead of that and thereby privilege some purposes and politics over others. Ruptures are golden opportunities to develop another, better or less awful politics – as such they require more than hope, nebulous experimentation,212 or the refusal to say any more than ‘what I think it does for me’.213 Unless we think novel harms impossible and better outcomes naturally assured, ruptures mark a moment when it is vital to wilfully construct or at least reflexively delimit political time anew.214

#### No environment impact and it’s self-correcting.

Kareiva ’18 [Peter, Ecology PhD; Valerie Carranza; Institute of the Environment and Sustainability, University of California, Los Angeles; “Existential Risk Due to Ecosystem Collapse: Nature Strikes Back.” *Futures* 102, p. 39-50]

The interesting question is whether any of the planetary thresholds other than CO2 could also portend existential risks. Here the answer is not clear. One boundary often mentioned as a concern for the fate of global civilization is biodiversity (Ehrlich & Ehrlich, 2012), with the proposed safety threshold being a loss of greater than .001% per year (Rockström et al., 2009). There is little evidence that this particular .001% annual loss is a threshold—and it is hard to imagine any data that would allow one to identify where the threshold was (Brook et al., 2013; Lenton & Williams, 2013). A better question is whether one can imagine any scenario by which the loss of too many species leads to the collapse of societies and environmental disasters, even though one cannot know the absolute number of extinctions that would be required to create this dystopia. While there are data that relate local reductions in species richness to altered ecosystem function, these results do not point to substantial existential risks. The data are small-scale experiments in which plant productivity, or nutrient retention is reduced as species number declines locally (Vellend, 2017), or are local observations of increased variability in fisheries yield when stock diversity is lost (Schindler et al., 2010). Those are not existential risks. To make the link even more tenuous, there is little evidence that biodiversity is even declining at local scales (Vellend et al 2017; Vellend et al., 2013). Total planetary biodiversity may be in decline, but local and regional biodiversity is often staying the same because species from elsewhere replace local losses, albeit homogenizing the world in the process. Although the majority of conservation scientists are likely to flinch at this conclusion, there is growing skepticism regarding the strength of evidence linking trends in biodiversity loss to an existential risk for humans (Maier, 2012; Vellend, 2014). Obviously if all biodiversity disappeared civilization would end—but no one is forecasting the loss of all species. It seems plausible that the loss of 90% of the world’s species could also be apocalyptic, but not one is predicting that degree of biodiversity loss either. Tragic, but plausible is the possibility our planet suffering a loss of as many as half of its species. If global biodiversity were halved, but at the same time locally the number of species stayed relatively stable, what would be the mechanism for an end-of-civilization or even end of human prosperity scenario? Extinctions and biodiversity loss are ethical and spiritual losses, but perhaps not an existential risk. What about the remaining eight planetary boundaries? Stratospheric ozone depletion is one—but thanks to the Montreal Protocol ozone depletion is being reversed (Hand, 2016). Disruptions of the nitrogen cycle and of the phosphorous cycle have also been proposed as representing potential planetary boundaries (one boundary for nitrogen and one boundary for phosphorous). There are compelling data linking excesses in these nutrients to environmental damage. For example, over-application of fertilizer in Midwestern USA has led to dead zones in the Gulf of Mexico. Similarly, excessive nitrogen has polluted groundwater in California to such an extent that it is unsuitable for drinking and some rural communities are forced to drink bottled water. However, these impacts are local. At the same time that there is too much N loading in the US, there is a need for more N in Africa as a way of increasing agricultural yields (Mueller et al., 2012). While the disruption of nitrogen and phosphorous cycles clearly perturb local ecosystems, end-of-the-world scenarios seem a bit far-fetched. Another hypothesized planetary boundary entails the conversion of natural habitats to agricultural land. The mechanism by which too much agricultural land could cause a crisis is unclear—unless it is because land conversion causes so much biodiversity loss that is species extinctions that are the proximate cause of an eco-catastrophe. Excessive chemical pollution and excessive atmospheric aerosol loading have each been suggested as planetary boundaries as well. In the case of these pollution boundaries, there are well-documented mechanisms by which surpassing some concentration of a pollutant inflicts severe human health hazards. There is abundant evidence linking chemical and aerosol pollution to higher mortality and lower reproductive success in humans, which in turn could cause a major die-off. It is perhaps appropriate then that when Hollywood envisions an unlivable world, it often invokes a story of humans poisoning themselves. That said, it is doubtful that we will poison ourselves towards extinction. Data show that as nations develop and increase their wealth, they tend to clean up their air and water and reduce environmental pollution (Flörke et al., 2013; Hao & Wang, 2005). In addition, as economies become more circular (see Mathews & Tan, 2016), environmental damage due to waste products is likely to decline. The key point is that the pollutants associated with the planetary boundaries are so widely recognized, and the consequences of local toxic events are so immediate, that it is reasonable to expect national governments to act before we suffer a planetary ecocatastrophe.

1. **Undercosmopolitanism is insufficient – empirical record proves autonomist experiments cannot overcome existing corporate and state power.**

Ian **McKAY** History @ Queen’s University **‘9** “Gramsci is Dead: Anarchist Currents in the Newest Social Movements” *Capital & Class* 98 p. ProQuest

So, what is to be done? In essence, Day unconsciously repeating the gestures of that great old libertarian anarchist of the nineteenth century, Herbert Spencer counsels leftists to **resign from the state.** He is convinced that this strategy is new. **'so few experiments in non-hegemonic social change have ever been carried out'** (p. 209). Actually, it is as old as 'socialism' itself - in North America, separate socialist 'experiments in living otherwise' date back to the 1820s - and as politically problematical as the kibbutz, which we remember was celebrated in Buber as a prime example of a 'socialism that works' in Palestine (Buber, 1966 [1949]: 137). Day hopes that by withdrawing quantums of energy from the neoliberal societies of control, one might somehow contribute 'to the long-term construction of alternative subjects, spaces and relationships' (p. 163). Maybe if enough people withdraw, 'the flows overall will start to decay beyond the ability of systems of control to manage them' (p. 33). Day seemingly believes that by resigning from the state (or 'society of control'), individual activists can thereby weaken it It is as if a poststructuralist fascination with micropolitics, which effectively undercuts any possibility of hegemonic challenge and 'war of position', has led **inexorably** to Eliot's stance of Christian resignation: a death of the left punctuated (perhaps) by episodic gestures of heroic if futile resistance. If there are no 'people', no 'masses', and no systematic struggles for hegemony, then there can be little to fall back on but T, master of my fate and captain of my soul, as I wait passively for the darkness to swallow me.

Gramsci is Dead merits our attention not only in its own right, but also because it is part of a much bigger moment in left theory - one in which leftists around the world are struggling to transform the refusal of global capitalism into supersedure, a radically transformed vision of reality and, if possible, into an enduring systématisation of this new insight. John Holloway's widely-discussed Chang? the World Without Taking Power (2002), for example, although drawing more from Lukács than from Foucault, overlaps very considerably with Day's polemic. Both Day and Holloway respond to the débâcle of state socialism with viscerally state-phobic responses: the tragedy of the twentieth- century left was that its blind leaders followed the slogan, 'First we win power and then we create a society worthy of humanity' (Holloway, 2002: 18, emphasis in original). Although at a very general level, this polemic does identify a glaring weakness in many conspicuous attempts to found socialist regimes, when we think of a host of specific leftisms, it scarcely fits at all. Most early- twentieth-century leftists were far more attuned to socialism as the applied science of social evolution, one which many believed was best advanced not through the state but through revolutionary labour movements. Many late-twentieth-century leftists, socialist feminists most successfully, threw themselves into experiments 'with a variety of innovative connections and combinations between autonomous self-organised power and initiatives to transform, as well as confront, the state, especially the local state, and political parries' (Wainwright, 2004: 49). Similarly, Holloway's and Day's critiques of the 'Know- All Party' falter when they are applied bolus bolus to the entire left, much of which has, since the 1960s, been following Gramsci in trying to imagine very different relations between the leaders and the led. It is in the work of Gramsci, and specifically in his close attention to civil society, the war of position and the centrality of cultural struggles, that we find the most rigorous critique of the rigidly party-centric and state-centric positions attributed to him by both Day and Holloway - which is why he was drawn upon so extensively by a diversity of non- authoritarian left movements from die 1960s on. Between 'statolatry' and 'state-phobia' lies a vast continent of actually-existing state-civil society relations calling out for realistic and critical investigation. One can apply to Day the same judicious critique that Hilary Wainwright applies to Holloway: 'To treat the alienation of the state from society as some kind of universal fact **means treating the state as necessarily above the struggles going on in the social relations of which it is part'** (ibid., 51; see also Binford, 2005).

#### Planning and nation-states are necessary for justice. The racist legacy of environmental injustice proves the need to craft a new vision rather than give in to inevitability of failure.

Rhiana **GUNN-WRIGHT** Climate Policy Director @ Roosevelt Inst. ‘**20** in *Winning the Green New Deal* eds. Prakash & Guido Girgenti p. ecopy not paginated

People often ask me why I decided to help develop the Green New Deal. Why did I, a twentysomething black woman, think I could help develop a policy proposal to address something as big as climate change? Often, I think they expect some grand story: about incredible courage or deep ambition or a master plan for the revolution. The truth is that I was scared—and I really needed a job.t

I grew up, raised by my mother and grandmother, in the same house that my mother grew up in, in a neighborhood on the South Side of Chicago called Englewood. In the thirty years between my grandparents moving in with their three babies and me being born, Englewood had gone from being a (mostly) middle-income community, close-knit and quiet, to one of the poorest, most barren parts of the city. My neighborhood had so many problems: poverty, unemployment, underfunded schools, police brutality, pollution, violence. And those were just the big ones. I rarely saw anyone in power try to solve the problems in Englewood. And when they did try, it seemed to make things worse.

When I asked my mom and grandma why Englewood looked like this, they didn’t tell me about guns or drugs or gangs. They told me about the government. About how the highway system had been built through black neighborhoods, destroying communities that would never be rebuilt. About the public housing authority razing public housing and scattering families in the name of “urban development,” only for city officials to turn around and sell the land to developers on the cheap, now that the projects sat on prime real estate. About the city underfunding black schools and then shutting them down because of “underperformance.” And that’s just what happened to my neighborhood—not even what happened to my family. At the time I’m writing this, I now know that:

My grandmother’s family was not eligible for Social Security for at least fifteen years because her mother was a washerwoman, and the New Deal excluded agricultural and domestic workers (nearly all black at the time) from Social Security—President Roosevelt needed to secure votes from Southern Democrats and Southern Democrats needed cheap labor from economically vulnerable black people.

My grandfather bought our house without any help from the GI Bill, despite being a veteran of the Korean War. My mother told me that he was too proud to apply. The truth is, pride or not, the government denied home loans to black veterans, and the notorious redlining in Chicago meant that he wouldn’t have been approved anyway.

I grew up in a frontline community—meaning that I lived in an area close to a pollution source and with high levels of air pollution. I developed asthma, like most of my friends in my neighborhood. I could barely run until I was in my late teens, and I regularly missed school, which, in turn, meant that my self-employed mother had to miss work. My mother and I had no idea that I was sick because of where we lived. My lungs are weakened to this day.

Progress came with a price, and the price was us. And by the time the Green New Deal came into my life, I would be damned before I paid another dime.

WHAT IS POLICY?

I have spent my life trying to rewrite systems of power, and policy is nothing if not a system for creating and distributing power**.** This is, of course, not how most people think of public policy. In fact, most “official” definitions of policy say something like this:

Policy [is] a statement by government—at whatever level, in whatever form—of what it intends to do about a public problem. Such statements can be found in the Constitution, statutes, regulation, case law (that is, court decisions), agency or leadership decisions, or even in changes of the behavior of government officials at all levels. For example, a law that says that those caught driving while intoxicated will go to jail for up to one year is a statement of governmental policy to punish drunk drivers. The National Environmental Policy Act (NEPA) is a statement of government policy toward the environment….

And: “Policy is what the government chooses to do or not to do” about a public problem.

This is all true. But definitions like this make policy design sound like it’s orderly and contained—much like going to the doctor. You have a problem; the doctor diagnoses it; you two find the best treatment. Creating policy is more like going to the doctor with a problem, having fifteen people argue about if it’s a “real” problem that requires a doctor to begin with, then having five of those people (plus some new strangers!) start arguing anew about what the cause of the problem is, only to be interrupted by the doctor’s boss coming in to tell them that they can only choose two of five possible treatment options because the other three would hurt the hospital’s bottom line. And once treatment begins, people argue over how to determine whether it’s successful and if it should be reversed to save money or time.

Policymaking is not a science. It is a fight over whose problems get addressed, how those problems are addressed, and how public power and resources are distributed. If politics is a fight to elect people who reflect and share our values, policy is a fight to actually enact those values—to mold the world, through the work of government, into what we think it should be.

That is why, contrary to popular belief, the most important part of a policy proposal is not the details—at least at the beginning. It’s the vision that the policy presents. As a statement about what the government is going to do, policy inherently tells a story about what went wrong, how the government can fix it, and who has power to shape society—whether it’s the state or the public or corporations. The best policies tell compelling stories, galvanizing legislators and citizens to fight for them, and provide public servants with a clear purpose when they sit down to implement the details. The stories may shift as opponents pick new battles; the details may need tweaks or overhauls as unexpected challenges emerge. A coherent policy vision provides the foundation that both the stories and the details draw upon. Three pillars—the problem, principles, and power—form that foundation, and anchor policymaking from conception to execution.

Problems are the center of any public policy. Because policy is the government’s response to a problem, policy can only be created if we agree that an issue constitutes not just a problem but a public problem—that is, a problem that affects the public that cannot be solved without the government. How we define the scope and origin of the problem determines how we’ll craft a solution. That’s why fossil fuel companies spend millions to sow doubts about the urgency of the climate crisis and cover up their culpability. It’s not just about saving face; it’s about changing our understanding of the problem and preventing government action.

Principles. Policymakers need a compass to navigate the near-infinite variety of policy designs, and principles— which include both our moral values and our theories of government—provide that compass. Remember, policymaking is collective problem-solving—not an objective “science.” Policymaking, like all decision-making, is guided not only by facts but by our values—about freedom and justice, about what we deserve, about what “other people” deserve and, perhaps most crucially, about what the government should and should not do. Principles are, in short, the moral and intellectual core of a policy. They define not only how we engage with a problem but what solutions we consider at all.

Problems in our society are rooted in power. Asking why a problem remains unresolved leads to questions of power: Who wields it and to what end? Are the powerful negligent or malevolent? By directing and entrenching flows of government resources and attention, policy always shapes the distribution of power. Effective, lasting policy changes must change the distributions of power that led to the problem initially, or else the old malefactors will undermine any success. When selecting the mechanisms a policy will use (a loan; a new legal protection; a direct public investment; a new federal agency), policymakers are deciding how to maintain or disrupt the balance of power. And this is not limited to power in the public sector. Governments write the laws, enforce the contracts, and build the infrastructure that make a society and economy possible. Policy changes reverberate beyond the public sector into every domain of our lives.

Problems, principles, and power are the pillars of any policy vision. Together, they animate the policymaking process, guiding not just the story policymakers tell but the decisions they make about what should (or should not) be included in a given proposal.

IS THE GREEN NEW DEAL A POLICY?

The Green New Deal is a proposal for a ten-year economic mobilization to rapidly transition the US to a zero-carbon economy and, in so doing so, regenerate and reorganize the US economy in ways that significantly reduce inequality and redress legacies of systemic oppression. The congressional Green New Deal (“GND”) resolution has five goals:

1. Achieve net-zero greenhouse gas emissions through a fair and just transition for all communities and workers.

2. Create millions of good, high-wage jobs and ensure prosperity and economic security for all people of the United States.

3. Invest in the infrastructure and industry of the United States to sustainably meet the challenges of the twenty-first century.

4. Secure clean air and water, climate and community resilience, healthy food, access to nature, and a sustainable environment for all.

5. Promote justice and equity by stopping current, preventing future, and repairing historic oppression of frontline and vulnerable communities, including Indigenous peoples, communities of color, migrant communities, deindustrialized communities

, depopulated rural communities, the poor, lowincome workers, women, the elderly, the unhoused, people with disabilities, and youth.

The GND resolution proposes to achieve these goals in two ways. The first is through a set of “projects” that, if completed, would nearly eliminate carbon emissions in the US. The second is through a set of policies that aim to protect Americans from the disruption and instability that transitioning away from fossil fuels will create and reduce inequity. Some people like to refer to the first set of projects as the “Green” part of the GND and the second as the “New Deal” part. While this may be a helpful rhetorical device, it is a dangerous way to conceptualize the GND. All parts of the GND advance decarbonization—even the “non-climate” policies like universal health care, education, and job training. Similarly, the “green” projects can help reduce inequity if they are designed to create millions of wellpaying jobs, bolster worker power, invest in local communities, and strengthen the social safety net—all of which the Green New Deal proposes to do. Addressing decarbonization and inequality simultaneously has prompted critics to accuse the GND of being a “progressive wish list,” not a policy. Their criticism often reveals a narrow policy vision guiding their thinking. The problem is simply the carbon in the atmosphere; Mr. Policy Doctor will prescribe the correct solution based on science; imbalances of power are mostly irrelevant, too difficult to disrupt when an urgent crisis needs solving. This is a compelling story. But it cannot guide policymakers tasked with averting catastrophic warming, as many authors in this book show.

The Green New Deal is a new policy vision—one that will guide government and society through the biggest task in modern history: decarbonizing our global economy within the next ten to twenty years. The stories and details of GND policy will undoubtedly change in the coming years, but they will be anchored by the vision—a conception of the problem, a set of principles, and an analysis of power—that the GND provides. Vision, however, is not enough. The GND also establishes a framework for a national economic mobilization and a set of ever-evolving and specific policies that fit within this vision and framework.

#### Undercommons links to neoliberal meritocracy

Ransby, PhD, 16

(Barbara, History@Chicago, http://bostonreview.net/forum/black-study-black-struggle/barbara-ransby-barbara-ransby-response-robin-kelley 3-7)

Robin Kelley’s essay encourages us to resist the seductive comforts of the academy and to be ever vigilant about the role it plays in the larger unjust system of racial capitalism. Fred Moten and Stefano Harney urge us to become outlaws, to steal from the university: not pencils or laptops, but skills, ideas, and space, repurposing them for more egalitarian ends. And legendary Black Freedom organizer Ella Baker insisted that the only way to do radical work inside hierarchical organizations and established institutions is to function as an “outsider within”—to seek one’s frame of reference and source of affirmation and comfort beyond the bounds of such organizations and institutions. How do these cautions and contradictions translate into praxis for today’s student activists? First of all, we have to applaud students for coming together and saying “no” to what they experience everyday as a racist environment. But, as we know, it is much easier to state the problem than to formulate an agenda that reflects what we are for. This is true on campus, in communities, and in large-scale revolutionary movements: oust the dictator, depose the tyrant. Then what? As my colleague Roderick Ferguson reminds us in his book The Reorder of Things, even the seemingly major reforms—such as the establishment of black studies and other interdisciplinary programs—are co-optable. The best demands, still to be formulated, will be for “non-reformist” reforms. This notion, advanced by philosopher André Gorz and re-inscribed in the work of scholar and abolitionist Ruth Gilmore, describes activism (in Gorz’s words) as “conceived not in terms of what is possible within the framework of a given system and administration, but in view of what should be made possible in terms of human needs and demands.” We need such an agenda for higher education, one that demands not just responses to individual trauma, but also a radical recalibration of what universities owe—and not only to students and faculty, but also to campus workers and to communities beyond the campus. As Kelley says, all major campus uprisings have been fueled by community-based struggles for change. Martha Biondi’s The Black Revolution on Campus underscores this point in elegant detail. The concessions that colleges and universities have made to the demand for radical inclusion amount to a “some of y’all, not all of y’all” formula. Institutions agreed to take the so-called “best and brightest,” the “most deserving,” the “truly exceptional” students of color. The price of entry has often been for those students to accept the notion that they are different and better than their cousins, neighbors, and even siblings who are either excluded from entry or—worse—tracked into the parallel prison industry. Truly transformative demands have to reject that divisive formula, shrouded in the myth of meritocracy. The demand for open admissions and free tuition strikes at the heart of the matter. Most working-class black people never set foot on college campuses, but many do. In fact, universities are full of black non-professional employees who do groundskeeping, housekeeping, catering, and clerical work. Their concerns have to be our concerns too. Making the demand that all campus workers be paid a living wage would be an enormous statement of solidarity by student activists. Some are doing just that. The recently published Agenda to Build Black Futures of Black Youth Project 100, the far-reaching and hard-hitting demands of the students at UNC, Chapel Hill, and the successful Prison Divest campaign at Columbia are all models for what non-reformist reform platforms might look like. The undercommons is both an appealing and necessary site for insurgent collaboration, but we cannot overly romanticize it. It is not the only place we must do our work. While we labor to create alternative and ulterior spaces for critical collective thought and planning, we have to simultaneously fight for a greater margin of justice in the public square of the academy, to try to hold institutions accountable

as best we can to what they say they represent, and to support black students’ right to self-defense through protest against physical and psychological injury. In the long run their well-being requires building a liberation movement that extends beyond the borders of the university.

# 1AR

## Democracy

### 1AR – AT: DPT False

#### The most empirically and methodologically rigorous evidence goes aff on DPT.

Reiter ’17 [Dan; January 2017; Professor at the Department of Political Science at Emory University, Ph.D. from the University of Michigan; Oxford Research Encyclopedia of Politics, “Is Democracy a Cause of Peace?” p. 11-12]

This is not to take a maximalist position that quasi-experiments add nothing, or that adding variables is never advised. It does suggest, however, considering other means of assessing causation, in addition to the conventional approach of seeing if adding plausible exogenous variables renders the democracy-peace correlation to be statistically insignificant. Scholars have explored other means of assessing causation in the democratic peace, and have amassed three other types of evidence that support the conclusion that democracy causes peace: evidence demonstrating support for other empirical patterns suggested by democratic peace theory; evidence produced using experimental methods; and evidence produced using case studies.

The first type of evidence explores for the existence of other empirical patterns predicted by democratic peace theory. If a theory predicts the existence of a variety of empirical patterns and these patterns are demonstrated through tests, we can be more confident in the validity of the theory, and in turn that observed correlations are causal and not just spurious. And, indeed, there is a wide array of quantitative empirical studies that provide support for various assumptions or implications of democratic peace theory, especially for institutionalist accounts of the democratic peace. Perhaps the central institutionalist explanation of the democratic peace proposes that elected leaders are motivated to avoid fighting wars, because the costs of wars will incite popular discontent in turn threatening their hold on power. Studies have demonstrated a number of empirical patterns consistent with this view. Democracies fight shorter wars (Reiter & Stam, 2002, ch. 7). Democracies suffer fewer casualties when they fight wars (Valentino et al., 2010), and when they fight, popular support for the leadership declines as casualties escalate (Mueller, 1973). The benefits of victorious wars may sometimes push democratic publics to accept the costs of war when they are confident of victory, and accordingly democracies almost never start wars they go on to lose (Reiter & Stam, 2002). During war, public support erodes as the perceived likelihood of victory declines (Gelpi et al., 2009). As the institutional explanation of the democratic peace would predict, variations of institutional and leadership form within democracies also affects conflict behavior, as in general more constrained states are less conflict prone (Reiter & Tillman, 2002). Consistent with the audience costs explanation, democracies can more effectively signal their resolve than at least some kinds of autocratic states (Schultz, 2001; Weeks, 2014). There are also some studies supporting elements of the normative explanation. For example, some studies have found that democracies are especially likely to use mediation or binding arbitration to resolve interstate disputes (Dixon, 1993; Raymond, 1994, 1996). In total, though there are certainly scholarly debates about some of these observed patterns,6 this collection of studies improves our confidence that democracy is causing peace in the manners described by democratic peace theory.

The second type of evidence uses experimental methods. Some have proposed that experimental methods enjoy critical advantages over the analysis of observational data in assessing causation. Experimental methods are able largely to skirt some of the biggest causal inference problems associated with quasi-experimental methods, such as biased samples and nonrandom assignments of treatment. That said, the limitation of experimental methods is that, especially in international relations, they can only be used to test some arguments, or some components of arguments. For example, regarding the democratic peace an experimenter cannot take a set of states and then randomly assign some to be democratic and others to be non-democratic.

That said, scholars have thus far been able to conduct survey and laboratory experiments that have tested some elements of the democratic peace. A number of surveys have found support for one of the core assertions of dyadic democratic peace theory: that citizens of democracies are significantly less likely to support the use of force against democracies as compared to using force against non-democracies (Geva et al., 1993; Johns & Davies 2012; Lacina & Lee, 2013; Mintz & Nehemia, 1993; Rousseau, 2005, pp. 219–232; Tomz & Weeks, 2013) Other experiments have tested elements of the audience costs variant of the democratic peace, showing that the public does inflict audience costs on leaders who back down in a crisis (Horowitz & Levendusky, 2012; Tomz, 2007; Trager & Vavreck, 2011).

A third empirical means of demonstrating causation is to engage in process tracing through case studies. Scholars have presented several individual case studies of the democratic peace in events such as 19th-century American diplomatic crises, the 1898 Fashoda Crisis, the onset of World War II, the Spanish-American War, and many others (see Elman, 1997; Owen, 1997; Ray, 1995; Risse-Kappen, 1995; Rousseau, 2005; Schultz, 2001; for case studies presenting evidence against the democratic peace, see Layne, 1994). Some of these case studies demonstrate specific parts of the causal logic of the democratic peace, such as the ability of democracies to signal more effectively through invoking greater audience costs (Schultz, 2001), or the inability of elected leaders to manipulate public opinion or secretly drag their nations into wars the public would otherwise avoid (Reiter, 2012A). Perhaps the most striking case study of democratic peace dynamics is the pacification of Western Europe after World War II, democracy helping to dissolve immediately and completely one of the most violent interstate conflicts in modern history, the France-Germany rivalry (Russett & Oneal, 2001).

## K

### 1AR – Sustainable

#### Financialization’s sustainable — criticism’s unwarranted reductionism

Konings, PhD, 18 (Martijn, Associate Professor of Political Economy at the University of Sydney, author of *The Emotional Logic of Capitalism* and *Capital and Time: For a New Critique of Neoliberal Reason*, series editor for the Stanford University Press book series, Currencies. 02-07-18. “A Critique of the Critique of Finance.” Stanford University Press Blog. https://stanfordpress.typepad.com/blog/2018/02/a-critique-of-the-critique-of-finance.html)

Critics of neoliberal capitalism rarely recognize the productive power of speculation. If there is one theme that unites the various critiques of contemporary finance, it is the emphasis on its speculative character. Financial growth is said to be driven not by the logic of efficient markets, but rather by irrational sentiment, “animal spirits” that do not respect fundamental values. Emphasizing the role of volatility in contemporary capitalism (evident at the time of writing, as the stock market is experiencing a downturn) is important as an antidote to notions of market efficiency and equilibrium. But it is a mistake to think that it provides a sufficient basis for effective critique. Predictions regarding the limits or collapse of neoliberal finance have simply not enjoyed a good track record. Over and over, the contemporary financial system has proven capable of sustaining higher levels of speculative activity than anticipated. This has certainly been true of the past decade. Capital and Time: For a New Critique of Neoliberal Reason is my attempt to make sense of this—that is, to understand what might be wrong or missing in the existing heterodox critique of speculation, and to advance a more accurate understanding of the role of uncertainty, risk, and speculation in contemporary capitalism. At the heart of the critique of speculation we find a distinction between real and fictitious forms of value. Although “essentialist” (or “foundationalist”) modes of explanation have been under fire across the social sciences for several decades now, when it comes to the critique of finance they have had considerable staying-power: without a notion of real value, it often seems, we lose any objective standard against which to assess the speculative gyrations of capitalist markets. Capital and Time asks what kind of critical theory we might develop if we bracket the anxious attachment to a notion of fundamental value. To that end, it turns to the work of economist Hyman Minsky. Although Minsky has been popularized precisely as a critic of speculation, he in fact insisted that almost all value judgments and investments were to some degree speculative—their success or failure would be determined in an unknown future. For him, the key economic question is how order emerges in a world that offers no guarantees, how more or less stable standards and norms arise amidst uncertainty. Of course, the “endogenous” origin of financial standards is a well-rehearsed theme in heterodox economics—indeed, it is a staple of the “post-Keynesian” literature that claims Minsky’s legacy. But such perspectives have never been able to break with the idea that financial stability is at its core dependent on external interventions that suppress speculative impulses. For Minsky, however, this is to miss the point about endogeneity. To his mind, there was no clear dividing line between financial practices and their governance: central banks and other public authorities are no more able to see into the future and to transcend uncertainty than private investors are. Minsky was therefore highly skeptical about official claims of discretionary precision management: financial governance is always embroiled in the very risk logic that it is charged with managing. That also means that financial policy can appear quite ordinary, even banal: at the heart of capitalist financial management is a logic of backstopping and bailout that responds to the possibility that the failure of an institution may take down wider financial structures. The stability of the post-New Deal financial system is often attributed to the Glass-Steagall separation of the stock market and commercial banking. But Minsky tended to view Glass-Steagall as one of several measures to direct bank credit away from the stock market towards other, no less speculative ends, notably consumer and mortgage financing. To his mind, the stability of the post-war period derived rather from the creation of an extensive financial safety net (which included, for instance, deposit insurance, which removed the rationale behind bank runs) that served to socialize risk. This institutional arrangement turned out to have a significant drawback: a pattern of chronic inflation emerged that, by the late 1970s, was widely perceived as a major problem. Minsky’s lack of faith in the possibility of cleanly staged external interventions led him to feel that that there was no real way out of this predicament. Monetarist doctrines, ascendant during the 1970s under the influence of Milton Friedman, relied on exactly the belief in an arbitrarily defined monetary standard that Minsky rejected as naïve. Muddling through, it seemed, was the price of avoiding another financial crash and depression. The Volcker shock of 1979 changed this dynamic in a way that Minsky had not foreseen but that is comprehensible when seen through the lens he provided us with. Paul Volcker looked to monetarism not as a means to enforce an external limit or standard on the financial system, but as a politically expedient way to break with accommodating policies and to proactively engage the endogenous dynamics of finance. The consequences of the Volcker shock were predictable (which is exactly why the Federal Reserve had been reluctant to pursue similar policies in previous years): inflation gave way to instability and crisis. Inflation was conquered as jobs were lost and wages stagnated. And, far from money being returned to its neutral exchange function, opportunities for speculation multiplied. The American state was never going to sit idly by as the financial system returned to dynamics of boom and bust: when instability took the form of systemic threats, authorities would bail out the institutions that had overextended themselves. Of course, Volcker would not have been able to predict the specific features of the too-big-to-fail regime as it emerged during the 1980s and evolved subsequently; but the very point of the neoliberal turn in financial management that he had overseen was to create a context where risk could be socialized in ways that were more selective and therefore did not entail generalized inflation. The inflation of asset values that has been such a marked feature of the past four decades has always been premised centrally on the willingness of authorities to view the “moral hazard” of the too-big-to-fail logic as a policy instrument—even if they may have decried it officially as a regrettable corruption of market principles. Spectacular bailouts, mundane policies to protect the key nodes of the payment systems, the “Greenspan put”, the different iterations of quantitative easing—these are all variations on that basic too-important-to-fail logic. Existing critical perspectives tend to view crisis and the need for bank bailouts as manifesting the essential incoherence of neoliberal finance, its lack of solid foundations and the irrationality of speculation. Capital and Time breaks with such moralistic assessments. The way deepening inequality and the speculative growth of asset values continue to feed off each other is troubling for any number of reasons, but there is nothing inherently “unsustainable” about it—the process does not have a natural or objective limit. At this point in time, the critique of speculation does little more than lend credibility to official discourses that present crises as preventable and bailouts as one-off, never-to-be-repeated interventions. In that way, it prevents us from critically relating to a neoliberal reality that has been shaped to its core by the speculative exploitation of risk and uncertainty, and in which regressive risk socialization serves as the everyday logic of financial governance.

#### Literally nothing Hickel says is supported by Data

McAfee 20 – a principal research scientist at MIT, is cofounder and codirector of the MIT Initiative on the Digital Economy at the MIT Sloan School of Management. (Andrew, "Why Degrowth Is the Worst Idea on the Planet," Wired, <https://www.wired.com/story/opinion-why-degrowth-is-the-worst-idea-on-the-planet/> 10.06.2020)//gcd

At this point the degrowth argument departs from reality. I mean literally. As “[The Material Footprint of Nations](https://www.pnas.org/content/112/20/6271)” (the main paper Hickel cites) states, material footprint measures do “not record the actual physical movement of materials within and among countries.” Instead, they’re derived from a “calculation framework [that] … enumerates the link between the beginning of a production chain (where raw materials are extracted from the natural environment) and its end.”

Material footprint models estimate the total weight of all the materials disturbed by humans around the world as they produce the goods they eventually consume. All of the ores mined to make metal, the rock quarried to make gravel, the sand scooped up to make glass and microchips—all of these are estimated by country by year in the material footprint calculation framework.

A nation’s material footprint, then, is always higher than its direct material consumption (DMC). This is straightforward enough. What’s puzzling is that according to “The Material Footprint of Nations,” some rich countries are seeing their footprint go up even as their consumption goes down. The paper shows that many countries are now dematerializing. DMC has been trending downward for some time in the US, UK, and Japan and may recently have peaked for the European Union and OECD as a whole. Yet in all these cases, the material footprint continues to rise.

How can this be? It’s not because the material footprint models do a better job than the USGS of accounting for the metals and other materials in finished goods imports. The [technical annex](http://www.csiro.au/~/media/LWF/Files/CES-Material-Flows_db/Technical-annex-for-Global-Material-Flows-Database.pdf) for the global material flows database notes that, as is the case with the USGS tallies, “complex manufactured items are largely excluded.” Instead, the paper notes, “the main reason in most cases was increased indirect use of (dependency on) construction materials.”

This is problematic, because those materials are so poorly tracked. As the appendix states, “Many countries have no data on extraction of non-metallic minerals primarily used for construction … When they are available, they are often unreliable, partial, and underreported.” It’s a poor strategy to use sparse, low-quality data to overturn conclusions based on uniform, high-quality data, yet this is what Hickel is doing when he argues that material footprint calculations show dematerialization is an illusion.

There’s one other serious problem with this argument. It’s based largely on the estimated “raw material equivalents” of Chinese exports of construction minerals, yet China is not at all a big exporter of these minerals. Instead, [China’s main exports](https://oec.world/en/profile/country/chn) are electrical and mechanical machinery, plastics, furniture, apparel, and vehicles. None of these contain a lot of sand, gravel, stone, or clay.

So then how do such huge quantities of these and other construction minerals end up somehow being counted among China’s exports? Because China is building a lot of factories, railroads, highways, and other industrial infrastructure each year. The materials footprint calculation framework estimates how much tonnage of construction minerals all this building requires, then allocates about one third of this tonnage to exports. So by this logic, the smartphones and solar panels the US imported from China in, say, 2018 “contain” some of the stone and gravel used to build up China that year. By that same logic, if my neighbors bring me a cake the same year they renovate their house, then my consumption of lumber, drywall, and copper pipe goes up as soon as I have a slice.

Hickel doesn’t stand on any firmer ground when he moves from conclusions to recommendations. He has often claimed that 50 billion tons is the maximum weight of global resource extraction that Earth can sustainably handle and that we’re already well past this limit. In the face of this alleged crisis, [he maintains](https://foreignpolicy.com/2020/06/18/more-from-less-green-growth-environment-gdp/) that “the only fail-safe strategy is to impose legally binding caps on resource use and gradually ratchet it back down to safe levels.” However, the [paper he cites](https://www.mdpi.com/2079-9276/4/1/25) to support his views contains a frank admission: “There is still no hard scientific evidence of causal relationship between human-induced resource flows and the possible breakdown of life-supporting functions at continental or global scale from which … targets [like a 50 billion ton limit] could directly be derived.” Before taking the unprecedented step of setting up a central resource planning bureaucracy, it doesn’t seem like too much to ask for hard scientific evidence that it’s actually necessary.