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### Inequality---1AC

#### Advantage 1 is Inequality---

#### Increased concentration of buyer power in labor markets drives inequality.

Lauren Sillman 20. Antitrust Associate, Clifford Chance LLP; J.D., Georgetown University Law Center; B.A., University of Iowa. “ANTITRUST FOR CONSUMERS AND WORKERS: A FRAMEWORK FOR LABOR MARKET ANALYSIS IN MERGER REVIEW.” https://lawjournal.ku.edu/wp-content/uploads/2020/12/4\_Sillman\_Antitrust\_V30\_I1.pdf

A détente is especially desirable today in light of the severe stagnation in American wages. In the past thirty-five years, U.S. gross domestic product has all in all grown but the purchasing power of the average worker has barely changed.3 Labor’s share of national income declined precipitously in the 2000s, and in the five years after the Great Recession it was lower than at any point since World War II.4 Because most people get most of their income from labor, and because those who get most of their income from capital tend to be wealthy, this income shift has dramatic consequences for inequality. Economists and policymakers have advanced numerous explanations for this troubling trend ranging from the decline of unions, to tighter monetary policy, to increased trade liberalization, and more.5 One explanation that has received attention in recent years is an apparent epidemic of market concentration and flagging competition.6 A growing body of evidence suggests that over time fewer and fewer firms have come to dominate sectors across the economy.7 One study found that from 1982 to 2012, the share of sales by the sectors’ top four firms increased in manufacturing, finance, services, utilities, retail trade, and wholesale trade.8 Average markups above cost—a manifestation of market power—rose from eighteen percent in 1980 to sixty-seven percent in 2014.9 This increase in concentration is due, in part, to a growing wave of mergers. By one count over 325,000 mergers have been announced since 1985.10 That year, around 2,000 mergers with a value of a little over $300 billion were announced.11 In 2018, 15,000 mergers occurred—valued at just under two trillion dollars.12 The ability of firms to charge prices for their products or services that exceed the competitive level harms workers in their role as consumers, and the reverberating inefficiencies have consequences for wages as well.13 Workers are harmed more directly, though by firms with buyer power in labor markets. Instead of enabling firms to charge high prices for the goods or services they sell, buyer power—also known as monopsony power—allows firms to push wages below the level workers would receive in competitive labor markets. A recent study applied the Herfindahl-Hirschman Index (HHI), which is used to measure market concentration. The Department of Justice (DOJ) and the Federal Trade Commission (FTC) (“the agencies”) used HHI in merger review, and found that at least forty percent of job markets fell into the “highly concentrated” category, making them especially susceptible to anticompetitive behavior by employers.14 The hiring markets for the twenty-five percent most concentrated occupations in almost every commuting zone in the country have concentration levels nearly tripled the “highly concentrated” threshold.15 In commuting zones across middle America, the hiring market for nearly every occupation is highly concentrated.16 As discussed below, a concentrated labor market generally increases the buyer power of participants in that market. Recent research on labor supply elasticity, which is an indicator of vulnerability to employers’ market power, further challenges traditional assumptions of competitiveness in labor markets.17 Historically, antitrust enforcers have given far less attention to firms’ power as buyers than as sellers and have been particularly hesitant to check their power as buyers of labor. However, the tide may be beginning to change. Federal and state enforcers have begun to challenge anticompetitive labor contracts,18 and there is a small but growing body of precedent addressing increased buyer power in mergers.19 In 2016, the Obama Administration’s Council of Economic Advisors issued a report describing the problem of labor market power and encouraging greater attention to the issue by the antitrust enforcement agencies.20 Separately, then-Acting Assistant Attorney General Renata Hesse stated that antitrust enforcement efforts should not only be concerned with the welfare of consumers, but should “also benefit workers, whose wages won’t be driven down by dominant employers with the power to dictate terms of employment.”21 Nevertheless, to date, the agencies have never blocked a merger on the basis of harm to workers. There are many reasons that may account for the dearth of enforcement, including misunderstandings of the relationship between labor and antitrust laws, the momentum of precedent focused on seller-side harms, and the resistance of some to increased antitrust enforcement as a general matter.22 In addition to these practical and ideological impediments, mistaken intuitions about the economics of buyer power create obstacles for enforcement. At first glance it would seem that if firms use their buyer power to lower their costs, downstream customers are ultimately benefitted. Therefore, the consumer welfare standard, which underpins modern antitrust enforcement, would seem to counsel against intervention contrary to buyer power. In most cases, though, this intuition is simply wrong.23 More competitive labor markets are not just good for workers; they are good for consumers too. Clarifying the relevant interests at stake is crucial as policy reforms begin in earnest, and there is reason to believe that such reforms are on the horizon. Several politicians have recently advocated for greater antitrust scrutiny of labor markets. For example, in 2017 Senator Amy Klobuchar introduced a bill that would require the enforcement agencies to pay greater attention to buyer power in merger review.24 Senator Elizabeth Warren—who seeks more interventionist antitrust policy on many fronts25—and Senator Cory Booker—who in 2017 sent a letter to the DOJ and FTC citing concern with the failure of the agencies to address labor market power—have also taken up the cause.26 Labor market issues are also garnering increased attention from antitrust scholars.27 In an article published in 2018, C. Scott Hemphill and Nancy Rose argued for more interventionist merger policy directed at various forms of buyer market power.28 The same year, Suresh Naidu, Eric Posner and Glen Weyl published Antitrust Remedies for Labor Market Power, a sweeping analysis of the myriad options available to enforcers to promote more competitive labor markets.29 This legal analysis has been spurred by a growing body of empirical work on buyer power in labor markets.30 An array of scholars concluded that labor market power is a problem and one that antitrust institutions should do more to address. This paper similarly argues that buyer power—and specifically buyer power in labor markets—deserves greater antitrust scrutiny and, to that end, develops a framework for systematically evaluating labor market power in merger analysis. The enthusiasm of some progressive politicians for more interventionist antitrust policy has drawn skepticism from many antitrust practitioners and scholars who worry that reforms will unmoor antitrust policy from its foundational principles and turn antitrust enforcement over to political whims.31 At least with respect to labor market power, however, economic theory and empirical evidence support increased enforcement without any reform of the basic legal framework and without deviating from substantial consensus about the proper role for antitrust in the economy.

#### Permissive antitrust guidelines enabled the rise in monopsonies, expanding a worker welfare standard to labor markets is key to wage equality.

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Of course, this is not the world in which we live. Even the corner grocery store knows it can raise its prices a little bit without losing all of its customers, which is what the standard competitive theory suggests. More and more, firms have demonstrated high and increasing levels of market power (Philippon 2019; Stiglitz 2019). At the same time, the bargaining power of workers has weakened. It was never an equal match. An employer typically can find an alternative worker far more easily than a worker can find an alternative employer. This is especially so during slack periods in the labor market, or in places where there has been persistent unemployment. Leaving or losing a job is often greatly disruptive to workers and their families. There are mortgages to pay, children to feed, bills coming due. From the perspective of workers, jobs are not easily substitutable. As the chapters in this volume make abundantly clear, this imbalance of market power has consequences. It enables firms to raise prices for goods and services—lowering the real incomes of workers. It enables firms to suppress wages of workers below what they would be in a competitive marketplace—contributing to the inequality crisis facing the country. This economic inequality gets translated into political inequality, especially in our money-driven politics, resulting in rules that evermore favor big corporations at the expense of workers. The growing political inequality, in turn, hampers economic performance, and ensures that most of the benefits of our anemic economic growth go to those at the very top (Stiglitz 2012). In the middle of the 20th century, John K. Galbraith (1952) described an economy based on countervailing power—where labor institutions and government checked the power of large corporations and financial institutions. But policy choices over the past half century have upset this balance in ways that have weakened not only the workers, but also the economy and the country. This volume explores what has happened by concentrating on one understudied part of the problem: the labor market. Explaining the Weakening of Workers’ Bargaining Power Multiple factors have contributed to the weakening of workers’ bargaining position. This volume focuses specifically on the ways that employers have increased their market power over workers. Employer Concentration Permissive antitrust enforcement has promoted concentration across industries, reducing the number of employers—particularly those in rural areas (Stiglitz 2016).1 With few alternatives, workers must accept the low wages that large local employers offer. More precisely, limited competition by buyers—in this case, employers who buy labor services—gives rise to monopsony power.2 Any firm with monopsony power knows that if it hires more workers, it will drive up the wage. The marginal cost of hiring an additional worker is thus greater than the wage. The result is lower employment and lower wages than if there were a competitive labor market. The chapter by Marinescu in this volume forcefully documents the degree of monopsony in labor markets across the United States, especially in rural areas—areas where, not surprisingly, wages lag behind the rest of the country. Collusion Typically there is some, but limited, competition in the labor market, but it is competition that is insufficient to achieve anything approximating what would emerge in a truly competitive marketplace. But employers often do not like even this limited competition, because even some competition means that wages are higher than they would be with no competition. Thus, firms sometimes collude to not compete; and that collusion drives down wages. The incentives for firms to do this—if they can get away with it—are obvious: collusion has been a feature of capitalism from the start. As Adam Smith observed in The Wealth of Nations, “Masters are always and everywhere in a sort of tacit, but constant and uniform, combination, not to raise the wages of labour above their actual rate. . . . Masters, too, sometimes enter into particular combinations to sink the wages of labour even below this rate. These are always conducted with the utmost silence and secrecy” (Smith 1776, book 1, chap. 8). Even then, Smith had observed an asymmetry not only in bargaining power, but also in capitalists’ response to workers’ attempts to redress the balance. When workers combine their forces, “the masters . . . never cease to call aloud for the assistance of the civil magistrate, and the rigorous execution of those laws which have been enacted with so much severity against the combination of servants, labourers, and journeymen” (Smith 1776, book 1, chap. 8). This stance, of course, was markedly different from capitalists’ own behavior—not only in labor markets, but elsewhere, too. As Smith put it in one of his most famous statements, “People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices” (book 1, chap. 10). This issue is central: to redress the natural imbalance of bargaining power, workers have to band together and engage in collective bargaining. Unions are critical. But it is precisely because unions have been somewhat successful in redressing the imbalance that employers have worked so hard to suppress them, as I comment later in this introduction. Contracts In multiple contexts, business enterprises have not been satisfied with the increased profits brought by greater market concentration and occasional collusion. Businesses have figured out how to sustain and amplify those profits by the clever design of contracts that are conceived to inhibit competition in the labor market. This is another method that enables them to drive down wages still further.3 The chapters by Evan Starr and Terri Gerstein (this volume) provide ample evidence of the harmful impact of the misuse of labor contracts, noting in particular that often-used ruses distort the true impact on workers. Noncompete agreements, by definition, reduce competition. There might be some justification for not allowing employees with knowledge of trade secrets to go to work for competitors, but that hardly applies to employees of fast-food chains. Employers have also put into contracts provisions that weaken workers’ rights—and power—if a dispute arises. Inserting arbitration clauses into most contracts has moved dispute resolution out of the public domain— where it can be protected in the public interest, through transparency and basic standards—into private hands. This not only weakens workers’ position after a dispute arises, but also subtly changes the balance of power— making it easier for firms to take advantage of workers, knowing that their ability to get redress is so circumscribed. Making matters worse is a broader set of changes in legal frameworks that has hurt workers and consumers at the expense of corporations. For instance, the ability to bring class-action lawsuits, particularly in arbitration, has been greatly limited. Asymmetric Information The standard competitive theory assumes perfect information. Research over the past 50 years has explained how even a little information asymmetry can have a large impact. Employers have recognized this—they have figured out that such asymmetry can weaken workers’ position and lead to lower wages. They have responded by doing what they can to increase these asymmetries, sharing data with each other but insisting that workers keep their own compensation data confidential, and punishing employees who violate such confidentiality. The chapter by Harris in this volume describes the adverse effects of informational asymmetries, how firms have tried to increase these asymmetries, and what governments have done and can still do to promote transparency—and thus competition—in the labor market.

#### Labor monopsony is the biggest internal link.

Eric A. Posner 8/13/21. Kirkland & Ellis Distinguished Service Professor at University of Chicago. How Antitrust Failed Workers. Oxford University Press, 2021.

In the United States, and much of the Western world, economic growth has slowed, inequality has risen, and wages have stagnated. Academic research has identified several possible causes, ranging from structural shifts in the economy to public policy failure. One possible cause that has received increasing attention from economists is labor market power, the ability of employers to set wages below workers’ marginal revenue product.1 New evidence suggests that many labor markets around the country are not competitive but instead exhibit considerable market power enjoyed by employers, who use their market power to suppress wages. This phenomenon—the power of employers to suppress wages below the competitive rate—is known among economists as labor monopsony, or simply labor market power. Wage suppression enhances income inequality because it creates a wedge between the incomes of people who work in concentrated and competitive labor markets. Wage suppression also reduces the incomes of workers relative to those of people who live off capital, and the latter are almost uniformly wealthier than the former. Wage suppression also interferes with economic growth since it results in underemployment of labor and, while it may seem to raise the return on capital, actually depresses it, as capital must lie idle to take advantage of monopsony power. With wages artificially suppressed, qualified workers decline to take jobs, and workers may underinvest in skills and schooling. Many workers exit the workforce and rely on government benefits, including disability benefits that have become a hidden welfare system.2 This in turn costs the government both in lost taxes and in greater expenditures. One estimate finds that monopsony power in the U.S. economy reduces overall output and employment by 13% and labor’s share of national output by 22%.3 The claim that labor market power raises inequality and reduces growth mirrors another claim that has received attention lately—that the product market power of firms has contributed to rising inequality and faltering growth.4 A product market is a collection of products defined by frequent consumer substitution. When a small number of sellers or one seller of these products exist, we say that each seller has product market power, which enables it to charge a price higher than marginal cost, or the price that would prevail in a competitive market. When a small number of employers hire from a pool of workers of a certain skill level within the geographic area in which workers commute, the employers have labor market power. One major source of market power in both types of markets is thus concentration, where only a few firms operate in a given market. Imagine, for example, a small town with only a few gas stations. Each gas station sets the price of gas to compete with the prices of the other gas stations. When a gas station lowers its price, it may obtain greater market share from the other gas stations—which increases profits—but it also receives less revenue per sale. If only a single gas station exists, it will maximize profits by charging a high (“monopoly”) price because the gains from buyers willing to pay the price exceed the lost revenue from buyers who stay away. If only a few gas stations exist, they might illegally enter a cartel in which they charge an above-market price and divide the profits, or they might informally coordinate, which is generally not illegal, though the social harm is the same. In contrast, if many gas stations compete, prices will be bargained down to the efficient level—the marginal cost—resulting in low prices for consumers and high aggregate output of gasoline. Labor market concentration creates monopsony (or, if more than one employer, oligopsony, but I use these terms interchangeably) where labor market power is exercised by the buyer rather than (as in the example of gas stations) the seller. Employers are buyers of labor who operate within a labor market. A labor market is a group of jobs (e.g., computer programmers, lawyers, or unskilled workers) within a geographic area where the holders of those jobs could with relative ease switch among the jobs. The geographic area is usually defined by the commuting distance of workers. A labor market is concentrated if only one or a few employers hire from this pool of workers. For example, imagine the gas stations employ specialist maintenance workers who monitor the gas-pumping equipment. If only a few gas stations exist in that area, and no other firms (e.g., oil refineries) hire from this pool of workers, then the labor market is concentrated, and the employers have market power in the labor market. To minimize labor costs, the employers will hold wages down below what the workers would be paid in a competitive labor market—their marginal revenue product. Faced with these low wages, some people qualified to work will refuse to. But the employers gain more from wage savings than they lose in lost output because of the small workforce they employ. Antitrust law does not distinguish monopoly and monopsony (including labor monopsony): firms that achieve monopolies or monopsonies through anticompetitive behavior violate antitrust law. But product market concentration has received a huge amount of attention by courts, researchers, and regulators, while labor market concentration has received hardly any attention at all.5 The Department of Justice (DOJ) and Federal Trade Commission’s (FTC) Horizontal Merger Guidelines, which are used to screen potential mergers for antitrust violations, provide an elaborate analytic framework for evaluating the product market effects of mergers. Yet, while the Merger Guidelines state that there is no distinction between seller and buyer power,6 they say nothing about the possible adverse labor market effects of mergers. Similarly, while there are thousands of reported cases involving allegations that firms have illegally cartelized product markets, there are few cases involving allegations of illegally cartelized labor markets.7 This historic imbalance between what I will call product market antitrust and labor market antitrust has no basis in economic theory. From an economic standpoint, the dangers to public welfare posed by product market power and labor market power are the same. As Adam Smith recognized, businesses gain in the same way by exploiting product market power and labor market power—enabling them to increase profits by raising prices (in the first case) or by lowering costs (in the second case).8 For that reason, businesses have the same incentive to obtain product market power and labor market power. Hence the need—in both cases—for an antitrust regime to prevent businesses from obtaining product and labor market power except when there are offsetting social gains.

#### The plan solves inequality and wages.

Eric Posner 21. Professor at the University of Chicago Law School. “You Deserve a Bigger Paycheck. Here’s How You Might Get It.” https://www.nytimes.com/2021/09/23/opinion/antitrust-workers-employers.html

The spectacle of the antitrust challenge to Big Tech has been riveting. But a far more consequential transformation in antitrust law has largely escaped notice — the movement to use antitrust law to address wage suppression and inequality caused by the power of employers in labor markets. Economic theory says that when a pool of workers has only one potential employer, or a small number of potential employers, those workers will be paid below-market wages. Without the credible threat to quit and work for a competitor, workers lack leverage that could allow them to secure a raise and better conditions. This situation is sometimes called monopsony, and it is similar to monopoly in the market for goods. When buyers have no choice among sellers, a monopolist can charge high prices; when workers have little choice among employers, the employer can “charge” low wages. Monopolies result in sluggish economic growth as well as high prices because in order to raise prices, monopolists make fewer goods or provide less in services. Companies that use their market power to suppress wages do something similar: They hire fewer workers, and this leads to unemployment and low growth as well. And because employers push down wages by reducing employment, they supply fewer goods, causing higher prices to consumers even though labor costs are reduced. A business might have monopoly power (over goods it sells), monopsony power (over workers), both or neither. If a small town has one newspaper, the newspaper has both a monopoly over local news and a monopsony over journalists. If the town has a single automobile manufacturing plant, that business will have a monopsony over the relevant skilled workers but not a monopoly over cars, which are sold into a national market where there are competitors. Economists have understood these things since Adam Smith, who famously called wage-fixing by employers “the natural state of things, which nobody ever hears of.” But economists did not take this risk very seriously until recently, instead usually assuming that employers compete vigorously for workers. As a result, though the logic for using antitrust law to address market power is the same for monopsony as it is for monopoly, the legal community did not embrace the possibility that antitrust law should be brought to bear against employers, except in unusual cases. But in recent years, thanks to the remarkable work of a diverse group of mostly young economists, this conventional wisdom was shattered. Exploiting vast data sets of employment and wages that had become available, they discovered that concentrated labor markets — that is, with one or few employers — are ubiquitous. In one paper, José Azar, Ioana Marinescu, Marshall Steinbaum and Bledi Taska found that more than 60 percent of labor markets exceeded levels of concentration that are regarded as presumptive antitrust problems by the Department of Justice. Numerous papers have made similar findings. In highly concentrated labor markets, wages fall — as economic theory would predict. For example, Elena Prager and Matt Schmitt examined hospital mergers and found that when hospitals expand through mergers and gain significant market power, the wage growth of employees declines. Notably, this decline affected skilled health care professionals like nurses — but not administrators and unskilled staff members like cafeteria workers, who could easily find jobs outside hospitals. The work on labor market concentration has been supplemented by growing evidence that employers collude with one another and engage in other anticompetitive practices. Evan Starr and his co-authors have found that agreements not to compete — where employers block workers from moving to competitors — are extremely common (as many as nearly 40 percent of workers have been subject to one) and are associated with lower wages. Alan B. Krueger and Orley Ashenfelter found that nearly 60 percent of major brand-name franchises — companies like McDonald’s and Jiffy Lube — subjected franchise employees to no-poaching agreements, which prevented them, even within the same franchise system, from quitting one employer to join another. As a result, many workers, especially in rural areas and small towns — areas subject to high unemployment and economic stagnation — are squeezed by employers and underpaid. For example, when farm equipment manufacturers merge, they close dealerships, and so a mechanic who used to be able to get a good job as several dealers competed for his work must accept a less-appealing job from the single place in the area or drop out of the labor market. Antitrust law applies to “restraint of trade,” and courts agree that when employers enter cartels to suppress wages, they violate the law. Yet until a few years ago, there were hardly any antitrust cases against employers. The major exception was a 2010 case against Big Tech after Google, Apple and other companies agreed not to solicit one another’s software engineers. This was potentially criminal behavior, but the Justice Department slapped them on the wrist. (A subsequent lawsuit secured more than $400 million in damages for the workers.) But it was the academic research, not the tech case, that finally woke the antitrust community from its torpor. In the past year, the Justice Department has brought several criminal indictments against employers for antitrust violations (the first ever). The Federal Trade Commission is pondering a rule to restrict noncompetes. State attorneys general brought cases against franchises and other employers that used no-poaching agreements and noncompetes. Congress is holding hearings next week on antitrust and the American worker. Private litigators have joined in as discoveries of abusive wage practices have piled up. For example, “Big Chicken” companies face lawsuits not only for fixing the prices of chicken but also for fixing the wages of their workers. If the academic research on labor markets is correct, then millions of Americans are paid thousands or even tens of thousands of dollars less than they should be paid. Labor monopsony affects people at all income levels, but it is a particular problem for lower-income workers and people living in stagnant rural and semirural parts of the country. In his recent executive order on antitrust, President Biden became the first president to commit government resources to ensure that the antitrust laws are used to help workers. Let’s hope he follows through.

#### Growing economic inequality drives diversionary nationalism and makes war inevitable.

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One of the oldest theories of nationalism is that states instill the nationalist myth in their citizens to divert their attention from great economic inequality and so forestall pervasive unrest. Because the very concept of nationalism obscures the extent of inequality and is a potent tool for delegitimizing calls for redistribution, it is a perfect diversion, and states should be expected to engage in more nationalist mythmaking when inequality increases. The evidence presented by this study supports this theory: across the countries and over time, where economic inequality is greater, nationalist sentiments are substantially more widespread. This result adds considerably to our understanding of nationalism. To date, many scholars have focused on the international environment as the principal source of threats that prompt states to generate nationalism; the importance of the domestic threat posed by economic inequality has been largely overlooked. However, at least in recent years, domestic inequality is a far more important stimulus for the generation of nationalist sentiments than the international context. Given that nuclear weapons—either their own or their allies’—rather than the mass army now serve as the primary defense of many countries against being overrun by their enemies, perhaps this is not surprising: nationalism-inspired mass mobilization is simply no longer as necessary for protection as it once was (see Mearsheimer 1990, 21; Posen 1993, 122–24). Another important implication of the analyses presented above is that growing economic inequality may increase ethnic conflict. States may foment national pride to stem discontent with increasing inequality, but this pride can also lead to more hostility towards immigrants and minorities. Though pride in the nation is distinct from chauvinism and outgroup hostility, it is nevertheless closely related to these phenomena, and recent experimental research has shown that members of majority groups who express high levels of national pride can be nudged into intolerant and xenophobic responses quite easily (Li and Brewer 2004). This finding suggests that, by leading to the creation of more national pride, higher levels of inequality produce environments favorable to those who would inflame ethnic animosities. Another and perhaps even more worrisome implication regards the likelihood of war. Nationalism is frequently suggested as a cause of war, and more national pride has been found to result in a much greater demand for national security even at the expense of civil liberties (Davis and Silver 2004, 36–37) as well as preferences for “a more militaristic foreign affairs posture and a more interventionist role in world politics” (Conover and Feldman 1987, 3). To the extent that these preferences influence policymaking, the growth in economic inequality over the last quarter century should be expected to lead to more aggressive foreign policies and more international conflict. If economic inequality prompts states to generate diversionary nationalism as the results presented above suggest, then rising inequality could make for a more dangerous world. The results of this work also contribute to our still limited knowledge of the relationship between economic inequality and democratic politics. In particular, it helps explain the fact that, contrary to median-voter models of redistribution (e.g., Meltzer and Richard 1981), democracies with higher levels of inequality do not consistently respond with more redistribution (e.g., Bénabou 1996). Rather than allowing redistribution to be decided through the democratic process suggested by such models, this work suggests that states often respond to higher levels of inequality with more nationalism. Nationalism then works to divert attention from inequality, so many citizens neither realize the extent of inequality nor demand redistributive policies. By prompting states to promote nationalism, greater economic inequality removes the issue of redistribution from debate and therefore narrows the scope of democratic politics.

#### Labor market inequities create slow and unstable growth.

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Why It Matters It should be fairly obvious why these imperfections in the labor market matter so much: one of the most disturbing aspects of growth in the United States in recent decades is the growing inequality (see, e.g., Ostry, Berg, and Tsangarides 2019; Stiglitz 2012, 2019; and a rash of other books on the topic). Most of the gains in the economy have gone to the top 10 percent, the top 1 percent, and the top 0.1 percent. Some of the growing inequality has to do with increases in wage disparity—known as labor market polarization. But much of it has to do with the decreasing share of national income going to workers.8 This is where the decreasing market power of workers and the increasing market power of corporations comes in. This decreasing market power is more than just changes in technology or even globalization: it is also the broader changes in our economy, society, and politics—and especially the changes described earlier in this introduction and elsewhere in this volume—that have led to this growing imbalance of market power. Research at the International Monetary Fund (Ostry, Berg, and Tsangarides 2014) and elsewhere (Ostry, Berg, and Tsangarides 2019) has highlighted the broader consequences of this growing inequality, even on economic performance. Economies that are more unequal are less stable and grow more slowly. In The Price of Inequality I explain the reasons that we pay such a high price for inequality.

#### Now is key.

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

WASHINGTON — The Federal Reserve is keeping its ultra-low interest rate policies in place, a sign that it wants to see more evidence of a strengthening economic recovery before it would consider easing its support. In a statement Wednesday, the Fed expressed a brighter outlook, saying the economy has improved along with the job market. And while the policymakers noted that inflation has risen, they ascribed the increase to temporary factors. The Fed also signaled its belief that the pandemic’s threat to the economy has diminished, a significant point given Chair Jerome Powell’s long-stated view that the recovery depends on the virus being brought under control. Last month, the Fed had cautioned that the virus posed “considerable risks to the economic outlook.” On Wednesday, it said only that “risks to the economic outlook remain” because of the pandemic. The central bank left its benchmark short-term rate near zero, where it’s been since the pandemic erupted nearly a year ago, to help keep loan rates down to encourage borrowing and spending. It also said in a statement after its latest policy meeting that it would keep buying $120 billion in bonds each month to try to keep longer-term borrowing rates low. The U.S. economy has been posting unexpectedly strong gains in recent weeks, with barometers of hiring, spending and manufacturing all surging. Most economists say they detect the early stages of what could be a robust and sustained recovery, with coronavirus case counts declining, vaccinations rising and Americans spending their stimulus-boosted savings.

#### Inequality hollows out economics resilience---shocks are inevitable, only worker stability makes recovery possible.

Kate Bahn 21. Washington Center for Equitable Growth Testimony before the Joint Economic Committee, "Kate Bahn testimony before the Joint Economic Committee on monopsony, workers, and corporate power". Equitable Growth. 7-14-2021. https://equitablegrowth.org/kate-bahn-testimony-before-the-joint-economic-committee-on-monopsony-workers-and-corporate-power/

Thank you Chair Beyer, Ranking Member Lee, and members of the Joint Economic Committee for inviting me to testify today. My name is Kate Bahn and I am the Director of Labor Market Policy and the interim Chief Economist at the Washington Center for Equitable Growth. We seek to advance evidence-backed ideas and policies that promote strong, stable and broad-based growth. Core to this mission is understanding the ways in which inequality has distorted, subverted and obstructed economic growth in recent decades. Mounting evidence, which I will review today, demonstrates how the rising concentration of corporate power has increased economic inequality and made the U.S. economy less efficient. Reversing the trends that have led to a “second gilded age” is critical to encouraging a resilient economic recovery following the pandemic-induced economic crisis of 2020 and encouraging a healthy, competitive economy for the future. Introduction The United States boasts one of the wealthiest economies in the world, but decades of increasing income inequality, job polarization, and stagnant wages for most Americans has plagued our labor market and demonstrated that a rising tide does not lift all boats. Furthermore, economic evidence demonstrates how inequality results in an inefficient allocation of talent and resources while increasing corporate concentration that enriches the few while holding back the entire economy from its potential. Understanding the causes and consequences of the concentration of corporate power will guide policymaking in order to ensure that the economic recovery in the next phase of the pandemic will be broadly shared and ensure a more resilient economy. “Monopsony” is a key economic concept to understand in this discussion. Monopsony is the labor market equivalent of the better-known phenomenon of “monopoly,” but instead of having only one producer of a good or service, there is effectively only one buyer of a good or service, such as only one employer hiring people’s labor in a company town. Like in monopoly, this phenomenon is not limited to when a firm is strictly the only buyer of labor. Today I will explain the circumstances and effects of employers having significant monopsony power over the market and over workers. When employers have outsized power in employment relationships, they are able to set wages for their workers, rather than wages being determined by competitive market forces. Given this monopsony power, employers undercut workers. This means paying them less than the value they contribute to production. One recent survey of all the economic research on monopsony finds that, on average across studies, employers have the power to keep wages over one-third less than they would be in a perfectly competitive market. Put another way, in a theoretical competitive market, if an employer cut wages then all workers would quit. But in reality, these estimates are the equivalent of a firm cutting wages by 5 percent yet only losing 10 percent to 20 percent of their workers, thus growing their profits without significantly impacting their business. It is not only important for workers to earn a fair share so they can support themselves and their families, but also critical to ensure that our economy rebuilds to be stronger and more resilient. Prior to the current public health crisis and resulting recession, earnings inequality had been growing since at least the 1980s while the labor share of national income has been declining in same period. This is cause for concern as recent evidence suggests that the labor share of income has a positive impact on GDP growth in the long-run. The unprecedented economic shock caused by the coronavirus pandemic revealed how economic inequality leads to a fragile economy, where those with the least are hit the hardest, amplifying recessions since lower-income workers typically spend more of their income in the economy. But the crisis also demonstrated how economic policy targeted toward workers and families can provide a foundation for growth. This is because workers are the economy, and pushing back against the concentration corporate power by providing resources to workers is the foundation for strong, stable and broadly shared growth. The Causes of Monopsony The concept of monopsony was initially developed by the early 20th century economist Joan Robinson, who examined how lack of competition led to unfair and inefficient economic outcomes. The prototypical example of monopsony is a company town, where there is one very dominant employer and workers have no choice but to accept low wages since they have no outside options. This is the most extreme case, but it is important to note that firms have monopsony power in any circumstance where workers aren’t moving between jobs seamlessly in search of the highest wages they can get. Firms can use monopsony power to lower workers’ wages any time workers: Have few potential employers Face job mobility constraints Can only gather imperfect information about employers and jobs Have divergent preferences for job attributes Lack the ability to bargain over those offers I will go through each of these factors in turn and demonstrate how labor markets are unique compared to other markets in dealing with competitive forces. While concentrated labor markets are not the norm, they are pervasive across the United States, especially within certain sectors or locations. When markets are very concentrated, employers can give workers smaller yearly raises or make working conditions worse, knowing that their workers have nowhere to go to find a better job with better pay. (See Figure 1.) A study published in the journal Labour Economics by economists Jose Azar, Ioana Marinescu, and Marshall Steinbaum finds that 60 percent of U.S. local labor markets are highly concentrated as defined by U.S. antitrust authorities’ 2010 horizontal merger guidelines. This accounts for 20 percent of employment in the United States. Research by economists Gregor Schubert, Anna Stansbury, and Bledi Tsaka goes further by estimating workers’ outside options, or the likelihood a worker is able to change into a different occupation or industry. This study finds that even with a more expansive definition of job opportunities more than 10 percent of the U.S. workforce is in local labor markets where pay is being suppressed by employer concentration by at least 2 percent, and a significant proportion of these workers facing few outside options are facing pay suppression of 5 percent or more. As study co-author Anna Stansbury noted, “for a typical full-time workers making $50,000 a year, a 2 percent pay reduction is equivalent to losing $1,000 per year and a 5 percent pay reduction is equivalent to losing $2,500 per year.” Certain sectors are now very concentrated, such as the healthcare industry. In a paper by the economists Elena Prager and Matt Schmitt, they find that hospital mergers led to negative wage growth among skilled workers such as nurses or pharmacy workers. Consolidation and outsized employer power, alongside other phenomenon such as the fissuring of the workplace, may have broader impacts on the structure of the U.S. labor market when it affects the overall structure of the labor market, including the hollowing out of middle class jobs that have historically been a pathway for upward mobility.

#### It’s the key internal link to growth---wage depression constrains worker supply, constrains output, and decreases investment.

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Intuitively, it seems likely that less expensive inputs or lower wages would mean savings for firms to pass on to the consumers. But it turns out that inefficiencies and lack of competition in upstream markets have ripple effects that can harm everyone. In a competitive market, employers pay the market wage; when there are vacancies, a marginal increase in pay will follow so employers can fill those vacancies. Labor monopsonists have different incentives. If they raise pay to fill a marginal vacancy, they might also have to raise pay for their existing employees. The small increase in pay needed to attract one more worker could mean a massive swing in overall labor cost (Krueger 2017). So even if growth would generally be good for the company, they might not be able to add the workers they need specifically because of the special dynamics of controlling too much of the market. This is an extreme example, but the same general principle applies when employers have the market power to depress wages below competitive levels. When the marginal cost of filling vacancies and growing one’s business to efficient levels diverges from the firm’s individual incentives for doing so, firms are constricted and leave jobs unfilled. Constraining inputs like labor leads to constrained outputs, and if firms are producing less of the products that consumers want, then prices for those products go up. After all, supply constraints and price increases are two sides of the same coin, economically. Fewer workers ultimately means fewer goods, and fewer goods means higher prices for the limited amount of goods available.4 Over time, this problem is magnified because fewer workers are incentivized to enter the field at all. The supply of qualified workers will go down, further reducing the firm’s ultimate output below efficient levels. In the end, everyone suffers except the firm with market power, which captures outsized profits. Think: Why does America have a chronic undersupply of nurses or teachers, as well as stagnant wages (Council of Economic Advisers 2016)? In a competitive market, undersupply would lead to higher wages and increased entry to the field. If wages are inefficiently underpriced, we end up without enough nurses and ballooning healthcare costs. (Not to mention that, in the case of nurses, we end up with worse health outcomes for consumers!) This is part of the reason it is so problematic to interpret the consumer welfare standard to mean that short-term consumer prices are increased: presumed price effects could be irrelevant or misleading as to the overall effect on consumers. Antitrust enforcement is supposed to be dynamic and to be able to keep up with the state of economic theory.5 But this cross-pollination is not in evidence. For example, even though inefficiency anywhere in the supply chain leads to worse outcomes for consumers, product market cases outnumber labor market cases by a factor of nearly 15, and in mergers by closer to 35. Moreover, no recent merger has been blocked on the basis of labor market effects alone (Levi 1948, 540, fn10). A quick foray into how antitrust law has developed follows.

#### Employee welfare increases innovation---improves talent retention and productivity.

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As innovation requires the active participation of every employee in the corporation (Dougherty, 1992; Van de Ven, 1986), it is important to increase employee participation in innovation activities. Implementing a series of employee-friendly policies, such as improving employee compensation (Mas, 2006), providing employees with a more comfortable working environment (Faleye and Trahan, 2011), and offering work-family benefits (Meyer et al., 2001), can alleviate employees’ worries, improve their recognition by the corporation, reduce the employee turnover rate and help retain outstanding talents. Therefore, employee welfare may enhance corporate innovation by helping the corporation to retain outstanding talents. Taylor (1911) points out that if employees are regarded as unskilled labor without special status, then employee welfare is a wasteful expenditure. However, with the development of technology and the corporations, the role of employees has also undergone tremendous changes. Highly competitive business environment and human capital-intensive corporation form force corporations to pay more attention to innovation capability (Edmans, 2011). At the same time, technological progress has also increased the demand for highly motivated and well-educated labors to meet the requirements of new technologies. Therefore, it is becoming more and more important to rely on a series of employee welfare policies, such as improving the working environment and enhancing employee treatment, to retain employees and stimulate their enthusiasm and creativity. As we all know, innovation is characterized by long-term and high risks (Holmstrom, 1989), which requires the long-term and stable participation of talented employees. The corporations can increase employee loyalty and productivity by improving employee benefits, such as generous salary, comfortable and safe working environment, good employee care and protection, and attractive retirement protection (Bloom et al., 2011), so as to retain talents for the corporation and attract excellent employees to join (Chen et al., 2016a). At the same time, employees who have solved their worries can increase their risk tolerance and be more willing to improve efficiency (Tian and Wang, 2011; Chen et al., 2016b). Therefore, employee welfare may enhance corporate innovation by improving the inventor efficiency. Innovation requires not only the long-term investment of corporates and the active participation of employees, but also a good external ecological environment. The attention and active publicity of news media will also have a significant impact on the innovation investment of corporates. Corporates with good employee welfare often enjoy good social reputation, which can attract more and better talents to join in and promote innovation efficiency. At the same time, they can also get more positive reports from the media (Ben-Nasr and Ghouma, 2018), creating a relaxed and harmonious external environment for corporates, leading to the improvement of corporates innovation level.

#### Slow growth collapses the liberal order AND causes global hotspot escalation---extinction.

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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.

#### It overcomes traditional barriers to conflict.

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Economic recovery efforts since the 2008-2009 global financial crisis have mainly depended on unconventional monetary policies. As fears rise of yet another international financial crisis, there are growing concerns about the increased possibility of large-scale military conflict. More worryingly, in the current political landscape, prolonged economic crisis, combined with rising economic inequality, chauvinistic ethno-populism as well as aggressive jingoist rhetoric, including threats, could easily spin out of control and ‘morph’ into military conflict, and worse, world war. Crisis responses limited The 2008-2009 global financial crisis almost ‘bankrupted’ governments and caused systemic collapse. Policymakers managed to pull the world economy from the brink, but soon switched from counter-cyclical fiscal efforts to unconventional monetary measures, primarily ‘quantitative easing’ and very low, if not negative real interest rates. But while these monetary interventions averted realization of the worst fears at the time by turning the US economy around, they did little to address underlying economic weaknesses, largely due to the ascendance of finance in recent decades at the expense of the real economy. Since then, despite promising to do so, policymakers have not seriously pursued, let alone achieved, such needed reforms. Instead, ostensible structural reformers have taken advantage of the crisis to pursue largely irrelevant efforts to further ‘casualize’ labour markets. This lack of structural reform has meant that the unprecedented liquidity central banks injected into economies has not been well allocated to stimulate resurgence of the real economy. From bust to bubble Instead, easy credit raised asset prices to levels even higher than those prevailing before 2008. US house prices are now 8% more than at the peak of the property bubble in 2006, while its price-to-earnings ratio in late 2018 was even higher than in 2008 and in 1929, when the Wall Street Crash precipitated the Great Depression. As monetary tightening checks asset price bubbles, another economic crisis — possibly more severe than the last, as the economy has become less responsive to such blunt monetary interventions — is considered likely. A decade of such unconventional monetary policies, with very low interest rates, has greatly depleted their ability to revive the economy. The implications beyond the economy of such developments and policy responses are already being seen. Prolonged economic distress has worsened public antipathy towards the culturally alien — not only abroad, but also within. Thus, another round of economic stress is deemed likely to foment unrest, conflict, even war as it is blamed on the foreign. International trade shrank by two-thirds within half a decade after the US passed the Smoot-Hawley Tariff Act in 1930, at the start of the Great Depression, ostensibly to protect American workers and farmers from foreign competition! Liberalization’s discontents Rising economic insecurity, inequalities and deprivation are expected to strengthen ethno-populist and jingoistic nationalist sentiments, and increase social tensions and turmoil, especially among the growing precariat and others who feel vulnerable or threatened.Thus, ethno-populist inspired chauvinistic nationalism may exacerbate tensions, leading to conflicts and tensions among countries, as in the 1930s. Opportunistic leaders have been blaming such misfortunes on outsiders and may seek to reverse policies associated with the perceived causes, such as ‘globalist’ economic liberalization. Policies which successfully check such problems may reduce social tensions, as well as the likelihood of social turmoil and conflict, including among countries. However, these may also inadvertently exacerbate problems. The recent spread of anti-globalization sentiment appears correlated to slow, if not negative per capita income growth and increased economic inequality. To be sure, globalization and liberalization are statistically associated with growing economic inequality and rising ethno-populism. Declining real incomes and growing economic insecurity have apparently strengthened ethno-populism and nationalistic chauvinism, threatening economic liberalization itself, both within and among countries. Insecurity, populism, conflict Thomas Piketty has argued that a sudden increase in income inequality is often followed by a great crisis. Although causality is difficult to prove, with wealth and income inequality now at historical highs, this should give cause for concern. Of course, other factors also contribute to or exacerbate civil and international tensions, with some due to policies intended for other purposes. Nevertheless, even if unintended, such developments could inadvertently catalyse future crises and conflicts. Publics often have good reason to be restless, if not angry, but the emotional appeals of ethno-populism and jingoistic nationalism are leading to chauvinistic policy measures which only make things worse. At the international level, despite the world’s unprecedented and still growing interconnectedness, multilateralism is increasingly being eschewed as the US increasingly resorts to unilateral, sovereigntist policies without bothering to even build coalitions with its usual allies. Avoiding Thucydides’ iceberg Thus, protracted economic distress, economic conflicts or another financial crisis could lead to military confrontation by the protagonists, even if unintended. Less than a decade after the Great Depression started, the Second World War had begun as the Axis powers challenged the earlier entrenched colonial powers. They patently ignored Thucydides’ warning, in chronicling the Peloponnesian wars over two millennia before, when the rise of Athens threatened the established dominance of Sparta! Anticipating and addressing such possibilities may well serve to help avoid otherwise imminent disasters by undertaking pre-emptive collective action, as difficult as that may be.

#### Income inequality is high---wage growth is artificial---only the plan solves.

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Newly available wage data from the Social Security Administration allow us to analyze wage trends for the top 1.0% and other very high earners as well as for the bottom 90% during 2020. The upward distribution of wages from the bottom 90% to the top 1.0% that was evident over the period from 1979 to 2019 was especially strong in the 2020 pandemic year, yielding historically high wage levels and shares of all wages for the top 1.0% and 0.1%. Correspondingly, the share of wages earned by the bottom 95% fell in 2020.

Two features of the pandemic economy distorted wage patterns in 2020 and led to faster wage growth, especially at the top. One feature was that inflation grew at a subdued 1.2% rate, boosting the average real wage (but not affecting distribution). A second feature was that, as employment fell (the number of earners fell by 1.7 million, or 1.6%) and unemployment rose (to 8.1%), the composition of the workforce changed. Specifically, job losses were heaviest for lower wage workers so the mix of jobs shifted toward higher paying ones, artificially boosting average wages (see Gould) and generating faster measured wage growth especially in the bottom half.

For last year, the data (Table 1) show annual wages rising fastest for those in the top 1.0% (up 7.3%) and top 0.1% (up 9.9%) while those in the bottom 90% saw wages grow by just 1.7%.

This continuous growth of wage inequality undercuts wage growth for the bottom 90% and reaffirms the need to place generating robust wage growth for the vast majority and rebuilding worker power at the center of economic policymaking. See Mishel and Bivens (2021) for the evidence that an erosion of worker power due to excessive unemployment, eroded collective bargaining, corporate-driven globalization, weaker labor standards, new employer-mandated agreements (such as noncompetes), and supply-chain dominance explains wage suppression and wage inequality growth.

#### Studies to the contrary are lobbyist hype.

Kate Kaye 20. Award-winning multimedia journalist who has chronicled the evolution of digital media, data use and technology. "In Portland Debate, Facial Recognition Giants Hide Behind Tech Lobby Think Tank". No Publication. 2-2-2020. https://redtailmedia.org/2020/01/20/in-portland-debate-facial-recognition-giants-hide-behind-tech-lobby-think-tank/

Enter Information Technology and Innovation Foundation and its article in the state’s biggest newspaper. ITIF may not be well-known in Rip City, but the think tank is led by lobbyists working for some of tech’s best-known names – many of which would benefit from the proliferation of facial recognition.

Several ITIF board members are lobbyists for the biggest facial recognition players:

* Frederick Humphries, Jr, VP government affairs for Microsoft
* Cynthia Hogan, VP public policy for Apple
* Shannon Kellogg, VP of public policy for Amazon
* Jason Oxman, president and CEO of tech industry trade group International Technology Industry Council (members include Amazon, Google, Facebook and IBM)

Google lists ITIF among groups “that receive the most substantial contributions from Google’s U.S. Government Affairs and Public Policy team.” This 2017 Gizmodo article by Libby Watson provides a good roundup of the group’s funding, and its efforts to squelch regulations it views as anti-tech.

Daniel Castro, ITIF’s vice president said the group’s analyst team operates separately from its board as well as its development and fundraising staff. “I don’t even really interact with our board,” he said. “They don’t peer over our shoulders and get advanced copies of what we are going to say.”

The group will not name specific funders. Jackie Whisman, ITIF’s VP of development and outreach said in an email ITIF funding comes from “a diverse range of corporations, charitable foundations, government agencies, and individual contributors” and “corporate support comes from a diverse range of industries, including everything from advanced manufacturing to telecommunications, creative content, IT hardware, software and services, Internet, and life sciences.”

Winning Hearts and Minds

A quick search shows ITIF has been in the business of facial recognition influence peddling since at least 2018. The group has placed opinion articles in publications warning that facial recognition bans will hinder safety and stifle innovation. Its Vice President Daniel Castro gave testimony at a House Oversight Committee hearing on facial recognition technology the same day the Oregonian article ran.

The group joined a coalition of tech and security entities that sent an open letter to Congress in September. The letter’s message reflected the one in the Oregonian article, and noted that “Bans would keep this important tool out of the hands of law enforcement officers, making it harder for them to do their jobs efficiently, stay safe, and protect our communities.”

ITIF’s Oregonian article also argues that facial recognition is a helpful security tool. “One of the top benefits of facial recognition technology is improved public safety.”

Perhaps the most ardent supporter in local government of a ban has been Portland City Commissioner Jo Ann Hardesty (above). She told RedTail last year she believed outlawing government, police and private use of facial recognition would prevent the spread of tech that has a disparate impact on people of color. She also argued use of facial recognition technology by law enforcement could chip away at civil liberties and data privacy rights.

The Problem with Taking Research at Face Value

The ITIF column implies that city government’s evaluation of a facial recognition ban, particularly in the law enforcement context, is influenced by “inaccurate claims about the technology.” It mentions how some concern about facial recognition is based on an American Civil Liberties Union study which found that Amazon’s Rekognition software incorrectly identified 28 members of Congress as people who had been arrested for crimes.

ITIF argues, the ACLU’s “results have been shown to be spurious.” The article points to Amazon’s own defense against the ACLU’s findings. Amazon — a close affiliate of ITIF and a prominent facial recognition tech developer — said the ACLU’s test results were moot because the civil liberties defender did not apply the appropriate settings recommended by Amazon for public safety use of its system.

But, after damning the ACLU’s research, The ITIF article goes on to cite its own. And its interpretation of that research warrants some inspection. The article states:

“It is likely that the majority of Portlanders would not want the technology banned. In fact, a poll conducted by our partner organization found that fewer than one in five Americans agree with limitations on facial recognition technology that come at the expense of public safety, which clearly a ban would do.”

The “partner organization” that conducted the study is the Center for Data Innovation. Its top senior staff? Daniel Castro, ITIF’s own vice president, along with Eline Chivot, senior policy analyst for both organizations. In other words, for all intents and purposes, ITIF is citing its own study, one it conducted under the auspices of its closely-linked sibling.

The survey used in the study asked, “Agree or disagree? The government should strictly limit the use of facial recognition technology even if it comes at the expense of public safety.” Eighteen percent of respondents said they strongly or somewhat agree, while 55% said they somewhat or strongly disagree.

This 18% is what ITIF refers to in the article’s claim that “fewer than one in five Americans” is OK with limiting facial recognition even if it hinders public safety.

center\_data\_innovation\_facialrecog\_study2

But 18+55=73. What happened to the remaining 27%?

The study results show that portion of respondents neither agreed nor disagreed with the statement. And the organization’s own chart highlighting results ignores this group entirely. But consider an interpretation combining those groups – the 18% who agree and the 27% who are unsure. That makes for a far more significant 45% who either agree or are unsure.

Policy through Honesty and Transparency

So, here we have instances of two organizations on opposite sides conducting their own research to support their opposing sides of a highly-contested debate that affects how governments craft policy for technologies that have life-altering impacts.

There is facial recognition research out there that is respected by both researchers in corporate tech and privacy and civil liberties groups; that’s the research provided by the National Institutes of Standards and Technology. In December, NIST finally published its long-awaited study of facial recognition algorithms and their demographic effects.

Scientific American’s coverage of the NIST study notes, “many of these algorithms were 10 to 100 times more likely to inaccurately identify a photograph of a black or East Asian face, compared with a white one. In searching a database to find a given face, most of them picked incorrect images among black women at significantly higher rates than they did among other demographics.”

No matter what side we’re on, we should all want reliable research when it comes to evaluating automated systems that could be used to decide if someone is arrested or if someone is allowed in a convenience store like the Jacksons in SE Portland (more on that here and in this video).

Like many others, this situation illustrates the need for media literacy. The NIST research itself states that “Reporting of demographic effects often has been incomplete in academic papers and in media coverage.” One glance at NIST’s most recent research illustrates the deep complexity of facial recognition, the issues it raises and the limits of splashy headlines, soundbytes and tweets.

We are immersed in an increasingly muddled information landscape where few people have the inclination or media literacy tools to inspect who’s behind the “expert” opinions offered in the local paper. But these opinions could sway attitudes about important government policy.

A discussion involving multiple voices and opinions is healthy. However, the conversation around Portland’s potential facial recognition ban is corrupted when tech giants seek to influence it by hiding behind the cloak of a seemingly impartial third party.

#### They’re paid off by big tech.

Debra Kaufman 20. "Amazon, Google, Qualcomm Support Global Antitrust Institute". ETCentric. 7-28-2020. https://www.etcentric.org/amazon-google-qualcomm-support-global-antitrust-institute/

Last year, the Global Antitrust Institute, part of the Antonin Scalia Law School at George Mason University, organized and paid for a weeklong conference in California for antitrust regulators from 30 foreign countries, including Australia, Brazil, China and Japan. At the conference, these officials attended classes that were described as continuing education to learn more about the economic foundation of competition regulations. According to attendees and critics, however, the message of the conference also benefited Big Tech companies.

The New York Times reports that, “the sessions were more about delivering a clear message to international officials that benefited the companies paying for the event … [that] the best way to foster competition is to maintain a hands-off approach to antitrust law.”

Among the companies supporting the event were Amazon, Google, Qualcomm and other Big Tech firms facing antitrust probes, all of them major corporate donors to the Global Antitrust Institute. In researching documents, NYT found “donation checks for hundreds of thousands of dollars from Google and Amazon, as well as a three-year, multimillion-dollar donation agreement from Qualcomm,” which were “a key component of the institute’s $2.1 million budget in the year that ended in June 2019.”

NYT found emails that “showed how the institute cultivated and tapped relationships with top competition officials” and that its director, Joshua Wright, “has longstanding ties to Google … [and has] worked closely with tech companies to fend off antitrust criticism.”

### FTC---1AC

#### Advantage 2 is the FTC---

#### FTC promised labor protection---they’ll lose now without congressional action.

Nicolás Rivero 21. NU Graduate. "Biden’s antitrust crusaders can’t crusade without Congress". Quartz. 3-11-2021. https://qz.com/1982437/lina-khan-and-tim-wu-need-congress-to-push-their-antitrust-agenda/amp/

US president Joe Biden is poised to promote two of the country’s most prominent anti-monopoly crusaders to top jobs in his administration. The moves signal that Biden is serious about cracking down on dominant companies that include Facebook, Google, Amazon, and Apple. But for the president’s trustbusting champions to make a real impact, they’ll need support from Congress. Biden appointed Columbia law professor Tim Wu to the National Economic Council (NEC) as his top advisor on technology and competition on March 5. Politico reports that Biden will soon follow up by nominating Lina Khan, also a Columbia law professor, to the Federal Trade Commission (FTC). (Before she can take her seat as one of the antitrust agency’s five commissioners, Khan must be confirmed by the Senate.) Khan and Wu are two of the leading voices in a new movement of legal thought that argues the US should fundamentally overhaul the way it approaches antitrust. The crux of their argument is that courts should broaden the values they consider when deciding whether to block a merger or break up a dominant company. Rather than focus narrowly on the impact a company has on consumer prices, they argue that judges should also think about a company’s impact on small businesses, labor rights, and the health of democracy. Khan and Wu have already secured a win for their cause just by being appointed—essentially a White House stamp of approval on their viewpoints. But despite much handwringing from industry groups, neither appointee will be able to single-handedly remake American antitrust in their image. How the FTC can tackle antitrust To be sure, Wu can advocate loudly for his preferred policies from his perch at the NEC, which advises the president on economic policy. And if Khan makes it to the FTC, which is the top US antitrust enforcement agency, she’ll have direct influence over which investigations the agency prioritizes, which lawsuits it brings, and whether its prosecutors will ask judges to impose fines, break up dominant firms, or require them to change their business practices. But there are clear limits to their power. The most the FTC can do is bring more antitrust cases that ask courts for more aggressive remedies, like breakups. That would allow the agency to make a point about what it considers acceptable business behavior. But many of those lawsuits would be bound to lose in front of judges who have grown far more skeptical of antitrust cases over the past four decades and far more conservative over the past four years. A larger caseload would also require Congress to approve more funding for the cash-strapped agency, which is already struggling to pay for its current docket. “The agencies have been asked on many occasions to do a lot with relatively little…but it’s not for free,” says former FTC chair and George Washington University law professor Bill Kovacic. If the FTC wants to pursue more large cases without a bigger budget, “they’ll have to make choices, and those choices will involve backing off of other areas of enforcement.” The FTC could also decide to dust off its rarely used rule-making power and declare certain anticompetitive business practices illegal. But any new rule would almost certainly trigger legal challenges, which would spark a long, expensive court battle in front of judges who aren’t likely to be sympathetic. Kovacic estimates the process could take four or five years—and in the end, judges might just strike the rule down. How Congress can tackle antitrust The best hope for stricter antitrust enforcement lies in Congress. Lawmakers could pass bills, like one recently proposed by Minnesota senator Amy Klobuchar, that would make it easier for enforcement agencies to challenge mergers and acquisitions. They could even go a step further and draft an updated set of antitrust laws, perhaps following the blueprint laid out in last year’s antitrust report from the House of Representatives (which was co-authored by Khan). Armed with new laws clearly banning specific behaviors, prosecutors at the Department of Justice and the FTC would stand a better chance winning cases against well-funded adversaries like Facebook and Google. Those steps wouldn’t hinge on heroics from antitrust hardliners like Khan and Wu. Instead, their success would depend on the whims of Senate centrists like West Virginia’s Joe Manchin, who has lately been flexing his power to derail the chamber’s democratic majority in opposition to left-wing priorities like a $15 minimum wage. Ultimately, Congress should be the body that sets US antitrust policy. It has the clearest authority to ban the bullying business tactics for which Big Tech firms have been criticized. Legislative fixes are likely to be quicker and less vulnerable to court challenges—not to mention more democratic—than changing FTC rules. And it has traditionally been Congress’s prerogative to keep the country’s antitrust policy up to date: Legislators updated the monopoly laws every two decades or so between 1890 and 1950 to respond to new threats. They’ve just neglected that tradition for the past 70 years.

#### That decimates the FTC.

Marianela Lopez-Galdos 7/28/21. Global Competition Counsel at the Computer& Communications Industry Association, previously served as Director of Competition & Regulatory Policy, and is a professor at George Washington University Competition Law Center and at the University of Melbourne Law School. “Policy Decisions of Antitrust Institutions Series: The Future of the FTC and Its Perils”. Disruptive Competition Project. https://www.project-disco.org/competition/072821-policy-decisions-of-antitrust-institutions-series-the-future-of-the-ftc-and-its-perils/

But the current FTC leadership seems to have overlooked the agency’s history. As such, it has already promised to produce different policy outcomes and noted that the Section 5 Policy Guidelines were shortsighted. As a result, the current FTC has decided, with the support of the other two Democratic Commissioners, to rescind the Policy Guidelines. It is unknown whether the current FTC will try to adopt different guidelines or whether it will start opening more cases under Section 5 of the FTC Act. Furthermore, it is less clear whether the new FTC leadership currently counts with the sufficient and aligned Neo-Brandeisian human talent to bring solid cases that are not based on the consumer welfare standard or to litigate before judges that support the Neo-Brandeisian vision of antitrust. What seems clear is that the new agency’s leader might find it hard to bring all Commissioners to an agreement with respect to what the agency can do with Section 5 of the FTC Act, and this situation, in and of itself, puts the agency in peril. The FTC’s Rulemaking Authority Another important policy change that may be detrimental to the FTC is its expressed willingness to expand the agency’s rulemaking authority under, e.g., Section 18 of the FTC Act. It is well known that in addition to its authority to investigate law violations by individuals and businesses, the FTC also has federal rulemaking authority to issue industry-wide regulations. However, the agency’s rulemaking authority has been self-limited since the 80s in an effort to ensure the institution doesn’t overuse its capacity to adopt industry-wide regulations and raise concerns with those policy makers that are against the legislature deferring its core mandate to an independent agency that doesn’t represent the people. Traditionally the legislature has the constitutional mandate to create laws affecting different sectors of the economy. Whereas it is legally accepted to design independent agencies with constrained mandates to adopt regulations, such powers are not necessarily understood to construe independent agencies as substitutes for the legislature’s powers. It is a basic tenet of administrative law, that agencies are constrained by the enabling statute that gives them authority to promulgate regulations in the first place. Against this background, it seems risky for the new leadership to engage in broad rulemaking endeavors that might raise concerns from an institution legitimacy perspective. In the long term, it is predictable that many policymakers might not be supportive of an agency that implements its rulemaking authority in its broadest sense. As a result, some degree of political backlash against the agency might not help the agency’s lifecycle, especially if the agency is not granted with specific legislative guidance in the form of new legislation. The Future of the FTC One of the most challenging matters to tackle when it comes to leadership of antitrust authorities, or administrative agency for that matter, is legacy and the impact for the future of the agency. To put it simply, while antitrust leaders leave agencies, the side effects of leadership’s successes and failures condition the future of the agencies. Their leadership has consequences and sets precedent which will bind the agency well into the future. Under the current political context, it would not be surprising if the current Neo-Brandeisian FTC enjoyed political support and success with its decision to bring big cases, especially against leading tech companies. In the short term, if the FTC makes headlines for opening cases against “Big Tech”, policymakers pushing for antitrust reforms will surely applaud the new changes as they would reflect a commitment to enhanced enforcement outcomes notwithstanding the strength of the cases. However, in the mid-and long-term, if the FTC loses the big cases, the commitment to policy outcomes won’t be met. And then, it is unlikely that the question would be whether the antitrust norms are fit for today’s economy, but rather if the agency is capable of executing its mandate effectively. The recent decision in the FTC v. Facebook case is a good example of this paradigm, where the Judge expressed that the FTC had not carried out a sufficiently robust analysis supported by evidence, and therefore dismissed the case. Eventually, the agency’s short-term reputational gains could quickly turn into a debacle for the institution itself with the caveat that by then, most probably, Neo-Brandeisian leadership will be long gone. Unfortunately then, the U.S. antitrust system — which is the only one to keep two federal antitrust agencies, bringing about positive outcomes for consumers — might be at risk. Political support to merge these two institutions could gain even more support, as has happened in the past, to the detriment of consumers.

#### Trust solves scams.

Testimony of Ted Mermin 21. Executive Director Center for Consumer Law & Economic Justice UC Berkeley School of Law. Before the United States House of Representatives Committee on Energy & Commerce Subcommittee on Consumer Protection and Commerce Hearing on “The Consumer Protection and Recovery Act: Returning Money to Defrauded Consumers”. https://docs.house.gov/meetings/IF/IF17/20210427/112501/HHRG-117-IF17-Wstate-MerminT-20210427.pdf

10. Trust the FTC. This final step informs all the others. There can be no doubt that there is more work to do protecting consumers than the FTC currently has the tools or resources to accomplish. There is also no doubt that the FTC has been trammeled in ways that its sister agencies, federal and state, have not. Whatever the reason, it is high time to retire the “zombie ideas” about the FTC – that the Commission is unnecessary, or overreaching, or heavy-handed, or inefficient.23 It is time, as one commissioner stated in Senate testimony last week, to “turn the page on the FTC’s perceived powerlessness.”24 For an American public eager for greater – not lesser – protection from increasingly sophisticated scam artists, deceptive advertisers, and privacy violating tech companies, building an effective FTC is an easy decision. It can and should be for this committee as well. IV. Conclusion This subcommittee meets at a remarkable historical moment, when the COVID-19 pandemic has revealed the profound need for a robust Federal Trade Commission just days after the Supreme Court made action by Congress an absolute necessity. This is a perilous time, with the chief protector of American consumers rendered nearly powerless just when those consumers are experiencing a heightened threat resulting from a once-in-a-century pandemic. The Consumer Protection and Recovery Act provides a critical first step toward restoring authority and effectiveness to the nation’s leading consumer protection agency. Swift action to restore the FTC’s traditional 13(b) authority means that when constituents contact your office, and tell your staff that they have lost their life’s savings to a work-at-home scam, or their identity has been stolen and someone has opened accounts in their name, or they just spent their stimulus payment on a supposed cure for COVID for their grandmother who’s on a respirator – there will still be an agency to refer them to. No one wants that staffer to have to add: “Well, we could send you to the FTC, but they don’t actually have the power to get you your money back.” Inaction or delay will mean no recovery for millions of wronged American consumers. The time to pass the Consumer Protection and Recovery Act is now.

#### Scamming causes extinction.

Casey Newton 20. Verge contributing editor. "The massive Twitter hack could be a global security crisis". Verge. 7-15-2020. https://www.theverge.com/interface/2020/7/15/21325708/twitter-hack-global-security-crisis-nuclear-war-bitcoin-scam

Beginning in the spring of 2018, scammers began to impersonate noted cryptocurrency enthusiast Elon Musk. They would use his profile photo, select a user name similar to his, and tweet out an offer that was effective despite being too good to be true: send him a little cryptocurrency, and he’ll send you a lot back. Sometimes the scammer would reply to a connected, verified account — Musk-owned SpaceX, for example — giving it additional legitimacy. Scammers would also amplify the fake tweet via bot networks, for the same purpose. The events of 2018 showed us three things. One, at least some people fell for the scam, every single time — certainly enough to incentivize further attempts. Two, Twitter was slow to respond to the threat, which persisted well beyond the company’s initial comments that it was taking the issue seriously. And three, the demand from scammers coupled with Twitter’s initial measures to fight back set up a cat-and-mouse game that incentivized bad actors to take more drastic measures to wreak havoc. That brings us to today. The story picks up with Nick Statt in The Verge: The Twitter accounts of major companies and individuals have been compromised in one of the most widespread and confounding hacks the platform has ever seen, all in service of promoting a bitcoin scam that appears to be earning its creator quite a bit of money. We don’t know how it’s happened or even to what extent Twitter’s own systems may have been compromised. The hack appears to have subsided, but new scam tweets were posting to verified accounts on a regular basis starting shortly after 4PM ET and lasting more than two hours. Twitter acknowledged the situation after more than an hour of silence, writing on its support account at 5:45PM ET, “We are aware of a security incident impacting accounts on Twitter. We are investigating and taking steps to fix it. We will update everyone shortly.” Among the hacked accounts were President Barack Obama, Joe Biden, Amazon CEO Jeff Bezos, Bill Gates, the Apple and Uber corporate accounts, and pop star Kanye West. But they came later. The first prominent individual account to be compromised? Elon Musk, of course. Within the first hours of the attack, people were duped into sending more than $118,000 to the hackers. It also seems possible that a great number of sensitive direct messages could have been accessed by the attackers. Of even greater concern, though, is the speed and scale at which the attack unfolded — and the national security concerns it raises, which are profound. The first and most obvious question is, of course, who did this and how? And at press time, we don’t know. At Vice, Joseph Cox, one of the best security reporters I know, reported that members of the underground hacking community are sharing screenshots suggesting someone gained access to an internal Twitter tool used for account management. Cox writes: Two sources close to or inside the underground hacking community provided Motherboard with screenshots of an internal panel they claim is used by Twitter workers to interact with user accounts. One source said the Twitter panel was also used to change ownership of some so-called OG accounts—accounts that have a handle consisting of only one or two characters—as well as facilitating the tweeting of the cryptocurrency scams from the high profile accounts. Twitter has been deleting screenshots of the panel and has suspended users who have tweeted the screenshots, claiming that the tweets violate its rules. To speculate much further would be irresponsible, but Cox’s reporting suggests that this is not a garden-variety hack in which a bunch of people reused their passwords, or a hacker used social engineering to convince AT&T to swap a SIM card. One possibility is that hackers accessed internal Twitter tools; another that Cox raises is that a Twitter employee was involved in the incident — which, if true, would make this the second inside job revealed at Twitter this year. In any case, Twitter’s response to the incident offered further cause for distress. The company’s initial tweet on the subject said almost nothing, and two hours later it had followed only to say what many users were forced to discover for themselves: that Twitter had disabled the ability of many verified users to tweet or reset their passwords while it worked to resolve the hack’s underlying cause. The near-silencing of politicians, celebrities, and the national press corps led to much merriment on the service — see this, along with Those good tweets below, for some fun — but the move had other, darker implications. Twitter is, for better and worse, one of the world’s most important communications systems, and among its users are accounts linked to emergency medical services. The National Weather Service in Lincoln, IL, for example, had just tweeted a tornado warning before suddenly going dark. To the extent that anyone was relying on that account for further information about those tornadoes, they were out of luck. Of course, Twitter’s move to stop verified accounts from tweeting represents a difficult balancing on equities. You would probably rather the National Weather Service not tweet than a hacker sell the account to a bad actor who logs in and falsely suggests that tornadoes are sweeping through every city in America. But the ham-fisted approach to resolving the issue — banning a huge portion of 359,000 verified accounts — reflects the staggering scale of the breach. This is as close to pulling the plug on Twitter as Twitter itself has ever come. And that makes you wonder what contingencies the company has put into place in the event that it is someday taken over not by greedy Bitcoin con artists, but state-level actors or psychopaths. After today it is no longer unthinkable, if it ever truly was, that someone take over the account of a world leader and attempt to start a nuclear war. (A report on that subject from King’s College London came out just last week.) It is in such a world that I find myself in the unusual position of agreeing with Sen. Josh Hawley, the Missouri Republican who among other things wants to end content moderation. He wrote a letter to Twitter CEO Jack Dorsey, and I found myself agreeing with all of it: “I am concerned that this event may represent not merely a coordinated set of separate hacking incidents but rather a successful attack on the security of Twitter itself. As you know, millions of your users rely on your service not just to tweet publicly but also to communicate privately through your direct message service. A successful attack on your system’s servers represents a threat to all of your users’ privacy and data security.” And yet even Hawley doesn’t go far enough. The threat here is not simply user privacy and data security, though those threats are real and substantial. It is about the striking potential of Twitter to incite real-world chaos through impersonation and fraud. As of today, that potential has been realized. And I can only worry about how, with a presidential election now less than four months away, it might be realized further. Twitter will likely spend the next several days investigating how this incident took place. A criminal investigation seems likely, during which the company may not be able to fully describe Wednesday’s events to our satisfaction. But it is vital that as soon as possible, Twitter share as much about what happened today as it can — and, just as importantly, what it will do to ensure that it never happens again. After Wednesday’s catastrophe, it hardly seems like hyperbole to suggest that our world could hang in the balance.

#### FTC’s enforcement reputation solves global emerging tech---leadership and legitimacy are key.

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Despite these limitations, the FTC has a formidable reputation as an enforcement authority, and commercial entities, and their lawyers, pay close attention to its orders and decisions.248 For example, when the FTC issues a complaint, it is published on the FTC’s website, which often generates significant attention in the privacy community.249 One reason for this is the fear firms have of the FTC’s auditing process, which not only is “exhaustive and demanding,” but can last for as long as 20 years.250 As such, the FTC settles most of the enforcement actions it initiates.251 Firms are motivated to settle with the FTC because they can avoid having to admit any wrongdoing in exchange for taking remedial measures, and thus they also avoid the costs to their reputation from apologizing.252 Though done by necessity, the rule-making process the FTC engages in with its consent orders and settlement agreements can be of benefit when regulating emerging technologies. 253 For one, it allows the flexibility needed to adapt to new and rapidly changing situations.254 Further, the FTC can wait and see if an industry consensus develops around a particular standard before codifying that rule through its enforcement actions.255 As with the common law, which has long demonstrated the ability to adjust to technological changes iteratively, the FTC’s incremental case-bycase approach can help minimize the risks of producing incorrect or inappropriate regulatory policy outcomes.256 In addition to its use of consent orders and settlement agreements, the FTC has created a type of “soft law” by issuing guidelines, press releases, workshops, and white papers.257 Unlike in enforcement actions, where the FTC looks at a company’s conduct and sees how its behavior compares to industry standards, the FTC arrives at the best practices it develops for guidance purposes through a “deep and ongoing engagement with all stakeholders.”258 As such, not only is the FTC’s authority broad enough to regulate the use of emerging technologies such as AI in commerce, but the FTC’s enforcement actions also constitute a body of jurisprudence the FTC can rely on to address the real and potential harms that stem from the deployment of consumeroriented AI.259 Given its broad grant of authority, the regulatory tools at its disposal, and its experience dealing with emerging technologies, the FTC is currently in the best position to take the lead in regulating AI. The FTC’s leadership is sorely needed to fill in the remaining – and quite large – gaps in those few sectoral laws that specifically address AI and algorithmic decision-making.260 Several factors make the FTC the ideal agency for this role. First, the FTC can use its broad Section 5 powers to respond rapidly and nimbly to the types of unanticipated regulatory issues AI is likely to create.261 Second, the FTC has an established history of approaching emerging technologies with “a light regulatory touch” during their beginning stages, waiting to increase its regulatory efforts only once the technology has become more established.262 This approach provides the innovative space needed for new technologies such as AI to develop to their full potential. Thus, as it has in the past, the FTC would focus on disclosure requirements rather than conduct prohibition, and take a case-by-case approach rather than rely on rulemaking.263 Also, as it has traditionally done, the FTC can hold public events on consumer-related AI and issue reports and white papers to guide industry.264 In other words, the FTC has long taken a co-regulatory approach to regulation, which it can and should proceed to do with AI. As in other emerging technology areas, this will help industry continue to grow and innovate, while allowing for the calibration among all relevant stakeholders of the “appropriate expectations” concerning the use and deployment of AI decision-making systems.265 At the same time, the FTC should use its regulatory powers to nudge, and when necessary, push companies to refrain from engaging in unfair and deceptive trade practices in the design and deployment of AI systems.266 The FTC should also place the onus on firms that design and implement those systems to ensure misplaced or unrealistic consumer expectations about AI are corrected.267 By nudging (or pushing) firms in this way, the FTC can “gradually impose a set of sticky default practices that companies can only deviate from if they very explicitly notify consumers.”268 In terms of disclosure requirements, as it has done in other contexts, the FTC can develop rules and guidelines for “when and how a company must disclose information to avoid deception and protect a consumer from harm,” which can include requiring firms to adopt the equivalent of a privacy policy. 269 Given the black box like nature of most algorithmic decision-making processes, there is much that AI developers might have to disclose to prevent those processes from being deemed unfair or deceptive.270 In addition, given its broad authority under Section 5, the FTC is able to address small, nuanced changes in AI design that could adversely affect consumers, but that other areas of law, such as tort, may not be able to adequately handle.271 Again, this is important because AI and algorithmic decision-making can pose profound and systemic risks of harm, even though the actual harm to individual consumers may be small or hard to quantify. And as it has done in the area of privacy, the FTC can become the de facto federal agency authority charged with protecting consumers from harms caused by AI systems and other algorithmic decisionmaking processes.272 The FTC also can, and should, seek to work with other agencies to address AI-related harms, given that the regulatory efforts of other agencies will still occur and be needed in specific sectors or industries, which would impact and be relevant to the FTC’s efforts as well.273 Agency cooperation is essential to ensuring regulatory consistency, accuracy, and efficiency in the type of complex, varied technological landscape that AI presents.274 This should not be a problem as the FTC’s Section 5 authority overlaps regularly with the authority of other agencies, and the FTC itself has a history of cooperating with those agencies.275 Further, the FTC can use its experience working with other agencies to build standards and policy consensus within the regulatory community and among stakeholders. 276 The overarching role the FTC has played in protecting consumer privacy within the United States also has given it legitimacy within the wider privacy community. The FTC has been pivotal over time in promoting international confidence in the United States’ ability to regulate privacy by for example acting as the essential mechanism for enforcing the Safe Harbor Agreement with the European Union.277 As it takes on a similar overarching regulatory role for AI and algorithmic decision-making processes in this country, the FTC should gain a similar level of legitimacy internationally. This is important given the increasingly cross border nature of AI research and development.

#### Unregulated emerging tech cause extinction.

Anders Sandberg et al. 08. Anders Sandberg is a James Martin Research Fellow at the Future of Humanity Institute at Oxford University. Jason G. Matheny is a PhD candidate in Health Policy and Management at Johns Hopkins Bloomberg School of Public Health. Milan M. Ćirković is senior research associate at the Astronomical Observatory of Belgrade. "How can we reduce the risk of human extinction?". Bulletin of the Atomic Scientists. 9-9-2008. https://thebulletin.org/2008/09/how-can-we-reduce-the-risk-of-human-extinction/

The risks from anthropogenic hazards appear at present larger than those from natural ones. Although great progress has been made in reducing the number of nuclear weapons in the world, humanity is still threatened by the possibility of a global thermonuclear war and a resulting nuclear winter. We may face even greater risks from emerging technologies. Advances in synthetic biology might make it possible to engineer pathogens capable of extinction-level pandemics. The knowledge, equipment, and materials needed to engineer pathogens are more accessible than those needed to build nuclear weapons. And unlike other weapons, pathogens are self-replicating, allowing a small arsenal to become exponentially destructive. Pathogens have been implicated in the extinctions of many wild species. Although most pandemics “fade out” by reducing the density of susceptible populations, pathogens with wide host ranges in multiple species can reach even isolated individuals. The intentional or unintentional release of engineered pathogens with high transmissibility, latency, and lethality might be capable of causing human extinction. While such an event seems unlikely today, the likelihood may increase as biotechnologies continue to improve at a rate rivaling Moore’s Law. Farther out in time are technologies that remain theoretical but might be developed this century. Molecular nanotechnology could allow the creation of self-replicating machines capable of destroying the ecosystem. And advances in neuroscience and computation might enable improvements in cognition that accelerate the invention of new weapons. A survey at the Oxford conference found that concerns about human extinction were dominated by fears that new technologies would be misused. These emerging threats are especially challenging as they could become dangerous more quickly than past technologies, outpacing society’s ability to control them. As H.G. Wells noted, “Human history becomes more and more a race between education and catastrophe.” Such remote risks may seem academic in a world plagued by immediate problems, such as global poverty, HIV, and climate change. But as intimidating as these problems are, they do not threaten human existence. In discussing the risk of nuclear winter, Carl Sagan emphasized the astronomical toll of human extinction: A nuclear war imperils all of our descendants, for as long as there will be humans. Even if the population remains static, with an average lifetime of the order of 100 years, over a typical time period for the biological evolution of a successful species (roughly ten million years), we are talking about some 500 trillion people yet to come. By this criterion, the stakes are one million times greater for extinction than for the more modest nuclear wars that kill “only” hundreds of millions of people. There are many other possible measures of the potential loss–including culture and science, the evolutionary history of the planet, and the significance of the lives of all of our ancestors who contributed to the future of their descendants. Extinction is the undoing of the human enterprise. There is a discontinuity between risks that threaten 10 percent or even 99 percent of humanity and those that threaten 100 percent. For disasters killing less than all humanity, there is a good chance that the species could recover. If we value future human generations, then reducing extinction risks should dominate our considerations. Fortunately, most measures to reduce these risks also improve global security against a range of lesser catastrophes, and thus deserve support regardless of how much one worries about extinction. These measures include:

#### Khan is constrained by the existing body of antitrust law---only the plan solves.

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In a September 22, 2021, memorandum to staff, Federal Trade Commission (FTC) Chair Lina Khan formally laid out her “Vision and Priorities for the FTC,” reaffirming her calls for broad antitrust enforcement organized around three key policy priorities: merger enforcement, dominant intermediaries and restrictive contract terms. The memo further describes her vision for the agency’s strategic approach and operational objectives to support those priorities. Like her prior calls for antitrust reform and aggressive enforcement,1 the policy priorities outlined by Chair Khan are somewhat abstract and do not specify concrete actions the agency will take to achieve them. However, a close review of these high-level priorities, approach and objectives reveals some **practical obstacles to implementation**, including limitations **imposed by resource constraints and the existing body of antitrust law.** Policy Priorities: Merger Enforcement, Dominant Intermediaries and Restrictive Contract Terms Chair Khan listed three policy priorities for the agency going forward. First, she identified a need to strengthen the agency’s merger enforcement work to combat what she described as rampant consolidation and the market dominance she believes that consolidation has enabled. In particular, she expressed a concern that markets “will only become more consolidated” absent FTC vigilance and assertive action. She noted that revising the merger guidelines will be important to achieve merger reform, characterizing prior iterations of the guidelines as a “somewhat narrow and outdated framework for assessing mergers.” She also highlighted a need to find ways to deter unlawful transactions, including “facially illegal deals.” Second, Ms. Khan indicated her desire to focus enforcement on “dominant intermediaries and extractive business models.” After suggesting that market power is an increasingly systemic problem in the economy, and that the FTC should devote resources to regulating the most significant actors — with “next-generation technologies, innovations, and nascent industries” requiring particular vigilance, she focused specifically on the market position of “gatekeeper” companies and “dominant middlemen.” Such entities, according to Chair Khan, have been able to “hike fees, dictate terms, and protect and extend their market power.” She also posited that the involvement of private equity and other investment vehicles may strip such businesses of productive capacity and harm consumers. In discussing the agency’s strategic approach to address these issues, Chair Khan noted her intention to “focus[] on structural incentives that enable unlawful conduct,” and to “look[] upstream at the firms that are enabling and profiting from this conduct.” Third, Ms. Khan discussed certain contract terms, including **noncompete provisions**, repair restrictions and exclusionary clauses, that she believes could constitute unfair methods of competition or unfair or deceptive trade practices. She also **advocated for a “holistic” approach to identifying harms to account for effects on workers** and independent businesses. Describing this holistic approach in broad terms, she indicated that the agency would **focus on “power asymmetries** and the unlawful practices those imbalances enable,” and the effects such conduct has, for example, on **marginalized communities**. In sharing her hopes to “further democratize the agency,” Chair Khan similarly expressed that the FTC’s work should help “shape[] the **distribution of power and opportunity** across our economy.” More generally, the memo identifies areas of investment for the agency to help achieve these priorities. This includes incorporating a greater range of analytical tools and skillsets into the agency’s work, and expanding the agency’s regional footprint to grow its ranks, including by hiring additional technologists, data analysts, financial analysts and experts from outside disciplines. Chair Khan also announced that she will name Holly Vedova and Samuel Levine, both career FTC staff (as opposed to political appointees), as the director of the Bureau of Competition and the director of the Bureau of Consumer Protection, respectively. Practical Limitations on Implementation of Chair Khan’s Policy Priorities Chair Khan describes the antitrust agenda outlined in her memorandum as “robust,” and the memo communicates her intention to attempt to reshape antitrust policy and enforcement. However, a revolutionary shift in antitrust enforcement by the FTC will **face substantial practical challenges.** Most significantly, the path to reshaping antitrust enforcement will be constrained by the substantial body of existing antitrust law and the need to convince a federal judge that the **conduct in question is unlawful**. Chair Khan’s memo generally advocates for a new, more expansive and holistic approach to identifying antitrust harms **beyond the traditional focus on consumer welfare** and price effects. However, **courts have — and will likely continue to — rely on existing standards developed** in the case law over many decades. Those standards focus on consumer welfare and predominantly price effects. **Absent legislative change**, then, a **practical gap** will persist between Chair Khan’s **vision of refocused and more assertive antitrust enforcement**, on the one hand, and **the law that would apply** to any FTC enforcement action, on the other.2

### Plan---1AC

#### The United States federal government should substantially increase prohibitions on anticompetitive private sector business practices that reduce the bargaining power of workers in labor markets.

### Solvency---1AC

#### Contention 3 is Solvency.

#### Replacing consumer welfare with worker considerations lets labor win---alternatives legalize exploitation and ban collective bargaining.

Firat Cengiz 20. School of Law and Social Justice, University of Liverpool. "The conflict between market competition and worker solidarity: moving from consumer to a citizen welfare standard in competition law". Cambridge Core. 10-8-2020. https://www.cambridge.org/core/journals/legal-studies/article/conflict-between-market-competition-and-worker-solidarity-moving-from-consumer-to-a-citizen-welfare-standard-in-competition-law/6E783D1FC4BAB5605DFABCD17FBE3F35

Introduction

This paper offers a critical investigation of the law and economics of competition law enforcement in conflicts between workers and employers in the European Union (hereinafter EU) and the US. In such cases competition law comes into direct conflict with the principle of worker solidarity: according to the principle of market competition individuals are expected to take independent economic decisions and actions, whereas workers need to take collective economic actions and decisions to protect their interests. This conflict is particularly obvious in the context of the so-called gig economy,1 in which employers keep casualised workers at legal arms’ length to reduce labour and regulatory costs.2 If gig workers take collective action against their working conditions, they might face attack from competition law, because legally they might be considered independent service providers, rather than workers.3 The legal conundrum facing gig workers has become an increasingly popular subject in the law and economics literature.4 Nevertheless, the more fundamental question of how the enforcement of competition rules affects the overall position of workers beyond the limited case of the gig economy remains largely unexplored. This paper aims to investigate this broader and more fundamental question. In order to provide a sufficiently global answer, the paper focuses on the legal positions of the EU and US, as the leading competition law jurisdictions and primary competition policy exporters.5 The EU–US comparison shows that despite the slightly different legal tests applied in these polities, competition rules constitute nearly equally disciplining mechanisms against collective worker action on either side of the Atlantic. This paper also makes an original contribution to the emerging debate on whether and how competition law can contribute to wealth equality between citizens in the post-2008 crisis economy. The existing debate on the competition law–equality relationship takes the ‘consumer welfare’ standard as its main reference point: it focuses exclusively on the distribution of wealth between consumers and producers; as a result, it overlooks the production process that takes place before consumers meet products and services, and the position of workers within it.6 This is a natural result of competition law's reliance on a limited area of neoclassical economics called ‘equilibrium economics’ that understands efficiency exclusively as a market mechanism in which the price manifests itself where supply meets demand.7 Departing from the mainstream competition law and economics methodology, this paper builds its investigation on a holistic theoretical foundation, looking beyond equilibrium economics at labour exploitation theory as established in neoclassical as well as Marxian models. This analysis shows that despite standing at opposing ends of the political spectrum and whilst having some fundamental differences, Marxist and neoclassical models agree that collective worker action is economically beneficial and socially necessary. As a result, a critical analysis of the current legal situation on both sides of the Atlantic in light of this holistic framework illustrates how competition law's hostility towards collective worker action is not only unjust but also economically unsound. This paper demonstrates that the key problem in competition law's treatment of labour stems from the application of the consumer welfare standard in cases involving the competition–solidarity conflict without paying any attention to the idiosyncratic qualities of labour that render it naturally open to exploitation. Similarly, the consumer welfare standard overlooks the fact that consumers and workers are essentially the same group of people and one's welfare cannot be increased or decreased without affecting the other's.8 Even if worker exploitation could result in reduced labour costs and decreased prices, this cannot be deemed efficient as it reduces the workers’ welfare and results in broader negative socio-economic effects. Similarly, collective worker action resulting in higher labour costs and potentially higher prices cannot automatically be deemed inefficient, because although this might increase the prices consumers pay, they benefit from higher wages and better working conditions in their position as workers. As a result of this critical analysis, the paper proposes an original and more inclusive ‘citizen welfare’ standard that takes into account the economic effects of anti-competitive behaviour on workers as well as consumers. The citizen welfare standard could also potentially be applied in other contexts to solve long-standing conflicts between competition and other policy objectives, such as industrial, environmental and social policy objectives,9 although this paper primarily focuses on the application of citizen welfare to the competition–solidarity conflict. The structure of the paper is as follows: the next section provides an opening discussion of competition law, consumer welfare and equality. This is followed by a discussion of the economic theory of labour exploitation. Then, the paper investigates how competition law approaches the competition–solidarity conflict in the EU and the US. The fourth section critically discusses the EU and US legal positions in light of economic theory. This section also develops the citizen welfare approach as an alternative to consumer welfare for the resolution of the competition–solidarity conflict. This is finally followed with conclusions. Regarding terminology, this paper uses the term ‘worker’ (rather than employee) as a non-legal, generic term encompassing all individuals who make a living by providing labour power as a production factor in the production process of goods and services. Similarly, the term ‘labour’ is used to refer to the contribution of the workers to the production process as an abstract human factor. However, if the courts or authorities in question use a different term (such as employee) in a specific case, the paper uses the same term in the discussion of that specific case.

#### Worker welfare can easily be assessed.

Eugene K. Kim 20. J.D. 2020; Yale College, B.A. 2016. “Labor’s Antitrust Problem: A Case for Worker Welfare” The Yale Law Journal. 2020. https://www.yalelawjournal.org/pdf/130.2Kim\_q1s8bt8t.pdf

Just as consumer welfare can be measured through economic factors like price, output, quality, and innovation, **courts and economic experts can assess worker welfare through a set of analogous factors:** wages and benefits, hours, working conditions,65 and training. One major tension between these two standards is that workers benefit from higher wages while consumers benefit from lower prices, but these factors capture **similar characteristics of equilibria in both markets**.66 Wages and hours are the labor-market analogs of price and quantity, and benefits can be considered along with wages as a type of compensation. **Working conditions reflect heterogeneity within a single type of employment**, just as quality reflects heterogeneity within a single type of product. And training reflects how labor markets can be dynamic, just as innovation reflects how product markets can be dynamic: that is, labor productivity can improve over time, just as firm productivity can improve over time. As in product-market analysis, courts and economic experts can assess how a contested activity (e.g., a merger) **affects these factors and estimate the net effect on worker welfare.** A worker welfare standard would be similar to a consumer welfare standard in that much of its application would fall on economic experts, whose work would be assessed and weighed by courts. Of course, some cases will be clearer and may be amenable to per se analysis, like an agreement between firms to fix wages. But, as in product markets, other cases will be subtle, and economics will have a role to play. **Just as economic models are used to forecast** the effects of certain market events on price and quantity, and aggregate those effects to estimate net effects on consumer welfare,67 economics will also be instrumental in forecasting the effects of market events on wages and hours, and aggregating those effects to estimate net effects on worker welfare. Antitrust analysis is highly technical in the status quo,68 and **a worker welfare standard would not be any different in its reliance on economics**. The main difference is that a worker welfare standard **focuses attention on the interests of workers, who are often neglected** despite their vulnerability to rent-extractive firm behavior, and recognizes that advancing the interests of workers may **require more than advancing the interests of consumers.**

#### The plan’s codification is key to certainty and deterrence.

Eric A. Posner 8/13/21. Kirkland & Ellis Distinguished Service Professor at University of Chicago. How Antitrust Failed Workers. Oxford University Press, 2021.

Anticompetitive behavior. Plaintiffs would be able to base their case on any of the following anticompetitive acts: mergers in highly concentrated markets; use of noncompete and related clauses; restrictions on employees’ freedom to disclose wage and benefit information; unfair labor practices under the National Labor Relations Act;38 misclassification of employees as independent contractors; no-poaching, wage-fixing, and related agreements that are also presumptively illegal under Section 1; and prohibitions on class actions. Of course, current law gives employees the theoretical right to allege these types of anticompetitive behavior, but the cases show a pattern of judicial skepticism, as noted earlier. Codification would help employees by compelling courts to take these claims seriously. Employers would be allowed to rebut a prima facie case of anticompetitive behavior by showing that the act in question would likely lead to an increase in wages. This reform would strengthen and extend Section 2 actions against labor monopsonists by standardizing a list of anticompetitive acts. While not all of these acts are invariably anticompetitive, the employer would be able to defend itself by citing a business justification. For example, a noncompete could be justified because it protects an employer’s investment in training. If so, an employer could avoid antitrust liability by showing that its use of noncompetes benefits workers, who obtain higher wages as a result of their training.39 These reforms would strengthen Section 2 claims against labor monopsonies but would also preserve the doctrinal structure of Section 2. They would not generate significant legal uncertainty or require a revision in the way that we think about antitrust law.

#### Alternative remedies don’t solve deterrence.

Samuel Weinstein 19. Assistant Professor of Law, Benjamin N. Cardozo School of Law, Yeshiva University. “Article: Financial Regulation in the (Receding) Shadow of Antitrust.” *Temple Law Review* (91): 487-491.

Even when sector regulators prioritize protecting competition, many lack the expertise and institutional mechanisms to do so effectively. Regulatory agencies might not employ investigatory and adjudicatory procedures sufficient to root out anticompetitive conduct. While courts must in many cases allow for exhaustive discovery, the same cannot be said for most agency proceedings. As a result, even those sector regulators that value protecting competition may not have the institutional systems necessary to follow through effectively. The relative weakness of remedies typically available to regulatory agencies compounds these problems. Most agencies do not have access to remedies as stringent as an antitrust court's power to assign treble damages under the Sherman Act or to permanently enjoin anticompetitive conduct. The administrative record in Trinko showed that Verizon admitted it had violated its open-access commitments and voluntarily paid $ 3 million to the FCC and $ 10 [\*488] million to competitive local exchange carriers. While the Trinko opinion relied on these sanctions in part for its conclusion that the FCC's regulatory regime had fulfilled the antitrust function, the FCC Chairman subsequently told Congress that the Commission's maximum fine authority was in many instances "insufficient to punish and deter violations" that incumbent local exchange carriers like Verizon had committed with the aim of "slow[ing] the development of local competition." Among other measures, Chairman Powell recommended increasing the FCC's forfeiture authority against common carriers for single continuing violations of the Telecommunications Act from $ 1.2 million to "at least $ 10 million." Agency capture is another explanation for regulators' relative weakness as competition enforcers. The literature on capture is well developed. There is a general scholarly consensus that the political nature of top agency jobs and the revolving door between agencies and the industries they oversee make sector regulators much more susceptible to industry pressure than antitrust courts. Studies have shown that capture may be a particular problem at the financial regulatory agencies. There is a steady flow of lawyers between the SEC and CFTC, on the one hand, and Wall Street firms and the law firms and lobbyists [\*489] that represent them on the other, which appears to affect outcomes of agency proceedings in some cases. Objective measures of the relative competition-enforcement abilities of the antitrust agencies versus the sector regulators tend to confirm the supposition that sector regulators generally cannot be relied on to fulfill the antitrust function in regulated markets. The expert staffs of the antitrust agencies are far larger and more experienced than the competition staffs, if any, at the sector regulators. In recent years, the Antitrust Division typically has had between 340 and 400 attorneys and approximately 50 economists dedicated to competition enforcement, while the FTC's Bureau of Competition has had around 300 attorneys and support staff and approximately 50 antitrust economists. Some regulatory agencies, like the FCC, Federal Deposit Insurance Corporation (FDIC), and the Federal Reserve, have dedicated competition staff with specific expertise. The FCC has a Wireline Competition Bureau, which includes a Competition Policy Division. The FDIC, Federal Reserve, and the Office of the Comptroller of the Currency have staff dedicated to reviewing proposed bank mergers. Even at these agencies, however, the competition staff is smaller and more narrowly focused than the staffs of the Antitrust Division and FTC. [\*490] The comparison with the SEC and CFTC is starker. Neither agency has a dedicated competition division or group. And neither agency established such a body post-Credit Suisse, when it appeared the SEC and CFTC would have increased responsibility for competition matters, or in the wake of Dodd-Frank, which required the agencies to monitor and protect competition in the derivatives markets. This paucity of personnel resources is perhaps predictable given these agencies' bureaucratic cultures. Considering this lack of experienced competition staff, it is unsurprising that the SEC and CFTC bring very few independent competition-related enforcement actions. While these agencies have collaborated with the [\*491] Department of Justice and other enforcement agencies on significant competition investigations, there is little evidence that they would bring such cases on their own. It seems clear that the financial services agencies are either unwilling or unable to "perform the antitrust function" as envisioned by the Supreme Court's case law balancing antitrust and regulation. This conclusion is troubling. It means that when courts apply Credit Suisse or Trinko to shift the responsibility for policing competition away from the expert antitrust agencies to regulatory bodies that are unprepared for the task, they are leaving some regulated markets, especially the financial markets, vulnerable to anticompetitive conduct.

#### Only the plan can adapt to market conditions.

Howard Shelanski 21. Professor of Law, Georgetown University; Partner, Davis Polk & Wardwell LLP. “Antitrust and Deregulation.” *Yale Law Journal* (127): 1951-1953. <https://www.yalelawjournal.org/pdf/Shelanski_kcn6n4k3.pdf>.

A longstanding debate examines the comparative advantages of antitrust and regulation. The late Cornell economist Alfred Kahn, the architect of airline deregulation in the Carter Administration, wrote that “society’s choices are always between or among imperfect systems, but that, wherever it seems likely to be effective, even very imperfect competition is preferable to regulation.”117 Kahn does not address antitrust in that quotation, but it suggests that he would find antitrust law’s more targeted, case-by-case approach to governing competition to be preferable to regulation. Indeed, Kahn elsewhere wrote, while expressing his “belief in vigorous enforcement of the antitrust laws,” that “the antitrust laws are not just another form of regulation but an alternative to it—indeed, its very opposite.”118 Then-Judge Stephen Breyer has similarly stated that “antitrust is not another form of regulation. Antitrust is an alternative to regulation and, where feasible, a better alternative.”119 The comparisons that Breyer and Kahn made were, in context, mostly between antitrust and rate regulation, where the agency was trying to protect consumers from monopoly pricing.120 But some of these criticisms, including “high cost; ineffectiveness and waste; procedural unfairness, complexity, and delay; unresponsiveness to democratic control; and the inherent unpredictability of the end result,” apply to most kinds of regulation.121 Regulation might well be worthwhile despite those potential drawbacks, but certain attributes—ex post and case-by-case enforcement, judicial oversight with the government bearing the burden of proof—make antitrust enforcement less vulnerable to those critiques. Regulation can also be comparatively slow to adapt to new market conditions, and that delay can affect an entire regulated industry.122 Antitrust authorities also might fail to foresee relevant market changes, but their actions typically affect only one discrete case and they generally have flexibility, as conditions change, to modify relevant consent decrees and decline to pursue similar investigations or sanctions.123 It is harder for government agencies to make changes to established regulatory programs,124 making regulation more likely than antitrust to outlast the problems it was implemented to solve. Regulation’s delayed adaptation to changing conditions can be costly,125 especially as markets transition to more competitive structures.126 As Michael Boudin, a former DOJ antitrust official (and later federal judge) put it, “regulation almost always will be very difficult to dislodge, even if it proves mistaken. Almost any regulatory regime will develop a constituency, armed with congressmen and self-interested bureaucrats . . . [and] become[] the foundation on which private arrangements are constructed, arrangements that cannot easily be discarded.”127

#### The plan creates a flexible standard that overcomes new challenges faced by workers.

Alden Abbott 21. Senior Research Fellow at the Mercatus Center at George Mason University. “FTC Competition Regulation: A Cost-Benefit Appraisal.” 6/28/2021. https://www.mercatus.org/publications/antitrust-and-competition/ftc-competition-regulation-cost-benefit-appraisal

Competition rules, however, inherently would be overbroad and would suffer from a very high rate of false positives. By characterizing certain practices as inherently anticompetitive without allowing for consideration of case-specific facts bearing on actual competitive effects, findings of rule violations inevitably would condemn some (perhaps many) efficient arrangements. Furthermore, because rules by their nature are fixed in stone (at least until they are amended or repealed), they “frequently fail to account for market dynamic, new sources of competition, and consumer preferences.” Thus, they lack case law adjudication’s feature of analytic improvement (reflected in periodically updated federal antitrust guidelines) based on changing market conditions and improved economic analysis.

In sum, competition rules are a far more blunt and inflexible tool than adjudication and, as such, are less conducive to welfare-enhancing competition policy outcomes.

#### State action gets struck down.

Moshe Marvit 17. attorney and fellow at the Century Foundation, and co-author with Richard D. Kahlenberg of Why Labor Organizing Should Be a Civil Right: Rebuilding a Middle-Class Democracy by Enhancing Worker Voice. “The Way Forward for Labor Is Through the States.” The American Prospect. 9/1/2017. <https://prospect.org/labor/way-forward-labor-states/>

While reforms to federal law have been blocked by Congress, states and cities have faced a different hurdle: the courts. Starting in 1959, **the Supreme Court has written into the National Labor Relations Act (NLRA) a continually expanding preemption doctrine that prevents states and cities from passing laws that touch upon anything related to labor**, involve the interpretation of a collective bargaining agreement, or even involve issues that the courts believe Congress intended to leave to the free play of market forces. Congress can, and often does, expressly preempt states from passing laws that fall within a defined scope. Neither the NLRA nor its extensive legislative history, however, contains any mention of preemption: Congress did not expressly preempt states from acting. **In instances where Congress has not expressly preempted states from acting, state laws that actually conflict with federal laws are still preempted**. However, neither the NLRA nor its legislative history show any consensus that Congress meant to push states and cities from making laws that advanced, and do not conflict with, the pro-collective-bargaining policies of the NLRA. And yet, as Harvard Law Professor Ben Sachs has pointed out, the Supreme Court has not employed the typical typologies of preemption at all when dealing with labor law. Rather, it has created a preemption doctrine [that] is among the broadest and most robust in federal law. In most other areas of worker protection, from minimum wage to antidiscrimination laws, the f

ederal government has set the floor under which states and cities may not go, but they can and often do raise the ceiling by increasing state or local minimum wage or including additional protected categories such as sexual orientation to existing protections. Indeed, the evolution of many of the nation's employment and civil rights protections began at the state level and trickled up to the federal government. It is only in the area of workers' labor rights that states and cities are powerless to act and that, solely as the result of judicial decisions. The Supreme Court's preemption doctrine started with the 1959 case, San Diego Building Trades v. Garmon, where the employer got a state court injunction against the union for picketing. The Supreme Court should have held that the picketing that the union was engaged in was a protected right under federal labor law, and therefore the state could not pass a law that conflicts with that right. Instead, the Court went further and held that Congress gave the National Labor Relations Board primary agency jurisdiction, and so when something is arguably protected or prohibited by the NLRA, then only the Board can act. Furthermore, only the Board can answer the initial question of whether conduct is arguably under the Board’s jurisdiction. The Supreme Court then doubled down on its preemption doctrine in the 1976 case, Machinists v. Wisconsin Employment Relations Commission. In the Machinist case, an employer brought an unfair labor practice charge against union workers who engaged in concerted refusal to work overtime during contract negotiations. The NLRB dismissed the charge because it held that the work refusal was not prohibited under the NLRA, so the employer brought a state court action against the union. In response, the Supreme Court expanded its earlier Garmon preemption to hold that Congress intended that certain conduct be left unregulated and left to be controlled by the free play of economic forces. Though the union in the Machinists case benefitted from the Court’s expansion of federal preemption, the decision has led to states and cities being almost absolutely prohibited from passing laws that promote unionization and collective bargaining. These Court decisions, and **thousands of lower court decisions that have followed the precedent in overturning state and local laws,** rely on three types of specious and archaic reasons that deserve challenge and reconsideration. First, the Court has repeatedly shown a strong reliance on the state of the economy and labor force during the time when these decisions were issued. In the Machinists case, the Court described how it experimented with various types of preemption before settling on the broad form begun by Garmon, stating, as it was, in short, experience, not pure logic, which initially taught that each of these methods sacrificed important federal interests in a uniform law of labor relations. The experience the Court referred to was that of the late 1940s and 1950s, when union membership was at its peak. Whatever balance between labor and management that may have existed then has since eroded. Second, the Court has long interpreted the statute to require a uniform labor law across the country, and yet, labor law has become in many ways a crazy quilt, varying from region to region, from state to state, and from one president to the next. The NLRB has become a highly politicized agency, with its decisions swinging wildly every time a new president appoints new members and a general counsel. Cases that proceed through the National Labor Relations Board are often appealed to federal courts, and different federal circuits often come to opposite conclusions, meaning that the laws in different states effectively differ though it is the courts, not state or local governments, that create those differences. Further, the expansion of state right to work laws, as well as a variety of state public sector labor laws have also undermined any goal of national uniformity in labor law. Lastly, the Court's determination that Congress intended to leave a wide variety of conduct to the free play of economic forces has, in the words of NYU Law Professor Cynthia Estlund, done what Congress did not do in the NLRA, or even with the Taft-Hartley Act: It has granted to employers a federal right to use their economic power against unions. The Congress that passed the NLRA may have intended to ensure a balance between employer and union power, but there is no indication that it intended employers to be able to use the Act to evade any regulation in broad areas through a laissez faire argument. The result of this judicially created broad preemption has been to limit state and local experimentation in line with what Justice Brandeis described as laboratories of democracy with labor laws that advance the stated purpose of federal labor law. However, since states and cities cannot act in the field of labor law, all discussions of federal labor law reform are purely theoretical and lack any empirical basis for their possible effects. Numerous labor law scholars have written critically over the years of the rationale for such broad preemption, as well as the effects it has had on workers' ability to organize. Recently, Lewis & Clark Law Professor Henry Drummonds came up with a list of ten potential reforms that would advance the pro-collective bargaining mission of the NLRA if states could be able to pass such reforms under normal preemption rules. These include allowing states to: increase damages for violating workers' labor rights so the penalties are in line with those for other forms of workplace discrimination; experiment with restrictions on permanent replacement of striking workers and on the use of employer lockouts; experiment with â€œcard checkâ€ recognition of the union; provide equal access to union advocates as well as employers during a campaign for unions; and require arbitration if an impasse arises in the bargaining over a first contract. **The one and only major state labor reform since** the **1935** enactment of the NLRA has had a profound effect on the division of wealth and power in the United States. That, of course, **was the provision of the 1947 Taft-Hartley Act enabling states to pass right to work laws.** Allowing states and cities to create local rules that promote unionization and collective bargaining that are tailored to local needs and local industries could prove just as significant in the opposite direction.

#### Antitrust is inevitable.

Joseph Miller 21. Co-chair, Mintz Antitrust Practice. “More Antitrust News, Still None of it Good.” *The National Law Review*. July 10th, 2021. <https://www.natlawreview.com/article/more-antitrust-news-still-none-it-good>.

In a joint press release, the FTC and Antitrust Division announced they are launching a review of the Merger Guidelines so the agencies "review mergers with the skepticism the law demands" in order to "determine if they are too permissive." Richard Powers, the Acting Assistant Attorney General for Antitrust is a criminal lawyer by background and has no significant merger experience so it's fair to assume this initiative is being promoted by FTC Chair Lina Khan. Merger Guidelines are often cited by courts for their persuasive authority but do not carry the force of law. They are influential because they reflect a fair view of current economic learning, reduced to an administrable set of principles to guide agency merger staffs and businesses alike. The current horizontal merger guidelines were published in 2010 so perhaps it is time for an update. What we see in the press release, however, is a strong signal that the agencies will not incorporate the latest economic literature, but rather take a hyper-aggressive enforcement posture based on a literal reading of a very old statute. Merger guidelines will need to be backed by sound law and economics in order to persuade the federal courts. If this initiative reflects nothing more than ideologically driven hostility towards efficient transactions we will see a burst of enforcement activity, followed by legal sophistry about textualism, Brown Shoe, Von's, and other bad but not explicitly overturned precedent, followed by a well-deserved thrashing in the courts of appeal. I guess antitrust lawyers should settle in for the best of times/worst of times period, lots of activity but also hard for counselors and clients to plan transactions if enforcement decisions are untethered to the consumer welfare standard, without which enforcement decisions will necessarily be driven by broader policy goals or raw political calculations. I may be reading too much into a short press release and I hope I'm wrong about how bad this will get in the short term. I'm also grateful that the FTC has staggered terms for commissioners so Christine Wilson and Noah Feldman can continue to articulate sound, traditional enforcement principles, and priorities.

## 2ac

### Inequality adv---2ac

#### 2---growth is sustainable

Bailey ’16 (Ronald; 12/16/16; B.A. in Philosophy and B.A. Economics from the University of Virginia, member of the Society of Environmental Journalists and the American Society for Bioethics and Humanities, citing a compilation of interdisciplinary research; Reason, “Is Economic Growth Environmentally Sustainable?” <http://reason.com/archives/2016/12/16/is-economic-growth-environmentally-sust1)>

Is economic growth environmentally sustainable? No, say a group of prominent ecological economists led by the Australian hydrologist James Ward. In a new PLoS ONE article—"Is Decoupling GDP Growth from Environmental Impact Possible?"—they offer an analysis inspired by the 1972 neo-Malthusian classic The Limits to Growth. They even suggest that The Limits to Growth's projections with regard to population, food production, pollution, and the depletion of nonrenewable resources are still on track. In other words, they think we're still heading for a collapse. I think **they're wrong**. But they're wrong in an instructive way. The authors describe two types of "decoupling," relative and absolute. Relative decoupling means that economic growth increases faster than rates of growth in material and energy **consumption** and **environmental impact**. Between 1990 and 2012, for example, China's **GDP rose 20-fold** while its energy use increased by a factor of four and its material use by a factor of five. Basically this entails increases in efficiency that result in using fewer resources to produce more value. Absolute decoupling is what happens when continued economic growth actually **lessens resource use** and impacts on the natural environment, that is, creating more value while using less stuff. Essentially humanity becomes richer while withdrawing from nature. To demonstrate that continued economic growth is unsustainable, the authors recycle the hoary I=PAT model devised in 1972 by the Stanford entomologist and population alarmist Paul Ehrlich and the Harvard environmental policy professor (and chief Obama science adviser) John Holdren. Human Impact on the environment is supposed to equal to Population x Affluence/consumption x Technology. All of these are presumed to intensify and worsen humanity's impact on the natural world. In Ward and company's updated version of I=PAT, the sustainability of economic growth largely depends on Technology trends. Absolute decoupling from resource consumption or pollutant emissions requires technological intensity of use and emissions to decrease by at least the same annual percentage as the economy is growing. For example, if the economy is growing at three percent per year, technological intensity must reduce 20-fold over 100 years to maintain steady levels of resource consumption or emissions. If technological intensity is faster then resource use and emissions will decline over time, which would result in greater wealth creation with ever lessening resource consumption and environmental spillovers. Once they've set up their I=PAT analysis, Ward and his colleagues assert that "for non-substitutable resources such as land, water, raw materials and energy, we argue that whilst efficiency gains may be possible, there are minimum requirements for these resources that are ultimately governed by physical realities." Among the "physical realities" they mention are limits on plant photosynthesis, the conversion efficiencies of plants into meat, the amount of water needed to grow crops, that all supposedly determine the amount of agricultural land required to feed humanity. They also cite "the upper limits to energy and material efficiencies govern minimum resource throughput required for economic production." To illustrate the operation of their version of the I=PAT equation, they apply it to a recent study that projected it would be possible for Australia's economy to grow 7-fold while simultaneously reducing resource and energy use and lowering environmental pressures through 2050. They **crank the notion** that there are nonsubstitutable physical limits on material and energy resources through their equations until 2100, and they find that eventually consumption of both rise at the same rate as economic growth. QED: Economic growth is unsustainable. Or as they report, "Permanent decoupling (absolute or relative) is impossible for essential, non-substitutable resources because the efficiency gains are ultimately governed by physical limits." **Malthus wins again!** Or does he? GDP growth—increases in the monetary value of all finished goods and services—is a crude measure for improvements in human well-being. Nevertheless, rising incomes (GDP per capita) correlate with lots of good things that nearly everybody wants, including access to more and better **food**, longer and **healthier lives**, more educational **opportunities**, and greater scope for life choices. Ward and his colleagues are clearly right that there is only so much physical stuff on the Earth, but even they know that wealth is not created simply by using more stuff. Where they go wrong (as so many Malthusians do) is by implicitly assuming that there are limits to human creativity. Interestingly, Ward and his colleagues, like Malthus before them, focus on the supposed limits to **agricultural productivity**. For example, they cite the limits to photosynthesis, which will limit the amount of food that humanity can produce. But as they acknowledge, human population may not continue to increase. In fact, **global fertility rates** have been **decelerating** for many decades now, and demographer Wolfgang Lutz calculates that world population will peak after the middle of this century and begin falling. Since the number of mouths to feed will stabilize and people can eat only so much, it is unlikely that the **biophysical limits** of agriculture on Earth will be exceeded. But it gets even better. Agricultural **productivity is improving**. Consider the biophysical limit on photosynthesis cited by the study. In fact, researchers are already making progress on installing more efficient C-4 photosynthesis into rice and wheat, which would **boost yields by** as much as **50 percent**. British researchers just announced that they had figured out how to boost photosynthetic efficiency to create a super-wheat would increase yields by 20 percent. In a 2015 article for the Breakthrough Journal, "The Return of Nature: How Technology Liberates the Environment," Jesse H. Ausubel of Rockefeller University reviews how humanity is **already decoupling** in many ways from the natural world. "A series of 'decouplings' is occurring, so that our economy no longer advances in tandem with exploitation of land, forests, water, and minerals," he writes. "American use of almost everything except information **seems to be peaking**." He notes that agricultural applications of fertilizer and water in the U.S. peaked in the 1980s while yields continued to increase. Thanks to increasing agricultural productivity, humanity is already at **"peak farmland"**; as a result, "an area the size of India or of the United States east of the Mississippi could be released globally from agriculture over the next 50 years or so." Ward is worried about biophysical limits on water use. But as Ausubel notes, U.S. **water use has peaked** and has declined **below the level of 1970**. What about meat? Ausubel notes the **greater efficiency** with which chickens and cultivated fish turn grains and plant matter into meat. In any event, the future of farming is not fields but factories. Innovators are already seeking to replace the entire dairy industry with milk, yogurt, and cheeses made by genetically modified bacteria grown in tanks. Others are figuring how to culture meat in vat. Ausubel also notes that many countries have already been through or are about to enter the "forest transition," in which forests begin to expand. Roger Sedjo, a forest economist at Resources of the Future, has projected that by the middle of this century most of world's **industrial wood** will be produced from planted forests covering a remarkably small land area, perhaps **only 5 to 10 percent** of the extent of today's global forest. Shrinking farms and ranches and expanding forests will do a lot toward turning around the alarming global reduction in wildlife. How about unsubstitutable stuff? Are we running out of that? Ausubel notes that the U.S. has apparently already achieved **absolute decoupling**—call it peak stuff—for a lot of materials, including plastics, paper, timber, phosphate, aluminum, steel, and copper. And he reports relative decoupling for **53** other **commodities**, all of which are likely heading toward absolute decoupling. Additive manufacturing is also known as 3-D printing, in which machines build up new items one layer at a time. The Advanced Manufacturing Office suggested that additive manufacturing can reduce material needs and costs by up to **90 percent**. And instead of the replacement of worn-out items, their material can **simply be recycled** through a printer to return it to good-as-new condition using only 2 to 25 percent of the energy required to make new parts. 3-D printing on demand will also eliminate storage and inventory costs, and will significantly cut transportation costs. Nanomanufacturing—building atom-by-atom—will likely engender a **fourth industrial revolution** by spurring exponential economic growth while reducing human demands for material resources. Ward and company project that Australians will be using 250 percent more energy by 2100. Is there an upper limit to energy production that implies unsustainability? In their analysis, the ecological economists apparently assume that energy supplies are limited. Why this is not clear, unless their model **implicitly assumes** a growing **consumption** of fossil fuels (and even then, the world is not close to running out of those). But there is a source of energy that, for all practical purposes, is limitless and has few deleterious environmental effects: **nuclear power**. If demand for primary energy were to double by 2050, a back-of-the-envelope calculation finds that the **entire world's energy needs** could be supplied by 6,000 conventional nuclear power plants. The deployment of fast reactors would supply "renewable" energy for thousands of years. The development of thorium reactors could also supply **thousands of years** of energy. And both could do so without harming the environment. (Waste heat at that scale would not be much of a problem.) Such power sources are in any relevant sense "decoupled" from the natural world, since their fuel cycles produce **little pollution**. Recall that GDP measures the monetary value of all finished goods and services. Finished goods will become a shrinking part of the world's economy as more people gain access to food, clothing, housing, transportation, and so forth. Already, services account for 80 percent of U.S. GDP and 80 percent of civilian employment. Instead of stuff, people will want to spend time creating and enjoying themselves. As technological progress enables economic growth, people will consume more pixels and less petroleum, more massages and less mortar, more handicrafts and less hardwood. Ultimately, Ward and his colleagues make the **same mistake as Malthus** and the Limits to Growth folks: They **extrapolate trends** without taking adequate account of human **ingenuity**. Will it be possible to grow the economy 7-fold over this century while reducing resource consumption and restoring the natural world? Yes.

#### 4---Transition fails.

Buch-Hansen 18. Department of Business and Politics, Copenhagen Business School (Hubert, “The Prerequisites for a Degrowth Paradigm Shift: Insights from Critical Political Economy,” Ecological Economics Volume 146, April 2018, Pages 157-163, dml)

Political projects do not become hegemonic just because they embody good ideas. For a project to become hegemonic, (organic) intellectuals first need to develop the project and a constellation of social forces with sufficient power and resources to implement it then needs to find it appealing and struggle for it. In this context, it is worth noting that degrowth, as a social movement, has been gaining momentum for some time, not least in Southern Europe. Countless grassroots' initiatives (e.g., D'Alisa et al., 2013) are the most visible manifestations that degrowth is on the rise. Intellectuals – including founders of ecological economics such as Nicholas Georgescu-Roegen and Herman Daly, and more recently degrowth scholars such as Serge Latouche and Giorgos Kallis – have played a major role in developing and disseminating the ideas underpinning the project. A growing interest in degrowth in academia, as well as well-attended biennial international degrowth conferences, also indicate that an increasing number of people embrace such ideas. Still, the degrowth project is nowhere near enjoying the degree and type of support it needs if its policies are to be implemented through democratic processes. The number of political parties, labour unions, business associations and international organisations that have so far embraced degrowth is modest to say the least. Economic and political elites, including social democratic parties and most of the trade union movement, are united in the belief that economic growth is necessary and desirable. This consensus finds support in the prevailing type of economic theory and underpins the main contenders in the neoliberal project, such as centre-left and nationalist projects. In spite of the world's multidimensional crisis, a pro-growth discourse in other words continues to be hegemonic: it is widely considered a matter of common sense that continued economic growth is required. It is also noteworthy that economic and political elites, to a large extent, continue to support the neoliberal project, even in the face of its evident shortcomings. Indeed, the 2008 financial crisis did not result in the weakening of transnational financial capital that could have paved the way for a paradigm shift. Instead of coming to an end, neoliberal capitalism has arguably entered a more authoritarian phase (Bruff, 2014). The main reason the power of the pre-crisis coalition remains intact is that governments stepped in and saved the dominant fraction by means of massive bailouts. It is a foregone conclusion that this fraction and the wider coalition behind the neoliberal paradigm (transnational industrial capital, the middle classes and segments of organized labour) will consider the degrowth paradigm unattractive and that such social forces will vehemently oppose the implementation of degrowth policies (see also Rees, 2014: 97). While degrowth advocates envision a future in which market forces play a less prominent role than they do today, degrowth is not an anti-market project. As such, it can attract support from certain types of market actors. In particular, it is worth noting that social enterprises, such as cooperatives (Restakis, 2010), play a major role in the degrowth vision. Such enterprises are defined by being ‘organisations involved at least to some extent in the market, with a clear social, cultural and/or environmental purpose, rooted in and serving primarily the local community and ideally having a local and/or democratic ownership structure’ (Johanisova et al., 2013: 11). Social enterprises currently exist at the margins of a system, in which the dominant type of business entity is profit-oriented, shareholder-owned corporations. The further dissemination of social enterprises, which is crucial to the transitions to degrowth societies, is – in many cases – blocked or delayed as a result of the centrifugal forces of global competition (Wigger and Buch-Hansen, 2013). Overall, social enterprises thus (still) constitute a social force with modest power. Ougaard (2016: 467) notes that one of the major dividing lines in the contemporary transnational capitalist class is between capitalists who have a material interest in the carbon-based economy and capitalists who have a material interest in decarbonisation. The latter group, for instance, includes manufacturers of equipment for the production of renewable energy (ibid.: 467). As mentioned above, degrowth advocates have singled out renewable energy as one of the sectors that needs to grow in the future. As such, it seems likely that the owners of national and transnational companies operating in this sector would be more positively inclined towards the degrowth project than would capitalists with a stake in the carbon-based economy. Still, the prospect of the “green sector” emerging as a driving force behind degrowth currently appears meagre. Being under the control of transnational capital (Harris, 2010), such companies generally embrace the “green growth” discourse, which ‘is deeply embedded in neoliberal capitalism’ and indeed serves to adjust this form of capitalism ‘to crises arising from contradictions within itself’ (Wanner, 2015: 23). In addition to support from the social forces engendered by the production process, a political project ‘also needs the political ability to mobilize majorities in parliamentary democracies, and a sufficient measure of at least passive consent’ (van Apeldoorn and Overbeek, 2012: 5–6) if it is to become hegemonic. As mentioned, degrowth enjoys little support in parliaments, and certainly the pro-growth discourse is hegemonic among parties in government.5 With capital accumulation being the most important driving force in capitalist societies, political decision-makers are generally eager to create conditions conducive to production and the accumulation of capital (Lindblom, 1977: 172). Capitalist states and international organisations are thus “programmed” to facilitate capital accumulation, and do as such constitute a strategically selective terrain that works to the disadvantage of the degrowth project.

#### Evil AI is impossible

Pinker 18 (Stephen, professor of psychology at Harvard, “Enlightenment Now: The Case for Reason, Science, Humanism, and Progress, EM)

Prominent among the existential risks that supposedly threaten the future of humanity is a 21st-century version of the Y2K bug. This is the danger that we will be subjugated, intentionally or accidentally, by artificial intelligence (AI), a disaster sometimes called the Robopocalypse and commonly illustrated with stills from the Terminator movies. As with Y2K, some smart people take it seriously. Elon Musk, whose company makes artificially intelligent self-driving cars, called the technology “more dangerous than nukes.” Stephen Hawking, speaking through his artificially intelligent synthesizer, warned that it could “spell the end of the human race.”19 But among the smart people who aren’t losing sleep are most experts in artificial intelligence and most experts in human intelligence. The Robopocalypse is based on a muzzy conception of intelligence that owes more to the Great Chain of Being and a Nietzschean will to power than to a modern scientific understanding.21 In this conception, intelligence is an all-powerful, wish-granting potion that agents possess in different amounts. Humans have more of it than animals, and an artificially intelligent computer or robot of the future (“an AI,” in the new count-noun usage) will have more of it than humans. Since we humans have used our moderate endowment to domesticate or exterminate less well-endowed animals (and since technologically advanced societies have enslaved or annihilated technologically primitive ones), it follows that a supersmart AI would do the same to us. Since an AI will think millions of times faster than we do, and use its superintelligence to recursively improve its superintelligence (a scenario sometimes called “foom,” after the comic-book sound effect), from the instant it is turned on we will be powerless to stop it.22 But the scenario makes about as much sense as the worry that since jet planes have surpassed the flying ability of eagles, someday they will swoop out of the sky and seize our cattle. The first fallacy is a confusion of intelligence with motivation—of beliefs with desires, inferences with goals, thinking with wanting. Even if we did invent superhumanly intelligent robots, why would they want to enslave their masters or take over the world? Intelligence is the ability to deploy novel means to attain a goal. But the goals are extraneous to the intelligence: being smart is not the same as wanting something. It just so happens that the intelligence in one system, Homo sapiens, is a product of Darwinian natural selection, an inherently competitive process. In the brains of that species, reasoning comes bundled (to varying degrees in different specimens) with goals such as dominating rivals and amassing resources. But it’s a mistake to confuse a circuit in the limbic brain of a certain species of primate with the very nature of intelligence. An artificially intelligent system that was designed rather than evolved could just as easily think like shmoos, the blobby altruists in Al Capp’s comic strip Li’l Abner, who deploy their considerable ingenuity to barbecue themselves for the benefit of human eaters. There is no law of complex systems that says that intelligent agents must turn into ruthless conquistadors. Indeed, we know of one highly advanced form of intelligence that evolved without this defect. They’re called women. The second fallacy is to think of intelligence as a boundless continuum of potency, a miraculous elixir with the power to solve any problem, attain any goal.23 The fallacy leads to nonsensical questions like when an AI will “exceed human-level intelligence,” and to the image of an ultimate “Artificial General Intelligence” (AGI) with God-like omniscience and omnipotence. Intelligence is a contraption of gadgets: software modules that acquire, or are programmed with, knowledge of how to pursue various goals in various domains.24 People are equipped to find food, win friends and influence people, charm prospective mates, bring up children, move around in the world, and pursue other human obsessions and pastimes. Computers may be programmed to take on some of these problems (like recognizing faces), not to bother with others (like charming mates), and to take on still other problems that humans can’t solve (like simulating the climate or sorting millions of accounting records). The problems are different, and the kinds of knowledge needed to solve them are different. Unlike Laplace’s demon, the mythical being that knows the location and momentum of every particle in the universe and feeds them into equations for physical laws to calculate the state of everything at any time in the future, a real-life knower has to acquire information about the messy world of objects and people by engaging with it one domain at a time. Understanding does not obey Moore’s Law: knowledge is acquired by formulating explanations and testing them against reality, not by running an algorithm faster and faster.25 Devouring the information on the Internet will not confer omniscience either: big data is still finite data, and the universe of knowledge is infinite. For these reasons, many AI researchers are annoyed by the latest round of hype (the perennial bane of AI) which has misled observers into thinking that Artificial General Intelligence is just around the corner.26 As far as I know, there are no projects to build an AGI, not just because it would be commercially dubious but because the concept is barely coherent. The 2010s have, to be sure, brought us systems that can drive cars, caption photographs, recognize speech, and beat humans at Jeopardy!, Go, and Atari computer games. But the advances have not come from a better understanding of the workings of intelligence but from the brute-force power of faster chips and bigger data, which allow the programs to be trained on millions of examples and generalize to similar new ones. Each system is an idiot savant, with little ability to leap to problems it was not set up to solve, and a brittle mastery of those it was. A photo-captioning program labels an impending plane crash “An airplane is parked on the tarmac”; a game-playing program is flummoxed by the slightest change in the scoring rules.27 Though the programs will surely get better, there are no signs of foom. Nor have any of these programs made a move toward taking over the lab or enslaving their programmers. Even if an AGI tried to exercise a will to power, without the cooperation of humans it would remain an impotent brain in a vat. The computer scientist Ramez Naam deflates the bubbles surrounding foom, a technological Singularity, and exponential self-improvement: Imagine that you are a superintelligent AI running on some sort of microprocessor (or perhaps, millions of such microprocessors). In an instant, you come up with a design for an even faster, more powerful microprocessor you can run on. Now . . . drat! You have to actually manufacture those microprocessors. And those fabs [fabrication plants] take tremendous energy, they take the input of materials imported from all around the world, they take highly controlled internal environments which require airlocks, filters, and all sorts of specialized equipment to maintain, and so on. All of this takes time and energy to acquire, transport, integrate, build housing for, build power plants for, test, and manufacture. The real world has gotten in the way of your upward spiral of self-transcendence.28 The real world gets in the way of many digital apocalypses. When HAL gets uppity, Dave disables it with a screwdriver, leaving it pathetically singing “A Bicycle Built for Two” to itself. Of course, one can always imagine a Doomsday Computer that is malevolent, universally empowered, always on, and tamperproof. The way to deal with this threat is straightforward: don’t build one. As the prospect of evil robots started to seem too kitschy to take seriously, a new digital apocalypse was spotted by the existential guardians. This storyline is based not on Frankenstein or the Golem but on the Genie granting us three wishes, the third of which is needed to undo the first two, and on King Midas ruing his ability to turn everything he touched into gold, including his food and his family. The danger, sometimes called the Value Alignment Problem, is that we might give an AI a goal and then helplessly stand by as it relentlessly and literal-mindedly implemented its interpretation of that goal, the rest of our interests be damned. If we gave an AI the goal of maintaining the water level behind a dam, it might flood a town, not caring about the people who drowned. If we gave it the goal of making paper clips, it might turn all the matter in the reachable universe into paper clips, including our possessions and bodies. If we asked it to maximize human happiness, it might implant us all with intravenous dopamine drips, or rewire our brains so we were happiest sitting in jars, or, if it had been trained on the concept of happiness with pictures of smiling faces, tile the galaxy with trillions of nanoscopic pictures of smiley-faces.29 I am not making these up. These are the scenarios that supposedly illustrate the existential threat to the human species of advanced artificial intelligence. They are, fortunately, self-refuting.30 They depend on the premises that (1) humans are so gifted that they can design an omniscient and omnipotent AI, yet so moronic that they would give it control of the universe without testing how it works, and (2) the AI would be so brilliant that it could figure out how to transmute elements and rewire brains, yet so imbecilic that it would wreak havoc based on elementary blunders of misunderstanding. The ability to choose an action that best satisfies conflicting goals is not an add-on to intelligence that engineers might slap themselves in the forehead for forgetting to install; it is intelligence. So is the ability to interpret the intentions of a language user in context. Only in a television comedy like Get Smart does a robot respond to “Grab the waiter” by hefting the maître d’ over his head, or “Kill the light” by pulling out a pistol and shooting it. When we put aside fantasies like foom, digital megalomania, instant omniscience, and perfect control of every molecule in the universe, artificial intelligence is like any other technology. It is developed incrementally, designed to satisfy multiple conditions, tested before it is implemented, and constantly tweaked for efficacy and safety (chapter 12). As the AI expert Stuart Russell puts it, “No one in civil engineering talks about ‘building bridges that don’t fall down.’ They just call it ‘building bridges.’” Likewise, he notes, AI that is beneficial rather than dangerous is simply AI.

#### 5---Extinction’s inevitable – only growth can sustain colonization and solve.

**Skran 16** [Dale Skran is Executive Vice President of the National Space Society and a member of the Board of Directors of the Alliance for Space Development. “Settling space is the only sustainable reason for humans to be in space,” <http://www.thespacereview.com/article/2915/1>]

As robotic and artificial intelligence technologies improve and enable increasingly robust exploration without a human presence, eventually there will be only one sustainable reason for humans to be in space: settlement. Research into the recycling technology required for long-term off-Earth settlements will directly benefit terrestrial sustainability. Actively working toward developing and settling space will make available mineral and energy resources for use on Earth on a vast scale. Finally, space settlement offers the hope of long-term species survival that remaining on Earth does not. There are more than seven billion people on the Earth today. No rational space settlement advocate suggests that any significant portion of that population, or even of those who are rich, will be moving to Mars or anywhere else in space. However, a recent essay by Astro Teller, head of Google X Labs, and his wife Danielle, a physician and researcher takes the bold position that “It’s completely ridiculous to think that humans could live on Mars.” This essay, published by Quartz, repeats with little examination some of the hoariest arguments against space settlement. To support this view, the Tellers quote their 12-year-old daughter: “I can’t stand that people think we’re all going to live on Mars after we destroy our own planet.” This quote contains two mischaracterizations that demand refutation: that “we are all” going to live in space and that we are going to live in space after we destroy Earth. Another canard that has long floated about was given form by the recent film Elysium starring Matt Damon: the rich will leave the poor on the Earth and escape to space settlements. Upon examination, all three of these ideas are strawmen. There are more than seven billion people on the Earth today. No rational space settlement advocate suggests that any significant portion of that population, or even of those who are rich, will be moving to Mars or anywhere else in space. Instead, we expect that relatively small numbers of highly qualified individuals, or those who are deeply dedicated to living in space, would form the first settlements. Over a significant period of time, thousands more from the Earth would join those settlements as they become increasingly self-sufficient. Over more time, various possible niches for settlement (Moon, Mars, asteroids, free space, etc.) will be occupied, and eventually the population in space will total many millions, most of whom will have been born in space. So why then do Elon Musk, Stephen Hawking, and many others, including organizations like the National Space Society (NSS) and Alliance for Space Development, believe strongly that space settlement is essential to human survival? Although this may seem surprising, the Earth is not a “safe space.” The destiny of virtually all species on Earth is extinction in a relatively short span of geologic time. The Tellers claim that “we live on a planet that is perfect for us.” This statement is both completely true and total nonsense. We fit well on the Earth because we have evolved over millions of years to become creatures that are both adapted to live here and to like living here. It is truer to say that we are perfect for the Earth than the reverse. In fact, the Earth is not such a commodious place. It is subject to periodic calamities of various sorts, ranging from massive asteroid and comet impacts to titanic volcanic eruptions, and from periodic ice ages to disastrous solar flares. In the short run, the Earth seems balmy and comfortable. Viewed from the perspective of deep time, it starts to look more like a death trap, bedeviled by regular mass extinctions. However, things are actually quite a bit worse. Although there are many potentially bad things that might happen to the human race on the Earth from natural sources, there are many more from unnatural sources. We have been dancing with nuclear disaster for a long time. An apocalyptic atomic war is not inevitable, but it is possible. Add to this scenario the genetically engineered killer virus, “gray goo,” a robot revolt, and other horrors as yet undreamt, and the odds against human survival get longer. Hence, the need to abandon the fiction of Earth as our eternal and unchanging perfect home and to appreciate both the need for, and promise of, space settlement. Not so the rich can escape to an Elysium in the sky, or so we can all leave behind a polluted and overheated Earth, but simply so that the human species and human culture has a chance at surviving and flourishing in the long term. The Tellers believe that sustainability on the Earth has no relationship to what we do in space, but the same technologies that enable deep space settlement will have a profound impact on terrestrial sustainability. The Tellers write, “We haven’t even colonized the Sahara desert, the bottom of the oceans… because it makes no economic sense.” This may be true, but it also makes no sense to settle the Sahara desert, the bottom of the oceans, or Antarctica since these locations are on the Earth, and humans living there will not increase the probability of species survival. Near-Earth free space settlements and lunar bases are just stepping stones to ones much further out that are quarantined from Earth by millions of kilometers of vacuum. Once the motivation of species survival is put front and center, it becomes clear that a settlement in low Earth orbit, on the Moon, at L5, or on the Martian surface is not nearly sufficient. What is needed is a large set of thriving communities distributed throughout the solar system, and even ultimately in the Oort Cloud surrounding the solar system proper. This vision is not a small thing. It will be the work of many generations, just as was the settling of the New World or, even earlier in history, the human diaspora out of Africa along the Asian coast to Australia and beyond. The Tellers believe that sustainability on the Earth has no relationship to what we do in space, but the same technologies that enable deep space settlement will have a profound impact on terrestrial sustainability. Space settlements, of necessity, push the limits of food production per square meter and per liter of water. Space settlement agricultural methods can also be applied to growing food in parched California or in vertical farms in crowded urban areas. Space settlements require humans and technology to co-exist in close proximity. This implies an absolute minimization of pollution and sustained recycling of all waste. Such technologies seem highly applicable to sustainability on Earth as well. We will need to provide the best possible medical care for remote space settlements, which will be far from hospitals on Earth. The technologies that make such medicine effective—“tricorders”, telemedicine, and so on—can also bring medical care to underdeveloped and underserved areas of the Earth. The Tellers raise the specter of “winter-over syndrome” in the Antarctic, writing that “living on Mars would be way, way more miserable than living in Antarctica,” and concluding, “Nobody wants to live there.” Although it is clear that the Tellers will not be going, the large numbers who signed up for Mars One’s sketchy settlement plans suggest that a lot of people do want to live on Mars. There are real challenges to constructing space settlements, but current Antarctic bases are not true settlements. Nobody lives there with their families, with the exception of the coastal Esperanza Base, where about ten families routinely winter over. No real effort is made to create any kind of human environment that is comfortable over a long period of time. Conditions in Antarctica might be better compared to living in a campground than a self-sustaining settlement. Additionally, the current Antarctic Treaty essentially prevents any extraction or use of the natural resources found there, thus making economically independent settlements infeasible. The Tellers think that, from an economic perspective, “Mars has nothing to offer in return.” Here, at least in the short run, they have a point. Let us not shy from the truth. Conditions in the early settlements in the New World were difficult at best, and the casualty rate was high. We should expect the same to hold true for early space settlements. However, Jamestown and Plymouth gave rise to vast cities and a tamed landscape on a scale of hundreds of years. We now bring to the table technological means that would seem magical to the Jamestown settlers. Even as difficult an environment as the Moon can be developed and settled using technology that either exists currently or is an engineering project, as one book suggests. The Tellers think that, from an economic perspective, “Mars has nothing to offer in return.” Here, at least in the short run, they have a point. Although Mars may have more of the natural resources a settlement will need than, say, the Moon, it is at the bottom of a fairly steep gravity well and, for the time being, it is not likely that there will be many Mars-to-Earth exports. However, this is like looking at the resources of the New World via a keyhole, seeing a swamp, and reporting back that there is no point in going there. It is worth keeping in mind the example of “Seward’s Folly.” The purchase of Alaska from Russia was mocked as “Seward’s icebox” and a “polar bear garden.” At the time, the oil and mineral riches of Alaska were undiscovered and undreamt of. Space itself teems with valuable resources, including continuous and abundant solar energy and mineral wealth on a scale beyond imagination just in the near Earth asteroids. Just as the Tellers were dismissing space resources as irrelevant, the US Congress was laying the legal groundwork for asteroid and lunar mining with the passage of the Commercial Space Launch Competitiveness Act, signed by President Obama on November 23, 2015. The Tellers also seem unaware that their leadership at Google, Larry Page and Eric Schmidt, are investors in the asteroid mining firm Planetary Resources. The Tellers say that “we won’t survive [on Earth] unless we learn to live in a resource neutral way.” This statement assumes that that Earth is a closed system, which it is not. The Earth is flooded daily with vast amounts of solar energy that, if exploited, could power just about any civilization we wish to maintain. There is no technical limitation to providing continuous, carbon-free power from space solar power satellites beaming power back to the surface of the Earth anywhere it might be needed. The main opposition to this idea derives from an unwillingness to consider centralized power systems on ideological grounds, combined with the unexpected reality of very cheap natural gas today. Even the most conservative consideration of near-Earth asteroid resources suggests that there is no reason to view the Earth as a closed system to which nothing can be added. The time for the settlement of Mars will come, but first we need to build on our success in developing the resources of Earth orbit, in the form of navigation, Earth observation, communication, and weather satellites, by fully developing the economic potential of the Earth-Moon system. Space settlements must flow out of the development of the economic resources of space if they are to be sustainable in the long term. The NSS has developed a complete description of milestones toward the development of space settlements. In view of the above, Astro Teller was probably right to turn down the “space cadet” who wanted Google X to spend money on Mars settlement. But wait—Google is doing exactly that. A key first step toward space settlement is ensuring a gapless transition from the existing International Space Station to commercially owned and operated LEO space stations as described in the NSS position paper “Next Generation Space Stations.” Next will come the development of the resources of the Moon and neaby asteroids leading to the creation of a self-sustaining Earth-Moon economy. Once we have established an asteroid-Earth-Moon economy that makes the resources found in this region fully available for projects ranging from the construction of solar power satellites to fueling future Mars missions, trips to Mars will be far less of a reach than they are today. In view of the above, Astro Teller was probably right to turn down the “space cadet” who wanted Google X to spend money on Mars settlement. Currently Google’s money would be better spent in low Earth orbit, among the asteroids, and on the Moon, joining forces with the growing number of entrepreneurs seeking their fortunes in space. But wait—Google is doing exactly that by sponsoring the Google Lunar X PRIZE to encourage private groups to send landers to the Moon, and investing $900 million in Elon Musk’s SpaceX. Given that corporate Google (now Alphabet) has just made a massive investment in a company founded to settle Mars, the Tellers’ essay sounds a bit like sour grapes. In any case, the Tellers are completely wrong in their disregard of the potential economic benefits of space development and the underlying motivation for space settlement.

#### Walt goes Aff --- I’ll insert it

\*FULL ARTICLE---NO TEXT REMOVED\*

Walt 20. Stephen M. Walt, Professor of IR @ Harvard & PhD in Poli Sci from UC Berkeley, (5-13-2020, "Will a Global Depression Trigger Another World War?," *Foreign Policy*, <https://foreignpolicy.com/2020/05/13/coronavirus-pandemic-depression-economy-world-war/>, pacc)

By many measures, 2020 is looking to be the worst year that humankind has faced in many decades. We’re in the midst of a pandemic that has already claimed more than 280,000 lives, sickened millions of people, and is certain to afflict millions more before it ends. The world economy is in free fall, with unemployment rising dramatically, trade and output plummeting, and no hopeful end in sight. A plague of locusts is back for a second time in Africa, and last week we learned about murderous killer wasps threatening the bee population in the United States. Americans have a head-in-the-sand president who prescribes potentially lethal nostrums and ignores the advice of his scientific advisors. Even if all those things magically disappeared tomorrow—and they won’t—we still face the looming long-term danger from climate change. Given all that, what could possibly make things worse? Here’s one possibility: war. It is therefore worth asking whether the combination of a pandemic and a major economic depression is making war more or less likely. What does history and theory tell us about that question? For starters, we know neither plague nor depression make war impossible. World War I ended just as the 1918-1919 influenza was beginning to devastate the world, but that pandemic didn’t stop the Russian Civil War, the Russo-Polish War, or several other serious conflicts. The Great Depression that began in 1929 didn’t prevent Japan from invading Manchuria in 1931, and it helped fuel the rise of fascism in the 1930s and made World War II more likely. So if you think major war simply can’t happen during COVID-19 and the accompanying global recession, think again. But war could still be much less likely. The Massachusetts Institute of Technology’s Barry Posen has already considered the likely impact of the current pandemic on the probability of war, and he believes COVID-19 is more likely to promote peace instead. He argues that the current pandemic is affecting all the major powers adversely, which means it isn’t creating tempting windows of opportunity for unaffected states while leaving others weaker and therefore vulnerable. Instead, it is making all governments more pessimistic about their short- to medium-term prospects. Because states often go to war out of sense of overconfidence (however misplaced it sometimes turns out to be), pandemic-induced pessimism should be conducive to peace. Moreover, by its very nature war requires states to assemble lots of people in close proximity—at training camps, military bases, mobilization areas, ships at sea, etc.—and that’s not something you want to do in the middle of a pandemic. For the moment at least, beleaguered governments of all types are focusing on convincing their citizens they are doing everything in their power to protect the public from the disease. Taken together, these considerations might explain why even an impulsive and headstrong warmaker like Saudi Arabia’s Mohammed bin Salman has gotten more interested in winding down his brutal and unsuccessful military campaign in Yemen. Posen adds that COVID-19 is also likely to reduce international trade in the short to medium term. Those who believe economic interdependence is a powerful barrier to war might be alarmed by this development, but he points out that trade issues have been a source of considerable friction in recent years—especially between the United States and China—and a degree of decoupling might reduce tensions somewhat and cause the odds of war to recede. For these reasons, the pandemic itself may be conducive to peace. But what about the relationship between broader economic conditions and the likelihood of war? Might a few leaders still convince themselves that provoking a crisis and going to war could still advance either long-term national interests or their own political fortunes? Are the other paths by which a deep and sustained economic downturn might make serious global conflict more likely? One familiar argument is the so-called diversionary (or “scapegoat”) theory of war. It suggests that leaders who are worried about their popularity at home will try to divert attention from their failures by provoking a crisis with a foreign power and maybe even using force against it. Drawing on this logic, some Americans now worry that President Donald Trump will decide to attack a country like Iran or Venezuela in the run-up to the presidential election and especially if he thinks he’s likely to lose. This outcome strikes me as unlikely, even if one ignores the logical and empirical flaws in the theory itself. War is always a gamble, and should things go badly—even a little bit—it would hammer the last nail in the coffin of Trump’s declining fortunes. Moreover, none of the countries Trump might consider going after pose an imminent threat to U.S. security, and even his staunchest supporters may wonder why he is wasting time and money going after Iran or Venezuela at a moment when thousands of Americans are dying preventable deaths at home. Even a successful military action won’t put Americans back to work, create the sort of testing-and-tracing regime that competent governments around the world have been able to implement already, or hasten the development of a vaccine. The same logic is likely to guide the decisions of other world leaders too. Another familiar folk theory is “military Keynesianism.” War generates a lot of economic demand, and it can sometimes lift depressed economies out of the doldrums and back toward prosperity and full employment. The obvious case in point here is World War II, which did help the U.S economy finally escape the quicksand of the Great Depression. Those who are convinced that great powers go to war primarily to keep Big Business (or the arms industry) happy are naturally drawn to this sort of argument, and they might worry that governments looking at bleak economic forecasts will try to restart their economies through some sort of military adventure. I doubt it. It takes a really big war to generate a significant stimulus, and it is hard to imagine any country launching a large-scale war—with all its attendant risks—at a moment when debt levels are already soaring. More importantly, there are lots of easier and more direct ways to stimulate the economy—infrastructure spending, unemployment insurance, even “helicopter payments”—and launching a war has to be one of the least efficient methods available. The threat of war usually spooks investors too, which any politician with their eye on the stock market would be loath to do. Economic downturns can encourage war in some special circumstances, especially when a war would enable a country facing severe hardships to capture something of immediate and significant value. Saddam Hussein’s decision to seize Kuwait in 1990 fits this model perfectly: The Iraqi economy was in terrible shape after its long war with Iran; unemployment was threatening Saddam’s domestic position; Kuwait’s vast oil riches were a considerable prize; and seizing the lightly armed emirate was exceedingly easy to do. Iraq also owed Kuwait a lot of money, and a hostile takeover by Baghdad would wipe those debts off the books overnight. In this case, Iraq’s parlous economic condition clearly made war more likely. Yet I cannot think of any country in similar circumstances today. Now is hardly the time for Russia to try to grab more of Ukraine—if it even wanted to—or for China to make a play for Taiwan, because the costs of doing so would clearly outweigh the economic benefits. Even conquering an oil-rich country—the sort of greedy acquisitiveness that Trump occasionally hints at—doesn’t look attractive when there’s a vast glut on the market. I might be worried if some weak and defenseless country somehow came to possess the entire global stock of a successful coronavirus vaccine, but that scenario is not even remotely possible. If one takes a longer-term perspective, however, a sustained economic depression could make war more likely by strengthening fascist or xenophobic political movements, fueling protectionism and hypernationalism, and making it more difficult for countries to reach mutually acceptable bargains with each other. The history of the 1930s shows where such trends can lead, although the economic effects of the Depression are hardly the only reason world politics took such a deadly turn in the 1930s. Nationalism, xenophobia, and authoritarian rule were making a comeback well before COVID-19 struck, but the economic misery now occurring in every corner of the world could intensify these trends and leave us in a more war-prone condition when fear of the virus has diminished. On balance, however, I do not think that even the extraordinary economic conditions we are witnessing today are going to have much impact on the likelihood of war. Why? First of all, if depressions were a powerful cause of war, there would be a lot more of the latter. To take one example, the United States has suffered 40 or more recessions since the country was founded, yet it has fought perhaps 20 interstate wars, most of them unrelated to the state of the economy. To paraphrase the economist Paul Samuelson’s famous quip about the stock market, if recessions were a powerful cause of war, they would have predicted “nine out of the last five (or fewer).” Second, states do not start wars unless they believe they will win a quick and relatively cheap victory. As John Mearsheimer showed in his classic book Conventional Deterrence, national leaders avoid war when they are convinced it will be long, bloody, costly, and uncertain. To choose war, political leaders have to convince themselves they can either win a quick, cheap, and decisive victory or achieve some limited objective at low cost. Europe went to war in 1914 with each side believing it would win a rapid and easy victory, and Nazi Germany developed the strategy of blitzkrieg in order to subdue its foes as quickly and cheaply as possible. Iraq attacked Iran in 1980 because Saddam believed the Islamic Republic was in disarray and would be easy to defeat, and George W. Bush invaded Iraq in 2003 convinced the war would be short, successful, and pay for itself. The fact that each of these leaders miscalculated badly does not alter the main point: No matter what a country’s economic condition might be, its leaders will not go to war unless they think they can do so quickly, cheaply, and with a reasonable probability of success. Third, and most important, the primary motivation for most wars is the desire for security, not economic gain. For this reason, the odds of war increase when states believe the long-term balance of power may be shifting against them, when they are convinced that adversaries are unalterably hostile and cannot be accommodated, and when they are confident they can reverse the unfavorable trends and establish a secure position if they act now. The historian A.J.P. Taylor once observed that “every war between Great Powers [between 1848 and 1918] … started as a preventive war, not as a war of conquest,” and that remains true of most wars fought since then. The bottom line: Economic conditions (i.e., a depression) may affect the broader political environment in which decisions for war or peace are made, but they are only one factor among many and rarely the most significant. Even if the COVID-19 pandemic has large, lasting, and negative effects on the world economy—as seems quite likely—it is not likely to affect the probability of war very much, especially in the short term. To be sure, I can’t rule out another powerful cause of war—stupidity—especially when it is so much in evidence in some quarters these days. So there is no guarantee that we won’t see misguided leaders stumbling into another foolish bloodletting. But given that it’s hard to find any rays of sunshine at this particular moment in history, I’m going to hope I’m right about this one.

### T per se---2ac

#### a---the aff per se bans patterns of conduct in labor markets---like wage fixing--- that’s Posner, cengiz, and…

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Conclusion This volume outlines several essential steps to redress the imbalances and rein in the power of employers. It offers ideas on how we can rewrite the rules of the economy to make the labor market more competitive and prevent the anticompetitive practices employers have systematically used to increase their market power. The chapters in this volume show that there is much that can be done at both the state and the national levels. For instance, mergers should be screened for effects on workers, just as they are already screened for effects on consumers. No-poach and noncompete agreements should be made per se illegal for low-wage workers.

#### ---Anticompetitive business practices distort competition.

Charlotte Wezi Mesikano-Malonda 16. Executive director. "Global Competition Review". No Publication. 7-22-2016. https://globalcompetitionreview.com/review/the-european-middle-eastern-and-african-antitrust-review/the-european-middle-eastern-and-african-antitrust-review-2017/article/malawi-competition-and-fair-trading-commission

Anticompetitive business practices are generally defined as the category of agreements, decisions and concerted practices that result in the prevention, restriction or distortion of either actual or potential competition. Abuse of dominance and market power is an example of anticompetitive business practices and hence falls within the purview of the CFTA.3 Anticompetitive business practices are either illegal per se or illegal by rule of reason. A conduct is illegal per se if, regardless of its objective and effect or any justifications of the conduct, there is a presumption of harm on competition.

#### ---Prohibitions include per se and rule of reason.

Anu Bradford and Adam S. Chilton 18. Anu Bradford Henry L. Moses Professor of Law and International Organization, Columbia Law School. Adam S. Chilton. Assistant Professor of Law and Walter Mander Research Scholar. “Competition Law Around the World from 1889 to 2010: The Competition Law Index”. JOURNAL OF COMPETITION LAW & ECONOMICS, VOL. 14, P. 393, 2018 (2018). https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=3519&context=faculty\_scholarship

Before discussing our data and the coding of the CLI, it is important to recognize that there are limitations to any index that attempts to quantify competition regulation. This is because it is difficult to produce a single metric that tells the comprehensive story of country’s competition regime. For example, if a specific type of conduct is prohibited, is it prohibited always (per se) or sometimes (rule of reason)? This seems like a relevant distinction to code, but it turns out to be difficult to capture systematically in many jurisdictions. For instance, Article 101(3) of the Treaty on the Functioning of the European Union (TFEU) seems to regulate anticompetitive agreements under the rule of reason standard in the European Union, but, in practice, cartels are per se prohibited. This highlights the challenge of coding even just the law in books, let alone accounting for all the nuances of a country’s competition policies.20

#### c--- No bright line---rule of reason is a prohibition---they function synonymously.

Light 19, Sarah E. Light Assistant Professor of Legal Studies and Business Ethics, The Wharton School, University of Pennsylvania., The Law of the Corporation as Environmental Law, 71 Stan. L. Rev. 137, 2019, Lexis/Nexis

While antitrust law can serve as an environmental mandate by prohibiting collusive behavior that keeps environmentally preferable goods from the market, there is also conflict between antitrust law's goals of promoting competition and environmental law's goals of promoting [\*177] conservation. 192 Because antitrust law's per se rule and rule of reason operate on a somewhat fluid continuum, 193 this Subpart discusses the two doctrines together. The per se rule operates as a prohibition, whereas the rule of reason operates as both a prohibition and a disincentive. As noted above, antitrust law generally prohibits certain types of market activity - price fixing, horizontal boycotts, and output limitations - as illegal per se, and harm to competition is presumed. 194 For example, if an industry association declines to award a seal of approval necessary for a product's sale without any good faith attempt to test the product's performance, but rather simply because that product is manufactured by a competitor, such an action would be illegal per se. 195 Under this Article's framework, a per se violation is thus a prohibition. The more fact-intensive inquiry under the rule of reason tests "whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition." 196 While this extremely broad statement might suggest that any fact is relevant to the inquiry, the salient facts under the rule of reason are "those that tend to establish whether a restraint increases or decreases output, or decreases or increases prices." 197 If an anticompetitive effect is found, then the action is illegal and the rule of reason operates, like the per se rule, as a prohibition. 198 The rule of reason can also operate as a disincentive, even if no [\*178] court finds an anticompetitive effect, as uncertainty and litigation risk may discourage firms from undertaking legally permissible, environmentally positive industry collaborations. 199 Associations of firms have adopted numerous mechanisms of private environmental governance to address the management of common pool resources like fisheries, forests, and the global climate. 200 Examples include the Sustainable Apparel Coalition's Higg Index 201 and the American Chemistry Council's Responsible Care program. 202 But private industry standards raise special antitrust concerns. An agreement among competitors with respect to product or process specifications may exclude competitors who fail to meet such standards, raising the specter that such industry collaborations really constitute output limitations or efforts to limit competition. 203 While the U.S. Supreme Court has scrutinized private standard-setting associations carefully, 204 it has noted that if associations "promulgate … standards based on the merits of objective expert judgments and through procedures that prevent the standard-setting process from being biased by members with economic interests in stifling product competition … , those private standards can have significant procompetitive advantages." 205 In the absence of price fixing or a boycott, a rule of reason analysis generally applies to product standard setting by private associations. 206 The uncertain outcome [\*179] inherent in the application of antitrust law in this context could therefore serve as a potential disincentive to the adoption of private industry standards. 207 The challenge of course is that some form of explicit sanctions on noncompliant industry members may be necessary for private industry standards to be effective. In the context of private reputational mechanisms like the New York Diamond Dealers Club, 208 Barak Richman has pointed out that the Club's use of reputational sanctions and voluntary refusals to deal with actors who flout industry norms, while welfare enhancing, could nonetheless amount to violations of antitrust law. 209 This echoes the concern raised by Andrew King and Michael Lenox in their extensive empirical analysis of the Responsible Care program created by the Chemical Manufacturers Association (now the American Chemistry Council). 210 King and Lenox concluded that the absence of explicit sanctions on members who failed to meet the standards set by the program left the program vulnerable to "opportunism." 211 While they suggested that industry associations could look to third parties to enforce the rules, 212 an alternative way to facilitate the long-term environmental benefits of stronger sanctions would be to interpret antitrust law in conformity with the environmental priority principle presented below. 213 [\*180] In some instances, the conflict between the values of promoting competition and conserving environmental resources can be stark. 214 Jonathan Adler, for example, has identified this conflict in the context of fisheries - a tragedy of the commons situation in which some form of collective action is required to avoid overfishing. 215 He cites as an example Manaka v. Monterey Sardine Industries, Inc., in which a fisherman was excluded from a local fishing cooperative. 216 The fisherman sued the cooperative under the Sherman Act, and the court found an antitrust violation in his exclusion. 217 While the fishing cooperative's policies were no doubt exclusionary, Adler contends that they also promoted conservation by restricting catch. 218 The fishery collapsed by the 1950s, a collapse Adler hypothesizes might have been "inevitable" but that perhaps might not have occurred in the absence of the antitrust suit. 219 While a court performing a rule of reason analysis must consider whether a restraint on trade suppresses or destroys competition, Adler points out that courts may also "consider offsetting efficiencies from otherwise anticompetitive arrangements." 220 It is not clear, however, that the courts have consistently taken these factors into account. 221 Among other potential remedies, Adler argues that to resolve this tension between antitrust law, on the one hand, and private collective action to conserve environmental resources, on the other, courts should more actively consider the "ancillary conservation benefits of otherwise anticompetitive conduct." 222 Recognizing the long-term health of a fishery would be consistent with antitrust law's purpose of ensuring viable markets exist in the future, and consistent with the environmental priority principle introduced below. 223

### T Economy Wide---2ac

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

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

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

#### b---aff ground---no aff is t because exceptions exist

1nc Gerber ’20 [David; October; Distinguished Professor of Law at Chicago-Kent College of Law, Illinois Institute of Technology; Oxford Scholarship Online, Competition Law and Antitrust, “What is It? Competition Law’s Veiled Identity,” Ch. 1, p. 14-15]

C. A Core Definition

The Guide uses the terms “competition law” and “antitrust law” to refer to a general domain of law whose object is to deter private restraints on competitive conduct. We look more closely at the terms:

1. “General”—The laws included are those that are applicable throughout an economy and thereby provide a framework for all market operations (there are always some exempted sectors). Laws dealing only with specific markets (e.g., telecommunication) do not play that role.

2. “Domain of Law” here refers to a politically authorized set of norms and the institutional arrangements used to enforce them.

Is it law—or is it policy? The relationship between “competition law” and “competition policy” is not always clear. Often the terms are used interchangeably, but there can be important differences between them. Both can refer to norms used to combat restraints on competition, but they represent two different ways of looking at the relevant laws, and the differences can influence how norms are interpreted and applied. “Law” implies that established methods of interpretation are used to interpret and apply the norms and that established procedures are the sole or primary means of enforcing and changing the norms. In this view, the norms are a relatively stable component of a legal system. Thinking of those same norms as “policy,” on the other hand, implies that they are a tool of whatever government is in power and that it can use and modify them as it wishes.

3. “Restraint” refers to any limitation imposed by one or more private actors that reduces the intensity of competition in a market.

4. “Competition” refers to a process by which firms in a market seek to maximize their profits by exploiting market opportunities more effectively than other firms in the market.

### T Exemptions---2ac

#### a---The plan expands the area, so core laws deal with employer power. That’s a non-statutory exemption because Courts are ruling against labor.

Sanjukta Paul 19. Assistant Professor of Law, Romano Stancroff Research Scholar. “9 - The Case for Repealing the Firm Exemption to Antitrust (A Modest Proposal; or, a Response to Professor Epstein)”. from Part II - Labor Law Is Out of Date. Published online by Cambridge University Press: 01 November 2019 <https://www-cambridge-org.proxy.library.emory.edu/core/books/cambridge-handbook-of-us-labor-law-for-the-twentyfirst-century/case-for-repealing-the-firm-exemption-to-antitrust/E8BA98C6D6606A6E6BC1073291C3F277>

Professor Epstein argues in this volume and elsewhere for repealing the already limited economic coordination rights accorded to working people. In this chapter, I respond to his argument – and by extension, to the more general skepticism toward the coordination rights of working people. I begin by first questioning a different exemption from the putatively general norm about the “dangers of collective behavior.”Footnote6 Business associations themselves enjoy an almost unlimited exemption from antitrust law, one that is now treated as axiomatic. But it wasn’t always. The “firm exemption” is not based upon the text of the statute, and it was never endorsed by the legislators who conceived and drafted the Sherman Act. Indeed, they would likely have rejected it in its present form. At the same time, the legislative record is plain that legislators favored and intended coordination rights for working people to be preserved under the statute.Footnote7 But judges rewrote the Act in light of their own vision for the allocation of coordination rights – and that vision favored business firms as the locus of economic coordination and disfavored labor organizations.Footnote8

Professor Epstein’s “welfarist” argument against the labor exemption relies upon a normative benchmark given by “the competitive order” centered by Chicago School law and economics.Footnote9 But no such benchmark can exist without a definition – necessarily supplied by law, not economics – of the entities that are to engage in that competition.Footnote10 The law defines business firms, rather than, say, cartels, as the entities that are to engage in competition, thereby exempting their internal coordination from antitrust scrutiny. The other normative benchmark upon which Professor Epstein’s argument at least indirectly relies is the notion of freedom of contract, as embodied in the pre–New Deal common law of labor relations. However, the common law’s denial of coordination rights to working people was in fact justified in hierarchical, antiliberty terms – illustrating a more basic justificatory problem with the policy decision to abridge working people’s freedom of association from a liberal perspective.

#### The scope of competition law defines it goals.

ESE No Date. Erasmus School of Economics (as per their website, “The Erasmus Center for Economic and Financial Governance is an international multidisciplinary network of leading researchers and societal stakeholders initiated by researchers from Erasmus School of Economics and Erasmus School of Law. ECEFG conducts interdisciplinary research (law, economics and political science) and contributes to current debates in public and in academia on issues relating to European and global economic and financial governance.”). "Competition Policy". <https://www.eur.nl/en/ese/affiliated/ecefg/research/competition-policy>

Competition Policy

Research in this field consists of two broad areas. The first area – Theory and Implementation of Competition Law and Policy – refers to fundamental and applied research into topics that are traditionally seen as the core of competition policy. The second area – Scope of Competition Law and Policy – refers to all research on the effect and desirability of including new considerations in competition law and policy in order to address the challenges of our time, such as the increasing power of big tech firms, or global warming.

Theory and Implementation of Competition Policy

This covers for instance collusion, abuse of dominance, mergers, market regulation and state aid. Some examples of research topics are:

* the practices firms can use to engage in collusion and its welfare consequences;
* the practices firms can use to abuse a dominant position and its welfare consequences;
* which practices can be considered proof of such activities;
* how to regulate access to a market;
* how to properly assess the effects of a particular practice or merger;
* the practices, by which the state and public authorities distort competition such as subisidies and tax measures
* the interpretation and application of EU and national competition law by Competition Authorities and Courts and the extent to which they achieve the goals of competition policy

Scope of Competition Policy

The effectiveness of European competition law and policy in combination with rapid technological changes have raised questions about its proper scope. Which policy objectives can and should be pursued by means of competition law and policy, and which should be delegated to other legal fields and policies? Some examples of specific research questions include:

* Can and should competition law be used to protect the privacy of consumers on the internet?
* Information gathered by firms can be used to increase their own profits. How does this affect consumers, and what does this depend on? Can and should competition law deal with market power derived from information gathering? For instance, should the big five tech giants be forced to divest activities?
* Should competition policy also include considerations of economic inequality or environmental effects?
* Can competition law remain effective if it is used for more than safeguarding fair competition?

#### That means the aff must change the consumer welfare standard.

Trevor Wagener 21. "The Curse of Tradeoffs: Neo-Brandeisians vs. Consumers". Disruptive Competition Project. 5-21-2021. https://www.project-disco.org/competition/052121-the-curse-of-tradeoffs-neo-brandeisian-antitrust-versus-consumers/

Neo-Brandeisians seek to replace the longstanding objective and principles-based framework of the consumer welfare standard in antitrust enforcement with an amorphous, process-based framework guided by an ethos one Neo-Brandeisian described as: “Big is bad. Just don’t let big firms merge. The end.” A movement dedicated to replacing a consumer welfare-maximizing approach with an assortment of competing goals has proven unable to offer a quantified, systematic cost-benefit analysis justifying such a radical change, instead relying upon anecdotal evidence and moving prose. The many goals of the Neo-Brandeisian approach are often rhetorically appealing, but the rhetoric hides a simple truth: When you target every variable, you effectively target none. Addressing a wide range of goals through antitrust policy requires de-emphasizing consumer welfare, creating fundamental tradeoffs expected to harm consumers relative to the status quo. The willingness to sacrifice consumer welfare in order to achieve other ends is a defining characteristic of Neo-Brandeisian antitrust. This is illustrated by concrete Neo-Brandeisian critiques, which typically emphasize perceived harms to businesses rather than harms to consumers. For example, the Neo-Brandeisian activist group American Economic Liberties Project (AELP) published a pair of policy briefs on May 3 that criticize online service operators for a litany of purported inconveniences to businesses over a combined 22 pages, but struggle to quantify any harms to ordinary consumers and users. Those few purported harms to consumers that AELP raised are distinctly qualitative rather than quantitative, consistent with the broader reluctance of prominent Neo-Brandeisian thinkers to conduct a rigorous quantitative cost-benefit analysis of their antitrust policy prescriptions relative to the consumer welfare standard.

### Death Cult---2ac

#### 4---Obsession with nuclear impacts mobilizes compassion, reverses detachment

Macy 0 — Joanna Macy, adjunct professor at the California Institute of Integral Studies, Environmental Discourse and Practice: A Reader, p. 243

The move to a wider ecological sense of self is in large part a function of the dangers that are threatening to overwhelm us. We are confronted by social breakdown, wars, nuclear proliferation, and the progressive destruction of our biosphere. Polls show that people today are aware that the world, as they know it, may come to an end. This loss of certainty that there will be a future is the pivotal psychological reality of our time. Over the past twelve years my colleagues and I have worked with tens of thousands of people in North America, Europe, Asia, and Australia, helping them confront and explore what they know and feel about what is happening to their world. The purpose of this work, which was first known as “Despair and Empowerment Work,” is to overcome the numbing and powerlessness that result from suppression of painful responses to massively painful realities. As their grief and fear for the world is allowed to be expressed without apology or argument and validated as a wholesome, life-preserving response, people break through their avoidance mechanisms, break through their sense of futility and isolation. Generally what they break through into is a larger sense of identity. It is as if the pressure of their acknowledged awareness of the suffering of our world stretches or collapses the culturally defined boundaries of the self. It becomes clear, for example, that the grief and fear experienced for our world and our common future are categorically different from similar sentiments relating to one’s personal welfare. This pain cannot be equated with dread of one’s own individual demise. Its source lies less in concerns for personal survival than in apprehensions of collective suffering – of what looms for human life and other species and unborn generations to come. Its nature is akin to the original meaning of compassion – “suffering with.” It is the distress we feel on behalf of the larger whole of which we are a part. And, when it is so defined, it serves as a trigger or getaway to a more encompassing sense of identity, inseparable from the web of life in which we are as intricately connected as cells in a larger body. This shift in consciousness is an appropriate, adaptive response. For the crisis that threatens our planet, be it seen in its military, ecological, or social aspects, derives from a dysfunctional and pathogenic notion of the self. It is a mistake about our place in the order of things. It is the delusion that the self is so separate and fragile that we must delineate and defend its boundaries, that it is so small and needy that we must endlessly acquire and endlessly consume, that it is so aloof that we can – as individuals, corporations, nation-states, or as a species – be immune to what we do to other beings.

### Taxes CP---2ac

#### 2---Taxes causally harm growth---recent studies prove.

Alex Durante 21. Federal Tax Economist “Reviewing Recent Evidence of the Effect of Taxes on Economic Growth” Tax Foundation. 05-21-21. <https://taxfoundation.org/reviewing-recent-evidence-effect-taxes-economic-growth/>

With the Biden administration proposing a variety of new taxes, it is worth **revisiting the literature** on how taxes impact economic growth. In 2012, we published a review of the evidence, noting that most studies find negative impacts. However, many papers have been written since, some using more sophisticated empirical methods to identify a causal impact of taxes on economic growth. Below we review this **new evidence**, again confirming our original findings: **Taxes**, particularly on corporate and individual income, **harm economic growth.** The economic impacts of tax changes on economic growth, measured as a change in real GDP or the components of GDP such as consumption and investment, are difficult to measure. Some tax changes occur as a response to economic growth, and looking at a tax cut at a certain point in time could lead to the mistaken conclusion that tax cuts are bad for growth, since tax cuts are often enacted during economic downturns. For this reason, most of the literature in recent years, and reviewed below, has followed the methodology developed in Romer and Romer (2010): Looking at unanticipated changes in tax policy, which economists refer to as “exogenous shocks.” There are other methodological challenges as well. Failure to control for other factors that impact economic growth, such as government spending and monetary policy, could understate or overstate the impact of taxes on growth. Some tax changes in particular may have stronger long-run impacts relative to the short run, such as corporate tax changes, and a study with only a limited time series would miss this effect. Finally, tax reforms involve many moving parts: Certain taxes may go up, while others may drop. This can make it difficult to characterize certain reforms as net tax increases or decreases, leading to mistaken interpretations of how taxes impact growth. We **investigate papers in top economics journals** and National Bureau of Economic Research (NBER) working papers over the past few years, considering both U.S. and international evidence. This research covers a wide variety of taxes, including income, consumption, and corporate taxation. All seven papers reviewed here find that **tax cuts** have **positive effects** on growth, although some papers note that the strength of this effect depends on which taxes are cut, for whom, and when. Mertens and Olea (2018) used time series data from 1946 to 2012 to estimate the impacts of marginal tax rates on individual income. They found that marginal rate cuts led to both increases in real GDP and declines in unemployment. A 1 percentage-point decrease in the tax rate increases real GDP by 0.78 percent by the third year after the tax change. Importantly, they find that changes in income following a tax change are responsive to the marginal rate change regardless of the change in the average tax rate. This illustrates that the positive GDP changes the authors find are the response to changes in the incentives, rather than due to an increase aggregate demand through the consumption channel. Cuts in tax rates for the top 1 percent also have positive impacts on other income groups, consistent with a supply-side narrative of how reductions in top marginal rates can increase incomes for other groups over time. However, tax cuts for the top 1 percent do increase inequality. Zidar (2019) examines the impact of federal tax burdens on economic growth and labor supply across different income groups and states from 1950-2011. He finds positive impacts of tax cuts on economic growth following two years after the change in policy but finds that tax cuts for low- and moderate-income taxpayers affect growth more than tax cuts for high-income taxpayers. The paper finds that a 1 percent of state GDP tax decrease for the bottom 90 percent of earners increases state GDP by 6.6 percent. Looking at labor supply effects in particular, he finds that a 1 percent of state GDP tax decrease increases labor force participation for the bottom 90 percent of earners by 3.5 percentage points and hours worked by 2 percent. He does not find any significant impact on labor force participation rates, hours worked, or GDP growth for the top 10 percent of earners from a similarly sized tax change, somewhat in contrast to the results found in Mertens and Olea (2018) for top earners. This result may lead some to assume that Zidar is identifying “Keynesian” effects of tax changes, or aggregate demand effects. However, the paper finds strong effects of tax cuts on real wages as well. As Zidar notes, “the increase in real wages suggests that supply-side responses are important and may exceed demand-side responses to tax changes for the bottom 90%.” Additionally, some may go further and argue that this paper shows that tax cuts for top earners have no impact on growth. However, this paper only looks at short-run impacts of tax changes on GDP and does not consider the broader implication of tax policy on long-run growth, human capital, or innovation. Nonetheless, the paper **provides compelling evidence** of tax cuts impacting growth through the supply side, consistent with neoclassical economic theory. Ljungvist and Smolyansky (2018) **look at 250 state corporate tax changes** from 1970-2010 to assess their impact on employment and income. By comparing nearby counties across states, this allows the authors to isolate the impacts of corporate tax changes relative to other policies that might affect economic growth. They find that a 1 percentage-point cut in statutory corporate tax rates leads to a 0.2 percent increase in employment and a 0.3 percent increase in wages. They find that **tax increases are** almost **uniformly harmful**, while tax cuts seem to have their strongest positive impact during recessionary environments. As with some of the other studies discussed here, the paper mainly examines short-runs effects, and it is possible that these positive effects could grow over a longer time horizon.

#### e--- Increased corporate taxes worsen inequality and decrease wages.

Erica York & Garrett Watson 20. \*\*Economist with Tax Foundation’s Center for Federal Tax Policy, adjunct professor in economics at Wichita State University. \*\*Senior Policy Analyst at the Tax Foundation, conducts research on federal and state tax policy. “The Unintended Consequences of Higher Corporate Taxes on Income Inequality.” 10/29/20. https://taxfoundation.org/do-corporate-tax-cuts-increase-income-inequality/

However, this thinking neglects that corporate income taxes are not only borne by high-income shareholders but also by lower-income Americans who own corporate equities and by workers for those firms, reducing American incomes across the board.

Economists Gabriel Zucman and Emmanuel Saez recently published a piece revising their measure of U.S. income inequality and addressing criticisms of their previous work on the income distribution. As in their 2019 book, Saez and Zucman use a nonconventional method for allocating labor and capital taxes when measuring inequality by allocating labor taxes entirely on labor and capital taxes entirely on the owners of capital. While this move makes the tax distribution look more progressive when taxes on capital are higher, it also increases measured regressivity in the tax code when taxes on capital decrease.

This incidence assumption is outside of the norm. For example, standard economic analysis assumes at least a portion (between 25 percent and 50 percent) of the corporate tax burden falls on workers in the form of lower wages. Evidence indicates more than half the burden falls on workers in some situations. This means that workers would earn lower wages than otherwise in the face of a higher corporate income tax, resulting in lower after-tax incomes.

A second way in which higher corporate income taxes can result in lower after-tax incomes for many Americans is through the taxes’ direct effect on corporate equities. All else equal, a higher corporate income tax would tend to reduce the value of corporate equities as the expected after-tax rate of return on corporate investment falls.

For example, recent estimates show that retirement accounts hold about 30 percent of outstanding corporate stock. Pensions and retirement accounts provide the middle class with access to the stock market, though it is important to note that stock ownership remains skewed towards higher-income individuals. Even so, this means many average Americans would experience a lower-after tax income through the effect on corporate equities even if labor bears no portion of the corporate income tax.

The incidence of the corporate income tax has impacts on the state of income inequality too. In a recently updated working paper, economist James Hines explores how an increase in the corporate income tax can increase income inequality, even if the corporate income tax is borne entirely by capital. Hines’ findings suggest that the corporate tax exacerbates conditions which lead to economic disparities, casting doubt on the effectiveness of using the corporate income tax as a method to reduce income inequality.

Usual tax incidence analysis tries to determine how different income groups (defined by pre-reform income) bear the burden of a tax change. Hines’ paper builds on this by evaluating the extent to which a change in the corporate tax has an effect on the dispersion of incomes.

Specifically, an increase in the corporate tax discourages corporate activity and so leads to a reallocation toward noncorporate activity. Higher levels of noncorporate activity can potentially increase the level of idiosyncratic risk (due to inherent individual factors as opposed to broad market trends), leading to larger numbers of both very successful and failing business owners. Because of this effect, a reallocation toward noncorporate business activity can widen the income distribution, resulting in higher overall income inequality.

Hines develops a model to analyze this theory and fits it to U.S. tax return data. His findings suggest “that the greater income dispersion accompanying higher corporate tax rates may significantly dampen or even reverse the net effect of higher rates on the concentration of income in the top one percent.” Of course, as with all models, strong assumptions and some degree of imprecision are required; nonetheless, the analysis suggests that a corporate tax rate increase has a clear impact on income concentration, undermining the ability of the tax to reduce income disparities.

This research and the literature that finds under standard distributional analysis that workers bear at least part of the burden of the corporate income tax casts doubt on research pointing to the corporate income tax as a way of reducing income inequality. As election season nears completion and proposals to increase the corporate income tax are considered, it is important to recognize the negative effects such an increase would have on all levels of income.

#### antitrust is the less stringent option.

Daniel Crane 18. Frederick Paul Furth Professor of Law, University of Michigan. “Antitrust's Unconventional Politics.” *Virginia Law Review* (104): 134-135. <https://repository.law.umich.edu/cgi/viewcontent.cgi?article=3019&context=articles>.

Beyond the concern that, absent antitrust, capitalism itself might succumb to reformist pressures, there is a more modest possibility that, absent antitrust, political pressures would lead to overregulation. Antitrust and administrative regulation are conventionally viewed as alternatives to address market failures. From the Reagan Administration to the Financial Crisis of 2008, the overall arc of American law involved simultaneous deregulation and relaxation of antitrust enforcement. If popular dissatisfaction with the economic status quo grows, demand might grow to pull either the regulatory or antitrust lever. Those ideologically committed to a light governmental hand on the market might prefer the antitrust alternative.

It is hard to judge at any given moment how much political support for antitrust intervention is motivated by genuine concern over monopoly and competition, and how much of it derives from the fact that, in the face of popular demand for a governmental cure to a perceived evil, it is often easier to delegate the solution to antitrust than to propose a regulatory solution. From the Sherman Act forward, however, it is certain that antitrust has often been deployed as a foil to more interventionist forms of regulation. The ideological and political implications of that move are complex and not neatly housed in left– right categories.

#### anything that regulates competition expands antitrust.

Nurix Therapeutics, Inc. and Gilead Sciences, Inc. 17. “Collaboration, Option and License Agreement by and between NURIX THERAPEUTICS, INC. and GILEAD SCIENCES, INC.” dated as of June 10, 2019. Certain confidential information contained in this document, marked by [\*], has been omitted because it is not material and would likely cause competitive harm to the company if publicly disclosed. https://www.sec.gov/Archives/edgar/data/1549595/000119312520186809/d903927dex109.htm

1.14 “Antitrust Law” means any Applicable Law that is designed to prohibit, restrict or regulate actions having the purpose or effect of monopolization, lessening of competition or restraint of trade, including the HSR Act.

1.15 “Applicable Law” means all applicable laws, statutes, rules, regulations, treaties (including tax treaties), orders, judgments or ordinances having the effect of law of any national, multinational, federal, state, provincial, county, city or other political subdivision, including, to the extent applicable, GCP, GLP and GMP, as well as all applicable data protection and privacy laws, rules and regulations, including, to the extent applicable, the United States Department of Health and Human Services privacy rules under the Health Insurance Portability and Accountability Act and the Health Information Technology for Economic and Clinical Health Act and the EU Data Protection Directive (Council Directive 95/46/EC) and applicable laws implementing the EU Data Protection Directive and the General Data Protection Regulation (2016/679).

#### b---can’t overcome unyielding resistance to tax increases.

Laura Davison 21. Reporter at Bloomberg news. “Trump Tax Cuts Set to Win Staying Power as Democrats Drop Plans.” 10/26/21. https://www.bloomberg.com/news/articles/2021-10-26/trump-tax-cuts-set-to-win-staying-power-as-democrats-drop-plans

President Joe Biden will likely be unable to keep one of his key campaign promises -- to roll back his predecessor’s historically unpopular 2017 tax cuts -- because of unyielding resistance among even some in his own party to raise taxes.

While Biden won applause on the campaign trail for pledging to repeal President Donald Trump’s tax overhaul on “day one,” as president he has run into the same political reality faced by Barack Obama, who kept the vast majority of George W. Bush’s tax reductions: raising taxes is a hard lift in Congress.

In Biden’s case, Senator Kyrsten Sinema of Arizona has loomed as the biggest obstacle. While she hasn’t spelled out her views in public, Democratic lawmakers attempting to craft a package of revenue-raisers to pay for the sweeping social spending bill to enact most of Biden’s economic agenda say she’s opposed tax-rate increases.

Biden has already acknowledged that there aren’t enough votes to raise Trump’s 21% corporate tax rate. The setback is ironic considering how Trump’s overhaul was a historically unpopular tax cut that directed many of the benefits to high-earning taxpayers and large corporations.

“I’m surprised that it seems like the corporate rate is out,” said Alex Hendrie, the director of tax policy at Grover Norquist’s Americans for Tax Reform. “A lot of people around town assumed that it would go up.”

More about the tax package may be known later this week, with Senate Democrats planning to release their plan to fund what’s shaping up to be a near-$2 trillion social spending package.

The negotiations over revenue provisions are ongoing and there are many options for the wealthy and corporations to pay their fair share, according to a person familiar with the White House’s thinking. The ultimate plan will not add to the debt, the person said.

Enduring Legacy

Trump’s tax law could end up being one of his most enduring policy legacies -- transitioning the U.S. from having one of the highest corporate tax rates in the world to one of the lowest, after years of squabbling in Congress over how to address business taxation.

The 2017 Republican tax law took the corporate rate down to 21% from 35%, lowered the top tax rate for the highest-earning Americans to 37%, and made dozens of other changes that amounted to a $1.5 trillion net tax reduction over a decade.

Republicans say that the overhaul made the country more competitive, while critics have said it didn’t generate the promised economic growth and investment, and largely helped wealthy donors and corporate shareholders -- deepening inequality.

Given historical support among Republicans for a corporate rate in the mid-20s, and the 2017 legislation’s unpopularity, Democrats had assumed a rate hike for companies would be the easiest part of the plan.

Senator Mark Warner, a Virginia Democrat, said last week it would be a “great irony” if his party embraced the Trump tax cuts.

Intense Lobbying

Business groups including the U.S. Chamber of Commerce and the Business Roundtable have opposed Democrats’ attempts to increase tax rates. Corporate groups lobbied intensely for the tax breaks passed in 2017 and have fought Democrats’ attempts to roll back those benefits.

Sinema, who’s up for re-election in 2024, has already this year taken in more than the $2.3 million she raised in the 2019-2020 election cycle. Negotiators say she would support higher tax burdens on high-net-worth Americans and on corporations, just not through higher rates. Instead, Democrats are looking at corporate minimum taxes on financial profits and taxing the unrealized gains of billionaires.

Sinema’s office didn’t respond to a request for comment.

Democrats acknowledge that there is unlikely to be another large bill before the mid-term elections next year. They are currently projected to lose their House majority next year -- meaning it could be years before they have large enough margins to confront the corporate rate.

### Labor Law CP---2ac

#### c/a all from taxation and

Becky Chao, 18. was a fellow at New America’s Open Technology Institute, worked on investigations and litigation of anticompetitive mergers and practices in a variety of sectors as an honors paralegal at the Federal Trade Commission Bureau of Competition. "At the Intersection of Labor, Employment, and Antitrust Law". New America. 3-13-2018. https://www.newamerica.org/millennials/dm/intersection-labor-employment-and-antitrust-law/

Against this anticipated blow to unions, the teacher strike in West Virginia is an example of how workers may continue to organize. Typically, the rights protected by the [National Labor Relations Act (NLRA)](https://www.nlrb.gov/resources/national-labor-relations-act) include collective bargaining, but these rights do not extend to public sector employees or independent contractors. Instead, the ability of these employees to collectively organize has been regulated by antitrust law. The role of antitrust liability for collective action has been well documented. Late nineteenth-century courts initially ruled in favor of the federal government’s argument that the strike organized by unions belonging to the Amalgamated Council violated the Sherman Antitrust Act by engaging in a conspiracy to restrain trade in [U.S. v. Workingmen’s Amalgamated Council](https://www.jstor.org/stable/1829777?seq=2#page_scan_tab_contents) (though the federal government ultimately withdrew its suit several years later in the appeal). While [Section 6 of the Clayton Act](http://gwclc.com/Library/America/USA/The%20Clayton%20Act.pdf) exempts labor organizations and their members from antitrust liability for lawful actions and [Section 20 of the Sherman Act](https://www.americanbar.org/content/dam/aba/administrative/labor_law/meetings/2011/ac2011/074.authcheckdam.pdf) prohibits injunctions against activities such as strikes and boycotts resulting from disputes over terms or conditions of employment, the Supreme Court has affirmed the exclusion of independent contractors from protection under the Sherman Act. In the 1962 case [U.S. v. L.A. Meat and Provision Drivers Union, Local 626](https://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=1348&context=bjell), the Supreme Court held that allowing independent contractors who collected and sold waste restaurant grease to be union members violated Section 1 of the Sherman Act. In 1999, the Federal Trade Commission [investigated the potential participation](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2649275) of a number of individual truck drivers in a price-fixing scheme following their participation in a series of strikes over poor working conditions and low pay. When organizing for decent wages and working conditions may in fact be prosecuted as price-fixing, workers may be significantly deterred from organizing in order to attempt to improve their situation. At the risk of oversimplification, antitrust law could be understood as balancing the tension between the cultural values of competition and collaboration. Companies compete against one another for customers, and may do so by merging with former competitors. Though companies may compete using joint ventures or other business practices that rely on collaboration from all involved parties, antitrust law defines the extent and legality of that collaboration. As detailed above, antitrust law may also delineate the extent to which certain classes of workers (including independent contractors) may collaborate among themselves and organize for livable wages and better working conditions. The realities of today are such that the average annual salary of public school teachers in West Virginia [ranked 48th](http://www.nea.org/assets/docs/2017_Rankings_and_Estimates_Report-FINAL-SECURED.pdf) in the U.S. in 2016, and [74 percent of Uber and Lyft drivers](http://ceepr.mit.edu/news/117) earn less than the minimum wage in the state where they operate. These statistics in particular support a call for a reevaluation of the ways that labor and employment laws work in conjunction with antitrust law to facilitate the means by which workers can collaborate and advocate for themselves with dignity and respect. After all, livable wages and working conditions may hold more economic, social, and moral value than the law currently affords.

#### CP would deck FTC funding and credibility.

Daniel A. Crane, 19. Professor of Law at University of Michigan Law School. “Toward a Realistic Comparative Assessment of Private Antitrust Enforcement”. Cambridge University Press. 2019. https://repository.law.umich.edu/book\_chapters/137/

Still, with antitrust budgets quite limited and politically dependent in many newer antitrust enforcement jurisdictions, it would not be surprising to see a rise in private antitrust enforcement correspond with a decrease in public funding. Politicians eager to cut budgets may see little need for generosity to public agencies as to a public good supplied amply supplied by private markets. At any rate, as private enforcement grows throughout the world, it will be important to understand how, if at all, this affects legislatures’ willingness to fund competition authorities.

#### Antitrust is better.

David Seligman and Brian Shearer, 19. David Seligman is Director of Towards Justice where he litigates cases on behalf of low-wage workers attacking labor market abuses and is a Contributing Author at the National Consumer Law Center. Brian Shearer is a writer at OnLabor. "Protecting Worker Power with Antitrust". OnLabor. 2-19-2019. <https://onlabor.org/protecting-worker-power-with-antitrust/>

Workers principally have two ways to exercise power in the labor market: exit and voice (as labor scholar and former Department of Labor Administrator David Weil has [explained](https://hbr.org/2018/06/workers-shouldnt-have-to-sign-away-their-rights-to-class-action-lawsuits.%20%20%20%20%20http:/www.pewresearch.org/fact-tank/2018/08/07/for-most-us-workers-real-wages-have-barely-budged-for-decades/)). Labor law is concerned with worker voice, namely the right of workers to engage in concerted action to exercise power in their workplace. **But worker exit** **is** an **important part** **of the equation** too. Worker exit is workers’ ability to shop between employers for fair wages and improved working conditions. Considering that the labor market is currently plagued by **systemic suppression** of worker power resulting **in** [**wage stagnation**](http://www.pewresearch.org/fact-tank/2018/08/07/for-most-us-workers-real-wages-have-barely-budged-for-decades/), labor lawyers and policymakers should be using every tool we have to advance the interests of workers. We at Towards Justice and Justice Catalyst have increasingly found that antitrust laws, and the agencies that enforce those laws, are an area with **untapped potential** to build **worker power** and **promote worker exit**. There’s important work happening in this field already, spurred by the increased attention of advocates, academics, and policymakers. (For more, see [here](https://bidenforum.org/ten-steps-toward-a-more-competitive-labor-market-ddfe8749aad1).). In 2016, the DOJ and FTC [took action](https://www.justice.gov/opa/pr/justice-department-and-federal-trade-commission-release-guidance-human-resource-professionals) and declared naked no-poach agreements a criminal matter. And state attorneys general have [taken important enforcement and investigatory actions](https://www.atg.wa.gov/news/news-releases/ag-ferguson-secures-end-no-poach-provisions-eight-more-restaurant-chains) to target structural impediments to worker exit in the franchise context. (Full disclosure: Towards Justice was plaintiffs’ counsel in the first recent [case](https://www.towardsjustice.org/cke_litigation?locale=en) involving no-hire agreements in the fast-food industry.). But a simple Westlaw search finds the number of antitrust labor law cases is [miniscule](https://harvardlawreview.org/wp-content/uploads/2018/12/536-601_Online.pdf). On December 14 we submitted a [comment](https://www.ftc.gov/system/files/documents/public_comments/2018/12/ftc-2018-0088-d-0016-163103.pdf) calling on the FTC to take its responsibilities to protect competition in the labor market seriously. Specifically, we asked it to do the following things: Noncompete agreements: We urged the FTC to take [FTC Commissioner Chopra’s suggestion](https://www.ftc.gov/system/files/documents/public_statements/1408196/chopra_-_comment_to_hearing_1_9-6-18.pdf) and start a rulemaking to determine when noncompete agreements are unfair methods of competition. Imagine if when you bought one box of cereal, you had to sign a contract saying you couldn’t buy another brand of cereal for two years. Courts and law enforcers would fall over themselves to crack down on such anticompetitive practices. Yet the substantive equivalent—noncompete agreements—has existed for years in the labor market. And because a person’s job is so much more personal and important than their interaction with any other market, the impact is worse. When a worker can’t leave a job because she is trapped by a noncompete agreement, it hinders her ability to leverage job offers to obtain higher wages and prevents workers from escaping **toxic or even abusive** work environments. The traditional justifications for noncompete agreements—that they are necessary to protect trade secrets, confidential information, and client lists—could be accomplished just as easily with non-disclosure agreements. Any other justifications for noncompete agreements are merely arguments that a buyer of labor should be able to use anticompetitive agreements to gain an advantage over sellers and competing buyers in the labor market. No-poach and no-hire agreements: We urged the FTC to crack down on no-poach and no-hire clauses in employment agreements. Recently, the Washington Attorney General has done some [great work](https://www.atg.wa.gov/news/news-releases/ag-ferguson-announces-fast-food-chains-will-end-restrictions-low-wage-workers) to combat no-poach agreements in franchise business models. We urged the FTC to follow suit, and to extend that effort to the rampant use of no-poach agreements within other “fissured” workplaces (see below), including mid-level marketing firms. Anticompetitive conduct in the fissured labor market: [Corporate concentration coupled with workplace fissuring](https://www.ineteconomics.org/perspectives/blog/why-we-should-worry-about-monopsony) continue to diminish worker power (especially in light of [restraints across the fissured workplace](https://lwp.law.harvard.edu/files/lwp/files/webpage_materials_papers_seligman_june_13_2018.pdf)). While many have examined the harmful consequences of workplace fissuring on labor standards enforcement, there are also numerous antitrust implications. When all or many of the employers in a given labor market decide to outsource to one staffing agency, it has the effect of dramatically consolidating and even creating a monopoly for that labor market. In other words, when employers say they are outsourcing in order to “drive down costs,” what they mean, perhaps without knowing, is that they are allowing a company to monopolize the labor market in order to use market power to drive down wages. We urged the FTC to look into the antitrust implications of workplace fissuring as well. Merger Reviews: Market consolidation can lead, in some cases, to reductions in worker bargaining power. When labor markets consolidate, employers have fewer competitors for workers, and so have less incentive to raise wages or improve working conditions. Sometimes this consolidation can be offset by workers’ ability to bargain collectively (exercise their voice) with a larger firm, but [studies](https://irs.princeton.edu/sites/irs/files/concentration.pdf) have also shown that in local labor markets with higher concentrations, wages are lower. We urged the FTC to take its [obligation](https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf) to “assess competition in each relevant market affected by the merger” seriously. In the past, the FTC has reviewed mergers’ impact only on consumer markets, and it has not reviewed the labor markets that could also be affected by mergers. Even worse, the FTC considers plant closures and other workforce consolidation to be an efficiency, meaning the FTC considers layoffs a benefit of mergers. We urged the FTC to stop this practice immediately. Ban unfair labor practices when employers have market power: We urged the FTC to issue a rule providing that it is an unfair method of competition to engage in unfair labor practices under the NLRA or to prohibit participation in class action lawsuits with forced arbitration clauses when an employer has market power in the labor market. Of course, these practices should and in some cases already are illegal under other legal rubrics—including the labor laws—but they raise special concerns as a matter of competition policy (subject to FTC enforcement and rulemaking) when they arise in the context of market power. Labor market power for firms can, in some cases, support worker power where it is offset by strong collective voice and power for the firm’s workers. But where a firm with market power undermines collective worker voice, workers experience the **double whammy** of **undermined worker exit and worker voice**. Of course, just as the FTC can be a powerful tool to support worker power through increased enforcement in and attention to the labor markets, it can also undermine worker power through activity in this space. For example, the FTC filed an amicus [brief](https://www.ftc.gov/news-events/press-releases/2017/11/ftc-files-amicus-brief-appeals-court-case-involving-hire-drivers) against the City of Seattle in a case about whether a city ordinance allowing ride-share workers to collectively bargain violated the antitrust laws. This is a shame. The FTC should use its authority to attack coordination among more powerful economic actors, and not among workers, even those classified as independent contractors. There’s a lot the FTC can do, but we of course cannot wait for the FTC to act. Antitrust laws are a **powerful** tool for state public enforcers and the private antitrust bar, and when used carefully, they can serve as a **critical lever in building labor market power**.

#### 4---perm do the counterplan---antitrust laws are regulations.

Robinhood Financial LLC 20. “What are Antitrust Laws?”. 10-6-20. https://learn.robinhood.com/articles/4x5oCZOtg43uORfxEnxPRW/what-are-antitrust-laws/

Antitrust laws are regulations that aim to promote fair business competition in an open market and protect consumers by banning certain predatory practices.

#### Government spending results in economic harm and increases inequality.

Adam A. Millsap 21. Senior Fellow for economic opportunity issues at Stand Together and the Charles Koch Institute. “The High Costs Of Too Much Government Spending” Forbes. 08-06-21. <https://www.forbes.com/sites/adammillsap/2021/08/06/the-high-costs-of-too-much-government-spending/?sh=d2a15544ad67>

Too much government spending harms society and individuals in several ways. First, it **increases the cost of living** via subsidies that **drive inflation**. Government subsidies **artificially increase demand**. The result is higher prices that **disproportionately harm the working poor and middle class**. The companies with subsidized offerings get richer, while these higher prices increase demand for larger subsidies. The cycle repeats, and costs head skyward. Subsidies are why the average cost of attending a four-year college or university rose by 497% between 1986 and 2018, more than twice the rate of inflation. A substantial body of research shows that universities respond to increases in state and federal subsidies by cutting their own aid, raising tuition or fees, or all the above. This forces many middle-class students and families to take on debt to pay for school. Per capita health care spending has nearly quadrupled over the last 40 years. Thanks in part to legislation such as the ACA, health insurance has moved beyond true insurance to cover routine care. As a result, government subsidies for insurance shield consumers from the full cost of routine health care spending. This increases demand for more tests, procedures, and consultations, many of which don’t improve actual health. Research shows that subsidies also encourage consumers to switch to more expensive insurance plans, which further increases overall costs. Instead of subsidizing health insurance, which does nothing to address the underlying cost issues, we should **reduce regulation that impedes competition** to increase access to care for low and middle-income Americans. Scope of practice laws, certificate of need laws, and other regulations restricting technologies such as telehealth reduce the supply of health care and drive up costs. Americans deserve personalized health care that actually improves health. A Quality Exec Comp Plan Lowers The Risk Of InvestingIn Clorox Large government deficits and debt also increase the risk of sustained inflation that **acts as a tax on consumers.** Unexpected inflation creates uncertainty for investors, which results in less investment and **thus less economic growth.** Stable and predictable fiscal policy makes it easier for people to make long-term plans. Growing a business is a long-term endeavor that requires a minimum level of certainty about the future. Government can help maintain certainty through stable fiscal policy that reduces the risk of future inflation or tax increases. **Too much spending reduces innovation** by crowding out private sector investment. Estimates of fiscal multipliers are typically less than one, meaning that a dollar of government spending results in less than a dollar’s worth of economic activity since the private sector curtails activity in response to greater government spending. Resources used by the government cannot simultaneously be used by the private sector, and researchers have found that private sector investment and consumption is crowded out by government spending. Private sector investment is the **key ingredient in a growing economy**. Less investment means fewer new businesses, fewer expanding businesses, fewer job opportunities, and less innovation. The products and services we rely on today—smart phones, amazon AMZN -0.3%, safer cars, mRNA vaccines, and more efficient home appliances—would not exist absent private investors willing to take risks.

### States CP

#### The DOJ and FTC undermine.

The Open Markets Institute and Service Employees International Union 19. “How the Antitrust Agencies Can Help—Instead of Hurt—Workers”. https://www.justice.gov/atr/page/file/1217856/download

The DOJ and the FTC have largely failed American workers today by allowing a concentration crisis in scores of industries to weaken competition for labor. Instead of actively policing mergers for harms to workers, they have let employer-side concentration reach very high levels. Troublingly, when the FTC and DOJ have acted against practices in labor markets, the two agencies often have used antitrust laws to either undermine efforts by employees and states to challenge abusive behavior by employers or actually targeted efforts by workers or professional to work together. The FTC, for instance, has filed numerous complaints against workers for engaging in collective bargaining and other joint action. Furthermore, the FTC has campaigned against state and local occupational licensing rules that can enhance the bargaining power and earnings of workers, professionals, and independent entrepreneurs. The DOJ meanwhile has endorsed legal standards that would empower franchisees to collude against workers. The DOJ’s and FTC’s general inactivity against employers and activity against workers reinforce and deepen inequality between the individual and the corporation. The agencies should reorient their enforcement priorities and focus on protecting workers from employers rather than on interfering with the basic rights of workers, professionals, and independent entrepreneurs to organize.2

### Common Law CP---2ac

#### antitrust laws are regulations.

Robinhood Financial LLC 20. “What are Antitrust Laws?”. 10-6-20. https://learn.robinhood.com/articles/4x5oCZOtg43uORfxEnxPRW/what-are-antitrust-laws/

Antitrust laws are regulations that aim to promote fair business competition in an open market and protect consumers by banning certain predatory practices.

#### cp expands the scope of core antitrust law.

Christopher L. Sagers et al. 15. James A. Thomas Distinguished Professor of Law Cleveland-Marshall College of Law, Cleveland State University. “Handbook on the Scope of Antitrust.” American Bar Association, Section of Antitrust Law, 2015.

The scope of federal antitrust law is governed by three separate authorities: (1) the U.S. Constitution, (2) the language of the antitrust statutes themselves, and (3) the language of other federal statutes and regulations.

### Court Clog---2ac

#### 2---Won’t clog the courts---plan is clear and easy to interpret---that’s kim… and

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Companies in all sectors should expect that the FTC and DOJ may give more scrutiny to transactions that in the past might have easily cleared HSR review. Finally, the parties in a number of major antitrust class action litigation matters reached settlements in 2020, including matters involving alleged price fixing in the packaged seafood market and collusion among various Blue Cross/Blue Shield insurance providers to suppress competition between those plans. Businesses are often members of these certified classes, and given the volume of their purchases in these markets, often can recover substantial sums from these settlement funds. Businesses should be on the lookout for court-ordered notices concerning these settlements to make sure they do not waive any rights. Businesses also should be skeptical of companies that offer to “assist” with the submission of claims; these companies often demand a substantial percentage of any recovery for their work, even though settlements are typically designed to make claims submission easy.

#### 4----Courts clogged now---covid, backlogs, vacancies

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He noted that the D.C. Superior Court has the distinction among the nation’s trial courts of having the highest number of case filings per capita in the United States. There are more than 10,000 criminal cases pending, more than doubling 2020′s case load, he noted. The coronavirus pandemic added an additional challenge; jury trials resumed in the spring after being suspended for roughly a year. D.C. Council member Charles Allen (D-Ward 6), who chairs the council’s judiciary committee, said the vacancies cause delays in justice for perpetrators, victims and survivors, and he added that some people have been waiting for trial in the D.C. jail for a longer period of time than they would serve if they were convicted. “This is a massively dysfunctional part of our criminal justice system, which is already dysfunctional because of so many federally controlled elements,” Allen said. “When you add on top of it a massive case backlog in the months and years to come, it puts our entire criminal justice system at a massive disadvantage.” Jurors in a fire station, high school gym and the ‘Cow Palace.’ How Maryland is restarting jury trials in the pandemic. Allen stressed that the challenges created by the vacancies aren’t just limited to criminal cases; other judicial matters involving families, estates and marriages are also affected. Beverly L. Perry, senior adviser to Mayor Muriel E. Bowser (D), said judges have had to shuffle around their schedules to accommodate cases they wouldn’t otherwise be hearing. She said she recently learned Superior Court judges typically have 200 cases or fewer on their docket, but now have 300 to 400. “A criminal judge might be handling a family court calendar — this problem keeps escalating,” Perry said. Perry applauded Norton’s legislation, noting its similarity to how local D.C. legislation can be passively approved by Congress if there is no action after 30 working days. “It’s one of those things that should be perfunctory, it shows another reason we should be a state — and it shows how people that have disregard for our city can create a harmful outcome,” Perry added. “It exemplifies how we have no voice in the Senate at all.” The Senate Homeland Security and Governmental Affairs Committee scrutinized problems created by the vacancies during a recent hearing for three judicial nominees last month, and Chairman Gary Peters (D-Mich.) highlighted these problems in his opening remarks. When Sen. James Lankford (R-Okla.) asked the three nominees what they thought the biggest problems were facing the D.C. courts, Court of Appeals nominee Loren L. AliKhan, the D.C. solicitor general, described the backlog as “the first-, second-, third- and fourth-biggest problem facing the District.”

#### 7---Google and Facebook thump.

Mike Scarcella, 7-29. Reuters columnist who produces a weekly running article called “this week in antitrust.” “Court panel weighs Google bid to move advertising antitrust cases.” July 29, 2021. https://www.reuters.com/legal/litigation/court-panel-weighs-google-bid-move-advertising-antitrust-cases-2021-07-29/

(Reuters) - Lawyers for Google LLC and Facebook Inc on Thursday urged the Judicial Panel on Multidistrict Litigation to transfer dozens of digital advertising-related antitrust lawsuits they are facing to California federal court, over opposition from some plaintiffs' lawyers who argued centralization would unfairly **slow down proceedings in pending cases around the country**. Lawsuits filed by U.S. states, publishers, advertisers and small businesses contend online advertising practices at Google and Facebook have unlawfully stifled competition and harmed consumers and companies. Google and Facebook want the cases moved to the U.S. District Court for the Northern District of California, **where the largest number of related lawsuits are pending**. Google's lawyer, Eric Mahr, co-leader of the antitrust group at Freshfields Bruckhaus Deringer, told the JPML that failure to centralize the cases would raise the possibility of "inconsistent rulings" from district judges. Representing Facebook, Kevin Orsini, co-head of the litigation department at Cravath, Swaine & Moore, backed Google's argument for centralization in California, where both companies are based. Girard Sharp partner Jordan Elias, advocating for an advertiser class, argued against centralization. The cases in district courts are at different stages, he said. "Judicial economy favors not interfering with these ongoing proceedings," he said. Discovery, he argued, could be coordinated without merging the cases. U.S. District Judge Matthew Kennelly of the Northern District of Illinois, serving on the JPML, questioned Elias about how some of the class members he is representing mirror plaintiffs in the complaint Texas Attorney General Ken Paxton and a group of other state attorneys general filed in December against Google in the U.S. District Court for the Eastern District of Texas. "How does it make sense to have these two cases, which basically overlap, in two different places?" Kennelly said. "The opposition of you folks and some of the other folks on the plaintiffs' side to centralization in this case is a little bit perplexing. In virtually every other situation we've had before us, you guys are out in front asking us to centralize it." Plaintiffs lawyer Mark Lanier, counsel to Texas and other states, said his argument against centralization was the first in his career. "Speed really is important here," he told the panel. Texas and state plaintiffs have "been intensely involved in this," Lanier said. "We've got over 2 million documents. We've got documents and information from 25 third-parties at this point." Lanier's briefing to the panel had raised an issue about venue pointing to new bipartisan federal legislation introduced in May that would exempt antitrust actions brought by state attorneys general from motions to transfer. He urged the JPML to exclude the states' lawsuit against Google from any transfer order, or "respect the states' choice of forum by centralizing all Google ad tech litigation in the Eastern District of Texas." The effective date of the law, if it's enacted, is June 1

## 1ar

### Inequality adv---1ar

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

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

#### Econ decline causes World War III.

Qian Liu 18. China-based economist. “From economic crisis to World War III.” Project Syndicate. 11/8/2018. <https://www.project-syndicate.org/commentary/economic-crisis-military-conflict-or-structural-reform-by-qian-liu-2018-11>

The next economic crisis is closer than you think. But what you should really worry about is what comes after: in the current social, political, and technological landscape, a prolonged economic crisis, combined with rising income inequality, could well escalate into a major global military conflict. The 2008-09 global financial crisis almost bankrupted governments and caused systemic collapse. Policymakers managed to pull the global economy back from the brink, using massive monetary stimulus, including quantitative easing and near-zero (or even negative) interest rates. But monetary stimulus is like an adrenaline shot to jump-start an arrested heart; it can revive the patient, but it does nothing to cure the disease. Treating a sick economy requires structural reforms, which can cover everything from financial and labour markets to tax systems, fertility patterns, and education policies. Policymakers have utterly failed to pursue such reforms, despite promising to do so. Instead, they have remained preoccupied with politics. From Italy to Germany, forming and sustaining governments now seems to take more time than actual governing. Greece, for example, has relied on money from international creditors to keep its head (barely) above water, rather than genuinely reforming its pension system or improving its business environment. The lack of structural reform has meant that the unprecedented excess liquidity that central banks injected into their economies was not allocated to its most efficient uses. Instead, it raised global asset prices to levels even higher than those prevailing before 2008. In the United States, housing prices are now 8% higher than they were at the peak of the property bubble in 2006, according to the property website Zillow. The price-to-earnings (CAPE) ratio, which measures whether stock-market prices are within a reasonable range, is now higher than it was both in 2008 and at the start of the Great Depression in 1929. As monetary tightening reveals the vulnerabilities in the real economy, the collapse of asset-price bubbles will trigger another economic crisis – one that could be even more severe than the last, because we have built up a tolerance to our strongest macroeconomic medications. A decade of regular adrenaline shots, in the form of ultra-low interest rates and unconventional monetary policies, has severely depleted their power to stabilise and stimulate the economy. If history is any guide, the consequences of this mistake could extend far beyond the economy. According to Harvard’s Benjamin Friedman, prolonged periods of economic distress have been characterised also by public antipathy toward minority groups or foreign countries – attitudes that can help to fuel unrest, terrorism, or even war. For example, during the Great Depression, US President Herbert Hoover signed the 1930 Smoot-Hawley Tariff Act, intended to protect American workers and farmers from foreign competition. In the subsequent five years, global trade shrank by two-thirds. Within a decade, World War II had begun. To be sure, WWII, like World War I, was caused by a multitude of factors; there is no standard path to war. But there is reason to believe that high levels of inequality can play a significant role in stoking conflict. According to research by the economist Thomas Piketty, a spike in income inequality is often followed by a great crisis. Income inequality then declines for a while, before rising again, until a new peak – and a new disaster. Though causality has yet to be proven, given the limited number of data points, this correlation should not be taken lightly, especially with wealth and income inequality at historically high levels. This is all the more worrying in view of the numerous other factors stoking social unrest and diplomatic tension, including technological disruption, a record-breaking migration crisis, anxiety over globalisation, political polarisation, and rising nationalism. All are symptoms of failed policies that could turn out to be trigger points for a future crisis. Voters have good reason to be frustrated, but the emotionally appealing populists to whom they are increasingly giving their support are offering ill-advised solutions that will only make matters worse. For example, despite the world’s unprecedented interconnectedness, multilateralism is increasingly being eschewed, as countries – most notably, Donald J. Trump’s US – pursue unilateral, isolationist policies. Meanwhile, proxy wars are raging in Syria and Yemen. Against this background, we must take seriously the possibility that the next economic crisis could lead to a large-scale military confrontation. By the logic of the political scientist Samuel Huntington, considering such a scenario could help us avoid it because it would force us to take action. In this case, the key will be for policymakers to pursue the structural reforms that they have long promised while replacing finger-pointing and antagonism with a sensible and respectful global dialogue. The alternative may well be global conflagration.

#### AND

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Does humanity’s growing use of materials mean that decoupling is impossible? In a word, no, and attempts to reduce all resource and environmental problems to our material footprint won’t help us solve problems of resource scarcity or environmental impacts. In a recent article for Fast Company, the University of London’s Jason Hickel claims that humanity can only consume 50 billion tons of “stuff” each year (compared to current consumption levels at about 80 billion tons). And according to several papers that Hickel cites, that can’t be achieved in the foreseeable future, given growing populations and economies. The only solution, according to Hickel, is to ditch our addiction to GDP growth. Hickel is challenging the concept of “green growth,” which he describes as “absolute decoupling of GDP from material use.” But before talking about evidence for or against decoupling, it's important to ask: decoupling of what? Broadly, there are two reasons to worry about consumption: running out of materials (like fossil fuels) and environmental impacts (like pollution or habitat loss). These often get conflated in unhelpful ways. What Hickel refers to when he talks about decoupling is material flows, which are dominated by things like fossil fuels, metal ores, construction minerals, biomass, and the like. Lumping different material flows together can be misleading, in that it groups together resources that are being used sustainably with those that aren’t, and/or resources that cause big environmental impacts with those that cause smaller environmental impacts. So let’s look at the materials at play here. For several of the materials with the biggest footprint in terms of volume (construction minerals, metal ores, etc.), the problem isn’t really that we're at risk of running out of stuff. Construction minerals account for a large portion of global material flows, but those are resources like stone — last time I checked, we weren't approaching peak stone. (Cue joke about the end of the Stone Age.) We could have a perfectly sustainable civilization without absolutely decoupling from stone for a long time. The 50 billion tons limit is completely arbitrary — it was based on material consumption in the year 2000 — and shouldn’t be taken as the dividing line between sustainability and environmental doom. What about environmental impacts? Here, too, aggregate resource consumption can give a misleading picture. Some of the big items in material flows (again, like construction minerals) account for a pretty small portion of environmental impacts like greenhouse emissions or land use. For biomass, we've managed to increase production and thus mass flows a lot using the same amount of land, so the impacts haven't gone up in proportion to the mass flows. When we look at the actual impacts — like greenhouse emissions, habitat loss, pollution of air and water, and so on — we're seeing some positive trends, and in fact some instances of absolute decoupling. Emissions of several pollutants (like sulfur dioxide) have peaked and declined globally, although they are still going up in some developing nations; nitrogen oxides and nitrous oxide emissions are flat globally. Total farmland area (the most important driver of biodiversity and habitat loss and an important driver of carbon emissions) has peaked, although it's plausible that it will go up again. Water extraction peaked several decades ago in the United States, in spite of increasing industrial and agricultural output. Greenhouse emissions have not peaked globally, and may continue to go up for a while, making carbon emissions perhaps the least decoupled and most concerning of all trends. Even relative decoupling has come to a halt as coal-heavy China accounts for an increasing share of global emissions. As Breakthrough has written about for a long time now, we are still a long way from scalable food and energy systems that run without fossil fuels. But here, too, the most pragmatic solutions involve accelerating technological substitution of clean energy for dirty energy — the same general process of decoupling that has driven progress in other resources. Some or most of these trends may be moving too slowly for Hickel and other observers, and indeed, where acceleration is possible, that should be both the technological and policy goal. But aggregate human consumption of resources doesn’t tell us much of interest about either resource sustainability or environmental impacts. To get at those problems, we need to look at things resource by resource, pollutant by pollutant. And when we do that, we see some significant progress, along with some still-worrying trends. Above all, though, we know that as societies develop, food and energy production gets more resource-efficient, economic growth slows down, and fertility rates decline. All of these trends still imply large environmental impacts in the future. But while intentional economic degrowth or hard limits on resource use seem far-fetched, absolute decoupling of the things that matter — environmental impacts — is still a very real possibility.

#### Group price shocks and the marx theory – financial stability is improving. Ignore fear mongering.

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

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

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

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

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

#### They conflate complexity with complicatedness --- the system works and won’t collapse.

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Human life on earth is creating signs of informational intelligence: an earth that is conscious because it is intimately interconnected. We can save civilization from self-destruction by understanding the underlying mechanisms.

Note that “complexity” is very different from “complicatedness”. Some postmodernist urbanists seem eager to conflate these two very different ideas. You don’t get a system when you pile up disjointed fragments, because there is no integration. Instead, a complex system arises through a process working to organize different and often conflicting elements in some way, in spite of their differences. Intentionality in building complexity sheds all “complicatedness” that is irrelevant and unconnected, just like in natural systems. It does not “streamline” processes to a single aim, but simply evolves the system to include those multiple connected cycles, however large or small, that interact in some essential way.

That process is often a subtle dynamic, such as a set of apparently simple adaptive rules that each element follows. Why do people walking through a park all move along one line and not others? Why does one store get lots of pedestrian customers and another, just as good, fail? We can discover and document the socio-geometric patterns that people are following, as they make the simple human calculations that we all do: head in the direction of your destination, avoid obstructions, stop only if you see something interesting, and so on.

If we understand these patterns, we can place our pavement more effectively, or place our store in a more successful location. Other patterns of complex organization can be documented and put to work for us in our designs. The human inhabitants of even the most diverse city are, and remain, part of a complex emergent whole. Their complex behaviors and interactions must not be reduced for the city to work like some crude yet giant machine, for that would (and does) severely damage living systems. So, too, the elements of an ecosystem have a history, as do other natural systems. This is the nature of complexity — it has an inherent wholeness or whole-systems quality to it.

The elements we are considering possess what the physicist David Bohm called an “implicate order” — they have a much deeper relationship within a whole system that predates our observation. We face a perceptual problem, however. The reason most people think of complexity as being more like “complicatedness” — a messy collection of unrelated parts — is that we are very good at seeing particular fragments of the world. This view has its evolutionary benefits — we can see just a snapshot of what happens at a certain point and at a particular time, and omit all the interactions that brought those parts together in the first place. While this ability gave early humans an advantage in quick decision-making, it handicaps us when confronting the complex systems that we are now capable of building. We tend to forget that this way of looking at the world and its complex interactions is merely an abstraction, helpful for some purposes, but not for design. This is because in design, we are working with complex, implicate-ordered systems. Earth and life systems manifest design intentionality (in the sense of organizing their complexity) and intrinsic intelligence. When we treat these systems as problems of simplicity, we fail to understand the actual complex systems that we are creating, disturbing, and often destroying — a neighborhood, a city, an ecology, a human economy, or a living planet. And so, today, we find ourselves in a great deal of trouble.

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

Agne Setikiene and Mindaugas Butkus 21. Institute of Regional Development, Vilnius University Siauliai Academy. Associated Professor / Senior Researcher at the Institute of Regional Development. “The Heterogeneous Impact of Financialisation on Economic Growth in the Long Run” *Journal of Risk and Financial Management*, 14(5), 209. https://www.mdpi.com/1911-8074/14/5/209/htm

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

4. Conclusions

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

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

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

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

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

#### AND

McAffee 20 -- Andew McAffee, cofounder and codirector of the MIT Initiative on the Digital Economy at the MIT Sloan School of Management, former professor at Harvard Business School and fellow at Harvard’s Berkman Center for Internet and Society. [Why Degrowth Is the Worst Idea on the Planet, 10-6-20, <https://www.wired.com/story/opinion-why-degrowth-is-the-worst-idea-on-the-planet/>]

[Title: Why Degrowth Is the Worst Idea on the Planet] FOR HALF A century, we've been told that we had to embrace degrowth in order to save our planet. We haven't listened. Around the world, human populations and economies have continued to grow at rates that are virtually unprecedented in the history of our species. Over that same span, an unexpected and encouraging pattern has emerged: The world's richest countries have learned how to reduce their footprint on Earth. They're polluting less, using less land and water, consuming smaller amounts of important natural resources, and doing better in many other ways. Some of these trends are also now visible in less affluent countries. However, many in the degrowth movement seem to have trouble taking yes for an answer. The claims I just made are widely resisted or ignored. Some say they’ve been debunked. Of course, debate over empirical claims like these is normal and healthy. Our impact on our planet is hugely important. But something less healthy is at work here. As Upton Sinclair put it, “It is difficult to get a man to understand something when his salary depends upon his not understanding it.” Some voices in the conversation about the environment seem wedded to the idea that degrowth is necessary, and they are unwilling or unable to walk away from it, no matter the evidence. But evidence remains a powerful way to persuade the persuadable. The one thing everyone agrees on is that the last 50 years have been a period of growth, not degrowth. In fact, growth has never been faster, except for the 25-year rebuilding period after World War II. The population and economic growth rates of the past half-century are remarkably fast by historical standards. Between 1800 and 1945, for example, the world’s economy grew less than 1.5 percent per year, on average. Between 1970 and 2019, that average increased to almost 3.5 percent. It's natural to assume that, as this growth continued, every nation’s planetary footprint would only increase. After all, as people become more numerous and prosperous they consume more, and producing all the goods and services they consume uses up resources, takes over ecosystems, and generates pollution. The logic seems ironclad that our gains have to be the environment’s losses. Easing Pollution, Not Exporting It In some important areas, however, a very different pattern emerged after 1970: Growth continued, but environmental harm decreased. This decoupling occurred first with pollution, and first in the rich world. In the US, for example, aggregate levels of six common air pollutants have declined by 77 percent, even as gross domestic product increased by 285 percent and population by 60 percent. In the UK, annual tonnage of particulate emissions dropped by more than 75 percent between 1970 and 2016, and of the main polluting chemicals by about 85 percent. Similar gains are common across the highest-income countries. How were these reductions achieved? The two possibilities are cleanup and offshoring. Either rich countries figured out how to reduce their “air pollution per dollar” so much that overall pollution went down even as their economies grew, or they sent so much of their dirty production overseas that the air at home got cleaner. The first of these paths reduces the total burden of human-caused pollution; the second just rearranges it. The evidence is overwhelming that rich countries cleaned up their air pollution much more than they outsourced it. For one, a great deal of air pollution comes from highway vehicles and power plants, and rich countries haven’t outsourced driving and generating electricity to low-income ones. In fact, high-income countries haven't even offshored most of their industry. The US and UK both manufacture more than they did 50 years ago (at least until the Covid-19 pandemic sharply reduced output), and Germany has been a net exporter since 2000 while continuing to drive down air pollution. The rest of the world has been exporting its manufacturing pollution to Germany (to use degrowthers’ phrasing), yet Germans are breathing cleaner air than they were 20 years ago. Rich countries have reduced their air pollution not by embracing degrowth or offshoring, but instead by enacting and enforcing smart regulation. As economists Joseph Shapiro and Reed Walker concluded in a 2018 study about the US, “changes in environmental regulation, rather than changes in productivity and trade, account for most of the emissions reductions.” Research about the cleanup of US waters also concludes that well-designed and enforced regulations have successfully reduced pollution. It is true that the US and other rich countries now import lots of products from China and other nations with higher pollution levels. But if there were no international trade at all, and rich countries had to rely exclusively on their domestic industries to make everything they consume, they’d still have much cleaner air and water than they did 50 years ago. As a 2004 Advances in Economic Analysis and Policy study summarized: “We find no evidence that domestic production of pollution-intensive goods in the US is being replaced by imports from overseas.” The rich world’s success at decoupling growth from pollution is an inconvenient fact for degrowthers. Even more inconvenient is China's recent success at doing the same. China’s export-led, manufacturing-heavy economy has been growing at meteoric rates, but between 2013 and 2017 air pollution in densely populated areas declined by more than 30 percent. Here again the government mandated and monitored pollution declines and so decoupled growth from an important category of environmental harm. Prosperity Bends the Curve China's progress with air pollution is heartening, but it's not surprising to most economists. It's a clear example of the environmental Kuznets curve (EKC) in action. Named for the economist Simon Kuznets, EKC posits a relationship between a country's affluence and the condition of its environment. As GDP per capita rises from an initial low level, so too does environmental damage; but as affluence continues to increase, the harms level off and then start to decline. The EKC is clearly visible in the pollution histories of today's rich countries, and it's now taking shape in China and elsewhere. Also consider air pollution death rates around the world. As the invaluable website Our World in Data puts it, “Rates have typically fallen across high-income countries: almost everywhere in Europe, but also in Canada, the United States, Australia, New Zealand, Japan, Israel and South Korea and other countries. But rates have also fallen across upper-middle income countries too, including China and Brazil. In low and lower-middle income countries, rates have increased over this period.” The EKC is a direct refutation of a core idea of degrowth: that environmental harms must always rise as populations and economies do. It's not surprising that today's degrowth advocates rarely discuss the large reductions in air and water pollution that have accompanied higher prosperity in so many places around the world. Instead, degrowthers now focus heavily on one kind of pollution: greenhouse gas emissions. The claims made are familiar ones: that any apparent reductions in greenhouse gas emissions in rich countries are due to offshoring rather than actual decarbonization. Thanks to the Global Carbon Project, we can see if this is the case. GCP has calculated “consumption-based emissions” for many countries going back to 1990, taking into account imports and exports, yielding the greenhouse gas emissions embodied in all the goods and services consumed in each country each year. For several of the world's richest countries, including Germany, Italy, France, the UK, and the US, graphs of consumption-based carbon emissions follow the familiar EKC. The US, for example, has 22reduced its total (not per capita) consumption-based CO2 emissions by more than 13 percent since 2007. These reductions are not mainly due to enhanced regulation. Instead, they've come about because of a combination of tech progress and market forces. Solar and wind power have become much cheaper in recent years and have displaced coal for electricity generation. Natural gas, which when burned emits fewer greenhouse gases per unit of energy than does coal (even after taking methane leakage into account), has also become much cheaper and more abundant in the US as a result of the fracking revolution. To ensure that these greenhouse gas declines continue to spread and accelerate, we should apply the lessons we've learned from previous pollution reduction success. In particular, we should make it expensive to emit carbon, then watch the emitters work hard to reduce this expense. The best way to do this is with a carbon dividend, which is a tax on carbon emissions where the revenues are not kept by the government but instead are rebated to people as a dividend. William Nordhaus won the 2018 Nobel Prize in economics in part for his work on the carbon dividend, and an open letter advocating its implementation in the US has been signed by more than 3,500 economists. It's an idea whose time has come. How We Learned to Lighten Up Tech progress and price pressure aren't just leading to the demise of coal. They're also causing us to exploit the planet less in many other important ways, even as growth continues. In other words, EKCs are not just about pollution any more. A good place to start examining this broad phenomenon of getting more from less is US agriculture, where we have decades of data on both outputs—crop tonnage—and the key inputs of cropland, water, and fertilizer. Domestic crop tonnage has risen steadily over the years and in 2015 was more than 55 percent higher than in 1980. Over that same period, though, total water used for irrigation declined by 18 percent, total cropland by more than 7 percent. That is, over that 35-year period, US crop agriculture increased its output by more than half while giving an area of land larger than Indiana back to nature and eventually using a Lake Champlain less water each year. This was not accomplished by increasing fertilizer use; total US fertilizer consumption in 2014 (the most recent year for which data are available) was within 2 percent of its 1980 level. The three main fertilizers of nitrogen, potassium, and phosphorus (NKP) are an interesting case study. Their total US consumption (once other uses in addition to agriculture are taken into account) has declined by 23 percent since 1980, according to the United States Geological Survey. Yet some within the degrowth movement find ways to argue that these declines are also an illusion. These materials thus serve to clearly illustrate the differences in methodology, evidence, and worldview between ecomodernists like myself and degrowthers. The USGS tracks annual domestic production, imports, and exports of NKP and uses these figures to calculate “apparent consumption” each year. Consumption of each of the three resources has declined by 16 percent or more from their peaks, which occurred no later than 1998. This seems like a clear and convincing example of dematerialization—getting more output from fewer material inputs. As I argue in my book More From Less, dematerialization doesn’t happen for any complicated or idiosyncratic reason. It happens because resources cost money that companies would rather not spend, and tech progress keeps opening up new ways to produce more output (like crops) while spending less on material inputs (like fertilizers). Modern digital technologies are so good at helping producers get more from less that they're now allowing the US and other technologically sophisticated countries to use less in total of important materials like NKP. Forest products provide another clear example of dematerialization in the US. Total annual domestic consumption of paper and paperboard peaked in 1999, and of timber in 2002. Both totals have since declined by more than 20 percent. Could these be mirages caused by offshoring that’s not properly captured? That’s highly unlikely, as the country is now onshoring more than it’s offshoring. The US has been a net exporter of forest products since 2009 and is now the world’s largest exporter of these materials. Is the US economy also dematerializing its use of metals? Probably, but it’s hard to say for sure. The USGS tallies do show dematerialization in steel, aluminum, copper, and other important metals. But these figures don’t include the metals contained in imports of finished goods like cars and computers. America is a net importer of manufactured goods, so it could be that we’re using more metal year after year, but that much of this consumption is “hidden” from official statistics because of imports of heavy, complex products. However, my estimates indicate that this is extremely unlikely and that the country is in fact now reducing its overall consumption of metals. Constructing a Weak Argument Degrowth exponent Jason Hickel responds to this broad evidence of dematerialization by making once again the shopworn argument that there are no real environmental gains; there’s only globalization of harms. Hickel has argued repeatedly that once offshoring is properly taken into account, dematerialization vanishes. How can this be, when tallies take into account imports and exports of raw materials like NKP, timber, and paper? Because, he contends, they don't take into account the true “material footprint” of production around the world. At this point the degrowth argument departs from reality. I mean literally. As “The Material Footprint of Nations” (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 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 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 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 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. Let’s Keep Climbing Throughout our history, we humans have been climbing a difficult path toward longer, healthier, more prosperous lives. As we climbed that path, we turned the environment around it brown and gray. Our mania for growth was in many ways bad news for the planet we all live on. Recently, however, we have figured out how to make our path a green one, how to continue to grow while reducing our impact on Earth. The world’s richest countries are also putting more land and water under conservation, reintroducing native species into ecosystems from which they had been hunted into oblivion, and improving Earth in many other ways. For reasons that I don't understand well, and that I understand less the more evidence I look at, degrowthers want to make us turn around and start walking back down the path, away from higher prosperity. Their vision seems to be one of a centrally planned, ever-deepening recession throughout the rich world for the sake of the environment. Thanks to Covid-19, we have an inkling of how this would feel. A “degrowth recession” wouldn't have the virus’ deaths and sickness, and it wouldn't require us to practice social distancing. But it would have all the economic contractions’ job losses, business closures, mortgage defaults, and other hardships and uncertainties. And it would have them without end—after all, growth can't be allowed to restart. Corporate and government revenue would decrease permanently, and therefore so would innovation and R&D. How many of us would be willing to accept all of this in exchange for somewhat less pollution and resource use? To sharpen the question, how many of us would be willing to accept this recession if it wasn’t necessary—if it were clear that we could get environmental improvements while continuing to grow and prosper? The ecomodernist argument is that that is in fact clear. Unlike the degrowth argument, it's supported by a great deal of evidence. What's at least important is that it will be supported by a great deal of the world's people, who will eagerly sign up to climb our new green path to prosperity.

#### Global wars and elite opposition derail the transition.

Samuel ALEXANDER 16. Lecturer and research fellow, University of Melbourne; co-director of the Simplicity Institute; PhD. “Policies for a Post-Growth Economy.” Issues Paper No. 6. April. 11. <http://tinyurl.com/zq3vjn5>.

Hard Truths about a ‘Top-Down’ Transition

I wish to conclude by acknowledging several hard truths about the feasibility of a ‘top down’ transition to a post-growth economy. The first is to note that cultures around the world, especially in the developed world, are not close to being ready to take the idea of a post-growth economy seriously. In Australia, for example, our current and prospective governments are all firmly embedded in the growth paradigm and they show no signs of questioning it – none at all. At the cultural level, the expectation of ever-increasing affluence (which assumes continued growth) is as strong as ever. In this political and cultural context, the policy proposals outlined above – however necessary they might be to confronting the limits to growth predicament – will strike most people as wildly unrealistic, overly interventionist, and probably undesirable. I am not so deluded as to think otherwise.

The second point to note, subtly linked to the first, is that the powers-that-be would not tolerate these policies for a post-growth economy. To provide a case in point, when a relatively fringe Occupy Movement in 2011 began to challenge undue corporate influence on democracy and make noise about wealth inequality, soon enough the executive branches of government bore down upon the activists and stamped out the opposition. Mainstream media made little effort to understand the movement. Given that a postgrowth economy would directly undermine the economic interests of the most powerful corporations and institutions in society, one should expect merciless and sustained resistance from these vested interests if a post-growth movement ever began gaining ascendency.

The third point to note – and probably the most challenging – is that, in a globalised world order, even the bold policies proposed above would be unlikely to produce a stable and flourishing post-growth economy. After all, how would the stock markets react if a government announced a policy agenda that would deliberately aim to contract the economy for environmental and social justice reasons? More specifically, how would the stock markets react if a government, in pursuit of sustainability and global equity, introduced a diminishing resource cap that sought to phase out the most damaging industries and reduce resource consumption by 80% of current Australian levels? I suspect there would be utter turmoil, ultimately leading to an economic crash far greater than the global financial crisis. My point is that it may well be impossible to implement a smooth ‘top down’ transition to a post-growth economy, even if a strong social movement developed that wanted this. The market economies we know today would be unlikely to be able to adjust to the types and speed of foundational changes required. A ‘great disruption’ of some form may be a necessary or inevitable part of the transition beyond growth.

To make matters more challenging still, in a globalised economy, it is not clear whether a single nation could adopt a post-growth economy without inducing a range of antagonistic reactions from other nations. On the one hand, there is a web of international ‘free trade’ agreements that make such a move highly problematic, and could even provoke sanctions from international institutions or other governments. On the other hand, in a globalised economy there is always the threat of capital flight the moment a government threatens to defy the neoliberal logic of profit-maximisation or talks of wealth redistribution. There is also the geopolitical risk of being a leader in a post-growth transition, as this may involve fewer funds available for military forces, weakening a nation’s relative power globally. All of these issues radically call into question the feasibility of a ‘top down’ transition to a post-growth economy, and yet these challenges are rarely acknowledged in the post-growth literature.

#### Growth key---extinction

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But the reality is that an asteroid impact, a change in our magnetic field, or the rising temperature of Earth’s climate are all events that we currently cannot escape. There is no back-up plan. We are, for better or worse, tied to the fate of this planet. As history has shown, that’s not a good fate to be tied to. In fact on September 7, 2016 a 30-foot asteroid flew between the Earth and the Moon. Our most powerful instruments only detected it with two days notice. Two days. If the asteroid was only 1000-foot wide, it would destroy all human life and we’d have no back-up to get out of it. Even the White House is worried about it. Five, yes five, major extinction events have occurred on our planet that we know about. We’re due for another. And when that happens, what’s our alternative? You can’t move to another house. You can’t buy survival, even with a billion dollars in the bank. The only way out, is up. We must find a way to become multi-planetary if we want to save humanity, your family, and yes, even yourself. Only this can restore the honor we seemed to have lost from the brave days of the 60s, while also ensuring our survival. It’s for the species, folks. And as a species, we have not allowed ourselves the opportunity to blast off for the stars. Only the space race in the 60s when we were afraid enough of a self-inflicted global extinction event (read: nuclear) that we put forth the funding required to launch into orbit and onto our moon. We didn’t have calculators back then, and now we have supercomputers in our pocket, but no one is allowed out of our atmosphere, save for a few communication and spy satellites. Doesn’t that make you mad? It’s not some oppressive government that tells us no. It’s us. We pay our taxes. We elect leaders. Those leaders choose Defense as the primary budget line item, but forget about defending against the forthcoming apocalypse. Funding for NASA in the United States has decreased from 4% of the national budget in the 60s to about 0.5% from 2010 onwards. That’s just the money side. But in order to move past this threshold from our home planet to space and then onto other planets, we need to do two things: Travel there. Survive. Luckily, we can simplify the problem of passing this barrier by sending machines in our place. Like TARS from Interstellar, they can go places humans cannot and explore the environment for habitability and resources, even in particularly hostile conditions. Maybe not black hole hostile, but definitely Mars hostile, as the Curiosity Rover has shown. Only now, with a few bold, private startups are we beginning to see a re-emergence of the space industry. We are about to pass a few very important tests that allow us to explore and visit the cosmos. The first is launching physical things into space. This is the catalyst that will jump start a new space race. Prices of sending cargo are falling dramatically, down to nearly $500 per pound of payload with SpaceX’s Falcon 9 heavy re-usable rocket. Note that the re-usable part is key. We can’t throw away our “space car” every time we Uber it. And once that becomes standard and cost-optimized we might be able to get that down to $10 per pound. Imagine what could happen when it costs the same amount to ship something across town as it does into space. The second, and this is just as important, is the wave of autonomous machines. Tesla has popularized the notion of self-driving cars. SpaceX lands their rocket onto a small barge in the ocean autonomously. Companies are buying startups in the space. Self-driving will be our gift, our talisman, on the quest to save the species by becoming multi-planetary. II. Shipping Ourselves to Space The graph below is from the Founders Fund manifesto, showing the decreasing cost of launching something into space. It begins with the 1960s US-versus-Russia space race and extends to the present day SpaceX-versus-Blue Origin reusable rocket race. The cheapest method we have today is SpaceX’s Falcon series rockets. With the Falcon 9 Heavy, it’s predicted launching cargo into space will be cheaper than ever before, at $750 per pound of payload delivered to low earth orbit (LOE)on an expendable rocket. You have to note here, however, that these statistics are as cheap as possible. It costs more to deliver payload on a non-reusable rocket, and on something that’s further out than LEO, like geosynchronous orbit, or to Mars. For example, based on SpaceX’s published pricing, it would be at least 4x more expensive to deliver far less cargo to Mars. So what happens when we reduce that cost to $10 per pound? Namely, an explosion of startups, much like iOS. Instead of pushing to production for your continuously deployed web and mobile app, we will see future developers push to production by deploying physical things into space. “STAGE” takes on an entirely new meaning for software developers when it means your automated regression tests fail, it could blow up a rocket and hurt people on board. That’s why SpaceX and Blue Origins exist. To make this continuous-deployment-to-space process as cheap and fast as possible. By Elon’s calculations, every 15 minutes. III. Self-Driving Space Explorers The most successful products for space, at least in the beginning, will make money by pushing this stuff into orbit. Things like science experiments and new 3D printers. A company called Made in Space creates a number of these products, including the empty box you see below used for sending things up with Blue Origin. The box shown in gray is a specialized 3D printer that works in zero gravity. Remember how most 3D printers work. It squeezes out a single layer of liquid ooze, and then another, over and over again until it builds up enough vertically that it creates an object. This can be simple plastic or more esoteroic metals. But when you’re “dripping” something, held down in place by gravity, the entire process has to be re-imagined for space. Things in zero-G would just float away. Enter these chaps. There’s also the very real need for oxygen, food, water, and shelter from the harsh elements. Funny how we will end up recreating Maslow’s Heirarchy in every new voyage or planetoid we want to colonize. And space mining is off to the races with the recent announcement of Deep Space Industry’s Prospector-1: Their vision is to extract water from asteroids and use the chemical components to hydrate us, but also as oxygen (breathing) and hydrogen (fuel). To do that, you have to identify candidate asteroids, physically get to them, land and attach, and then do surveying, prospecting, and extraction. In short, you’re going to need some level of self-driving capabilities to make this happen. And wouldn’t it be nice if it “just worked” right out of the box. Unfortunately, in space you don’t have fleets of these space craft, millions of miles of training data, maps, or an internet connection to the cloud so how the heck are deep learning algorithms going to work? I don’t think they will. And that’s what I believe we need a better approach.

#### Growth key

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Humanity’s excitement about space exploration is evident, from the reaction to the recent announcement of potential water on Mars, to the box office success of The Martian — a movie about a manned mission to the red planet. Given the public interest in space travel, why hasn’t a [person] actually stepped foot on Mars yet? Let’s consider some key factors affecting the pace of progress. First, there is the obvious: appropriate technology takes time to develop. The journey from rudimentary hot air balloons and gliders to supersonic jets did not happen overnight. There is good news on this front, however. Thanks to better communications and computing, human knowledge has the potential to expand at an exponential rate. Second, competition is a major driver of progress, and the space industry has not been subject to intense competition since the Cold War’s end. Increasing private sector involvement may change that. For example, even after civil aviation took off, flight was a luxury enjoyed by few. But as deregulation opened up the industry to more intense competition, flight rapidly became more accessible. Today, more people fly than ever. Competition between the US and the Soviet Union during the Space Race fueled most of humanity’s spaceflight achievements, but the Cold War’s conclusion brought this competition to an end. Today, governments have limited incentive to push the boundaries of the final frontier. As a result, space exploration has stagnated. Fortunately, a new era of private space exploration may be dawning, enabling competition to once again flourish as profits drive a new space race. The conditions have never been better. There exist potential customers eager to pay large sums for the chance to go to space for a few minutes, and still others willing to leave Earth for a lifetime on Mars. Private enterprises like SpaceX, while still in their early phases, could rekindle competition and help spark a renewed sense of urgency in the realm of spaceflight.

#### b---It’s possible by 2030 with sustained growth

Victor **Tangermann**, 10-17-20**17**, "A timeline for humanity's colonization of space," https://futurism.com/a-timeline-for-humanitys-colonization-of-space

Humans have long desired to explore the vast realms of space. Today, we are finally poised to send people out into the cosmos. Indeed, a number of private and public space companies are gearing up for Space Race 2.0 — a (very expensive) competition that inches us closer to uncovering answers about our universe and exploring new realms of our own humanity. Though they are still in the race, shifting priorities and limited budgets have undermined NASA’s lead in exploring the solar system and beyond. In the meantime, private entities like SpaceX and Virgin Galactic are flush with cash, and they are stepping up to try and engineer better, bigger, and faster rockets. And this is a good thing because, if humans are to find life on other planets, or perhaps a new planet for ourselves, more work needs to be done. Engineers and scientists need to develop life support systems, find reliable sources of water and fuel, overcome the negative effects living in space has on the body, and find a faster way to travel. There is still much to be done, but sending the average person to the Moon and beyond no longer seems so far out of reach. Yet, when will it finally happen? When will humans finally roam across an alien world? Here’s a comprehensive timeline of our future beyond Earth. Late 2017: Heavy Falcon Launch SpaceX plans to launch the Falcon Heavy for the first time before the end of 2017. Because the rocket can be reused, the Falcon Heavy rocket can deliver its payload into space at only a third of the cost of the next closest operational vehicle, the Delta IV Heavy. This lower upfront cost means that more organizations can carry out experiments in outer space. One of these experiments is the Planetary Society’s LightSail 2 solar sail that will launch on board a Heavy Falcon in early 2018. SpaceX’s Falcon Heavy rocket lives up to its name. 27 rocket engines weigh down the 70-meter (229-foot), 1.4-metric-ton (3.1-million-pound) rocket. That’s a lot of extra weight, but the payload makes it worthwhile — the rocket can launch 63,800 kg (140,660 lbs) of equipment, cargo, and passengers into orbit around Earth. That’s more than double the weight that the Space Shuttle can haul to the same altitude. 2018: Preparing For Space Tourism In 2018, SpaceX plans to launch more than ever before, sending 30 rockets into orbit (up from 20 in 2017). More attempts give the company more data to show how it can perfect its technology to launch rockets cheaply and securely. Eventually, this inexpensive and safe spaceflight will make space tourism finally viable. In fact, just this year, SpaceX announced that they would be sending two humans to orbit the Moon in 2018. Image Credit: Virgin Galactic Virgin Galactic is gearing up to launch its first astronauts into space before the end of February 2018. Before it launches with passengers on board, though, the spacecraft will have to undergo a series of test flights. The space plane, called the VSS Unity, completed its fifth ‘glide flight’ (distinct from the vertical trajectory of traditional space rockets) earlier in 2017. In the first months of 2018, it will be taking flights closer to the Karaman line, the official border between the Earth’s atmosphere and outer space located 100 km (62 miles) above the Earth’s surface. Image Credit: Planetary Society Around that same time in early 2018, scientists will test the LightSail 2, a device that moves through space by harnessing the power of solar photons — no fuel tanks or thrusters required. The LightSail 2, a citizen-funded spacecraft and created by the Planetary Society (the largest nonprofit organization that promotes the exploration of outer space), would be a proof of concept that solar sailing could propel spacecraft deeper into space. The unmanned, light-propelled spacecraft will hitch a ride on SpaceX’s Falcon Heavy rocket before taking its test flight at an altitude of 720 km (447.4 miles). 2019: Space Tourism And Observation Image Credit: Blue Origin Blue Origin, the spaceflight services company started by Amazon founder Jeff Bezos, recently announced that it intends to take tourists to space before April 2019. In groups of six, passengers will board an 18-meter (60-foot) rocket to the edge of space, around 100 km (62 miles) from the Earth’s surface. Once there, they will experience zero-gravity flight. Three independent parachutes and a retro-thrust system ensure that passengers will gently sail back to Earth. This experience does not come cheap — a ticket to board the New Glenn to reach Earth orbit is rumored to cost anywhere between $150,000 and $250,000. And, yet, there’s little question that people will want to sign up — Virgin Galactic, a competing space tourism project, reportedly already has 700 people signed up. In 2019, Blue Origin plans to add two- and three-stage rockets to its arsenal. They are fully reusable, up to 99 meters (326 feet) tall, and can deliver payloads at a relatively low cost, competing with SpaceX’s Falcon Heavy rockets. Image Credit: NASA NASA also intends to launch its James Webb Telescope in the first quarter of 2019. The telescope will observe the solar system in the infrared to see every phase of the solar system’s maturation; it will ultimately be 100 times more powerful than the Hubble Space Telescope, thanks to its array of 18 hexagonal mirror segments. With a combined mirror diameter of 6.5 meters (the Hubble measures in at only 2.4), the James Webb Telescope will be able to detect events such as the formation of galaxies dating back to the time of the Big Bang. It will also have a special focus on discovering new planets that could be capable of supporting life. 2020-2025: “Earth Reliant” And Beyond From finding evidence of liquid water to detecting organic matter in the soil of the Red Planet’s surface, the Curiosity rover has answered some fundamental questions about what it’s like on Mars. However, that information has also sparked more questions about what other elements may be present. To this end, in an effort to establish whether oxygen is present in the Martian atmosphere, and at what concentration, Curiosity’s successor, the Mars 2020 rover, will be saddled with a host of sensors and instruments that will allow it to answer this question. Information about oxygen concentration will be important if humans are ever able to visit the Red Planet themselves, which could be possible as early as 2030. There are other things that need to happen if we’re going to colonize other planets. NASA has established three phases that we need to complete before this is possible. In the first, which NASA calls “Earth Reliant,” we continue to test the feasibility of living in space and conduct more research aboard the ISS. In the second (“Proving Ground”), operations around the Moon will be used to establish ways to return humans to the Earth safely. With those stages complete, we will finally reach the third stage (“Earth Independent”) in which humans establish a self-sufficient colony on Mars. Image Credit: NASA Just over 50 years after humans first touched the lunar surface, NASA is gearing up to launch another manned spacecraft to go beyond the Moon. The astronauts will be on board a ship called the Orion, which will lift off using NASA’s Space Launch System (SLS), a modular heavy launch vehicle. SLS is similar to SpaceX’s Heavy Falcon and has a maximum payload of 70 to 130 metric tons (150,000 to 290,000 lbs). First, though, the spacecraft will do a few test runs without any humans on board. The first mission, Exploration Mission-1, is slated for late 2018. The SLS will launch the unmanned craft, travel to the Moon, enter orbit about 100 km (62 miles) above the lunar surface, and use gravity to propel itself into deep, unexplored space. The goal of this mission is to see if the craft can help humans survive a trip to distant planets. The second mission (Exploration Mission-2), planned for August 2021, will be NASA’s first manned test flight beyond the Moon. “During this mission, we have a number of tests designed to demonstrate critical functions, including mission planning, system performance, crew interfaces, and navigation and guidance in deep space,” Bill Hill, the deputy associated administrator of Exploration Systems Development at NASA Headquarters said in a 2016 NASA blog. To gain enough momentum to make the trip around the Moon, the spacecraft will have to make multiple orbits around Earth, occasionally igniting its thrusters. During its stable orbit of the Moon, the Orion will gather data and test the spacecraft’s capabilities for interplanetary flight. 2022: Making Mars Habitable While NASA spends the 2020s exploring how to best keep humans healthy in space, SpaceX plans to start putting down the infrastructure for humans to colonize it. SpaceX anticipates completing its first 54.6-million-km (33.9-million-mile) trip to Mars in 2022. Image Credit: SpaceX In his update earlier this year, Elon Musk revealed plans for a rocket that is far bigger and more powerful than NASA’s Space Launch System and even his agency’s own Falcon Heavy — the BFR. A rocket that big would have enough space for fuel to take humans to Mars, or even allow for Earth-based city-to-city travel. With a maximum payload of 150 tons, the enormous 106-meter (347.7-feet) rocket would break the current record for biggest payload (including cargo, fuel, and passengers) launched into orbit, while providing the lowest cost for each additional launch. To reach the Moon, the BFR would launch from the Earth’s surface, transfer propellant from fuel depots previously stationed in Earth’s orbit, accelerate in orbit, pick up an injection of fuel for the remaining distance to the lunar surface on the way, and land. SpaceX plans to refuel the rocket once it is in orbit in order to extend its range and payload capacity so that it can return safely to Earth. Tests have already shown that it’s possible to refuel rockets in space. NASA conducted the Robotic Refueling Mission in 2011, and it successfully completed a robot-actuated propellant transfer on an exposed platform of the International Space Station. Image Credit: SpaceX By 2022, SpaceX expects to land at least two cargo ships on Mars in order to establish a habitat for humans. The primary goal of those initial missions is to find a reliable source of water on the Martian surface. 2024: Manned Missions On The BFR Image Credit: SpaceX Two years after those cargo ships establish an infrastructure, SpaceX plans to send humans to inhabit a colony on Mars. The passengers aboard the BFR’s 40-cabin Mars transit module will be the first to make the unprecedented trip. This is, Musk would probably admit, an aggressive timeline. And it may not work in SpaceX’s favor: Due to planetary alignments and other factors such as solar power requirements and fuel limitations, the launch window of Earth-Mars travel is only a few weeks, according to Wired. And that’s assuming that all the other pieces fall perfectly into place — neither the BFR nor its predecessor, the Falcon Heavy, has yet had a successful launch. Should the BFR mission make it to Mars, it will contain the materials to construct a propellant production plant as part of its Martian colony. The plan would suck carbon dioxide from the atmosphere and turn it into deep-cryo CO4 fuel using solar power. 2025-2030: A Year In Space Image Credit: NASA SpaceX might be ready to send humans to live in space by the early 2020s, but NASA is a little more cautious. The government space agency is planning to put astronauts into orbit for a year to find out if humans are indeed ready to live on a different planet. In March 2016, NASA astronaut Scott Kelly completed a similar year-long mission aboard the ISS to test the effects of zero gravity on the human body and what that will mean for future space travel to Mars. Unlike Kelly’s mission, however, NASA’s 2021 mission will put astronauts in orbit around the Moon. They’ll be in a “deep-space gateway” — a small ISS-like station that will serve as a testing ground for future deep space missions, including later missions to Mars. It will be built over five earlier missions, four of them with humans aboard. The effects of spending a year in lunar orbit on the human body, caused by factors such as different day-night cycles and solar radiation, are still unknown. 2030s: NASA Sends Humans To Mars Five years after SpaceX’s manned missions to Mars, NASA plans to send its own spacecraft to the Red Planet. Using data and samples from the Curiosity and Mars 2020 rovers, NASA will first establish how humans could sustain themselves on the Martian surface before sending manned spacecraft from its deep-space gateway to do so.

### Taxes cp---2ac

#### The counterplan can’t deter anticompetitive conduct, and consumers shoulder the burden.

Douglas H. Ginsburg & Joshua D. Wright 10. \*\*U.S. Court of Appeals

for the District of Columbia. \*\*George Mason University School of Law. “Antitrust Sanctions.” Autumn 2010. https://www.law.gmu.edu/assets/files/publications/working\_papers/1060AntitrustSanctions.pdf

The significance of the increase in aggregate cartel fines is ambiguous. Perhaps enforcement agencies are becoming more successful in discovering and prosecuting price-fixers; or perhaps companies are even more frequently fixing prices despite the increase in the average fine. If the best way to deter price-fixing is to increase fines, then we should expect the number of cartel cases to decrease as fines increase. At this point, however, we do not have any evidence that a still higher corporate fine would deter price-fixing more effectively. It may simply be that corporate fines are misdirected, so that increasing the severity of sanctions along this margin is at best irrelevant and might counter-productively impose costs upon consumers in the form of higher prices as firms pass on increased monitoring and compliance expenditures.