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T Prohibit

#### Business practices are ongoing conduct defined by the behaviors of many market participants

Kerry Lynn Macintosh 97, Associate Professor of Law, Santa Clara University School of Law. B.A. 1978, Pomona College; J.D. 1982, Stanford University, “Liberty, Trade, and the Uniform Commercial Code: When Should Default Rules Be Based On Business Practices?,” 38 Wm. & Mary L. Rev. 1465, Lexis

These new and revised articles reflect a strong trend toward choosing default rules 4 that codify existing business practices. 5 [FOOTNOTE 5 BEGINS] In this Article, the term "business practices" is used to refer to practices that emerge over time as countless market participants exercise their freedom to engage in profitable transactions. For an account of the evolution of business practices, see infra Part II. As used here, "business practices" is broader and less technical than "trade usage," which the Code narrowly defines as "any practice or method of dealing having such regularity of observance in a place, vocation, or trade as to justify an expectation that it will be observed with respect to the transaction in question." U.C.C. 1-205(2). [FOOTNOTE 5 ENDS] This is particularly true of the recent revisions to Articles 3 (Negotiable Instruments), 4 (Bank Deposits and Collections) and 5 (Letters of Credit).

#### Only per se illegality prohibits a practice---rules of reason prohibit anticompetitive effects for individual acts, or instances of ‘practice.’

John Paul Stevens 90, Justice, Supreme Court of the United States, “FTC v. Superior Court Trial Lawyers Ass'n,” 493 U.S. 411, Lexis

LEdHN[3C] [3C]LEdHN[14] [14]Equally important is the second error implicit in respondents' claim to immunity from the per se rules. In its opinion, the Court of Appeals assumed that the antitrust laws permit, but do not require, the condemnation of price fixing and boycotts without proof of market power. 15 The opinion further assumed that the per se rule prohibiting such activity "is only a rule of 'administrative convenience and efficiency,' not a statutory command." 272 U.S. App. D. C., at 295, 856 F. 2d, at 249.This statement contains two errors. HN10 [\*\*\*\*42] The per se [\*433] rules are, of course, the product of judicial interpretations of the Sherman Act, but the rules nevertheless have the same force and effect as any other statutory commands. Moreover, while the per se rule against price fixing and boycotts is indeed justified in part by "administrative convenience," the Court of Appeals erred in describing the prohibition as justified only by such concerns. The per se rules also reflect a long-standing judgment that the prohibited practices by their nature have "a substantial potential for impact on competition." Jefferson Parish Hospital District No. 2 v. Hyde, 466 U.S. 2, 16 (1984).

[\*\*\*\*43] LEdHN[15] [15]As we explained in Professional Engineers, HN11 the rule of reason in antitrust law generates

"two complementary categories of antitrust analysis. In the first category are agreements whose nature and necessary effect are so plainly anticompetitive that no elaborate study of the industry is needed to establish their illegality -- they are 'illegal per se.' In the second category are agreements whose competitive effect can only be evaluated by analyzing the facts peculiar to the business, the history of the restraint, and the reasons why it was imposed." 435 U.S., at 692.

[\*\*\*873] "Once experience with a particular kind of restraint enables the Court to predict with confidence that the rule of reason will condemn it, it has applied a conclusive presumption that the restraint is unreasonable." Arizona v. Maricopa County Medical Society, 457 U.S. 332, 344 (1982).

[\*\*781] LEdHN[16] [16] [\*\*\*\*44] The per se rules in antitrust law serve purposes analogous to per se restrictions upon, for example, stunt flying in congested areas or speeding. Laws prohibiting stunt flying or setting speed limits are justified by the State's interest in protecting human life and property. Perhaps most violations of such rules actually cause no harm. No doubt many experienced drivers and pilots can operate much more safely, even at prohibited speeds, than the average citizen.

[\*434] If the especially skilled drivers and pilots were to paint messages on their cars, or attach streamers to their planes, their conduct would have an expressive component. High speeds and unusual maneuvers would help to draw attention to their messages. Yet the laws may nonetheless be enforced against these skilled persons without proof that their conduct was actually harmful or dangerous.

In part, the justification for these per se rules is rooted in administrative convenience. They are also supported, however, by the observation that every speeder and every stunt pilot poses some threat to the community. An unpredictable event may overwhelm the skills of the best driver or pilot, even if the [\*\*\*\*45] proposed course of action was entirely prudent when initiated. A bad driver going slowly may be more dangerous that a good driver going quickly, but a good driver who obeys the law is safer still.

#### Voting issue---key to link uniqueness and preventing bidirectionality on an otherwise virtually unlimited topic

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T Subsets

#### ‘Antitrust law’ must be economy-wide---that excludes subsets

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.

#### Violation---the aff only applies under limited circumstances

#### Voting Issue---explodes the topic to infinite sectoral and case-specific affs the neg can never meaningfully prepare for

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T Scope

#### The scope of antitrust law is exclusively bounded by exemptions and immunities

Kruse et al. 19, Layne E. Kruse, Co-Chair; Melissa H. Maxman, Co-Chair; Vittorio Cottafavi, Vice Chair; Stephen M. Medlock, Vice Chair; David Shaw, Vice Chair; Travis Wheeler, Vice Chair; Lisa Peterson, Young Lawyer Representative; all on the Exemptions and Immunities Committee of the ABA Antitrust Section, “Long Range Plan, 2018-19,” American Bar Association, 3/18/19, https://www.americanbar.org/content/dam/aba/administrative/antitrust\_law/lrps/2019/exemptions-immunities.pdf

D. Top 3 Accomplishments Since Last Long Range Plan in 2015

(1) Publications. In addition to our Annual ALD Updates, we are set to publish an update to the Noerr-Pennington Handbook, which should be out in 2019. We also published a new version of the State Action Handbook in 2016. The Handbook on the Scope of the Antitrust Laws was published in 2015.

(2) Commentary on Legislative and Regulatory Proposals. The Committee has been very active in supporting Section commentary on proposed legislation, regulations, and other policy issues.

For instance, in March 2018, the E&I Committee assisted former E&I Chair John Roberti in composing his article, “The Role and Relevance of Exemptions and Immunities in U.S. Antitrust Law”, presented to the DOJ Antitrust Division Roundtable on behalf of the ABA Antitrust Section.

In January 2018, in response to a request from the Section Chair, we submitted Section comments along with the Legislative and State AG Committees, addressing the proposed Restoring Board Immunity Act legislation that would impact the post-NC Dental exemptions and immunity climate. Previously, we commented on the Professional Responsibility Act.

(3) Spring Meeting Programs. We have sponsored or co-sponsored a program at every Spring Meeting since our last long range plan. In 2019 we will chair Sham Litigation after FTC v. AbbVie The FTC v. AbbVie decision – calling for the disgorgement of $448 million on the basis of sham patent litigation. In addition, we will co-sponsor in 2019 with the Trade, Sports & Professional Associations Committee, a program on “Antitrust Law's Anomalous Treatment of Sports,” addressing how US courts have shown broad deference to the "rules of the game," including near-immunity status for concepts such as "amateurism."

II. Major Competition/Consumer Protection Policy or Substantive Issues Within Committee’s Jurisdiction Anticipated to Arise Over Next Three Years

A. Issue #1: Will Certain Exemptions Be Eliminated or Expanded?

A goal of the current DOJ Antitrust Division is to streamline antitrust laws, and in particular, take a hard look at exemptions and immunities. This is in the wheelhouse of our Committee’s fundamental policy issue: How much of the economy has opted out of our antitrust system? Is that a problem or are ad hoc exemptions acceptable ways to fine tune the application of the antitrust laws?

We anticipate, therefore, that efforts to enact or to repeal existing statutory exemptions and immunities will continue. In recent years, there have been efforts to repeal the exemptions for railroads and (at least in part) the McCarran-Ferguson insurance exemption. The Section and the Committee has generally supported efforts to repeal statutory exemptions. Given that repeal issues are very political it is unlikely that we will see many exemptions actually repealed.

On the other hand, proposals for new exemptions and immunities will continue to be introduced in Congress. The Committee will improve on a template for use in assisting the Section in drafting comments to Congress on newly proposed exemptions and immunities.

One development that may continue in the health care area are issues over a "COPA" or "Certificate of Public Advantage" at the state level. A COPA is a state statutory mechanism that provides certain collaborations in the health care community with immunity from private or government actions under the antitrust laws by invoking the state action doctrine. The FTC has generally opposed such efforts at the state level, but several states have used them to immunize health care mergers. This is a major development that should be monitored.

Through programs, newsletters, and Connect entries, the Committee intends to educate its members about Congressional and other efforts to repeal, or introduce new, exemptions and immunities, as well as the application of existing statutory exemptions and immunities in the courts. The Committee’s Handbook on the Scope of Antitrust Law, published in 2015, addresses developments in the statutory immunities area. It built on the prior publication, Federal Statutory Exemptions from Antitrust Law Handbook in 2007. Our Scope book will need to be updated within the next three years.

B. Issue #2: Will There Be Legislative Solutions to State Action Issues at State and Federal Levels?

The FTC’s case against the North Carolina Board of Dental Examiners put the "active supervision" prong of the state action test front and center. North Carolina State Board of Dental Examiners v. Federal Trade Commission, 135 S.Ct. 1101 (2015). The Court agreed with the FTC’s position that state occupational licensing boards comprised of market participants must satisfy the active supervision requirement. This spurred additional suits against other types of state boards involving regulated professionals. Moreover, every State had to reassess its boards to determine if there is "active supervision." Courts and state legislatures are addressing those issues. We also expect the proper framing of the clear articulation prong of the state action doctrine will be addressed. The Supreme Court spoke to the clear articulation test in FTC v. Phoebe Putney Health System, Inc., 133 S.Ct. 1003 (2013), narrowing the foreseeability test to cover only situations in which the anticompetitive conduct is the “inherent, logical, or ordinary result of the exercise of authority delegated by the state legislature.” How this test has played out in the lower courts will be of particular interest to the Committee and its membership. The COPA issues, at the state level, as previously mentioned, will impact this area.

The Committee expects to address these issues through updates to Connect, newsletters, Spring Meeting programs, committee programs, its contributions to the Annual Review of Antitrust Law Developments. The State Action Practice Manual addresses these issues, as well as the Committee’s Handbook on the Scope of Antitrust Law.

C. Issue #3: Will Noerr Be Restricted or Expanded?

The Noerr-Pennington doctrine is an exemption issue that is frequently litigated. In particular, the most likely area of further development is in the pharma industry. Alleged misrepresentations to government agencies has caught the attention of some courts. In addition, there may be more development on the pattern exception, which raises the issue of whether each act of petitioning in a pattern must satisfy the objectively and subjectively baseless requirements for sham petitioning. The Committee’s new Handbook on Noerr (forthcoming) and its earlier Handbook on the Scope of Antitrust Law addresses developments in the Noerr law.

III. Specific Long Term Plans to Strengthen Committee

The Committee provides important services to the membership of the Section through publications, drafting ABA Antitrust Section comments to proposed regulation and international competition proposed immunities, and programming. The goals of the Committee include: (1) to provide policy comments on key questions about the scope of the antitrust laws for legislation and policy-making; (2) produce a mix of publications and programming that provides relevant and useful information to our members; (3) to ensure that the Committee remains valuable to our members’ practices; and (4) to make the most productive use of electronic communications to deliver the Committee’s work product.

A. Potential Modifications to Charter: What is the Role of this Committee?

The Committee’s current charter accurately characterizes its purview—that is, addressing the scope of the antitrust laws. That scope, of course, is defined primarily in terms of exemptions and immunities (both statutory and non-statutory). The Committee, however, has dealt with other doctrines, such as preemption and primary jurisdiction. These areas may not necessarily be viewed as traditional exemptions or immunities, but they nonetheless directly affect the application and extent of the antitrust laws. In addition, the Committee expends significant efforts to address international issues, including statutory exclusions from the U.S. antitrust laws, including the FTAIA; the related doctrines of act of state, sovereign immunity, and foreign sovereign compulsion; and industry-specific exemptions and exclusions from non-U.S. antitrust laws, including blocking exemptions.

#### ‘Expand’ must make more expansive---NOT merely clarify existing principles

Terry J. Hatter, Jr. 90, Judge, US District Court, California Central, “In re Eastport Assoc.,” 114 B.R. 686, Lexis

[\*\*10] Second, Eastport asserts that the presumption against retroactivity does not apply because the amendment was intended only as a clarification of existing law. HN7 Where an amendment to a statute is remedial in nature and merely serves to clarify existing law, no question of retroactivity is involved and the law will be applied to pending cases. City of Redlands v. Sorensen, 176 Cal. App. 3d 202, 211, 221 Cal. Rptr. 728, 732 (1985). The evidence in this case, however, does not support the conclusion that the amendment to section 66452.6(f) was simply a clarification of preexisting law. The Legislative Counsel's Digest specifically states that "the bill would expand the definition of development moratorium." Senate Bill 186, Stats. 1988, ch. 1330, at 3375 (emphasis added). Since the Legislative Counsel is a state official required by law to analyze pending legislation, it is reasonable to presume that the Legislature amended the statute with the intent and meaning expressed in the Counsel's digest. People v. Martinez, 194 Cal. App. 3d 15, 22, 239 Cal. Rptr. 272, 276 (1987). By its ordinary meaning, the term "expand" indicates a change in the law, rather than a restatement of existing [\*\*11] law. In light of the Counsel's comment, Eastport's argument is unpersuasive.

#### Vote NEG---eliminating exemptions and immunities provides a limited AND predictable basis for prep---the aff allows infinite expansions

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Capitalism K

#### The 1AC invests in a form of neoliberal governmentality necessary to sustain global capitalism

Lebow ‘19 [David; Lecturer on Social Studies at Harvard University and lawyer; “Trumpism and the Dialectic of Neoliberal Reason,” Perspectives on Politics 18(2):380-398, doi:10.1017/S1537592719000434.]

I. Neoliberal Reason

As Michel Foucault and others have argued, neoliberalism entails far more than an economic doctrine favoring deregulated markets.4 It is a novel form of governmentality—a rationality linked to technologies of power that govern conduct, not just through direct state action but through liberty itself.5 Not isolated to the traditionally demarcated sphere of economics, neoliberal society entails a whole economic-juridical order.

The central program of neoliberal governmentality is the absolute generalization of competition as a universal behavioral norm. Whereas in liberal thought, the root principle of capitalism was exchange of equivalents, for neoliberal reason it is competition entailing inequality. The key result of market processes goes from specialization to selection. The competitive market is the exclusive site of rationality. It processes information, indicated by price, and is the only mechanism of producing knowledge, defined as what is profitably utilizable. Because consumers are free to refuse inferior goods or services, the price mechanism of the market system ensures optimal solutions and maximal satisfaction of preferences.

Liberal capitalism, as Karl Polanyi argued, required the construction of “fictitious” commodities like land and labor.6 These abstract, exchangeable factors of production had to be disembedded from concrete non-market social relations, norms, and values. Instead of merely disembedding commodities, neoliberalism intervenes to make competitive mechanisms regulate every moment and point in society. It strives to build an empire of market choice that invades every domain of life, and deposes all other social, political and solidaristic institutions and values.

Neoliberalism does not allege that markets are natural; competition must be constructed. Rather than endorsing laissez-faire overseen by a night watchman, it stipulates a strong state engaged in permanent vigilance, activity, and intervention to maintain artificial competition. It must not plan outcomes, which would upset the market’s innate rationality, and must be insulated from political disturbances. Economic interventionism leads down the road to serfdom; fascism and unlimited state power are its necessary results. A “minimum of economic interventionism” on the “mechanisms of the market” must be accompanied by “maximum legal interventionism” on the “conditions of the market.”7 Fixed, formal rules make up an economic constitution that inhibits planning, repulses political disruptions, and impartially safeguards competition. The state is the executor of the market and growth is the basis of public legitimacy. Governance depoliticizes public power, promotes ostensibly post-ideological technical problem-solving by experts, and relies on “best-practices” that dissolve the distinction between public and private organization.8

Unlimited generalization of competition yields an enterprise society in which calculations of supply/demand and cost/benefit become the model of all social relations. Neoliberal reason renders homo economicus, based on this model of the enterprise, the exhaustive figuration of human subjectivity. The center of economic thought shifts from labor and processes of production, exchange, and consumption to human capital and rational decision-making under conditions of scarcity. Capital is everything that can generate future income; wages are reconceived as income from capital. Labor is no longer comprehended as a commodity exchanged for a wage, but as a combination of human capital (the worker’s education and abilities) and the income stream it generates. This neoliberal subject is an aggregate of human capital who invests in his own income-generating abilities.

Neoliberalism replaces the invariant identity of the moral person as a rights-bearing citizen with a formally empty receptacle filled up through enterprising choices. It brushes aside models of freedom as self-rule achieved through moral autonomy or popular sovereignty.9 In the neoliberal “democracy of consumers,” individual consumers together constitute the sovereign that monopolizes the issuance of legitimate commands.10 Sovereign will is expressed not through political channels, but by choices in the “plebiscite of prices.”11 Whereas producers have particular interests like protectionism, consumers have a consensual and common interest; all favor the impartial functioning of market processes. In the neoliberal free society, consumers exercise their right to choose in complete independence.

II. From Keynesian State Capitalism to Neoliberal Deregulation

Situating the 2008 crisis in a historical account of American political and economic development clarifies its broader significance. The early twentieth-century Progressives were disdainful of what they took to be the chaos and waste of fin de siècle laissez-faire society. They strove to build a new American state that would replace the structural and rights-based formalisms of the nineteenth century with direct democracy and expert administration. It took the Great Depression and New Deal to bring into full bloom the Progressive commitment to pragmatic rationality. Thereafter, the “policy state” was authorized to pursue designated social goals and develop the means to accomplish them.12 The slew of New Deal innovations included state oversight of labor negotiations, invigorated antitrust, Keynesian countercyclical deficits to stimulate demand and increase purchasing power, an expansive public sector sheltered from the business cycle, aggressive banking regulation, and social insurance. Regulation and redistribution ensured the conditions necessary for an economic system based on capital accumulation, private property, and corporate profit to endure.

To many, the differences between the New Deal and Nazi political economies appeared less significant than their common response to monopoly capitalism. Both erased boundaries between state and society by politicizing the private sphere and authorizing public bureaucracies to rationalize crisis-prone economies. Frankfurt School member Friedrich Pollock suggested that this common “state capitalism” had solved the contradiction between the forces and relations of production, and thus overcome the economy’s crisis tendencies. It seemed to him that management had become merely technical and “nothing essential” had been “left to the laws of the market.”13 Worries abounded that the private law sphere of property and contract was necessary for individual freedom. Despite salient differences between Nazi and New Deal state capitalism, many feared that intervention into society was a waystation to domination. Unease about the specter of American despotism motivated development of mechanisms to ensure that interventionism did not devolve into arbitrary rule.14 Expertise was one justification and limitation of the policy state. Authority could be safely delegated to a new corps of public-spirited administrators because their scientific knowledge would not only make them effective, but also counsel restraint. Enduring misgivings led later to new laws of administrative process. The procedural state was legitimated by its defenders as being a substantively value-neutral and instrumentally rational machine serving goals set by society. Regulatory decision-making was shunted into the abstruse procedures of courtrooms and bureaucracies. Defenders of the state emphasized that its processes of allocating authority were neutral, impartial, and open to all. The balanced accommodation of all interest groups seeking to exercise influence would yield an equilibrium corresponding to the public interest.15

The intermeshing of state and society through interest groups, agencies, and professionalized parties marginalized the public. The sovereign public opinion that Progressives had hoped would rationalize government gave way to the rationality supposedly inherent in processes of public law, public-private negotiation, and regulated markets. The state was endowed with a diffuse legitimacy in exchange for a growing economy, broad distribution, and ongoing household capacity to consume.16 The Keynesian welfare settlement pacified the working class, protecting the market economy from more radical political pressures. Newly available, mass-produced commodities encouraged leveled-down notions of citizenship as welfare clientelism and privatistic consumption. As the state expanded and routinized, the initial politicization of private property relations through public intervention developed into depoliticized economic management by lawyers and social scientists organized by administrative and judicial processes.

The terms of the social contract preserving the coexistence of capitalism and democracy had been set. In exchange for a pacified citizenry and depoliticized regulatory authority, the policy state promised to deploy instrumental reason to sustain both capital accumulation and widely distributed capacity to consume (supported, always, by the exclusion of African Americans). During the decades of postwar growth, these twin responsibilities seemed attainable and compatible. Capitalism functioned smoothly enough and potentially delegitimating inequality was clipped by inflation, tax-based welfare, and collectively negotiated wages. But in the late 1960s and early 1970s, weakening growth, stagflation, trade deficits, and the collapse of Bretton Woods revealed that state capitalism had not solved the problems of economics. As the Great Depression had enabled construction of the instrumentally rational policy state, economic disturbances in the 1970s opened the breach into which neoliberal reason entered to reconfigure the political economy. Rather than shielding rational policy-making from political pressure and assuring broadly distributed welfare, neoliberalism promised growth driven by depoliticized markets freed from regulation and downwards redistribution. Believing in the optimal rationality of competitive markets, neoliberals sought to reinvigorate capital accumulation through deregulation, lowered taxes, financialization, privatization, and market expansion.

Liberating accumulation from the restrictions and obligations incurred under state capitalism might have imperiled capitalism’s peace treaty with democracy. For deregulation to proceed without impairing the system’s legitimacy, the quid pro quo—depoliticization for consumption—had to continue. Over the ensuing decades, as Wolfgang Streeck explains, the state “bought time” by finding new ways to generate illusions of widely distributed prosperity that prolonged the capacity of the lower and middle classes to consume.17 Each successive attempt exhausted itself, leading to new and escalating disturbances. In the 1970s, inflation safeguarded social peace by compensating workers for inadequate growth until stagflation ended this mode of buying time. A subsequent reliance on public debt enabled the government to pacify conflict with borrowed money. Rising debt and balking creditors delimited this phase, which was brought to a definitive close with the Clinton administration’s social spending cuts and balanced budgets. In a final stage that dawned in the 1980s but grew increasingly paramount over time, debt-based support of purchasing power was privatized. Household spending was financed through mortgages, student loans, and credit cards. This “privatized Keynesianism” buoyed consumption up through 2008, despite cuts to social spending, falling wages, and tightening employment markets.18

#### Capitalism structurally necessitates militarism, ecocide and technological dystopia---each causes extinction

Foster ‘19 [John; Sociology Professor @ Oregon; February 1; “Capitalism Has Failed—What Next?” *The Monthly Review*, Volume 70, Issue 9, <https://monthlyreview.org/2019/02/01/capitalism-has-failed-what-next/>]

Less than two decades into the twenty-first century, it is evident that capitalism has failed as a social system. The world is mired in economic stagnation, financialization, and the most extreme inequality in human history, accompanied by mass unemployment and underemployment, precariousness, poverty, hunger, wasted output and lives, and what at this point can only be called a planetary ecological “death spiral.”1 The digital revolution, the greatest technological advance of our time, has rapidly mutated from a promise of free communication and liberated production into new means of surveillance, control, and displacement of the working population. The institutions of liberal democracy are at the point of collapse, while fascism, the rear guard of the capitalist system, is again on the march, along with patriarchy, racism, imperialism, and war.

To say that capitalism is a failed system is not, of course, to suggest that its breakdown and disintegration is imminent.2 It does, however, mean that it has passed from being a historically necessary and creative system at its inception to being a historically unnecessary and destructive one in the present century. Today, more than ever, the world is faced with the epochal choice between “the revolutionary reconstitution of society at large and the common ruin of the contending classes.”3

Indications of this failure of capitalism are everywhere. Stagnation of investment punctuated by bubbles of financial expansion, which then inevitably burst, now characterizes the so-called free market.4 Soaring inequality in income and wealth has its counterpart in the declining material circumstances of a majority of the population. Real wages for most workers in the United States have barely budged in forty years despite steadily rising productivity.5 Work intensity has increased, while work and safety protections on the job have been systematically jettisoned. Unemployment data has become more and more meaningless due to a new institutionalized underemployment in the form of contract labor in the gig economy.6 Unions have been reduced to mere shadows of their former glory as capitalism has asserted totalitarian control over workplaces. With the demise of Soviet-type societies, social democracy in Europe has perished in the new atmosphere of “liberated capitalism.”7

The capture of the surplus value produced by overexploited populations in the poorest regions of the world, via the global labor arbitrage instituted by multinational corporations, is leading to an unprecedented amassing of financial wealth at the center of the world economy and relative poverty in the periphery.8 Around $21 trillion of offshore funds are currently lodged in tax havens on islands mostly in the Caribbean, constituting “the fortified refuge of Big Finance.”9 Technologically driven monopolies resulting from the global-communications revolution, together with the rise to dominance of Wall Street-based financial capital geared to speculative asset creation, have further contributed to the riches of today’s “1 percent.” Forty-two billionaires now enjoy as much wealth as half the world’s population, while the three richest men in the United States—Jeff Bezos, Bill Gates, and Warren Buffett—have more wealth than half the U.S. population.10 In every region of the world, inequality has increased sharply in recent decades.11 The gap in per capita income and wealth between the richest and poorest nations, which has been the dominant trend for centuries, is rapidly widening once again.12 More than 60 percent of the world’s employed population, some two billion people, now work in the impoverished informal sector, forming a massive global proletariat. The global reserve army of labor is some 70 percent larger than the active labor army of formally employed workers.13

Adequate health care, housing, education, and clean water and air are increasingly out of reach for large sections of the population, even in wealthy countries in North America and Europe, while transportation is becoming more difficult in the United States and many other countries due to irrationally high levels of dependency on the automobile and disinvestment in public transportation. Urban structures are more and more characterized by gentrification and segregation, with cities becoming the playthings of the well-to-do while marginalized populations are shunted aside. About half a million people, most of them children, are homeless on any given night in the United States.14 New York City is experiencing a major rat infestation, attributed to warming temperatures, mirroring trends around the world.15

In the United States and other high-income countries, life expectancy is in decline, with a remarkable resurgence of Victorian illnesses related to poverty and exploitation. In Britain, gout, scarlet fever, whooping cough, and even scurvy are now resurgent, along with tuberculosis. With inadequate enforcement of work health and safety regulations, black lung disease has returned with a vengeance in U.S. coal country.16 Overuse of antibiotics, particularly by capitalist agribusiness, is leading to an antibiotic-resistance crisis, with the dangerous growth of superbugs generating increasing numbers of deaths, which by mid–century could surpass annual cancer deaths, prompting the World Health Organization to declare a “global health emergency.”17 These dire conditions, arising from the workings of the system, are consistent with what Frederick Engels, in the Condition of the Working Class in England, called “social murder.”18

At the instigation of giant corporations, philanthrocapitalist foundations, and neoliberal governments, public education has been restructured around corporate-designed testing based on the implementation of robotic common-core standards. This is generating massive databases on the student population, much of which are now being surreptitiously marketed and sold.19 The corporatization and privatization of education is feeding the progressive subordination of children’s needs to the cash nexus of the commodity market. We are thus seeing a dramatic return of Thomas Gradgrind’s and Mr. M’Choakumchild’s crass utilitarian philosophy dramatized in Charles Dickens’s Hard Times: “Facts are alone wanted in life” and “You are never to fancy.”20 Having been reduced to intellectual dungeons, many of the poorest, most racially segregated schools in the United States are mere pipelines for prisons or the military.21

More than two million people in the United States are behind bars, a higher rate of incarceration than any other country in the world, constituting a new Jim Crow. The total population in prison is nearly equal to the number of people in Houston, Texas, the fourth largest U.S. city. African Americans and Latinos make up 56 percent of those incarcerated, while constituting only about 32 percent of the U.S. population. Nearly 50 percent of American adults, and a much higher percentage among African Americans and Native Americans, have an immediate family member who has spent or is currently spending time behind bars. Both black men and Native American men in the United States are nearly three times, Hispanic men nearly two times, more likely to die of police shootings than white men.22 Racial divides are now widening across the entire planet.

Violence against women and the expropriation of their unpaid labor, as well as the higher level of exploitation of their paid labor, are integral to the way in which power is organized in capitalist society—and how it seeks to divide rather than unify the population. More than a third of women worldwide have experienced physical/sexual violence. Women’s bodies, in particular, are objectified, reified, and commodified as part of the normal workings of monopoly-capitalist marketing.23

The mass media-propaganda system, part of the larger corporate matrix, is now merging into a social media-based propaganda system that is more porous and seemingly anarchic, but more universal and more than ever favoring money and power. Utilizing modern marketing and surveillance techniques, which now dominate all digital interactions, vested interests are able to tailor their messages, largely unchecked, to individuals and their social networks, creating concerns about “fake news” on all sides.24 Numerous business entities promising technological manipulation of voters in countries across the world have now surfaced, auctioning off their services to the highest bidders.25 The elimination of net neutrality in the United States means further concentration, centralization, and control over the entire Internet by monopolistic service providers.

Elections are increasingly prey to unregulated “dark money” emanating from the coffers of corporations and the billionaire class. Although presenting itself as the world’s leading democracy, the United States, as Paul Baran and Paul Sweezy stated in Monopoly Capital in 1966, “is democratic in form and plutocratic in content.”26 In the Trump administration, following a long-established tradition, 72 percent of those appointed to the cabinet have come from the higher corporate echelons, while others have been drawn from the military.27

War, engineered by the United States and other major powers at the apex of the system, has become perpetual in strategic oil regions such as the Middle East, and threatens to escalate into a global thermonuclear exchange. During the Obama administration, the United States was engaged in wars/bombings in seven different countries—Afghanistan, Iraq, Syria, Libya, Yemen, Somalia, and Pakistan.28 Torture and assassinations have been reinstituted by Washington as acceptable instruments of war against those now innumerable individuals, group networks, and whole societies that are branded as terrorist. A new Cold War and nuclear arms race is in the making between the United States and Russia, while Washington is seeking to place road blocks to the continued rise of China. The Trump administration has created a new space force as a separate branch of the military in an attempt to ensure U.S. dominance in the militarization of space. Sounding the alarm on the increasing dangers of a nuclear war and of climate destabilization, the distinguished Bulletin of Atomic Scientists moved its doomsday clock in 2018 to two minutes to midnight, the closest since 1953, when it marked the advent of thermonuclear weapons.29

Increasingly severe economic sanctions are being imposed by the United States on countries like Venezuela and Nicaragua, despite their democratic elections—or because of them. Trade and currency wars are being actively promoted by core states, while racist barriers against immigration continue to be erected in Europe and the United States as some 60 million refugees and internally displaced peoples flee devastated environments. Migrant populations worldwide have risen to 250 million, with those residing in high-income countries constituting more than 14 percent of the populations of those countries, up from less than 10 percent in 2000. Meanwhile, ruling circles and wealthy countries seek to wall off islands of power and privilege from the mass of humanity, who are to be left to their fate.30

More than three-quarters of a billion people, over 10 percent of the world population, are chronically malnourished.31 Food stress in the United States keeps climbing, leading to the rapid growth of cheap dollar stores selling poor quality and toxic food. Around forty million Americans, representing one out of eight households, including nearly thirteen million children, are food insecure.32 Subsistence farmers are being pushed off their lands by agribusiness, private capital, and sovereign wealth funds in a global depeasantization process that constitutes the greatest movement of people in history.33 Urban overcrowding and poverty across much of the globe is so severe that one can now reasonably refer to a “planet of slums.”34 Meanwhile, the world housing market is estimated to be worth up to $163 trillion (as compared to the value of gold mined over all recorded history, estimated at $7.5 trillion).35

The Anthropocene epoch, first ushered in by the Great Acceleration of the world economy immediately after the Second World War, has generated enormous rifts in planetary boundaries, extending from climate change to ocean acidification, to the sixth extinction, to disruption of the global nitrogen and phosphorus cycles, to the loss of freshwater, to the disappearance of forests, to widespread toxic-chemical and radioactive pollution.36 It is now estimated that 60 percent of the world’s wildlife vertebrate population (including mammals, reptiles, amphibians, birds, and fish) have been wiped out since 1970, while the worldwide abundance of invertebrates has declined by 45 percent in recent decades.37 What climatologist James Hansen calls the “species exterminations” resulting from accelerating climate change and rapidly shifting climate zones are only compounding this general process of biodiversity loss. Biologists expect that half of all species will be facing extinction by the end of the century.38

If present climate-change trends continue, the “global carbon budget” associated with a 2°C increase in average global temperature will be broken in sixteen years (while a 1.5°C increase in global average temperature—staying beneath which is the key to long-term stabilization of the climate—will be reached in a decade). Earth System scientists warn that the world is now perilously close to a Hothouse Earth, in which catastrophic climate change will be locked in and irreversible.39 The ecological, social, and economic costs to humanity of continuing to increase carbon emissions by 2.0 percent a year as in recent decades (rising in 2018 by 2.7 percent—3.4 percent in the United States), and failing to meet the minimal 3.0 percent annual reductions in emissions currently needed to avoid a catastrophic destabilization of the earth’s energy balance, are simply incalculable.40

Nevertheless, major energy corporations continue to lie about climate change, promoting and bankrolling climate denialism—while admitting the truth in their internal documents. These corporations are working to accelerate the extraction and production of fossil fuels, including the dirtiest, most greenhouse gas-generating varieties, reaping enormous profits in the process. The melting of the Arctic ice from global warming is seen by capital as a new El Dorado, opening up massive additional oil and gas reserves to be exploited without regard to the consequences for the earth’s climate. In response to scientific reports on climate change, Exxon Mobil declared that it intends to extract and sell all of the fossil-fuel reserves at its disposal.41 Energy corporations continue to intervene in climate negotiations to ensure that any agreements to limit carbon emissions are defanged. Capitalist countries across the board are putting the accumulation of wealth for a few above combatting climate destabilization, threatening the very future of humanity.

#### The alternative is radical democratic organizing around the collective goal of the abolition of capitalism---that necessitates rejecting neoliberal rhetoric in pedagogical spaces like debate

Giroux ’20 [Henry; McMaster University Professor for Scholarship in the Public Interest and The Paulo Freire Distinguished Scholar in Critical Pedagogy; June 9; “Racist Violence Can’t Be Separated from the Violence of Neoliberal Capitalism,” <https://truthout.org/articles/racist-violence-cant-be-separated-from-the-violence-of-neoliberal-capitalism/>]

As educators, it is crucial for us to examine how we talk, teach, and write about inequality as an object of critique in an age of precarity, uncertainty and the current pandemic crisis. This is especially true at a time when a growing number of authoritarian regimes around the globe substitute replace thoughtful dialogue and critical engagement with the suppression of dissent and a culture of forgetting r. How do we situate our analysis of education as part of a broader discourse and mode of analysis that interrogates the promises, ideals, and claims of a substantive democracy? How do we fight against iniquitous relations of power and wealth that empty power of its emancipatory possibilities, and as Hannah Arendt has argued, “makes most people superfluous as human beings”? How might we understand how neoliberal ideology, with its appropriation of market-based values, regressive notions of freedom and agency, uses language to infiltrate daily life? How does a pandemic pedagogy in the service of neoliberalism produce identities defined by market values, and normalize a notion of responsibility and individuality that convinces people that whatever problem they face they have no one to blame but themselves? Repeated endlessly on right-wing media platforms, the underlying conditions that disproportionately produce chronic illness among poor people of color disappear among a public distracted, if not persuaded, by a pandemic pedagogy that celebrates unchecked self-interest, disdains social responsibility, and turns away from the reality of a society with deep-seated institutional rot and unravelling of social connections and the social contract.

Pandemic pedagogy thrives on inequality and becomes a militarized and heartless normalizing tool to convince the broader public that the lives of the elderly, sick, and vulnerable should be valued according to how much they contribute to the economy. And if they are willing to die in order not to be a drain on the economy, all well and good. Nothing escapes the cruel logic of neoliberalism with its arrogance and hubris on full display as it bathes in the glow of right-wing populism, ultra-nationalism, and neofascism. Its accoutrements of dictatorship are everywhere and can be seen in the swagger of militia that storm state capitals, in police who punch and pepper spray protesters and push elderly men to the ground, and in military forces on the streets without badges reinforcing a climate of fear, repression, and unaccountability. There is more at work here than a lack of humanity on the part of the Trump administration. As the Irish journalist Fintan O’Toole observes, there is also the deepening grip of a culture of cruelty and dehumanization. He writes:

“As a society the American people are being habituated into accepting cruelty on a wide scale. Americans are being taught by Trump and his administration not to see other people as human beings whose lives are as important as their own. Once that line has been crossed – and it is not just Trump and the people around him, but many of Trump’s supporters as well – then we know where that all leads, what the ultimate destination is. There is no mystery about it. We know what happens when a government and its leaders dehumanize large numbers of people.”

Depoliticization and the Authoritarian Turn

Neoliberalism is not only an economic system, it is also an ideological apparatus that relentlessly attempts to structure consciousness, values, desires, and modes of identification in ways that align individuals with its governing structures. Central to this pedagogical project is the attempt to prevent individuals from translating private issues and troubles into broader systemic considerations. By doing this, it becomes difficult for individuals to grasp the historical, social, economic, and political forces at work in shaping a social order as a human activity deeply immersed in specific relations of power. Neoliberalism’s attempt to erase or rewrite historical and social forces makes it difficult for individuals to imagine alternative notions of society, with themselves as collective actors, or view their problems as more than the limitations of faulty character, moral failure, or a problem of personal responsibility. Reducing individuals to isolated, discrete, hermetically-sealed human beings whose lives are shaped only by notions of self-reliance and self-sufficiency is a pedagogical strategy that utterly depoliticizes people, leading them to believe that however a society is shaped, it is part of a natural order. President Trump echoed this “no alternative” narrative when asked about celebrities and rich people having special access to being tested for the coronavirus while few others had access. He replied, “Perhaps that’s been the story of life.”

This individualization of the social with its mounting privatization, gated communities, and social atomization undermines collective action, any viable notion of solidarity, and weakens the notion of global connectivity. The philosopher Byung-Chul Han has rightly argued that contemporary neoliberal society is shaped by a dysfunctional notion of solitude and hermitically-sealed notions of agency, all of which undermine the values and social connections vital to a democracy. He writes:

“Those subject to the neoliberal economy do not constitute a we that is capable of collective action. The mounting egoization and atomization of society is making the space for collective action shrink… The general collapse of the collective and the communal has engulfed it. Solidarity is vanishing. Privatization now reaches into the depths of the soul itself. The erosion of the communal is making all collective efforts more and more unlikely.”

This panoptical nature of hyper-individualism is more aligned with shared fears than shared responsibilities. Under such circumstances, trust and the notion that all life is related become difficult to grasp as the myopic language of private self-interest inures individuals to wider social problems such as extreme inequality. There is no understanding in this discourse of the damage fanatical entrepreneurialism does to our embodied collectivity. Nor is there any value attributed to the important responsibilities, social values, and notion of the common good that exceeds who we are as individuals, or how we have been shaped by diverse social forces in particular ways.

It should be clear that questions of economic and social justice cannot be addressed by a neoliberal pedagogy that enshrines self-interest and privatization while converting every social problem into individualized market solutions or regressive matters of personal responsibility. Under neoliberalism’s disimagination machine, individual responsibility is coupled with an ethos of greed, avarice, and personal gain. One consequence is the tearing up of social solidarities, public values, and an almost pathological disdain for democracy. This radical form of privatization is also a powerful force for the rise of fascist politics because it depoliticizes individuals, immerses them in the logic of social Darwinism, and makes them susceptible to the dehumanization of those considered a threat or disposable.

Just as the spread of the pandemic virus in the United States was not an innocent act of nature, neither is the rise and pervasive grip of inequality. What is clear is that neoliberal support for unbridled individualism has weakened democratic pressures and eroded democracy and equality as governing principles. Moreover, as a mode of public pedagogy, it has undercut social provisions, the social contract, and support for public goods such as education, public health, essential infrastructure, public transportation, and the most basic elements of the welfare state. As a form of pedagogical practice, neoliberalism has morphed into a form of pandemic pedagogy that sacrifices social needs and human life in the name of an economic rationality that values reviving economic growth over human rights. As a lived system of meaning and values, self-reliance and rugged individualism are the only categories available for shaping how individuals view themselves, and their relationship to others and to the planet. The individualization of everyone and the reduction of social problems to private troubles is paralleled by sanctioning a world marked by borders, walls, racism, hate, and a rejection of government intervention in the interest of the common good. Most importantly, neoliberal individualization personalizes power, creating a depoliticized subject whose only obligation as a citizen is defined by consuming and living in a world free from ethical and social responsibilities. In many ways, it does not just empty politics of any substance, it destroys its emancipatory prospects.

The neoliberal strategists use education not only to mask their abuses and the effects of their criminogenic policies, they also – in a time of crisis, when dissatisfaction of the masses might lead to chaos, revolts, and dangerous levels of resistance – move dangerously close to creating the conditions for a fascist politics. The noted theologian Frei Betto is right in stating that under such conditions, “…they cover up the causes of social ills and cover up their effects with ideologies that, by obscuring causes, fuel mood in the face of the effects. That’s why neoliberalism is now showing its authoritarian face – building walls that divide countries and ethnic groups, executive power over legislature and judiciary, disinformation about digital networks, the cult of the homeland, the brazen offensive against human rights.”

Neoliberalism and its regressive notion of individualism and individual responsibility has undermined the belief that human beings both make the world and can change it. The pandemic has ushered in a crisis that undermines that belief and opens the door for rethinking what kind of society and notion of politics will be faithful to the creation of a socialist democracy that speaks to the core values of justice, equality and solidarity. Under such circumstances, private resistance must give way to collective resistance, and personal and political rights must include economic rights. If inequality is to be defeated, the social state must replace the corporate state and social rights must be guaranteed for all. There can be no adequate struggle for economic justice and social equality unless economic inequality on a global level is addressed along with a movement for climate justice, the elimination of systemic racism and a halt to the spiraling militarism that has resulted in endless wars. This can only take place if the anti-democratic ideology of neoliberalism, with its collapse of the public into the private and its institutional structures of domination, are fully addressed and discredited. Étienne Balibar is right in stating that the triumph of neoliberalism has resulted in the “death zones of humanity.” Following Balibar, what must be made clear is that neoliberal capitalism is itself a pandemic and a dangerous harbinger of an updated fascist politics.

Overcoming Pandemic Pedagogy

The kind of societies that will emerge after the pandemic is up for grabs. In some cases, the crisis will give way to authoritarian regimes such as Chile, Hungary and Turkey, all of which have used the urgency of COVID-19 as an excuse to impose more state control and surveillance, squelch dissent, eliminate civil liberties and concentrate power in the hands of an authoritarian political class. As is well documented, history in a time of crisis also has the potential to change dominant ideologies, rethink the meaning of governance, and enlarge the sphere of justice and equality through a vision that fights for a more generous and inclusive politics. It is crucial to rethink the project of politics in order to imagine forms of resistance that are collective, inclusive and global, capable of producing new democratic arrangements for social life, more radical values and a “global economy which will no longer be at the mercy of market mechanisms.” This is a politics that must move beyond siloed identities and fractured political factions in order to build transnational solidarities in the service of an alternative radically democratic society. Making the pedagogical more political means challenging those forms of pandemic pedagogy that turn politics into theater, a favorite tactic of Trump. In this case, the performance works to suspend disbelief, hold power accountable and unravel one’s sense of critical agency. Pandemic pedagogy does more than undermine critical thinking and informed judgments, it dissolves the line between the truth and lies, fantasy and reality, and in doing so, destroys the foundation for understanding, engaging and promoting that social and economic justice. The endgame under the rubric of a pandemic pedagogy is not simply the destruction of the truth, but the elimination of democracy itself.

Central to developing an alternative democratic vision is development of a language that refuses to look away and be commodified. Such a language should be able to break through the continuity and consensus of common sense and appeals to the natural order of things. At stake here is the need to reclaim both critical and redemptive elements of a radical democracy in order to address the full spectrum of violence that structures institutions and everyday life in the United States. This is a language connected to the acquisition of civic literacy, and it demands a different regime of desires and identifications to enable us to move from “shock and stunned silence toward a coherent visceral speech, one as strong as the force that is charging at us.”

Of course, there is more at stake here than a struggle over meaning; there is also the struggle over power, over the need to create a formative culture that will produce informed critical agents who will fight for and contribute to a broad social movement that will translate meaning into a fierce struggle for economic, political and social justice. Agency in this sense must be connected to a notion of possibility and education in the service of radical change. Reimagining the future only becomes meaningful when it is rooted in a fierce struggle against the horrors and totalitarian practices of a pandemic pedagogy that falsely claims that it exists outside of history.

Václav Havel, the late Czech political dissident-turned-politician, once argued that politics follows culture, by which he meant that changing consciousness is the first step toward building mass movements of resistance. What is crucial here in the age of multiple crises is a thorough grasp of the notion that critical and engaged forms of agency are a product of emancipatory education. Moreover, at the heart of any viable notion of politics is the recognition that politics begins with attempts to change the way people think, act and feel with respect to both how they view themselves and their relations to others. There is more to agency than the neoliberal emphasis on the “empire of the self,” with its unchecked belief in the virtues of a form of self-interest that despises the bonds of sociality, solidarity and community.

The U.S. is in the midst of a political and pedagogical crisis. This is a crisis defined not only by a brutalizing racism and massive inequality, but also a constitutional crisis produced by a growing authoritarianism that has been in the making for some time. The recent attacks by the police on journalists, peaceful protesters and even elderly people marching for racial justice echoes the violence of the Brownshirts in the 1930s. Let’s stop the futile debate about whether or not the U.S. is in the midst of a fascist state and shift the register to the more serious question of how to resist it and restore a semblance of real democracy.

Under such circumstances, education should be viewed as central to politics, and it plays a crucial role in producing informed judgments, actions, morality and social responsibility at the forefront not only of agency, but politics itself. In this scenario, truth and politics mutually inform each other to erupt in a pedagogical awakening at the moment when the rules are broken. Taking risks becomes a necessity, self-reflection narrates its capacity for critically engaged agency and thinking the impossible is not an option, but a necessity. Without an informed and educated citizenry, democracy can lead to tyranny, even fascism.

Trump represents the malignant presence of a fascism that never dies and is ready to remerge at different times in different context in sometimes not-so-recognizable forms. The COVID-19 crisis and the pandemic of inequality and racism have revealed elements of a fascist politics that are more than abstractions. The struggle against a fascist politics is now visible in the rebellions taking place across the United States. While there are no political guarantees for a victory, there is a new sense that the future can be changed in the image of a just and sustainable society. There is a new energy for reform taking place in the aftermath of the killing of George Floyd. Massive protests for racial, economic and social justice are emerging all over the globe. As I have argued in The Terror of the Unforeseen, at stake here is the need for these protests to transition from a pedagogical moment and collective outburst of moral anger to a progressive international movement that is well organized and unified. Such a movement must build solidarity among different groups, imagine new forms of social life, make the impossible possible, and produce a revolutionary project in defense of equality, social justice and popular sovereignty. The racial, class, ecological and public health crisis facing the globe can only be understood as part of a comprehensive crisis of the totality. Immediate solutions such as defunding the police and improving community services are important, but they do not deal with the larger issue of eliminating a neoliberal system structured in massive racial and economic inequalities. David Harvey is right in arguing that the “immediate task is nothing more nor less than the self-conscious construction of a new political framework for approaching the question of inequality, through a deep and profound critique of our economic and social system.” This is a crisis in which different threads of oppression must be understood as part of the general crisis of capitalism. The various protests now evolving internationally at the popular level offer the promise of new global anti-fascist and anti-capitalist movements. In the current moment, democracy may be under a severe threat and appear frighteningly vulnerable, but with young people and others rising up across the globe — inspired, energized and marching in the streets — the future of a radical democracy is waiting to breathe again.

### 1NC---OFF

Taxes CP

#### The United States federal government should expand the scope of its core antitrust laws to anticompetitive private cartel practices in cases where foreign plaintiffs cannot secure adequate relief in alternative fora, enforced by applying a substantial progressive tax on rents from those practices.

#### The CP solves the case by expanding antitrust but, rather than enforcing it with a prohibition, it levies a progressive tax on anticompetitive rents---that’s an instantly effective deterrent AND creates traditional enforcement as follow-on.

Yonah ’21 [Reuven Avi; July 29; Irwin I. Cohn Professor of Law and Director of the International Tax LLM Program at the University of Michigan Law School, PhD in History from Harvard University, AM in History from Harvard University, JD from Harvard Law School; Tax Notes Federal, “A New Corporate Tax,” https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3743202]

If we can regulate our corporations simply through the medium of taxation, we can destroy every trust in a fortnight. It would be a great deal better for the Finance Committee to turn its attention to the imposition of such a tax upon corporations and the persons who actually need regulation, who are exercising powers that are injurious to the American people, destroying competition and invading our prosperity, than to attempt to levy a revenue tax upon all the little shareholders of all the little corporations throughout the length and breadth of the United States.1

I. Introduction: Why Tax Corporations?

Should the U.S. tax corporations? For many academic and political observers, the answer is no.2 The corporate tax is a strange tax because by definition it is not borne by the corporate taxpayer, because corporations are legal entities and cannot economically bear the burden of taxation. Moreover, unlike other indirect taxes (for example, consumption taxes that are passed on to consumers or the employer’s portion of the payroll tax that is passed on to employees), economists after over 50 years of debate are not sure who bears the burden of the corporate tax: shareholders, all capital providers, corporate employees, or consumers. The most likely answer is that all of the above do in varying ratios depending on the current elasticities of capital, labor, and demand in the global economy, and on the degree to which the U.S. economy is open.3

The general public, on the other hand, is convinced that the corporate tax is borne by large corporations, and politicians respond by maintaining the corporate tax as a tax paid by someone other than the voters. But this fiscal illusion, the opponents of the tax pronounce, is hardly a valid reason to maintain a very complicated tax that is the cause of significant deadweight loss (changes in behavior caused by the tax) and transaction costs (tax compliance and avoidance costs).4

This article will argue that we do need a corporate tax, but not for the traditional reason, which is that if we do not tax corporations, rich shareholders will be able to defer tax on their income. Instead, the article will argue that we should tax corporations for the same reason we originally adopted the corporate tax in 1909: to limit the power and regulate the behavior of our largest corporations, which are monopolies or quasi-monopolies that dominate their respective fields and drive their competitors out of business (the best example being Big Tech — that is, Amazon, Apple, Facebook, Google, and Microsoft). But if that is the reason to have a corporate tax, it should have a different structure from the current flat corporate tax of 21 percent. Instead, the tax should be set at zero for normal returns by allowing the expensing of physical capital, but at a sharply progressive rate for supernormal returns (rents), culminating at a rate of 80 percent for income above $10 billion a year.5 After this introduction, Section II of the article discusses and rejects the traditional reason given for taxing corporations. Section III argues that the only reason to maintain a corporate tax is as a tax on monopolistic rents. Section IV develops this proposal in some detail and Section V provides a conclusion.

II. A Tax on Shareholders?

The traditional reason for taxing corporations is that if we did not, rich shareholders would be able to earn their income through corporations and defer the tax until there is a dividend distribution or they sell the shares, or even avoid the tax altogether by holding their shares until death and having their heirs sell at a stepped-up basis.

That is not a valid reason for keeping alive a tax as complicated and costly as the corporate tax, which is why many academic observers have called for its abolition. Given that the corporate tax rate has been sharply cut to 21 percent and that the revenue from the corporate tax is at $230 billion (in 2019) and only a small fraction (below 7 percent) of total federal revenues of $3.4 trillion, it does not appear impossible that some future president could successfully argue for abolishing the corporate tax, despite its public popularity.

There are three reasons why the corporate tax is not a valid way of taxing shareholders. First, despite over 50 years of economic research, economists are still unsure of who bears the burden of the corporate tax.6 Plausible candidates are (a) the shareholders, if the corporate tax reduces corporate profits available to them as dividends or is reflected in the price of their shares (although even that assumes that the tax was not priced in when they bought the shares, in which case only the original shareholders in an initial public offering bear the burden); (b) all capital providers, if the tax causes capital to flow from the corporate to the noncorporate sector, which is influenced by the ever-changing relative tax rates on corporate versus passthrough businesses; (c) employees, if the corporations can effectively reduce wages in response to the tax by, for example, threatening to move production overseas; or (d) consumers, if corporations enjoy a monopolistic or quasimonopolistic position and therefore can raise prices to include the tax without fear of being undercut by competition. The true answer is probably that all of the above bear the burden in different ratios over time depending on the elasticities (response to the tax) of capital, labor, and demand.

Second, as economists have recently emphasized, many shareholders are tax exempt. In fact, a recent study has shown that 70 percent of U.S. equities are held by tax-exempt institutions or individuals (for example, through retirement accounts).7 The authors of the study argue that this is a reason to tax corporations because otherwise capital would not be taxed at all, but it seems to me that if we believe in the reason that we exempt these individuals and institutions from tax, there is no reason to tax them indirectly through a corporate tax (assuming that they do in fact bear the tax burden).

Third, even for taxable shareholders, there are better ways of taxing the shareholders directly, thereby eliminating the incidence issue. For closely held corporations, the answer is to tax the shareholders on their income earned through the corporation — that is, to make passthrough treatment mandatory — because there are no administrability issues for those corporations and most of them are passthroughs in any case. For publicly traded corporations and partnerships, passthrough taxation is not administratively feasible. Instead, the shareholders should be taxed on the changing value of their shares, because liquidity and valuation are not issues for publicly traded shares, and the same tax can be collected on a withholding basis on foreign shareholders and if necessary on tax-exempt domestic shareholders (the government can impose a lien on some of the shares and sell them if the tax is not paid by foreign shareholders).8 Pre-enactment unrealized appreciation can be reached by applying the tax in the year of enactment to the difference between the end-ofyear share value and original basis.

For these reasons, if the only rationale for having a corporate tax is to indirectly tax shareholders, it is not clear that it is worth fighting for against the many voices calling for its abolition. But that is in fact not the only rationale, as the next section explains.

III. A Tax on Monopolistic Rents

When the corporate tax was enacted in 1909, taxing shareholders was not the reason. In fact, taxing shareholders would in 1909 have been unconstitutional under the Supreme Court’s 1895 Pollock decision9 which both President Taft and then-Senate Majority Leader Nelson Aldrich believed precluded a tax on shareholders, although to placate the Progressives they also introduced a constitutional amendment to allow Congress to tax individual income, which neither expected to pass. Instead, the corporate tax was designated as an excise tax on the privilege of conducting business through the corporate form, since the Supreme Court had held such excise taxes on corporations to be constitutional in 1898; but neither Taft nor Aldrich thought that was a good reason to impose a federal tax on corporations, because the privileges of the corporate form derived from state, not federal, law.

Instead, as I have shown elsewhere by examining the legislative history, the corporate tax of 1909 was primarily seen as a vehicle for limiting the power of and regulating the great trusts such as John D. Rockefeller’s Standard Oil Co. or J.P. Morgan’s U.S. Steel Corp.10 The Taft administration was at the same time litigating against Standard Oil and American Tobacco (among many other trusts) to break them up under the Sherman Act of 1890, but the prospects of the litigation were uncertain (the government had lost the E.C. Knight case in the Supreme Court in 1895 and only narrowly won the Northern Securities case in 1904). Thus, as Taft said in his message to Congress, we should have a corporate tax to curb the trusts:

Another merit of this tax is the federal supervision which must be exercised in order to make the law effective over the annual accounts and business transactions of all corporations. While the faculty of assuming a corporate form has been of the utmost utility in the business world, it is also true that substantially all of the abuses and all of the evils which have aroused the public to the necessity of reform were made possible by the use of this very faculty. If now, by a perfectly legitimate and effective system of taxation, we are incidentally able to possess the Government and the stockholders and the public of the knowledge of the real business transactions and the gains and profits of every corporation in the country, we have made a long step toward that supervisory control of corporations which may prevent a further abuse of power.11

The corporate tax of 1909 had several features that were considered potentially effective as antitrust measures. First, even though the tax rate was only 1 percent, both supporters and opponents knew the rate could be increased (as it ultimately was, reaching 52.8 percent in 1968) and the threat of those changes might deter the trusts. Second, the tax returns were to be made public, thus alerting the press and the voters to which corporations were the most profitable and therefore the likeliest targets for antitrust enforcement actions. Third, while intercorporate dividends were exempt (a controversial feature, because the trusts were holding corporations), there were no tax-free reorganizations and no consolidated returns.

Unfortunately, all these antitrust features of the corporate tax were eliminated by 1928. The publicity feature was eliminated in 1910, taxexempt reorganizations were adopted in 1919, and consolidated returns were made elective in 1928. Also, various pro-corporate provisions like accelerated depreciation, percentage depletion, and the foreign tax credit were adopted in the same period. While the Franklin D. Roosevelt administration limited the dividends received deduction and tax-exempt reorganizations in the 1930s, it never eliminated them, and subsequent enactments like investment tax credits reduced the corporate tax even further. As for the rate, it never exceeded 52.8 percent (as opposed to the individual rate, which reached 94 percent during World War II and was still as high as 70 percent when Ronald Reagan was elected president). The effective corporate tax rate was much lower because of interest and depreciation deductions and investment tax credits. In 1986 the corporate rate was reduced from 46 percent to 34 percent (later raised to 35 percent), and despite various base-broadening measures, the effective corporate rate remained low. Corporate tax revenues consequently declined from 25 percent of total federal revenues in the 1960s to less than 10 percent in the 2000s. Finally, in 2017 the corporate tax rate was reduced to 21 percent, and it was a flat rate — all the previous progressivity, which applied only to small corporations with revenues below $15 million, was eliminated.

Other than the rates, we are unlikely to reverse these pro-trust features of the corporate tax, because they are old, well established, and benefit small as well as large corporations, which are not the proper subject of a corporate tax designated to limit the power of monopolies and quasi-monopolies.

Recent research by Edward Fox has shown, however, that most of the existing corporate tax falls on supernormal returns.12 Fox shows this by demonstrating from corporate tax returns for 1995-2013 that if expensing of capital expenditures were allowed before 2017, corporate tax revenues would have been almost identical to actual revenues. Because (as discussed later) expensing is equivalent to exempting the normal return, that means that the corporate tax has historically fallen primarily on supernormal returns, or rents. This finding is consistent with Laura Power and Austin Frerick’s evidence from 2016 that excess returns to corporations have been increasing over time.13 In the current environment, because expensing is in fact allowed until 2022, that finding is even more likely to be true.

In that case, and if the main reason to have a corporate tax is to tax rents and limit monopolies, then the tax should have a different rate structure than we have now. I would suggest that the effective tax rate on normal corporate profits be zero. On supernormal returns, because the main concern is monopolies and quasi-monopolies, the tax should be progressive, with a very high tax rate (for example, 80 percent) for profits above a very high threshold (for example, $10 billion). In between, there should be a series of graduated tax rates, similar to the individual rate schedule before 1980.

#### Using taxes as a new, independent regulatory tool mainstreams them as an instrument to broadly cushion societal responses to inevitable demographic and political crises---extinction.

Bachus ’18 [Kris and Frederic Vanswijgenhoven; 2018; Research Manager Climate and Sustainability at the Research Institute for Work and Society, University of Leuven, PhD in Social Science from KU Lueven, MA in Applied Economic Science from KU Leuven, European Master’s in Labor Science from the University College, London; Research Institute for Work and Society, University of Leuven, Master’s Degree in Comparative and International Politics from KU Leuven, Master’s Degree in Applied Economic Sciences from Universiteit Hasselt; Journal of Environmental Planning and Management, “The Use of Regulatory Taxation as a Policy Instrument for Sustainability Transitions: Old Wine in New Bottles or Unexplored Potential?” vol. 61]

1. Introduction

Environmental problems are of all times. Yet, over the past two decades, climate change, air pollution, natural resource depletion and biodiversity loss have reached the status of worldwide persistent threats (Foxon, Reed, and Stringer 2009). There is increasing consensus in the literature that common policy responses, which are in the main incremental, will not provide structural solutions to those problems (Elzen and Wieczorek 2005). Transition theory links those challenges to socio-technical systems, which fulfil a societal function using technical components, infrastructure, regulations and networks of organisations (Geels and Kemp 2000). A transition is a radical and structural change with economic, cultural, ecological and institutional developments taking place at different levels of the socio-technical system (Rotmans and Loorbach 2009).

An important discussion in transition literature concerns the question of whether transitions, niches and regimes can be governed, or even steered, in a (sustainable) direction. Most transition scholars see an active role for government, but not in the classical way as the top-down commander who can steer at will using its toolbox of instruments (Paredis 2013). Rather, government is seen as just one group of actors (Geels, Elzen, and Green 2004), who are part of the regime but simultaneously shape its adaptive capacity (Smith, Stirling, and Berkhout 2005). Government actors exert a substantial influence on the functioning of the socio-technical system as they often maintain and reproduce regime functions in an intensive manner (Smith, Stirling, and Berkhout 2005).

To address the complexity and long-term focus (one to two generations) of transitions, “existing policy instruments need to be combined with new approaches” (Elzen and Wieczorek 2005, 657). In addition to command-and-control (CAC) instruments and communicative instruments, economic instruments are used in environmental policy (Howlett and Ramesh 2003; Perman et al. 2003). Geels (2012) indicates, in the context of transport systems, that economic instruments can be used to enhance pressure on an unsustainable regime. Chappin (2011) applies simulation models to study the influence of carbon taxes on energy transitions. Although these studies point at the potential of taxation, the theoretical dynamics behind the impact of a tax on the transition process are not yet well understood, and available studies on the topic are scarce. This paper aims to contribute to the growing literature of transition governance by means of an exploratory analysis of the potential of taxation as an instrument to support sustainability transitions. We will do so by combining the literature on environmental taxation with the literature on sustainability transitions, and by identifying the conditions for a tax to have that potential. In our theoretical exploration, we will combine two heuristic frameworks from transition thinking, the multi-level perspective (MLP) and the multi-phase perspective (MPP), with the neoclassical theory of Pigouvian taxation, which is the basis of environmental taxation theory.

This paper is organised as follows. The MLP and MPP are explained in Section 2, along with other transition concepts. In Section 3, an overview is provided of the theoretical foundations of regulatory taxation. Section 4 shows the results of the combination of the theoretical strands of transitions and environmental taxation. Section 5 is dedicated to the limitations and barriers to the potential of environmental taxation, and in Section 6, we draw conclusions and provide suggestions for future research.

2. Transition theory: the MLP and the MPP

The MLP on sustainability transitions distinguishes between three levels (Geels 2004; Verbong and Geels 2007). At the macro level, the landscape represents the external environment of the system. Changes at the landscape level influence the socio-technical system (Markard and Truffer 2008). Examples of such developments are global warming, global economic growth, political crises or demographic evolutions (Geels 2002). At the meso level, the regime is the dominant form of functioning in the socio-technical system (Avelino and Rotmans 2009). The regime can be a dominant technology, institution, policy, practice or culture. At the micro level, niches present alternative (sustainable) technologies, institutions, policies, practices or cultures that cause disruptions in the functioning of the socio-technical system. By experimenting and growing stronger, niches can eventually overtake the role of the regime and install a new dynamic balance in the socio-technical system (Kemp and Loorbach 2006; Loorbach and Wijsman 2013). For example, learning effects from experiments with niche technologies such as photovoltaic energy and wind power in the energy system may make those technologies increasingly successful. After the growing phase, they may also become cheaper than regime technologies such as nuclear and fossil fuel power generation. Those niches exert pressure on the regime, which could, in combination with other pressures from the landscape, policies, market developments and cultures, lead to a replacement of nuclear and fossil fuel-based power by renewables, ending up in a new equilibrium that will be more sustainable than the previous one.

A transition presents a radical and fundamental change in the dominant structure, culture and practices of a socio-technical system (Loorbach and Rotmans 2006). The structure of the system consists of institutional, infrastructure, legal and economic provisions that are inherent to the functioning of the socio-technical system (de Haan 2010). Culture is regarded as the shared values, norms and perspectives, which may be cognitive, normative or ideological in nature, and which underlie the socio-technical system (de Haan and Rotmans 2011). Practices are the routines, habits and procedures operated by the actors in the system, which interact with the structure and the culture of the system.

The change that is required for a transition will not come about in a linear way. Rather, periods of rapid and slow (or no) change can alternate (de Haan and Rotmans 2011). This implies that there are multiple phases in a transition process. Loorbach (2007) describes four phases that together depict an ideal–typical transition process, the MPP. In the first phase, the pre-development phase, actors are engaged in experiments (Kemp and Loorbach 2006). During the take-off phase, the second phase, the regime will show signs of destabilisation and niches will get an opportunity to position themselves as a viable alternative (van der Brugge and Rotmans 2007). Rapid structural and cultural changes in the socio-technical system become visible in the acceleration phase (van der Brugge 2009). In the last phase, the stabilisation phase, a new sustainable regime is established (Avelino and Rotmans 2009).

Transitions are driven by various endogenous and exogenous developments. Exogenous developments are changes at the landscape level. Endogenous developments, on the other hand, are events occurring at the meso level (regimes) and micro level (niches). According to de Haan and Rotmans (2011), there are three groups of conditions for change: tensions, stress and pressure. Tensions are changes occurring at the landscape level threatening the position of the unsustainable regime. A regime that functions inadequately or inconsistently will experience stress, which can nurture the downfall of the regime. Regime pressure or selection pressure, finally, will appear when niches impose themselves on the regime's position by becoming viable alternatives or by making the regime's functioning obsolete. Regime pressure, along with the reactions of regime and niche actors, will create patterns of change (Frantzeskaki and de Haan 2009). When tensions dominate, a reconstellation pattern will appear. Stress and pressure will result in the patterns of, respectively, adaptation and empowerment. When certain patterns chain together, they create transition paths (de Haan 2010). Choices made in the past will affect the path along which transitions will move. Actors are confronted with path dependencies, which may turn into lock-ins. For example, the choice of the authorities of some countries to invest in nuclear power plants has created path dependencies in the energy systems of these countries, which function as lock-ins that prevent a breakthrough to an energy system based on renewable energy.

Two governance approaches within transition science indicate that belief in classical policy solutions is limited. The two most well-known governance models in transition literature are transition management (Loorbach 2007; Kemp and Loorbach 2006; Loorbach and Rotmans 2010) and strategic niche management (Hoogma 2000). Both these governance approaches emphasise the difficulties in steering socio-technical change. Strategic niche management sees the main role of government in process management, creating room for niche experimentation, making sure that the process is not dominated by certain actors, and in learning and facilitating other actors’ learning possibilities (Kemp, Schot, and Hoogma 1998). The other governance approach, transition management, departs from the same view, but presents a process management method for policy-makers wishing to influence burgeoning transition processes (Loorbach and Rotmans 2006). Transition management has been criticised, mainly because the term ‘management’ seems to suggest that it is possible to steer transitions by “deliberate intervention in pursuit of specific goals” in a top-down way (Shove and Walker 2007, 764). Although transition management scholars such as Loorbach and Rotmans develop a more nuanced perspective on the ‘steerability’ of a transition than the name ‘management’ suggests, they do assert that ‘goal-oriented transitions’, in which the policy goals guide the process, exist. This view is not shared by all transition scholars. For example, Dewulf et al. (2009) think that a multiplicity of theories is needed for addressing such complex issues as sustainability. Shove and Walker (2007) question the very starting point of transition management that it is possible to deliberately steer socio-technical system change in any direction.

Both strategic niche management and transition management focus on policies that are aimed at the level of the niches. However, they largely ignore that the destabilisation of incumbent regimes can equally be a valuable strategy, because this could speed up the upscaling of niche technologies (Kivimaa and Kern 2016). Policies discouraging certain niche technologies or practices can play a role here (Turnheim and Geels 2012). Taxation will be further examined as a regime destabilisation instrument, as the main subject of this paper. In addition, ‘policy mixes for creative destruction’ will be explored in Section 4.2.

3. Regulatory and environmental taxation

A basic idea in economics is that markets allocate resources in an efficient way. However, this thesis is only valid under the condition of the presence of well-defined and enforceable private property rights (Perman et al. 2003). If that condition is not met, the market is not capable of creating or maintaining a socially optimal or desirable situation, and market failures appear (Bator 1958). One example of a market failure is the existence of external costs or environmental externalities (Perman et al. 2003). Externalities are “benefits or costs generated as an unintended by-product of an economic1 activity that do not accrue to the parties involved in the activity and where no compensation takes place” (Owen 2004, 129). Pollution resulting from production activities is a typical example of a negative externality imposed on citizens, because the victims of the pollution have no legal rights to claim any compensation for the damage suffered. To resolve this market failure, governments can create property rights for ‘an unpolluted environment’ and give them to the victims, or even to the polluter. In the latter case, the polluter receives a ‘license to pollute’ a certain amount. Following the Coase theorem (Coase 1960), depending on the specific circumstances, this situation will lead to an equally efficient outcome as compared to victim property rights. However, from an equity point of view, the two solutions generate entirely different outcomes, as in the one case it is the polluter who pays, and in the other it is the victim (Perman et al. 2003). In theory, the polluter and the victims could bargain and agree on compensation for the damage based on the victim's or polluter's property rights, in which case government intervention becomes redundant (Coase 1960). In practice, however, the large number of victims and polluters and the costs of bargaining often prevent an optimal outcome of private bargaining. In that case, government regulation, through the use of CAC instruments, economic instruments or suasion, is needed (Perman et al. 2003). In this paper, we focus on the use of taxation as a regulatory2 policy instrument in response to existing market failures. Regulatory taxes aimed at environmental improvement are called environmental taxes.3 An alternative name is Pigouvian taxation, after the twentieth-century economist Arthur C. Pigou, who developed the idea to use taxation to tackle externalities (Pigou 1920). According to Pigou, an environmental tax equal to the marginal damage at the efficient pollution level maximises allocative efficiency and welfare. The theory of Pigouvian taxation belongs to the neoclassical economic perspective, which assumes that economic agents act in a rational way according to their individual preferences in such a way that their utility (or profit for companies) is maximised (rational choice theory). Moreover, neoclassical economics assumes that preferences are fixed, as an exogenous factor, which was the dominant assumption until the 1990s (Arnsperger and Varoufakis 2006). Later, some economists regarded preferences as fixed in the short run, but subject to change in the long run (Doyle 2004). Others completely dismissed the notion of fixed preferences stating that individual preferences change as a result of past outcomes, and sometimes even rapidly and systematically (Van Boven, Loewenstein, and Dunning 2003).

In a first-best world with no uncertainty, regulatory taxes are statically efficient because the emission reductions are achieved while using a minimum amount of resources (Sandmo 2000). They are dynamically efficient because taxpayers will be inclined to seek further reduction methods due to the fact that the undesirable behaviour remains taxed (Faure and Weishaar 2012). In this theoretically ideal situation, a tax always leads to a more efficient solution than a licence or other CAC type of instrument. However, if complexity or uncertainty is introduced, many authors criticise Pigou's theory on the optimal level of an externality tax. Although a complete review of this literature exceeds the scope of this paper, we present three of the most important critiques. First, Coase (1960) dismissed the idea that a tax equal to the marginal damage cost increases total welfare in all situations. When there is uncertainty about the marginal abatement cost curves of polluting firms, the comparison changes. Taxes keep the edge over CAC instruments when the (absolute value of the) slope of the marginal abatement cost curve is greater than the slope of the marginal damage curve. Conversely, when the marginal abatement cost curve is less steep than the marginal damage curve, CAC instruments are to be preferred to taxes (Perman et al. 2003; Baumol and Oates 1988). Second, Baumol and Oates (1988) add that it is often hard to calculate the monetary value of the marginal damage of the polluting activity, in which case a standard may also be the recommended instrument choice. And third, in case of monopoly or oligopoly, the optimal tax rate may vary from lower to higher than the marginal damage (Ebert and von dem Hagen 1998).

An important element in the discussion on the optimal tax rate is the price elasticity of demand, which is not static. The absolute value of demand elasticities tends to increase over time (Lipsey and Chrystal 2007; Pindyck and Rubinfeld 2009). The reason is that demand elasticity is, in fact, mainly determined by the availability of substitutes. Investment decisions are made with a long-term perspective, and in the long run, more options are available for developing new (clean) technologies than in the short run (OECD 2000). For example, Sterner (2007) estimated that the demand elasticity of petrol and diesel in the long run is about three times higher than in the short run.

In addition to determining the correct tax rate, other tax design elements need to be decided. First, the tax base, which is the object that is taxed (Sandmo 2000), needs to be chosen. This can be input products, output products, production factors (energy), production (processes, activities or techniques), consumption or emissions (Vollebergh 2008; Weber 2011). The most effective way of eliminating externalities is by choosing the externality itself (e.g. CO2 emissions) as the tax base (OECD 2010). In practice, emission-measuring problems often hinder direct taxation of emissions. Proxies, such as petrol sold as a transport fuel, then form alternative tax bases (Dias Soares 2011). Second, tax rates can be differentiated (Määttä 2006), in which case certain products, processes or groups of taxpayers are granted a lower tax rate or are exempt from the tax. Third, a tax can be implemented at one specific moment in time or in multiple phases whereby the tax rate is raised or reduced in each phase.

4.1. (In)compatibility arguments

The transition school sees public authorities as just one group of actors in a socio-technical system. They are an important actor, but they cannot steer a transition in a top-down way (Kemp, Rotmans, and Loorbach 2007). Traditional decision-making models, including neoclassical economics, are mostly rejected based on the following four arguments. First, traditional policy-making is deemed unfit for dealing with high-complexity, long-term, wicked societal problems, because the knowledge on ecological cause–effect relations is often limited and political compromises inevitably lead to incrementalism as opposed to structural system change (Rotmans, Loorbach, and Van derBrugge 2005; Kemp, Rotmans, and Loorbach 2007; Mathijs 2008). Second, the existing policies are the result of outdated legislation, routines and institutional relations and are characterised by path dependency and technological lock-in (Rotmans, Loorbach, and Van der Brugge 2005). Third, the view of neoclassical economics on the preferences of individuals is too static, while instead a transition would require changing preferences (Kemp, Rotmans, and Loorbach 2007). Finally, steering a transition towards sustainability involves a subjective interpretation of sustainability, which “should arise from a multi-actor process, involving a balanced diversity of stakeholders” (van der Brugge, Rotmans, and Loorbach 2005, 167). Geels (2012) describes transitions as co-evolutionary processes, which require the involvement of many social groups. Network management in decision-making would be a step forward, but even those policy networks are not necessarily concerned with the long term (Kemp, Rotmans, and Loorbach 2007).

Transition management is a governance approach based on transition theory, which proposes a bottom-up approach to steer a transition, based on multi-actor involvement. However, it does not offer a full-fledged alternative to traditional policy-making, as it is “not directly solution-oriented, but explorative and design-oriented” (Rotmans, Loorbach, and Van der Brugge 2005, 6). Therefore, some transition scholars revert to other academic fields, such as evolutionary economics to analyse sustainability transitions and related policy strategies. Inspired by the field of biology, this field focuses on three central concepts: diversity, selection and innovation. Models from evolutionary economics can cope with complexity; they deviate from neoclassical economic theories by acknowledging that economic agent behaviour is explained by bounded rationality (van den Bergh, Hofkes, and Oosterhuis 2006). People's rationality is bounded because of a lack of appropriate and reliable information, limited cognitive capacities and limited decision-making time (Kahneman 2003; Simon 1955). Evolutionary economics leaves more room for environmental taxation than most transition studies, although it emphasises the need for a combination of policy instruments or policy mixes (van den Bergh et al. 2006). The role of policy mixes for sustainability transitions is further treated in Section 4.2.

So, if the neoclassical policy instrument of environmental taxation is so hard to reconcile with the bottom-up governance principles of transition theory, is it still worthwhile to study the combination? Four arguments support an affirmative answer. First, as we demonstrated in Section 3, the impact of environmental taxation is much higher in the long run than in the short run, which gives this instrument an interesting appeal considering the fundamental long-term change transition theory describes. Second, when the economy is (threatening to get) stuck in a technology that is not serving the long-run transition goal, a regulatory tax on that technology may unlock (further) lock-in, thus avoiding an important obstacle for a sustainability transition (den Butter and Hofkes 2006). Third, policy attention tends to go to supporting niches but much less to destabilising the dominant regime, which is politically more difficult. However, according to Kivimaa and Kern (2016), niche support policies will need to go hand-in-hand with regime destabilisation policies aimed at internalising externalities. A tax on the dominant regime technology is particularly suitable for that purpose (Geels and Schot 2007). Fourth, the bounded rationality concept embraced by transition theory still incorporates a level of rationality, implying that a price signal may still have an effect.

We conclude that there is no consensus on the use of regulatory taxes to enhance sustainability transitions. Some scholars see a role for taxation, but rather as one part of a more comprehensive policy mix (Geels 2006; Kemp, Schot, and Hoogma 1998; Markard and Truffer 2008).

### 1NC---OFF

Tradeoff DA:

#### The FTC is escalating enforcement against dark patterns.

AELP ’12-22 [American Economic Liberties Project; December 22; Non-partisan, non-profit organization chaired by experts from Harvard University, the American Civil Liberties Union, Columbia University, and other accredited institutions; AELP, “A New Era: A Stronger FTC to Defend Working Families and Honest Businesses,” <https://www.economicliberties.us/our-work/a-new-era-a-stronger-ftc-to-defend-working-families-and-honest-businesses/>]

Ramped-Up Enforcement Against Subscription Tricks and Traps

In a bipartisan 3-to-1 vote, the FTC ramped-up enforcement against illegal subscription traps in response to a rising number of complaints about deceptive sign up tactics, unauthorized charges, and ongoing billing that is impossible to cancel. The new enforcement policy statement from the FTC made clear that deploying illegal “dark patterns” to trick consumers into signing up for subscription programs or trap them when they try to cancel is against the law, and subject to penalties.

Returned $135 Million to Working Americans

In an unprecedented year, the FTC stood up for working families by holding corporate criminals and scammers accountable. Working families across the country had over $135 million returned to them by the FTC after it was stolen, swindled, or scammed from them including $60 million in [stolen wages returned](https://www.usatoday.com/story/tech/news/2021/11/03/amazon-will-pay-back-withheld-tips-from-drivers/6265205001/) to Amazon drivers, up to $40 million to patients defrauded by [“Pharma Bro” Martin Shkreli](https://apnews.com/article/business-health-federal-trade-commission-martin-shkreli-98e0a8b6be3dc6901153610756cbb58a) after a unanimous FTC vote, and over $35 million in refunds to scam victims across the country. In addition to refunds, the FTC also pressed forward to hold bad actors accountable in court, including [suing FleetCor and its CEO for fleecing small businesses](https://www.thestreet.com/investing/fleetcor-flt-federal-trade-commission-complaint) with mystery fuel card fees.

Protected Privacy in the Digital Age

In addition to issuing a landmark report proving the leading internet service providers (ISPs)[collect and sell more data than consumers know](https://www.cnet.com/home/internet/ftc-calls-out-internet-providers-for-amassing-user-browsing-data/) — including full browsing history, location data, sexual orientation and more — the FTC also took aggressive action to protect consumers in the digital era. The FTC strengthened the Safeguards Rule to[require banks protect customer data](https://www.reuters.com/legal/transactional/new-safeguards-rule-how-will-it-impact-financial-institutions-2021-12-09/) following widespread data breaches that led to financial losses and identity theft, [protected over 100 million app users](https://www.nytimes.com/2021/01/28/us/period-apps-health-technology-women-privacy.html) by requiring sensitive health data is not shared with Facebook and Google without permission, and banned SpyFone and its CEO from the surveillance business and ordered them [delete all secretly stolen data](https://www.engadget.com/ftc-spyware-company-spyfone-surveillance-industry-151300900.html).

#### Expanding the legal scope of antitrust trades off.

Frank ’21 [Fried Frank Harris Shriver & Jacobson LLP; January 5; Law firm advising the world’s leading corporations, investment funds, and financial institutions; Lexology, “Managing Antitrust Risk in the Biden Administration,” <https://www.lexology.com/library/detail.aspx?g=8f2eaf8e-db8e-47d5-80c5-c912e3042591>]

Apart from proposed legislative changes, any change in enforcement will depend on President-Elect Biden's appointments to lead the FTC and the DOJ. What is clear, however, is that the sitting Democratic-appointed FTC Commissioners support major changes in the next Administration's approach to antitrust. For example, Commissioner Chopra has been critical of the FTC's long-standing practice of approving pharmaceutical mergers with divestitures limited to overlap products and has argued that the Commission should also consider the overall impact of the size of the companies on competition.7 He has also been particularly critical of private equity, arguing that roll-up acquisitions by PE-backed firms allow them to quietly accumulate market share and harm competition. Commissioners Chopra and Slaughter recently dissented from the DOJ/FTC Vertical Merger Guidelines and Vertical Merger Commentary because they believe that vertical merger enforcement has been too lax, and strongly cautioned the market against relying on these guidelines as an indication of how the FTC will act going forward.8

While the agencies already are focused on acquisitions of nascent competitors in markets with significant entry barriers, such deals likely will get even more scrutiny as the agencies are careful not to repeat the controversial clearances of Facebook's acquisitions of Instagram and WhatsApp. This trend was apparent in Visa/Plaid and Sabre/Farelogix, where both deals were challenged despite the targets' extremely small market share.

Federal Courts and Budget Constraints Will Be Limiting Factors

Challenging transactions based on novel antitrust theories, without the benefit of precedent, means the agencies have the uphill battle of persuading a court that the transaction violates antitrust laws. The DOJ's unsuccessful challenges of the AT&T/Time Warner and Sabre/Farelogix mergers showed how difficult it can be to win a merger challenge that goes beyond the comfort of precedent and presumptions. Notably, in Sabre/Farelogix, the court found in favor of the parties based almost entirely on the precedent set in the Supreme Court's decision in Ohio v. American Express. Similarly, the FTC's Ninth Circuit loss in its lawsuit against Qualcomm will make it more difficult to bring an antitrust challenge to licensing practices for standard-essential patents. With the Trump Administration appointing almost a quarter of active federal judges and three Supreme Court justices, winning cases that push the boundaries of antitrust law will not be easy.

Further, despite a record number of litigated cases, the budget at the antitrust agencies is insufficient to match the rhetoric of more enforcement. The DOJ had 25% fewer full-time employees in 2019 than it had 10 years earlier9 and the FTC recently imposed a hiring freeze. With limited resources, the agencies are forced to make important tradeoffs in deciding what matters to challenge, settle, or walk away from. Indeed, Commissioner Wilson reportedly voted against bringing a lawsuit to block CoStar's acquisition of RentPath, in part, because of limited FTC resources.10 Although the agencies will receive a modest budget increase for the current fiscal year,11 it is far short of what some think is needed.12 As antitrust enforcement has become a bipartisan issue, a significant increase in the antitrust agencies' budgets in the future is likely.

#### Dark patterns disrupt health informatics.

Capurro and Velloso ’21 [Daniel and Eduardo; 2021; Senior Lecturer in Digital Health, Computing and Information Systems, University of Melbourne AND Senior Lecturer in Human-Computer Interaction and DECRA Fellow at the University of Melbourne; Arxiv, “Dark Patterns, Electronic Medical Records, and the Opioid Epidemic,” <https://arxiv.org/pdf/2105.08870.pdf>]

The amount of information required to make sound clinical decisions is enormous and continuously growing [1, 2]. The combination of patient attributes, laboratory results, imaging—along with patient values and preferences—makes this process very complex [3]. Further, the availability of novel genetic and molecular assays that test for hundreds or thousands of genes or proteins and the emergence of previously unknown diseases make the task impossible without the support of external systems to aid clinicians and patients in sound decision making. The complexity of such decisions is one of the reasons explaining why patients only receive around half of the recommended health interventions [4, 5]—a situation with disastrous consequences for their health and well-being.

Electronic Medical Records (EMRs) have emerged in the past twenty years as comprehensive information systems used to collect and synthesize patient data, and to provide decision support for health professionals. The category of devices and artifacts used to facilitate clinical decision making are collectively known as clinical decision support systems (CDSSs). CDSSs can facilitate the documentation of relevant clinical information, alert clinicians about abnormal laboratory results, suggest relevant clinical pathways, summarize patient variables, and many other forms of decision support. Although CDSSs can be implemented through non-digital methods, such as paper reminders [6], most CDSSs are embedded in Electronic Medical Records. Given the diversity of clinical problems, interventions, and possible outcomes, evidence supporting the use of CDSSs is heterogeneous, but there is a growing number of patient and process outcomes that have been shown to be improved through the use of CDSSs. As an example, a recent overview of systematic reviews on the use of CDSS to improve outcomes in patients with diabetes found that 83% of all included studies showed positive impacts on processes of care and 1/3 of them demonstrated benefits in managing blood pressure, blood glucose, and even a reduction in mortality [7]. The accumulating evidence has made CDSSs an attractive method to influence clinical decision making and to change clinician’s behaviour.

However, at the same time that the digitisation of CDSSs has enhanced the speed, accuracy, and scalability of clinical decision making, it has also increased the risk of making the decision process more opaque and of reducing the agency of clinicians. This risk is amplified by recent advances in artificial intelligence and machine learning, which despite offering promising improvements in decision making performance, might not allow for inspection of how the recommendations were reached. This context, combined with competing interests from pharmaceutical companies and medical device manufacturers, creates fertile grounds for the proliferation of dark interface design patterns in CDSSs. We consider dark patterns to be common interface design solutions leveraging cognitive biases and heuristics to trick users into making decisions that are more aligned to third party interests than to their own. In this paper we discuss a case of dark patterns influencing patient treatment through the modification of a CDSS embedded in a commercial electronic health record.

#### Extinction.

Su ’21 [Zhaohui; 2021; Center on Smart and Connected Health Technologies, Mays Cancer Center, School of Nursing, UT Health San Antonio; The Hong Kong Polytechnic University, “Addressing Biodisaster X Threats with Artificial Intelligence and 6G Technologies: Literature Review and Critical Insights,” <https://arxiv.org/pdf/2105.08870.pdf>]

A disaster can be defined as “a serious disruption of the functioning of a community or society involving widespread human, material, economic, or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources” [47]. Based on the contributing causes, disasters are usually categorized as natural (eg, earthquakes, infectious disease-inducing epidemics, or pandemics of natural origin) and anthropogenic (eg, armed conflicts, nuclear accidents, or the release of pathogenic genetically modified organisms from laboratory settings). In the context of this study, biodisasters are defined as disasters that occur as a result of infectious pathogens with bioweapon potential, which are unleashed by state or nonstate actors accidentally and intentionally (eg, the Japanese government’s controversial decision to dump Fukushima’s contaminated water into the boundless and borderless ocean shared by all life forms on earth, including humans and sharks [48]). In the context of biodisasters, a state actor often takes the form of a nation that deliberately and systematically designs and develops infectious pathogens with its national interest in mind. In contrast, a nonstate actor is an individual or group acting independently to obtain or manufacture a pathogen either owing to misguidance or malice. Of note, although existing multilateral agreements prohibit the production and use of bioweapons by state actors (termed biowarfare) [49], the presence of signed agreements does not imply that accidental or intentional development and release of pathogens by state actors will not occur.

The concept of “bioterrorism,” defined as the deliberate release of pathogens that could cause illnesses and deaths in society, is not the focus of this study because “bioterrorism” entails both deliberation and malice (eg, to elicit terror to the public) [50]; antecedents may not necessarily apply to Biodisaster X threats. Insights from behavioral science [51-53] and evidence regarding individual-caused mass casualty events (eg, indiscriminate mass shootings) [54-56] suggest that individual actors’ behaviors, potentially leading to the onset of Biodisaster X, may or may not include conscious deliberation to harm. In other words, while it is possible that individual actors’ malicious actions might cause some biodisasters, it is also possible that some individual-caused biodisasters are accidental.

Furthermore, the term bioterrorism is limited, in that “terror” is the main outcome. We believe that for Biodisaster X, which could upend lives, livelihoods, and economies, “disaster” is a more appropriate description that sheds light on the scale and severity of its consequences and is more diverse than “terror.” Drawing insight from real-world examples, similar to the prevalent ransomware hacks, it is possible that state or individual actors could develop and utilize infectious pathogens as “ransomgens” for financial gain rather than merely aiming to generate terror in society. Therefore, under the current research context, we adopted the term “biodisaster” instead of “bioterrorism.” Furthermore, considering that various studies have discussed approaches to address state actor–initiated biodisasters [57-61], this study focuses on biodisasters that are infectious in nature, caused by individual actors, and can result in catastrophic human and economic consequences.

Biodisaster X vs Disease X

The risk of biodisasters, such as Biodisaster X, is increasing in likelihood: advances in technology, particularly the availability and maturity of biotechnology, have grown considerably in recent years. Inadvertently, these advances may resemble those of Oppenheimer [62] in facilitating the release of destructive factors. One example of the misuse of biotechnology is a microbiologist, vaccinologist, and senior biodefense researcher who worked at the United States Army Medical Research Institute of Infectious Diseases, who allegedly engineered the 2001 anthrax attacks [63-65]. While the scale of the 2001 anthrax attacks was minor, it demonstrated how easily biodisasters can occur and how unprepared society was for these events. As seen in the lack of adequate preparation and coherent responses to infectious disease–induced pandemics, including COVID-19 [66-69], Biodisaster X’s effects may be compounded to the same, if not greater, degree by incompetence across international, national, and regional agencies and organizations.

The concept of Biodisaster X can be best understood in contrast with Disease X. In terms of similarities, both Biodisaster X and Disease X are driven by pathogens unknown to humans and have the potential to cause crippling effects on society. Furthermore, based on previous inadequacies in response to emergency events including pandemics [66-74], the world at large may be ill-prepared for both Biodisaster X and Disease X. In terms of unique attributes, compared to Disease X, Biodisaster X is more likely to have the following characteristics: (1) having a pathogen directly affiliated to a laboratory; (2) having distinctive and engineered attributes tailored by the capabilities and intentions of the developer; and (3) the origin, development, and history can be definitively ascertained upon identification of the developer, which is not possible for naturally occurring pathogens (eg, the 1918 influenza pandemic), where there is always uncertainty regarding the origin and evolutionary history of the disaster [75-77].

The Imperative of Preparing for Biodisaster X

Some of the deadliest pandemics—the most recent ones ranging from AIDS, severe acute respiratory syndrome, Middle East respiratory syndrome, Ebola, and COVID-19—all have zoonotic origins [78]. Studies have further shown that for viruses that can transmit from animals to humans, especially those that can infect a diverse range of host species, the transmission speeds are substantially amplified once human-to-human transmission is established, and the diseases can quickly evolve into global pandemics [79]. Consequently, once a pathogen is transmissible within a population, there is a low access threshold: an individual actor can “obtain” these deadly pathogens without the need for advanced laboratory skills or extensive financial resources. However, costs to physical and mental health may reveal a counternarrative.

Based on available evidence, it is difficult to determine whether an individual can be a malicious “patient zero”; an individual who intentionally contracts a novel virus intending to cause infectious disease outbreaks in a society [80]. It is not impossible to purposely study and capture known or unknown deadly pathogens that can trigger infectious diseases; microbial surveys are commonly conducted to identify novel pathogens before they pose a threat to public health [81-84]. In theory, there could be individual actors, with adequate knowledge or experience (similar to the microbiologist allegedly behind the 2011 anthrax attacks [63-65]), who may take the same actions but with different motives, ranging from scientific curiosity to ill-guided intentions. Considering the rich biodiversity of wildlife, along with the large number of “missing viruses” and “missing zoonoses” that remain unidentified [85], close contacts with latent deadly pathogens are nearly impossible to control, which in turn, renders it challenging to locate or identify individual actors who might utilize them. Advances in synthetic biology may further compound the situation, especially considering the scholarly endeavors using pathogens in laboratory settings, which could amount to the level of real-world pandemics (eg, laboratory-cultured viruses such as smallpox [86-88]). The likelihood of Biodisaster X increases in proportion to these factors.

Overall, considering the species diversity of wildlife, the unknown factors related to the scale and severity of viruses in animals, which have the latent potential to infect humans, and the varying degrees of competency of community health centers in detecting infectious disease outbreaks in a bottom-up manner, it could be tremendously difficult for health experts and government officials to monitor potentially emerging Biodisaster X threats. However, not all hope is lost. Technology-based solutions, especially those utilizing AI and 6G technologies, can help address these issues.

The Need for Advanced Technology Solutions for Monitoring and Managing Biodisaster X

The Need for Technology-Based Solutions

Once Biodisaster X becomes a reality, human contact will drive transmission and become the primary fuel for exacerbating infections and deaths caused by the disaster. As seen during the COVID-19 pandemic, owing to virus spread and subsequent public health policies (eg, lockdowns), many critical societal functions could be substantially disrupted. The potential to control and contain human and economic consequences of Biodisaster X, such as the functionality of the health care systems (eg, infected health care professionals) [89-91], may also become critically undermined. In these circumstances, technology-based solutions could be the key to addressing these crises, as they are different from conventional solutions; they are not highly dependent on physical interactions and transportation. Overall, technology-based solutions require limited human resources (eg, with the ability to operate without human input), can be delivered independent of physical human contact (eg, web-based and remote deployment), and are immune to infectious diseases (eg, can function in contaminated environments). Furthermore, technology-based solutions are less vulnerable to issues ranging from physical fatigue to mental health burdens, which are health challenges that frontline workers often face amid emergency events.

The Need for Advanced Technologies

To effectively predict, control, and manage Biodisaster X, which is an event with a low probability (ie, difficult to detect preemptively) and a high impact (ie, difficult to control and contain), advanced technologies are needed. While many emerging technologies can address the dangers and damages associated with Biodisaster X [92,93], 2 families of advanced technology-based solutions show particular promise, namely AI techniques and 6G technologies.

Unique Capabilities of AI

AI is generally considered synonymous with “thinking machines” [94], or techniques that can facilitate “a computer to do things which, when done by people, are said to involve intelligence” [95]. With AI technologies, machines can identify patterns too intricate for humans to identify and process quickly. AI techniques are widely used in areas such as natural language processing, speech recognition, machine vision, targeted marketing, and health care, including efforts to combat COVID-19 [96-99]. While technologies such as virtual reality, smart sensors, drones, and robotics could play a positive role in supporting health care professionals to cope with the pandemic [100-102], AI technologies are arguably most instrumental in addressing some of the most prominent issues health experts and government officials are faced with, ranging from pandemic surveillance to COVID-19 drug and vaccine development [103-106].

AI and machine learning techniques are particularly valuable in their ability to identify trends and patterns across large amounts of data promptly and cost-effectively; for example, in identifying or searching for specific patterns. With natural language processing, for instance, data can be extracted retrospectively from clinical records or prospectively in real time and statistically processed for insights, which, in turn, can supplement existing structured data to enrich actionable information [86]. During the COVID-19 pandemic, natural language processing models have been used to analyze publicly available information such as tweets, tweet timestamps, and geolocation data, to identify and map potential COVID-19 cases cost-effectively, without utilizing testing devices or other medical resources that involve health care professional [107].

Overall, most, if not all, AI techniques are irreplaceable in regard to administering complex tasks such as extracting useful information from large data sets. Moreover, with the continuously increasing speed of its technological advancements and applications, AI technologies are often utilized as core components in other emerging technologies [108]. Smart sensors that perform advanced tasks, such as effectively identifying and recognizing captured motions and images, often need to integrate deep learning technologies (a subgroup of AI) [109-111]. These combined insights suggest that AI techniques have great potential in monitoring and managing Biodisaster X threats.

## Adv---Developing Economies

### 1NC – Model Fails

#### Exporting standards fails – deals get litigated and watered down, even when they succeed, circumvention is common and devastating

Martin 21 [Thomas Martin LLB, Queens University Belfast, 2019 A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF LAWS in THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES, THE UNIVERSITY OF BRITISH COLUMBIA. "Is global convergence of competition law the answer? How East Asian challenges demonstrate the limitations of the convergence strategy." https://open.library.ubc.ca/soa/cIRcle/collections/ubctheses/24/items/1.0396863]

In each of the three countries examined in this thesis, Japan, South Korea, and China, there was a need to internalize something that was foreign to their legal system. With this in mind, Mor Bakhoum wrote that, “with the current trend of an ever-increased internationalization of antitrust and increased convergence around western antitrust principles, one must ask whether developing countries should be mere followers or should they step back and define antitrust principles adapt to their specific situation.”314 It is clear after analysis, that countries developing competition legislation should make an assessment and adapt the competition principles to their specific situation. After a thorough analysis, the drafters should mould the competition law to fit the economic and political needs in their respective country. One caveat to this is, of course, that in the process of drafting, not all knowledge gained by mature and well-resourced competition law regimes should be simply disregarded. In fact, it would be helpful to stick to the well accepted terminology in order to avoid enforcement problems.315 It is, rather, a case of adapting and tailoring the existing competition law knowledge to the particular economic and political context in the respective country. Ideally, outside technical advisors will cooperate with indigenous experts to create a competition law suited to that jurisdiction. Heba Shahein describes this as follows: “the strongest draft law is the one where the principles emerge from the recommendations of local experts from the borrowing countries who have a command of the market’s need, and which is illuminated by the experiences of other foreign competition laws. This is to ensure an understanding of the needs of the markets, while knowledge and experience of developed competition rules can be addressed during the borrowing process.”316

This collaborative process between outside technical advisors and local experts may seem relatively straightforward in theory, but Steven Van Uytsel is careful to highlight three elements that could threaten the process in jurisdictions that are developing a competition law.317 First, it is important to realise that this collaborative approach to creating a more contextualised or tailormade competition law will naturally take a long time.318 Before a competition law can be formulated, a country’s characteristics should be mapped and Michal S. Gal and Eleanor M. Fox have identified the four characteristics that need to be mapped which are related to: economics, institutions, politics and sociocultural elements.319 The economic characteristics relate to the ideology and methodology of market control, barriers to trade, the vulnerability of the market and wealth distribution.320 The institutional characteristics may concern any shortage in human or financial resources, whether it’s a lack of financial institutions that guide market activity or well-functioning courts.321 With regards to politics, Gal and Fox refer to political instability, which may distract a government from problems related to the market or corruption that can lead to barriers for firms that are not favoured by the political elite.322 Finally, for sociocultural characteristics, it is important to recognise that there may be a conflict between competitive values and other cultural values within the adopting jurisdiction and that competition may have a different meaning among cultures or be les valued than business collaboration.323 Second, Van Uytsel warns that even if the outside technical advisors and local experts succeed in elaborating an understanding of the countries characteristics and attach the necessary legislative implications to these characteristics, there is still a risk that a well-balanced draft can be torn apart by different interests or misunderstandings once it enters the legislative process.324 Therefore, it is imperative that drafters do not let what could easily be an implementable provision become unnecessarily complex. Third, by adapting existing competition laws or tailoring a competition law to a country’s context, there is a risk that the enforcement of the competition law may initially go through somewhat of a trail and error stage.325 However, as we have seen in examination of Japan and South Korea, where the competition legislations were heavily influenced by the United States, there was still an extended period of trial and error and inconsistent enforcement that spanned across many decades.

### 1NC – AT: Middle East

#### Alt causes to instability and war.

Frantzman ’20 [Seth; June 15; Senior Middle East Correspondent and Middle East affairs analyst; The Jerusalem Post, “Why are there more wars in the Middle East than anywhere else?” <https://www.jpost.com/middle-east/why-are-there-more-wars-in-the-middle-east-than-anywhere-else-631510>; KP]

NO OTHER area in the world has so many complex conflicts. Every day in the Middle East there are airstrikes and threats of war or invasions. The region is an area of competition for global powers, such as Russia and the US. It is also an area where regional powers feel impunity to traffic weapons and send their armies across borders. Nowhere else in the world are there so many states operating across national borders or funding and arming proxies.

Drones and new technology are being experimented with and updated in the Middle East. The region has seen ballistic missile strikes at new ranges, drone swarms and the use of air defense such as Iron Dome, Arrow 3 and Patriots to down threats. Jamming and new technology has assisted Turkey in Libya.

In addition, the region’s civil wars in Yemen, Libya and Syria are continuing. There are also rivalries, such as Qatar versus Saudi Arabia, that feed conflicts elsewhere. Nowhere else in the world are F-35s, MiG-29s, S-400s and other systems all being put into play with the chance that they will be used. The region is suffering the long-term challenges of the post-Cold War and post-War on Terror era.

This era sees a return to stronger states after the Arab spring, as well as the chaos and rise of proxy groups and ungoverned spaces. The region is now seen as being up for grabs as the US begins to withdraw from areas like Syria or Afghanistan – and other states, such as Iran, Turkey, Russia and China are stepping in. This feeds conflicts as each country seeks greater hegemony and wants to take over areas in Syria, Libya or Yemen.

In addition, terrorist groups and proxy armies and militias are well armed in the Middle East. Although they wreak havoc across the Sahel or Afghanistan, this is the region where they have the most funding, weapons and state support.

The Middle East is the world's most war-torn region, and the warring won't be ending so soon.

#### Middle East war is more unlikely than ever.

Karlin & Wittes 19 Mara Karlin, International Studies Professor at John Hopkins University, Nonresident Senior Fellow at the Brookings Institution, and U.S. Deputy Assistant Secretary of Defense for Strategy and Force Development 2015-2016, & Tamara Cofman Wittes, a Senior Fellow in Foreign Policy at the Brookings Institution and U.S. Deputy Assistant Secretary of State for Near Eastern Affairs from 2009-2012. [America’s Middle East Purgatory: The Case for Doing Less, Foreign Affairs, January/February 2019, 98(1)]

LESS RELEVANT REGION In response to the Iraq war, the United States has aimed to reduce its role in the Middle East. Three factors have made that course both more alluring and more possible. First, interstate conflicts that directly threatened U.S. interests in the past have largely been replaced by substate security threats. Second, other rising regions, especially Asia, have taken on more importance to U.S. global strategy. And third, the diversification of global energy markets has weakened oil as a driver of U.S. policy. During the Cold War, traditional state-based threats pushed the United States to play a major role in the Middle East. That role involved not only ensuring the stable supply of energy to Western markets but also working to prevent the spread of communist influence and tamping down the Arab-Israeli conflict so as to help stabilize friendly states. These efforts were largely successful. Beginning in the 1970s, the United States nudged Egypt out of the pro-Soviet camp, oversaw the first Arab-Israeli peace treaty, and solidified its hegemony in the region. Despite challenges from Iran after its 1979 revolution and from Saddam Hussein’s Iraq throughout the 1990s, U.S. dominance was never seriously in question. The United States contained the Arab-Israeli conflict, countered Saddam’s bid to gain territory through force in the 1990–91 Gulf War, and built a seemingly permanent military presence in the Gulf that deterred Iran and muffled disputes among the Gulf Arab states. Thanks to all these efforts, the chances of deliberate interstate war in the Middle East are perhaps lower now than at any time in the past 50 years.

### 1NC – AT: Democracy

#### Massive alt causes.

Klaas ’21 [Brian; June 11; associate professor of global politics at University College London; the Washington Post, “Opinion: The world is horrified by the dysfunction of American democracy,” https://www.washingtonpost.com/opinions/2021/06/11/pew-research-global-opinion-us-democracy/]

It’s official: America is no longer a “shining city upon a hill.”

Data released Thursday from Pew Research shows that our allies are beyond delighted that the Trump presidency has ended. Confidence in U.S. leadership has soared. Our friends are breathing a sigh of relief.

But buried in that story about the United States’ post-Trump redemption is some seriously bad news: U.S. allies see our democracy as a shattered, washed-up has-been. We used to provide a democratic model for the world, but no longer. The chaos, dysfunction and insanity of the past several years have taken a predictable toll.

The numbers are depressing. Just 14 percent of Germans see American democracy as a desirable model for other countries, while 54 percent say that it “used to be a good example, but has not been in recent years.” Public opinion in France, Britain, South Korea, Japan and Australia is similarly bleak. In New Zealand, fewer than 1 in 10 citizens sees American democracy as a desirable model.

It turns out the rest of the democratic world wasn’t particularly impressed by the United States’ former authoritarian president, who spread conspiracy theories, tweeted narcissistic absurdities while 400,000 people died of covid-19, and incited a deadly insurrection. Go figure.

But these numbers coming out of our allies aren’t just depressing bits of polling trivia. They have real-world consequences. And they highlight a disturbing, inescapable dilemma that the Biden administration must confront: Until the United States fixes its broken democracy at home, it will be unable to effectively fight authoritarianism abroad.

Put bluntly: The United States’ authoritarian slide isn’t just a domestic policy issue. It’s a foreign policy disaster, too.

Ever since Donald Trump emerged as the Republican front-runner in 2016, China has been exploiting the unhinged turmoil he ushered in as evidence that democracy is a bad joke rather than a serious way of governing a society. As the Trump years descended into mayhem, China ramped up its rhetoric. And when Trump’s failures to contain the covid-19 pandemic became plain for the world to see, Beijing cited it as further evidence that democracy was a failed experiment.

Needless to say, China is no model for the rest of the world; it’s a brutal authoritarian regime that stays in power by committing genocide against ethnic and religious minorities while silencing its critics. But the Trump years were a gift-wrapped propaganda coup for the Chinese in their ongoing battle to challenge the West’s ideological primacy on the global stage.

This matters because emerging economies are slowly getting pulled into China’s orbit as they seek a viable blueprint for their own development. In Afrobarometer surveys of public opinion across Africa, China has pulled even with the United States. Six in 10 Africans have a favorable view of China’s role in their country. And while the United States is still seen as offering the best development model, China isn’t far behind. This is a drastic shift in just a few decades — and it will play an increasingly important role in U.S. foreign policy as some of these developing countries decide whether to follow Washington or Beijing.

The United States has lost the moral high ground. The world might have always been wary of lectures from the United States about the virtues of democracy and freedom, but at least those on the receiving end of those lectures often believed that the country giving the lecture knew how to build a successful democracy. That’s no longer true.

At a time of authoritarian resurgence, we need the words of the U.S. president to pack a democratic punch. Instead, they ring hollow. After all, due to ongoing Republican machinations, American voters can’t even be sure that their right to vote will be protected in the years to come. What can the United States teach the world about democracy when the country is continuing its steady slide toward authoritarian politics?

This won’t just hamper President Biden’s foreign policy; it will also make the world safer for authoritarianism. Although there are still plenty of desirable democratic models around the world (I’m looking at you, Norway), none of them has the power to take meaningful action when a dictator rigs an election or imprisons an opposition leader. Worse, now that the world doesn’t respect or admire U.S. democracy, dictators have a rhetorical trump card. They can point to the fact that Trump (falsely) claimed the U.S. election was rigged; that Republicans are actually trying to rig elections with voter suppression and worsened partisan gerrymandering; and that the former president repeatedly called to jail his political opponents. Our hypocrisy will enhance dictators’ impunity.

Comparisons between the United States’ malfunctioning politics and genuine dictatorships are, of course, hyperbolic. But dictators will nonetheless get plenty of rhetorical mileage out of making them, pointing to Washington’s failures to justify or excuse their own authoritarian plots.

#### Democratic peace theory is cherry-picked, and dyadic between two democracies at best.

Doorenspleet ’19 [Renske; 2019; Political Science and International Studies Professor at Warwick University; Rethinking the Value of Democracy: A Comparative Perspective, “Democracy and Interstate War,” Ch. 3]

This finding or ‘law’ has not only been recognized by scholars of international relations, but also found its way outside academia and has influenced foreign policies to promote peace and democracy, most prominently since the 1990s. However, my book will not draw conclusions based on ‘cherry-picking’ of specific studies showing how peaceful democracies are, but on a systematic overview of studies in this field. Therefore, this book relies on my own database with hundreds of different studies, which are relevant for each chapter; the articles had to engage directly with the chapter’s main research question. The next section will provide more detailed information around the selection criteria. This overview includes both highly cited and recent articles which were selected in a systematic way.

Based on analyses of statistical studies around this topic of democracy and war, it will become clear that the overall statistical support for the democratic peace hypothesis is not strong at all. In the rest of the chapter, I will spell out four reasons why democracy does not cause peace, and why the empirical support for the popular idea of democratic peace is quite weak: (1) most studies do not find a strong correlation between democracy and interstate war at the dyadic level, and they show that there are other—more powerful—explanations for war and peace, or even that the impact of democracy is a spurious one, (2) the theoretical foundation of the democratic peace hypothesis is weak, and the causal mechanisms are unclear, (3) democracies are not necessarily more peaceful in general, and the evidence for the democratic peace hypothesis at the monadic level is inconclusive, and (4) the process of democratization is dangerous and living in a democratizing country means living in a less peaceful country.

In my view, it is difficult—if not impossible—to support the democratic peace hypothesis without any reservations. The key caveats should not be ignored and certainly deserve more attention before we can confidently argue that democracies are more peaceful than other types of political systems. Please notice that I can already reveal that the assumed link between democracy and intrastate war is problematic as well, but this topic will be at the core of the next chapter (Chapter 4).

Selection of Articles: Democracy and War

The instrumental value of democracy cannot convincingly be found in democracy’s expected bond with peace. I have come to this conclusion on the basis of an analysis of statistical studies, which will be discussed in the rest of this chapter. So how did I select the articles for my database?4

For this chapter and Chapter 4, I selected the articles that focused on war and democracy. Using the online database Web of Science (formerly known as Web of Knowledge), I identified a total of almost 8000 articles published in the sampled journals until the end of 2015. I identifed them by entering ‘democr\*’ in the basic search field; this asterisk (\*)-based ‘wildcard’ allows searching for terms including ‘democratic’, ‘democracy’, and ‘democratization’ (in both British and American spellings) simultaneously, in the title, abstract and/or the keywords. As a next step, I excluded articles in which ‘democracy’ is used as synonym for state (e.g. analysis of the relationship between immigration policies and unemployment in European democracies) or a specific political party or movement (e.g. the ‘Democrats’ in the USA, or Uganda’s People’s Democratic Army) or a specifc country (e.g. the Democratic Republic of Congo). In addition, I identified them by entering ‘war\*’ in the basic search feld. The words democracy (democr\*) and war (war\*) need to be mentioned in title and/or abstract—and I also checked for equivalents of ‘war’ like ‘conflict’ and ‘dispute’ and ‘no peace’.5

As it is not feasible to analyse thousands of articles, it is necessary to take a next step in the selection process. I decided to select these articles, which will be part of the database for the third and fourth chapter, in three different ways. The first method is to choose the articles with the most citations. So, for example, in Chapter 3, the articles which are cited more than a hundred times are included in this first list. The article by Beck et al. (1998) has been cited more than 951 times, and as a consequence, this article is part of the database. But also articles with a much lower number of citations (such as Barbieri 1996, with 179 citations) are included in my analyses.

The second method is simply to include the most recent articles published in the past five years, so since beginning 2011 until end 2015. The most recent articles can easily be overlooked by applying the first method of most quoted articles. In my view, however, they still need to be included as they present the most recent findings and engage with the recent and innovative debates, which cannot be ignored in this book. For example, recent studies on democracy and interstate war (Chapter 3) have paid more attention to the mechanisms (see, e.g., Zeigler et al. 2014), and there is a growing attention for the impact of political institutions in recent studies on democracy and intrastate war (Chapter 4; see, e.g., Walter 2015). Those recent findings cannot be ignored in any systematic analysis of statistical studies on this theme.

The third method is the most subjective approach of selecting articles, as it is based on the ‘snowballing method’. So it includes articles which have not been selected by the first and second methods, but which have been quoted extensively and regularly by the previously selected articles. For example, the article by Bethany Lacina (2006) cannot be selected based on having high citations (the first method) and it cannot be included based on being a recent publication (the second method), but it has been mentioned by key studies and hence surfaces via the snowballing method (a third method). This article is important as it clearly distinguishes the determinants of conflict severity from those for conflict onset, and those determinants seem to be quite different, which is crucial information for Chapter 4.

In this way, my study presents and assesses the findings based on a big pool of statistical studies in the published literature. Based on this assessment, I will be able to draw clearer conclusions concerning the significance of the effects of democracy on interstate war (this chapter) and intrastate war (the next chapter). The Appendix shows more detailed information of the selected articles.

The Democratic Peace Hypothesis, Its Roots and Supporters

The democratic peace hypothesis6 states that democracies never or seldom go to war with one another. Where is this powerful idea of ‘democratic peace’ coming from? Before discussing the main findings of the statistical articles and before describing the four caveats of the ‘democratic peace paradigm’, we need to know a bit more around the background and the roots of this idea.

Immanuel Kant’s 1795 essay Perpetual Peace has often been mentioned as the foundation for this hypothesis. Kant believed peace was difficult to achieve, since ‘the natural state is one of war’ (Kant 1795: 10). A state of peace must therefore be established for—in his view—it is certain that hostilities will be committed and people need to be protected from each other. In such a world, each may treat his neighbour, from whom he demands security, as an enemy. In a dictatorship where ‘the subjects are not citizens, a declaration of war is the easiest thing in the world to decide upon, because war does not require of the ruler, who is the proprietor and not a member of the state, the least sacrifice of the pleasures of his table, the chase, his country houses, his court functions, and the like. He may, therefore, resolve on war as on a pleasure party for the most trivial reasons, and with perfect indifference leave the justification which decency requires to the diplomatic corps who are ever ready to provide it’ (Kant 1795: 13).

In contrast, the situation is different in constitutional republics, according to Kant. He argued that the majority of the people in republics would never vote to go to war, except for pure self-defence. Therefore, a world with only republics would be peaceful, since there would be no aggressors. The republican constitution, which requires the consent of the citizens to start a war, gives the positive prospect of perpetual peace.

It is important to note that the ideas of Kant on the one hand and the modern democratic peace scholars on the other hand are not completely similar. For example, Kant talked about republics instead of democratic states as the ideal states to achieve peace. He defined republican states as states with representative governments, in which the legislature is separated from the executive. Not surprisingly—considering the epoch in which he lived—Kant did not include universal suffrage in his definition, which is now seen as an essential dimension of democracy, even of the most minimalist types of democracy (Dahl 1971; see also Chapter 2). Moreover, Kant argued that republics will be at peace in general, which means that such political systems are expected to be not only in peace with each other, but also with other non-republican systems. Nowadays, only few scholars would support this approach of a ‘monadic democratic peace’. As will become clear at the end of this chapter, there is not much evidence for the idea that democracies are more peaceful in general.

Since the 1960s, most statistical studies have not focused on the ‘monadic democratic peace hypothesis’ but on testing the ‘dyadic democratic peace hypothesis’. This dyadic hypothesis states that it is less likely that democracies fight with each other, compared to other ‘dyads’ or other pairs of different types of political systems. The sociologist Dean Babst was the first scholar who started to build on Kant’s old idea in the ‘dyadic’ way, and decided to test it in statistical studies (Babst 1964, 1972). He concluded that ‘no wars have been fought between independent nations with elective governments between 1789 and 1941’ (Babst 1972: 55). His study was not published in one of the journals in the field of international relations, but in a sociological journal and later in Industrial Research. Therefore, it was not read by international relations scholars, and initially, it did not get the attention it deserved in the field of international politics.

Babst’s work was, for example, not cited by Melvin Small and J. David Singer (1976), and their fndings seemed to contradict Babst’s study. However, Small and Singer did not compare the rates of war proneness for democracies and dictatorships, but instead they focused on the question whether wars involving democratic states have historically been significantly different in length or in degree of violence compared to wars involving only dictatorships. For length and degree of violence during the wars, they did not find a difference between democracies and dictatorships, so they concluded that types of political systems did not matter.7 A few years later, Rudolph J. Rummel did cite Babst’s work and replicated Babst’s idea in statistical tests, which were described in the fourth book of his five-volume Understanding Confict and War (1975– 1981). He found clear support for his eleventh (of the 33) propositions about causes and conditions of conflict, which stated that ‘Libertarian systems mutually preclude violence’ (Rummel 1979: 279).

Eventually, those innovative studies from the 1970s helped to evoke the interest in the democratic peace proposition, and in the expected peaceful nature of relationships among democratic states. Since the 1980s, the number of quantitative studies has increased considerably, accumulating into an impressive field of research in international relations with its own ‘empirical law’ of democratic peace (Levy 1989: 270; see also Ray 1998).

This democratic peace hypothesis has not only received support from political scientists, but also from politicians and policy makers. Particularly since 1993, the idea of a democratic peace has inspired American foreign policies aimed at the promotion of peace and democracy. As the 42nd president of the USA (1993–2001), Bill Clinton was the first politician who explicitly bridged the gap between these findings in international relations on the one hand, and his foreign policy strategy on the other hand, at least rhetorically. Anthony Lake, who was Clinton’s National Security Adviser, stated in 1993 that in order to cope with America’s foreign policy challenges, the expansion of democratic states around the world would be essential because ‘it protects our [U.S.] interests and security’ (see Henderson 2002: 20). In his 1994 State of the Union, Clinton declared that ‘Ultimately, the best strategy to ensure our security and to build a durable peace is to support the advance of democracy elsewhere. Democracies don’t attack each other’.8 Findings from research in the field of international relations seemed to have a direct impact on policy making, and this move of the Clinton administration can be seen as ‘a textbook case of arbitrage between the ivory tower and the real world’ (Gowa 1999: 109).

Clinton’s successor, George W. Bush, went one big step further in his faith that democratic peace holds. He argued that efforts to turn Iraq into a democratic country would have positive effects on Iraqi’s neighbours. The authoritarian regimes in the region would fall as domino stones and follow the Iraqi example. They would start democratizing as soon as they could, which would then result in achieving a peaceful and stable the Middle East. The real motives for attacking Iraq may have been different, but ‘regime change’ was at the heart of Washington’s rhetoric when the USA started to bomb Baghdad in March 2003. The rhetoric of the Bush administration focused on toppling Saddam Hussein’s regime, and replacing the entire underlying dictatorial system with a democracy.

Moreover, George W. Bush used the democratic peace idea to justify the war in Iraq, declaring, ‘The reason why I’m so strong on democracy is democracies don’t go to war with each other…I’ve got great faith in democracies to promote peace. And that’s why I’m such a strong believer that the way forward in the Middle East, the broader Middle East, is to promote democracy’.9 In 2004, the 43rd President of the USA said: ‘If you think you can have peace without democracy – again - I think you’ll find that - I can only speak for myself, that I will be extremely doubtful that it will ever happen’.10 In his second inaugural address, he stated that ‘the survival of liberty in our land increasingly depends on the success of liberty in other lands. The best hope for peace in our world is the expansion of freedom in all the world’.

Again, these are just words from speeches and can hence be seen as rhetoric to defend military intervention (cf. Jervis 2003; Kaufmann 2004; Daalder and Lindsay 2005; Owen 2005; Lieberfeld 2005; Schmidt and Williams 2008). Still, in the end, politicians have rationalized their political decisions based on one of the most powerful ideas taken from studies in the field of international relations, clearly showing the influence of this academic idea in political practice.

Hence, the field of international relations seems to have its own law: democracies rarely fight with each other. It cannot be denied that the evidence supporting the democratic peace proposition is quite diverse in character (see Ray 1998): the evidence has been epistemological (Rummel 1975), philosophical (Doyle 1986), formal (Bueno de Mesquita and Lalman 1992), historical (Weart 1994; Ray 1995; Owen 1994), experimental (Mintz and Geva 1993), anthropological (Ember et al. 1992; Crawford 1994), psychological (Kegley and Hermann 1995), economic (Brawley 1993; Weede 1996) and political (Gaubatz 1991). Still, there have been numerous critical studies (see, i.e., Hayes 2011), and the general picture is unclear. We do not yet know much about the overall findings from statistical studies.

So far, it seems as if some quantitative studies—mainly within the field of international relations—have found strong and robust evidence which supports the ‘democratic peace hypothesis’. Those studies show that democracy has had a positive influence on international peace (see, i.e., Rummel 1979; Ray and Russett 1996). In this sense, the idea of a democratic peace seems to be confirmed. Political scientists such as James Lee Ray are passionate supporters: ‘No scientific evidence is entirely definitive’ but ‘based on all the empirical evidence so far’ the more defensible of the two possible definitive answers to the question “Does democracy cause peace?” is “Yes” (Ray 1998: 43). However, based on my own analyses of the empirical studies with statistical evidence, I cannot be as enthusiastic as those scholars; to the contrary, I whole-heartily disagree with them, as a more systematic analysis of the articles shows that there are four important weaknesses, which seriously undermines the idea that peace is one of democracy’s instrumental values.

Caveat 1: It’s Not (Just) Democracy

While analysing the selected articles, the first remarkable finding is that only a relatively small number of studies have actually tested the democratic peace hypothesis. Most of the studies have focused on the mechanisms (see next section, caveat 2), and hence seem to assume that there is a correlation between democracy and war. In this way, the majority of the studies—often unintentionally—reinforce the idea that democratic peace actually exists without testing this proposition. However, none of the studies that directly test the democratic peace hypothesis found strong evidence that democracy is the most important factor when explaining interstate war. All democratic peace studies have controlled for many possible alternative causes of the peace, such as economic development and growth, geographic distance and contiguity, power status, alliance ties, militarization and political stability. The findings show that it is not just democracy which explains war, not at all. Within this group of studies, which explicitly test the democratic peace hypothesis, four different types of findings can be detected. I will discuss those results more in-depth in the rest of this section.

First Result: There Is Correlation, but Other Explanations Are Significant Too

The first subgroup consists of scholars who stress the importance of democratic peace, despite the fact their own analyses have shown that other factors are statistically significant as well (Maoz and Russett 1993; Rousseau et al. 1996; Gleditsch and Hegre 1997; Beck et al. 1998; Ray 2013). For example, some studies (e.g. Rousseau et al. 1996) included alternative independent variables in order to test realist arguments. They tested whether the distribution of power determines decisions to use force, and measures each state’s military capabilities relative to its opponent. A state’s military capability is the average of three elements: number of troops, military expenditures and military expenditures per soldier. They found that this realist variable was strong, positive and statistically significant at the 0.001 level in their analyses (see, e.g., Rousseau et al. 1996: 522, Table 2). However, not only a state’s military capabilities appeared to be an important explanation for peace. In addition, wealth, growth, alliances and contiguity played a crucial role when explaining interstate war (see, e.g., Maoz and Russett 1993: 632, Table 1).11 Moreover, when other factors are included, the impact of democracy on the likelihood of international crises is even spurious (Maoz and Russett 1993: 632; Henderson 2002: 141, see also p. 3).12 Still, scholars in this group keep defending the democratic peace idea, despite the fact that their own analyses showed the significance of alternative explanations.

Second Result: Initially There Is Correlation, but the Impact of Democracy Is Spurious When Other Explanatory Factors Are Included in the Models

The second subgroup of scholars is far more radical. Based on their own analyses, this group concludes that the democratic peace link is a spurious one (Weede 1984, 1996; Barbieri 1996; Mousseau 2013; Gartzke and Weisiger 2014).13 Typically, efforts to demonstrate the spuriousness of the statistical democratic peace pointed to other factors that, when accounted for ‘properly’, eliminated or dramatically reduced the statistical significance of shared democracy. Hence, the studies in this second group did not find strong evidence for the democratic peace hypothesis anymore, once other explanatory factors were included in the models.14

One of the most convincing alternative explanations of peace between countries is that there is no democratic peace, but a capitalist peace instead. The settlement in Germany and Japan succeeded because of the establishment of capitalist peace. Because of economic support by the Americans, who encouraged free trade and offered trade opportunities in practice as well, the poorer economies in Europe and Japan would gain economically, resulting in ‘economic growth, prosperity, and, ultimately, free trade among most of the more technologically advanced economies’ (Rasler and Thompson 2005: 232). By establishing and expanding free trade, the incentives for war would quickly decrease among trading states, according to this approach. To prevent new interstate wars after World War II, the capitalist peace was a far more important factor than the American promotion of democracy and its political institutions.

The capitalist peace, or capitalist peace theory, also states that economic development accounts for both democracy and the peace among democratic nations. Economic development is a key factor to explain democracy (Lipset 1959; see also Hegre 2003; Weede 2004).15 Moreover, economic development also plays a role when explaining peace, and the presence of market-oriented economies in countries have a positive impact on both democracy in those countries and peace between them (Mousseau 2000, 2002, 2003, 2005, 2013; see also Hegre 2014). Democratic peace only exists when both democracies have high levels of economic development, when economic development is well above the global median.

In fact, the poorest 21% of the democracies studied, and the poorest 4–5% of current democracies, are significantly more likely than other kinds of political systems to fight each other (see, e.g., Mousseau 2005). Moreover, if at least one of the democracies involved has a very low level of economic development, then democracy cannot prevent war.16 Still, there is a pacifying effect of free trade and economic interdependence, which is more important than the effect of democracy, because the former affects peace both directly and indirectly, by producing economic development and ultimately, democracy (see Weede 2004).17

Capitalist peace is not the only alternative explanation. Shared interests in general, and political similarities in specific, can also be seen as an important second alternative explanation for war and peace between countries (Farber and Gowa 1995, 1997; Gartzke 2007; Gowa 1999; Henderson 2002). Democracies are not peaceful to each other because they are democratic, but rather because they are similar. So the difference of the scores of both countries also contributes to the conflict proneness of the dyad. If the difference in levels of democracy is big, then the chance of conflict is higher (cf. Oneal and Russett 1997: 281–282).

Many researchers have conflated both the conflict-dampening impact of joined democracy and the confict-exacerbating impact of political distance in the variables focusing on political systems, but as Errol A. Henderson (2002: 32) convincingly argued: ‘Fusing these two contrasting attributes in a single variable makes it difficult to distinguish between the competing processes’. Therefore, it is better to include an additional variable of ‘political dissimilarity’ in the model. Henderson (2002) was one of the first scholars who included this variable and measured it by taking the absolute value of the difference between the two states’ scores. His main variables were not only political similarity, but also geographic distance and economic interdependence, and he concluded that democratic peace is a statistical artefact which disappears when those other variables are taken into account. Political similarity clearly has a pacifying effect18 (see Werner 2000; Henderson 2002; Beck et al. 2004), and it is not democracy per se which is the decisive factor.19

Hence, the benefits of trade and trade interdependence are essential explanations, while democracy is spurious or at least subordinate (see also Rosecrance 1986; Weede 1984, 1996; Hegre 2000, 2014; Jervis 2002; Souva 2003; Rasler and Thompson 2005: 235; Mousseau 2000, 2002, 2003, 2005). Based on those studies, it is safe to conclude that democracy, on its own, is an unlikely cause of the democratic peace.

Third Result: There Is Correlation, but Other Explanations Are Much Stronger

This same point that democracy is just one of the explanations for peace (and not even a very important one) is also at the core of studies in the third subgroup. Scholars of this group keep arguing that there is support for the democratic peace hypothesis, and that the link is not spurious. In this sense, they are less radical than the second group of scholars, as they do not completely reject the value of democracy for peace. On the other hand, their own analyses have clearly shown that alternative factors—hence other factors than democracy or type of political system— are not only statistically significant but also more important when trying to explain interstate war (Bremer 1992; Gelpi 1997; Oneal and Russett 1999a, b; Reiter and Stam 2002; Peterson 2013; Caselli et al. 2015).

Theoretical arguments and empirical evidence suggest that democracy is not the most important factor, while war is more likely to occur between states that are geographically proximate, approximately equal in power, major powers, allied, economically advanced and highly militarized than between those that are not. Bivariate analyses of these factors in relation to the onset of interstate war over all pairs of states in the period from 1816 to 1965 have generally supported these associations. However, multivariate analyses revealed some differences. Stuart Bremer (1992), for example, showed that some factors are far more important than others. The existence of a dangerous, war-prone dyad can be best explained by the presence of contiguity, the absence of an alliance and the absence of more advanced economy. The absence of democratic polity and other factors (absence of overwhelming preponderance, and presence of major power) are less powerful. Overall, these findings suggest that our research priorities may be seriously distorted and that we should not focus too much on the perceived positive impact of democracy, but on other factors (such as alliances and economic factors) instead.

Fourth Result: There Is Correlation, but Only Under Certain Specific Conditions

The final subgroup of scholars argues that we cannot unconditionally accept the idea that democratic peace exists in general, so always and everywhere. Their statistical studies clearly showed that support for this hypothesis heavily depends on other factors. The chance of democratic peace depends not just on the specific historical period (Cold War or not; Gibler and Sarkees 2004; Siverson and Emmons 1991; Weede 1984), but also the stage of the conflict (beginning, duration or severity; see Bremer 1993; Bennett and Stam 1996; Reed 2000), and on the neighbourhood instability (extent of confict in the region; see Gibler and Braithwaite 2013; Gibler and Miller 2013). Despite the differences between the studies, there is one common finding in all studies: when explaining interstate war, we cannot just rely on the impact of democracy, as it is too much dependent on other factors.

Several scholars found strong evidence for the idea that democratic peace exists, but only during some specific historical periods. Based on this evidence, they concluded that democratic peace is simply a statistical artefact of the Cold War. For example, Henry Farber and Joanne Gowa (1995) found statistical support for the idea that peace between democracies is an artefact of the Cold War, when the threat from the communist states forced democracies to ally with one another (see also Mearsheimer 1990). Sebastian Rosato (2003) also argued that most of the significant evidence for democratic peace has been observed after World War II; and that it has happened within a broad alliance, which can be identified with NATO and its satellite nations, imposed and maintained by American dominance.

Since the Second World War, war has become a very costly affair. Scholars discovered that only a handful of states are ‘capable of engaging in major power warfare. That process of elimination has not yet extinguished the possibility of major power warfare, but it has lowered its probability immensely’ (Rasler and Thompson 2005: 219). The chance to achieve something in a war is low in general, and even lower in a bipolar world with two big power players risking high nuclear war costs (Jervis 2002). While war became more costly, trade became less costly; as a consequence, the war/trade costs increased during the Cold War (Rosecrance 1986; see also Jervis 2002). In such a world, war and conflict have become less attractive, while trade and cooperation have become more appealing (Rasler and Thompson 2005: 219). Hence, more states decided to adopt trading strategies in order to prevent confict and war as much as possible. In the end, democracy was part of the story, but only a very small part with a subordinated role next to the power dynamics during the Cold War, the costs of warfare and the benefits of trade.

Some scholars found evidence that the democratic peace still exists in the post-Cold War period (Park 2013) which weakens this argument. However, most analyses showed that dyadic dispute rates have converged after the Cold War (see, e.g., Gowa 2011). Moreover, jointly democratic dyads are likely to be allied only after 1945 (see Gibler and Sarkees 2004); during the 1816–1944 time period, there is even a negative relationship between democratic dyads and alliance formation.20 These findings cast serious doubts on the idea of a general existence of democratic peace.

Not only the historical period, but also the *stage* of the conflict is crucial. Some scholars in this group provided evidence that democratic peace is not universal, but that it depends on the stage and whether we focus on the beginning, duration or severity of the conflict. Although joint democracy has some pacifying effects on the onset of conflict, the results suggest that they are unrelated to the escalation of disputes to war (see Reed 2000). Moreover, democratic peace is dependent on the neighbourhood instability. Democracies often have few territorial issues over which to contend, as they tend to be part of a stable region. Democracies only seldom have territorial disputes with their neighbours, and therefore they can more easily choose favourable conflicts to escalate. The type of political system does not predict conflict selection or victory once controls are added for issue salience (Gibler and Miller 2013; see also Park and James 2015). There is an interaction between joint democracy and regional instability, which confirms the idea that the effects of type of political system on continued conflict apply mostly to dyads in peaceful regions (Gibler and Braithwaite 2013; see also Park and James 2015). Very democratic countries might even become more aggressive and faster than other political systems, once the region becomes more hostile (see, e.g., Baliga et al. 2011).

The General Lesson from the Results in a Nutshell (Caveat 1)

In short, regardless of the differences between the statistical studies on democratic peace, all findings have indicated that other explanations are important as well. It is clear that democracy is just one of the explanations, and certainly not the most important one,21 sometimes even spurious and often heavily dependent on other factors. It is not (just) democracy to be preoccupied with, when trying to prevent war between countries (Table 3.1).

Caveat 2: What Are the Causal Mechanisms?

Most of the statistical studies on democratic peace seem to assume that there is a correlation between democracy and war; based on this assumption, they then decide to focus on the mechanisms. This is problematic as none of the democratic peace studies found strong evidence that democracy is the most important factor when explaining interstate war (see the previous section). As a consequence, the next step of looking for mechanisms is quite irrelevant and not necessary in my view, but most studies nevertheless argue that the field lacks strong theoretical foundations and robust empirical evidence that can reveal convincing causal mechanisms.22 Those studies seem to accept the correlation between dyadic democracy and peace, and then start questioning whether democracy really causes peace before investigating potential mechanisms.

Table 3.1 Statistical studies on democracy and interstate war (dyadic level)

|  |  |
| --- | --- |
| Caveat 1: It’s Not (Just) Democracy | Studies |
| ‘It’s just democracy; democracy is most important explanation for peace between countries’ | No studies found |
| ‘There is correlation, but other explanations are significant too’ | Beck et al. (1998), Gleditsch and Hegre (1997), Maoz and Russett (1993), Ray (2013), and Rousseau et al. (1996) |
| ‘Initially there is correlation, but the impact of democracy is spurious when other explanatory factors are included in the models’ | Barbieri (1996), Beck et al. (2004), Farber and Gowa (1997), Gartzke (2007), Gartzke and Weisiger (2014), Gowa (1999), Hegre (2000, 2003, 2014, Jervis (2002), Mousseau (2000, 2002, 2003, 2005, 2013), Oneal and Russett (1997), Rasler and Thompson (2005), Rosecrance (1986), Souva (2003), Weede (1984, 2004), and Werner (2000) |
| ‘There is correlation, but other explanations are much stronger’ | Bremer (1992), Caselli et al. (2015), Gelpi (1997), Oneal and Russett (1999a, b), and Peterson (2013) |
| ‘There is correlation, but only under certain specific conditions’ | Baliga et al. (2011), Bremer (1993), Bennett and Stam (1996), Farber and Gowa (1995), Gibler and Braithwaite (2013), Gibler and Miller (2013), Gibler and Sarkees (2004), Gowa (2011), Jervis (2002), Mearsheimer (1990), Park (2013), Park and James (2015), Rasler and Thompson (2005), Reed (2000), Rosato (2003), Rosecrance (1986), Gibler and Sarkees (2004), Siverson and Emmons (1991), and Weede (1984) |

### 1NC – AT: O-Crime

#### O-Crime isn’t existential.

Walt 16 – Stephen M. Walt, international relations professor at Harvard University. [My Top 5 Foreign-Policy Unicorns — and Why I Want to Kill Them, 9-8-2016, https://foreignpolicy.com/2016/09/08/my-top-5-foreign-policy-unicorns-and-why-i-want-to-kill-them/]

3. The terrorist mastermind. A close cousin to the nuclear rogue is the terrorist mastermind, busily concocting elaborate and highly destructive plots to bring the world to its knees. People like Osama bin Laden and Islamic State leader Abu Bakr al-Baghdadi have made extravagant and dire threats, but the good news is that they’ve never come close to toppling a foreign government, winning millions of followers, or threatening our way of life. I don’t deny that some terrorist groups have devised and executed successful assaults — of which the 9/11 attacks were by far the most damaging — but a word like “mastermind” conjures up images of Dr. Evil-style villains who will inevitably outwit our feeble efforts to stop them and unleash fearsome destruction on an innocent world. In fact, as John Mueller and others keep reminding us, the vast majority of contemporary terrorists are incompetent misfits, and even the very best of them fall well short of evil genius. They can and do stage small-scale attacks that cause modest amounts of harm, but they have repeatedly shown themselves to be incapable of orchestrating complicated operations that could actually bring a stable country to its knees. There have been serious terrorist attacks in Boston; London; Paris; Brussels; Orlando, Florida; and several other places in recent years, for example — yet in each case, these societies proved resilient, and they are thriving again today. Or just look at New York City, which suffered the worst single attack ever and has since fully recovered. Terrorism is a problem, the lives lost to it are an unfortunate tragedy, and those who employ it are dangerous criminals. A few terrorists are moderately clever; most are not. None rises to the level of a “mastermind,” and none poses an existential threat. Reporters, pundits, and speechwriters should drop this term from their lexicon, because this particular animal doesn’t exist. Fortunately.

## Adv---Resources

### 1NC – Renewables High

#### Low carbon tech is strong and growing.

EIA ’21 [Energy Information Administration; June 16; agency of the U.S. Federal Statistical System responsible for collecting, analyzing, and disseminating energy information; “The United States consumed a record amount of renewable energy in 2020,” <https://www.eia.gov/todayinenergy/detail.php?id=48396>; KP]

In 2020, consumption of renewable energy in the United States grew for the fifth year in a row, reaching a record high of 11.6 quadrillion British thermal units (Btu), or 12% of total U.S. energy consumption. Renewable energy was the only source of U.S. energy consumption that increased in 2020 from 2019; fossil fuel and nuclear consumption declined. Our U.S. renewable energy consumption by source and sector chart shows how much renewable energy by source each sector consumes.

We convert sources of energy to common units of heat, called British thermal units (Btu), to compare different types of energy that are usually measured in units that are not directly comparable, such as gallons of biofuels compared with kilowatthours of wind energy.

We use a fossil fuel equivalence to calculate primary energy consumption of noncombustible renewables (wind, hydro, solar, and geothermal), which are not burned to generate electricity and therefore do not have an inherent Btu conversion rate. In this approach, we convert the noncombustible renewables from kilowatthours to Btu using the annual weighted-average Btu conversion rate for all fossil fuels burned to generate electricity in the United States during that year to estimate the amount of fossil energy replaced by these renewable sources.

We use the fossil fuel equivalency approach to report noncombustible renewables’ contribution to total primary energy, in part, because the resulting shares of primary energy are closer to the shares of generated electricity. This calculation also represents the energy that would have been consumed if the electricity from renewable sources had instead been generated by a mix of fossil fuels.

Wind energy, or electricity generated by wind-powered turbines, is almost exclusively consumed in the electric power sector. Wind energy accounted for about 26% of U.S. renewable energy consumption in 2020. Wind surpassed hydroelectricity in 2019 to become the single most-consumed source of renewable energy on an annual basis. In 2020, U.S. wind energy consumption grew 14% from 2019.

Hydroelectric power, or electricity generated by water-powered turbines, is almost exclusively consumed in the electric power sector. It accounted for about 22% of U.S. renewable energy consumption in 2020. U.S. hydropower consumption has remained relatively flat since the 1970s, but it fluctuates with seasonal rainfall and drought conditions.

Wood and waste energy, including wood, wood pellets, and biomass waste from landfills, accounted for about 22% of U.S. renewable energy consumption in 2020. Industrial, commercial, and electric power facilities use wood and waste as a fuel to generate electricity, produce heat, and manufacture goods.

Biofuels, including fuel ethanol, biodiesel, and other renewable fuels, accounted for about 17% of U.S. renewable energy consumption in 2020. U.S. biofuel consumption fell 11% from 2019 as overall transportation sector energy use declined in the United States during the COVID-19 pandemic.

Solar energy accounted for about 11% of U.S. renewable energy consumption in 2020. Solar photovoltaic (PV) cells, including rooftop panels, and solar thermal power plants use sunlight to generate electricity. Some residential and commercial buildings use solar heating systems to heat water and the building. Overall, 2020 U.S. solar consumption increased 22% from 2019.

### 1NC – AT: Resource Shortages

#### Resource shortages are inevitable

Jackson and Webster, 16—Professor of Sustainable Development and director of the Centre for the Understanding of Sustainable Prosperity at the University of Surrey AND former policy analyst at Carbon Brief, masters from University College London in conservation and a degree in biology (Tim and Robin, “LIMITS REVISITED,” <http://limits2growth.org.uk/wp-content/uploads/2016/04/Jackson-and-Webster-2016-Limits-Revisited.pdf>)

What does this all mean for the future of our economy? In the standard run scenario, natural resources (for example oil, iron and chromium) become harder and harder to obtain. The diversion of more and more capital to extracting them leaves less for investment in industry, leading to industrial decline starting in about 2015. Around 2030, the world population peaks and begins to decrease as the death rate is driven upwards by lack of food and health services.21

The similarity between Limits to Growth’s standard run and the patterns observed over the last forty years doesn’t necessarily mean that the same trends will continue into the future. Some researchers argue that it’s possible, however. Author of the University of Melbourne studies, Dr Graham Turner, asked in 2014 whether global collapse could be “imminent”. Turner explicitly linked the global financial crisis, high commodity prices and the Limits to Growth projections.22

Another set of studies has modelled the availability of over 40 essential materials using an updated and expanded version of the Limits to Growth model. Based on US Geological Survey data, the authors analysed changing patterns of resource extraction. Using earlier work, which suggests there is a time delay of about 40 years between ‘peak discovery’ and ‘peak production’ across a wide range of different minerals, the authors aim to forecast when ‘peak production’ might arrive.

The work, led by Harald Sverdrup from the University of Lund in Sweden and Vala Ragnarsdottír from the University of Iceland, concluded that most of the resources they studied had either already reached peak production or will do so within the next 50 years.23 Phosphorous - which is critical to fertilising soil and sustaining agriculture - has already peaked, and will start declining around 2030- 2040, they said. Coal production will peak in around 2015-20 and ‘peak energy’ around the same period. From that point on, they concluded, “we will no longer be able to take natural-resource fuelled global GDP growth for granted’.24

A book published by the Club of Rome in 2014 also examined the future availability of a wide variety of mined resources, including chromium, copper, tin, lithium, coal oil and gas. The book included specialist contributions from experts across a wide range of fields. It concluded that the rate of production of many mineral commodities is already on the verge of decline.25

These analyses are understandably controversial. In a technologically optimistic world, it is often assumed that enough food, water energy and minerals will be available for the foreseeable future, with the only problems being those of distribution.26 Neo-classical economists also argue that when one resource runs out it can be substituted for another. But this is also controversial. In the case of some key elements (phosphorus is an example), there are no known substitutes.27

### 1NC – AT: Food Wars

#### No food wars.

Vestby ’18 [Vestby, Ida Rudolfsen, and Halvard Buhaug; 5-18-18; Doctoral Researcher at the Peace Research Institute Oslo; doctoral researcher at the Department of Peace and Conflict Research at Uppsala University and PRIO; Research Professor at the Peace Research Institute Oslo (PRIO); Professor of Political Science at the Norwegian University of Science and Technology (NTNU); and Associate Editor of the Journal of Peace Research and Political Geography; “Does hunger cause conflict?” Prio, https://blogs.prio.org/ClimateAndConflict/2018/05/does-hunger-cause-conflict/]

It is perhaps surprising, then, that there is little scholarly merit in the notion that a short-term reduction in access to food increases the probability that conflict will break out. This is because to start or participate in violent conflict requires people to have both the means and the will. Most people on the brink of starvation are not in the position to resort to violence, whether against the government or other social groups. In fact, the urban middle classes tend to be the most likely to protest against rises in food prices, since they often have the best opportunities, the most energy, and the best skills to coordinate and participate in protests.

Accordingly, there is a widespread misapprehension that social unrest in periods of high food prices relates primarily to food shortages. In reality, the sources of discontent are considerably more complex – linked to political structures, land ownership, corruption, the desire for democratic reforms and general economic problems – where the price of food is seen in the context of general increases in the cost of living. Research has shown that while the international media have a tendency to seek simple resource-related explanations – such as drought or famine – for conflicts in the Global South, debates in the local media are permeated by more complex political relationships.

# 2NC

## K---Cap

### 2NC---OV

#### Emerging tech causes extinction---outweighs nuclear war

Alexey Turchin & David Denkenberger 18. Turchin is a researcher at the Science for Life Extension Foundation; Denkenberger is with the Global Catastrophic Risk Institute (GCRI) @ Tennessee State University, Alliance to Feed the Earth in Disasters (ALLFED). 09/2018. “Global Catastrophic and Existential Risks Communication Scale.” Futures, vol. 102, pp. 27–38.

2. “Civilizational collapse risks” As most human societies are fairly complex, a true civilizational collapse would require a drastic reduction in human population, and the break-down of connections between surviving populations. Survivors would have to rebuild civilization from scratch, likely losing much technological abilities and knowledge in the process. Hanson (2008) estimated that the minimal human population able to survive is around 100 people. Like X risks, there is little agreement on what is required for civilizational collapse. Clearly, different types and levels of the civilizational collapse are possible (Diamond, 2005) (Meadows, Randers, & Meadows, 2004). For instance, one definition of the collapse of civilization involves, collapse of long distance trade, widespread conflict, and loss of government (Coates, 2009). How such collapses relate to existential risk needs more research. 3. “Human extinction risks” are risks that all humans die, and no future generations (in the extended sense mentioned above) will ever exist. 4. “All life on Earth ends risks” involve the extinction of all life on earth. As this includes H. sapiens, such risks are at the very least on a par with human extinction, but are likely worse as the loss of biodiversity is higher, and (without life arising a second time) no other civilizations, human or otherwise, would be possible on Earth. 5. “Astronomical scale risks” include the demise of all civilizations in the affectable universe. This of course includes human extinction, and all life on Earth, and so again are at the very least on a par, and very likely much worse outcomes, than those two. 6. “S-risks” include collective infinite suffering (Daniel, 2017). These differ from extinction risks insofar as extinction leads to a lack of existence, whereas this concerns ongoing existence in undesirable circumstances. These also vary in scale and intensity, but are generally out of scope of this work. Even with a focus squarely on X Risk, global catastrophic risks and civilizational collapse are critically important. This is because there is at least some likelihood that global catastrophic risks increase the probability of human extinction risks—and the more extreme end of civilizational collapses surely would. Before shifting to a discussion of probability appropriate to X risk, we’ll discuss some reasons to link these kinds of risk. First, global risks may have a fat tail—that is a low probability of high consequences—and the existence of such fat tails strongly depend on the intrinsic uncertainty of global systems (Ćirković, 2012) (Baum, 2015), (Wiener, 2016) (Sandberg & Landry, 2015). This is especially true for risks associated with future world wars, which may include not only nuclear weapons, but weapons incorporating synthetic biology and nanotechnology, different AI technologies, as well as Doomsday blackmail weapons (Kahn, 1959). Another case are the risks associated with climate change, where runaway global warming is a likely fat tail (Obata & Shibata, 2012a), (Goldblatt & Watson, 2012). Second, global catastrophes could be part of double catastrophe (Baum, Maher, & Haqq-Misra, 2013) or start a chain of catastrophes (Tonn & and MacGregor, 2009), and in this issue (Karieva, 2018). Even if a single catastrophic risk is insufficient to wipe us out, an unhappy coincidence of such events could be sufficient, or under the wrong conditions could trigger a collapse leading to human extinction. Further, global catastrophe could weaken our ability to prepare for other risks. Luke Oman has estimated the risks of human extinction because of nuclear winter: “The probability I would estimate for the global human population of zero resulting from the 150 Tg of black carbon scenario in our 2007 paper would be in the range of 1 in 10,000 to 1 in 100,000” (Robock, Oman, & Stenchikov, 2007), (Shulman, 2012). Tonn also analyzed chains of events, which could result in human extinction and any global catastrophe may be a start of such chain (Tonn and MacGregor, 2009). Because this, we suggest that any global catastrophe should be regarded as a possible cause of human extinction risks with no less than 0.01 probability. Similarly, scenarios involving civilization collapses also plausibly increase the risk of human extinction. If civilization collapses, recovery may be slowed or stopped for a multitude of reasons. For instance, easily accessible mineral and fossil fuel resources might be no longer available, the future climate may be extreme or unstable, we may not regain sufficient social trust after the catastrophe’s horrors, the catastrophe may affect our genetics, a new endemic disease could prevent high population density, and so on. And of course, the smaller populations associated with civilization collapse are more vulnerable to being wiped out by natural events. We estimate that civilization collapse has a 0.1 probability of becoming an existential catastrophe. In section 4, this discussion will form the basis of our analysis of an X risk’s “severity”, which is the main target of our scale. Before getting there, however, we should first discuss the difficulties of measuring X risks, and related worries regarding probabilities. 3. Difficulties of using probability estimates as the communication tool Plain probability estimates are often used as an instrument to communicate X risks. An example is a claim like “Nuclear war could cause human extinction with probability P”. However, in our view, probability measures are inadequate, both for measuring X risks, and for communicating those risks. This is because of conceptual difficulties (3.1), difficulty in providing meaningful measurements (3.2), the possibility of interaction effects (3.3) and the measurement’s inadequacy for prioritization (3.4) purposes. After presenting these worries, we argue that the magnitude of probabilities is a better option, which we use in our tool (3.5). 3.1 Difficulties in defining X risk probabilities Frequentism applies to X risks only with difficulty. One-off events don’t have a frequency, and multiple events are required for frequentist probabilities to apply. Further, on a frequentist reading, claims concerning X risks cannot be falsified. Again, this is because in order to infer from occurrences to probability, multiple instances are required. Although these conceptual and epistemic difficulties may be analyzed and partly overcome in technical scientific and philosophical literature, they would overcomplicate a communication tool. Also, discussion of X risks sometimes involves weird probabilistic effects. Consider, for example, what (Ćirković, Sandberg, & Bostrom, 2010) call the ‘anthropic shadow’. Because human extinction events entail a lack of humans to observe the event after the fact, we will systematically underestimate the occurrence of such events in an extreme case of survivorship bias (the Doomsday Argument (Tegmark & Bostrom, 2005) is similar). All of this makes the probabilities attached to X risks extremely difficult to interpret, bad news for an intended communication tool, and stimulates obscure anthropic reasoning. In addition, the subtle features involved in applying frequentism to one-off events, would otherwise tamper with our decision making process. 3.2 Data & X Risk There are little hard data concerning global risks from which probabilities could be extracted. The risk of an asteroid impact is fairly well understood, both due to the historical record, and because scientists can observe particular asteroids and calculate their trajectories. Studies of nuclear winter (Denkenberger & Pearce, 2016), volcanic eruptions, and climate change also provide some risk probability estimates, but are less rigorously supported. In all other cases, especially technological risks, there are many (often contradicting) expert opinions, but little hard data. Those probability calculations which have been carried out are based on speculative assumptions, which carry their own uncertainty. In the best case, generally, only the order of magnitude of the catastrophe’s probability can be estimated. Uncertainty in GCRs is so high, that predictions with high precision are likely to be meaningless. For example, surveys could produce such meaningless over-precision. A survey on human extinction probability gave an estimate of 19 percent in the 21st century (Sandberg & Bostrom, 2008). Such measurements are problematic for communication, because probability estimates of global risks often do not include corresponding confidence intervals (Garrick, 2008). For some catastrophic risks, uncertainty is much larger than for others, because of objective difficulties in their measurement, as well as subjective disagreements between various approaches (especially in the case of climate change, resource depletion, population growth and other politicized areas). As we’ll discuss below, one response is to present probabilities as magnitudes. 3.3 Probability density, timing and risks’ interactions Two more issues with using discrete frequentist probabilities for communicating X risks are related to probability density and the interactions between risks. For the purpose of responding to the challenges of X risk, the total probability of an event is less useful than the probability density: we want to know not only the probability but the time in which it is measured. This is crucial if policy makers are to prioritize avoidance efforts. Also, probability estimates of the risks are typically treated separate: interdependence is thus ignored. The total probability of human extinction caused by risk A could strongly depend on the extinction probability caused by risks B and C and also of their timing. (See also double catastrophes discussed by Baum, Maher, & HaqqMisra, 2013 and the integrated risk assessment project (Baum, 2017). Further, probability distributions of different risks can have different forms. Some risks are linear, others are barrier-like, other logistical. Thus, not all risks can be presented by a single numerical estimate. Exponentially growing risks may be the best way to describe new technologies, such as AI and synthetic biology. Such risks cannot be presented by a single annual probability. Finally, the probability estimation of a risk depends on whether human extinction is ultimately inevitable. We assume that if humanity becomes an interstellar civilization existing for millions of years, it will escape any near-term extinction risks; the heat death of the universe may be ultimate end, but some think even that is escapable (Dvorsky, 2015). If near-term extinction is inevitable, it is possible to estimate which risks are more probable to cause human extinction (like actuaries do in estimating different causes of death, based in part on the assumption that human death is inevitable). If near-term human extinction is not inevitable, then there is a probability of survival, which is (1- P(all risks)). Such conditioning requires a general model of the future. If extinction is inevitable, the probability of a given risk is just a probability of one way to extinction compared to other ways. 3.4 Preventability, prioritizing and relation to the smaller risks Using bare probability as a communication tool also ignores many important aspects of risks which are substantial for decision makers. First, a probability estimate does not provide sufficient guidance on how to prioritize prevention efforts. A probability estimate does not say anything about the risk’s relation to other risks, e.g. its urgency. Also, if a risk will take place at a remote time in the future (like the Sun becoming a red giant), there is no reason to spend money on its prevention. Second, a probability estimate does not provide much information about the relation of human extinction risks, and corresponding smaller global catastrophic risks. For example, a nuclear war probability estimate does not disambiguate between chances that it will be a human extinction event, a global catastrophic event, or a regional catastrophe. Third, probability measures do not take preventability into account. Hopefully, measures will be taken to try and reduce X risks, and the risks themselves have individual preventability. Generally speaking, it ought to be made clear when probabilities are conditional on whether prevention is attempted or not, and also on the probability of its success. Probability density, and its relation with cumulative probability could also be tricky, especially as the probability density of most risks is changing in time. 3.5 Use of probability orders of magnitude as a communication tool We recommend using magnitudes of probabilities in communicating about X risk. One way of overcoming many of the difficulties of using probabilities as communication tool described above is to estimate probabilities with fidelity of one or even two orders of magnitude, and do it over large fixed interval of time, that is the next 100 years (as it the furthest time where meaningful prognoses exist). This order of magnitude estimation will smooth many of the uncertainties described above. Further, prevention actions are typically insensitive in to the exact value of probability. For example, if a given asteroid impact probability is 5% or 25%, needed prevention action will be nearly the same. For X risks, we suggest using probability intervals of 2 orders of magnitude. Using such intervals will often provide meaningful differences in probability estimates for individual risks. (However, expert estimates sometimes range from “inevitable” to “impossible”, as in AI risks). Large intervals will also accommodate the possibility of one risk overshadowing another, and other uncertainties which arise from the difficulties of defining and measuring X-risks. This solution is itself inspired by The Torino scale of asteroid danger, which we discuss in more detail below. The Torino scale has five probability intervals, each with a two order of magnitude difference from the next. Further, such intervals can be used to present uncertainty in probability estimation. This uncertainty is often very large for even approximately well-defined asteroid risks. For example, Garrick (Garrick, 2008) estimated that asteroid impacts on the contiguous US with at least 10 000 victims to have expected frequency between once 1: 1900 and 1: 520 000 years with 90 percent confidence. In other words, it used more than 2 orders of magnitude uncertainty. Of course, there is a lot more to be said about the relationship between X risks and probability—however here we restrict ourselves to those issues most crucial for our purpose, that is, designing a communication tool for X risks. 4. Constructing the scale of human extinction risks 4.1. Existing scales for different catastrophic risks In section 2 we established the connection between global catastrophic risks, civilizational collapse risks, human extinction and X risks; we explored the difficulty of the use of probabilities as a communication tool for X risks in section 3; now we can construct the scale to communicate the level of risk of all global catastrophic and X risks. Our scale is inspired by the Torino scale of asteroid danger which was suggested by professor Richard Binzel (Binzel, 1997). As it only measures the energy of impact, it is not restricted to asteroids but applies to many celestial bodies (comets, for instance). It was first created to communicate the level of risk to the public, because professionals and decision makers have access to all underlying data for the hazardous object. The Torino scale combines a 5 level color code and 11 level numbered codes. One of the Torino scale’s features is that it connects the size and the probability using diagonal lines, i.e., an event with a bigger size and smaller probability warrants the same level of attention as smaller but more probable events. However, this approach has some difficulties, as was described by (Cox, 2008). There are several other scales of specific global risks based on similar principles: 1. Volcanic explosivity index, VEI, 0-8, (USGS, 2017) 2. DEFCON (DEFense readiness CONdition, used by the US military to describe five levels of readiness), from 5 to 1. 3. “Rio scale” of the Search for Extra-Terrestrial Intelligence (SETI) – complex scale with three subscales (Almar, 2011). 4. Palermo scale of asteroid risks compares the likelihood of the detected potential impactor with the average risk posed by objects of the same size measured both by energy and frequency (NASA, 2017). 5. San-Marino scale of risks of Messaging to Extra-Terrestrial Intelligence (METI) (Almar, 2007). The only more general scale for several global risks is the Doomsday Clock by the Bulletin of the Atomic Scientists, which shows global risks as minutes before midnight. It is oriented towards risks of a nuclear war and climate change and communicates only emotional impact (The Bulletin of the Atomic Scientists, 2017). 4.2. The goals of the scale How good a scale is depends in part on what it is intended to do: who will use it and how will they use it. There are three main groups of people the scale addresses: Public. Simplicity matters: a simple scale is required, similar to the hurricane Saffir-Simpson scale (Schott et al., 2012). This hurricane ACCEPTED MANUSCRIPT 13 measuring scale has 5 levels which present rather obscure wind readings as corresponding to the expected damage to houses and thus can help the public make decisions about preparedness and evacuation. In the case of X risks, personal preparedness is not very important, but the public make decisions about which prevention projects to directly support (via donations or crowdfunding) or voting for policymakers who support said projects. Simplicity is necessary to communicate the relative importance of different dangers to a wide variety of nonexperts. Policymakers. We intend our scale to help initiate communication of the relative importance of the risks to policymakers. This is particularly important as it appears that policymakers tend to overestimate smaller risks (like asteroid impact risks) and underestimate larger risks (like AI risks) (Bostrom, 2013). Our scale helps to make such comparison possible as it does not depend on the exact nature of the risks. The scale could be applicable to several groups of risks thus allowing comparisons between them, as well as providing a perspective across the whole situation. Expert community. Even a scale of the simplicity we suggest may benefit the expert community. It can act as a basis for comparing different risks by different experts. Given the interdisciplinarity inherent in studying X risk, this common ground is crucial. The scale could facilitate discussion about catastrophes’ probabilities, preventability, prevention costs, interactions, and error margins, as experts from different fields present arguments about the importance of the risks on which they work. Thus it will help to build a common framework for the risk discussions. 4.3. Color codes and classification of the needed actions Tonn and Steifel suggested a six-level classification of actions to prevent X risks (Tonn & Steifel, 2017). They start from “do nothing” and end with “extreme war footing, economy organized around reducing human extinction risk”. We suggest a scale which is coordinated with Tonn and Steifel’s classification of actions (Table 1), that is our colors correspond to the needed level of action. Also, our colors correspond to typical nonquantifiable ways of the risks description: theoretical, small, medium, serious, high and immediate. We also add iconic examples, which are risks where the probability distribution is known with a higher level of certainty, and thus could be used to communicate the risk’s importance by comparison. Such ACCEPTED MANUSCRIPT 14 examples may aid in learning the scale, or be used instead of the scale. For instance, someone could say: “this risk is the same level as asteroid risk”. The iconic risks are marked bold in the scale. Iconic examples are also illustrated with the best-known example of that type of event. For example, the best known supervolcanic eruption was the Toba eruption 74,000 years ago (Robock et al., 2009). The Chicxulub impact 66 million years ago is infamous for being connected with the latest major extinction, associated with the non-avian Dinosaur extinction. The scale presents the total risk of one type of event, without breaking categories down into subrisks. For example, it estimates the total risks of all known and unknown asteroids, but not the risk of any particular asteroid, which is a departure from the Torino scale. Although the scale is presented using probability intervals, it could be used instead of probabilities if they are completely unknown, but other factors, such as those affecting scope and severity, are known. For example, we might want to communicate that AI catastrophe is a very significant risk, but its exact probability estimation is complicated by large uncertainties. Thus we could agree to represent the risk as red despite difficulties of its numerical estimation. Note that the probability interval (when it is known) for “red” is shorter and is only 1 order of magnitude, as it is needed to represent most serious risks and here we need better resolution ability. As it is a communication scale, the scientists using it could come to agreement that a particular risk should be estimated higher or lower in this scale. We don’t want to place too many restrictions on how different aspects of a risk’s severity (like preventability or connection with other risks) should affect risks coding, as it should be established in the practical use of the scale. However, we will note two rules: 1. The purple color is reserved to present extreme urgency of the risk 2. The scale is extrapolated from the smaller than extinction risks and larger than extinction risks in Table 2. (This is based on idea that smaller risks have considerable but unknown probability to become human extinction risks, and also on the fact that policy makers may implement similar measures for smaller and larger risks). 4.4. Extrapolated version of scale which accounts for the risk size In Table 2 we extend the scale to include smaller risks like civilization collapse and global catastrophic risks as well as on “larger” ACCEPTED MANUSCRIPT 15 risks like life extinction and universe destruction, in accordance with our discussion in section 2. This is necessary because: 1) Smaller risks could become larger extinction risks by starting chains of catastrophic events. 2) The public and policymakers will react similarly to human extinction level catastrophe and to a global catastrophe where there will be some survival: both present similar dangers to personal survival, and in both similar prevention actions are needed. [[TABLE 2 OMITTED]] 4.5. Accessing risks with shorter timeframes than 100 years In Table 2 above we assessed the risks for the next 100 years. However, without prevention efforts, some risks could approach a probability of 1 in less time: climate change, for instance. We suggest that the urgency of intervening in such cases may be expressed by increasing their color coding. Moreover, the critical issue is less the timing of risks, but the timing of the prevention measures. Again, although extreme global warming would likely only occur at the end of the 21st century, it is also true that cutting emissions now would ameliorate the situation. We suggest, then, three ranks which incorporate these shorter time-frame risks. Note that the timings relate to implementation of interventions not the timings of the catastrophes. 1) Now. This is when a catastrophe has started, or may start in any moment: The Cuban Missile Crisis is an historical example. We reserve purple to represent it. 2) “Near mode”. Near mode is roughly the next 5 years. Typically current political problems (as in current relations with North Korea) are understood in near mode. Such problems are appropriately explored in terms of planning and trend expectations. Hanson showed that people are very realistic in “Near mode”, but become speculative and less moral in “Far mode” thinking (Hanson, 2010). Near mode may require one color code increase. 3) “Next 2-3 decades”. Many futurists predict a Technological Singularity between 2030-2050: that is around 10-30 years from now (Vinge, 1993), (Kurzweil, 2006). As this mode coincides with an adult’s working life, it may also be called “in personal life time”. In this mode people may expect to personally suffer from a catastrophe, or be personally responsible for incorrect predictions. MIRI recently increased its estimation of the probability that AGI will appear around 2035 (MIRI, 2017), pushing AGI into “next 2-3 decades” mode. There is a consideration against increasing the color code too much for near-term risks, as that may lead to myopia regarding longterm risks of human extinction. There will always be smaller but more urgent risks, and although these ought to be dealt with, some resources ought to be put towards understanding and mitigating the longer term. ACCEPTED MANUSCRIPT 19 Having said this, in high impact emergency situations, short term overwhelming efforts may help to prevent impending global catastrophe. Examples include the Cuban missile crisis and fighting the recent Ebola pandemic in Western Africa. Such short-term efforts do not necessarily constrain our long-term efforts towards preventing other risks. Thus, short term global catastrophic and larger risks may get a purple rating. 4.6. Detailed explanation of risk assessment principles in the color coded scale In Table 3, we estimate the main global risks, according to the scale suggested in section 4.4. Table 3. Detailed explanation of the X risks scale Color code Examples of risks White Sun becomes red giant. Although this risk is practically guaranteed, it is very remote indeed. Natural false vacuum decay. Bostrom and Tegmark estimated such events as happening in less than one in 1 billion years, (that is 10-7 in a century) (Tegmark & Bostrom, 2005). Moreover, nothing can be done to prevent it. Green Gamma-ray bursts. Earth threatening gamma-ray bursts are extremely rare, and in most cases they will result only in a crop failure due to UV increases. However, a close gamma-ray burst may produce a deadly muon shower which may kill everything up to 3 km in depth (A. Dar, Laor, & N.J, 1997). However, such events could happen less than once in a billion years (10-7 in a century) (Cirković & Vukotića, 2016). Such an event will probably kill all multicellular life on Earth. Dar estimates risks of major extinction events from gamma ray bursts as 1 in 100 mln years (A. Dar, 2001). Asteroid impacts. No dangerous asteroids have been thus far identified, and the background level of global catastrophic impacts is around 1 in a million years (10- 4 in a century). Extinction-level impact probability is 10-6 per century. There are several prevention options involving deflecting comets/asteroids. Also, food security could be purchased cheaply (Denkenberger, 2015). However, some uncertainty exists. Some periods involve intense comet bombardment, and if we are in such a time investment in telescopes should be larger (Rampino & Caldeira, 2015). High energy accelerator experiments creating false vacuum decay/black hole/strangelet. Vacuum decay seems to have extremely low probability, far below 10-8 currently. One obvious reason for expecting such events to have very low probability is that similar events happen quite often, and haven’t destroyed everything as yet (Kent, 2004). However, we give this event a higher estimation for two reasons. First, as accelerators become more capable such events might become more likely. Second, the risks are at an astronomical scale: it could affect other civilizations in the universe. Other types of accelerator catastrophes, like mini-black hole or strangelet creation, would only kill Earth life. However, these are more likely, with one estimate being <2E-8 risk from a single facility (the Relativistic Heavy Ion Collider) (Arnon Dar, De Rújula, & Heinz, 1999), which should be coded white. There many unknowns about dangerous experiments (Sandberg & Landry, 2015). Overall, these risks should be monitored, so green is advisable. Yellow Supervolcanic eruption. Given historical patterns, the likelihood of living in a century containing a super volcanic eruption is approximately 10-3 (Denkenberger, 2014). However, the chance of human extinction resulting is ACCEPTED MANUSCRIPT 21 significantly lower than this. If such an eruption produces global crop failure, it could end current civilization. Conventional wisdom is that there is nothing that could be done to prevent a super volcano from erupting, but some possible preventive measures have been suggested (Denkenberger, this issue). We estimate supervolcanic risks to be higher than asteroid impacts because of the historical record, as they likely nearly finished us off 74 000 ago (Robock et al., 2009). Natural pandemic. A natural pandemic is fairly likely to kill 1% (to an order of magnitude) of the global population during this century, as the Spanish flu did. However, such a pandemic is very unlikely to cause total extinction because lethality is under 100% and some populations are isolated. Between all natural pandemics, emerging pandemic flus have a shorter timespan and need much more attention. Bird flu has a mortality above 0.5 (WHO, 2017) and could produce widespread chaos and possible civilizational collapse if human-to-human transmission starts. Therefore, we estimate 10% probability this century of 10% mortality. Global warming triggering global catastrophe. According to the IPCC anthropogenic global warming may affect billions of people by the end of the 21st century (Parry, 2007), causing heat waves, crop failures and mass migration. Those events, and downstream consequences such as conflicts, could conceivably kill 1 billion people. However, this would only occur for tail risk scenarios which have order of magnitude 1% probability. Having said this, several experts think that methane release from permafrost and similar positive feedback loops may result in runaway global warming with much larger consequences (Obata & Shibata, 2012). Orange Full-scale nuclear war. There is roughly 0.02-7% chance per year of accidental full-scale nuclear war between the US and Russia (Barrett, Baum, & Hostetler, 2013). With fairly high probabilities of nuclear winter and civilization collapse given nuclear war, this is order of magnitude 10% this century. We should also take into consideration that despite reductions in nuclear weapons, a new nuclear arms race is possible in the 21st century. Such a race may include more devastating weapons or cheaper manufacturing methods. Nuclear war could include the creation of large cobalt bombs as doomsday weapons or attacks on nuclear power plants. It could also start a chain of events which result in civilization collapse. Nanotechnology risks. Although molecular manufacturing can be achieved without self-replicating machines (Drexler & Phoenix, 2004), technological fascination with biological systems makes it likely that self-replicating machines will be created. Moreover, catastrophic uses of nanotechnology needn’t be due to accident, but also due to the actions of purposeful malignant agents. Therefore, we estimate the chance of runaway self-replicating machines causing “gray goo” and thus human extinction to be one per cent in this century. There could also be extinction risks from weapons produced by safe exponential molecular manufacturing. See also (Turchin, 2016). Artificial pandemic and other risks from synthetic biology. An artificial multipandemic is a situation in which multiple (even hundreds) of individual viruses created through synthetic biology are released simultaneously either by a terrorist state or as a result of the independent activity of biohackers (Turchin, Green, & Dekenbergern, 2017). Because the capacity to create such a multipandemic could arrive as early as within the next ten to thirty years (as all the needed technologies already exist), it could overshadow future risks, like nanotech and AI, so we give it a higher estimate. There are also other possible risks, connected with synthetic biology, which are widely recognized as serious (Bostrom, 2002). Agricultural catastrophe. There is about a one per cent risk per year of a ten per cent global agricultural shortfall occurring due to a large volcanic eruption, a medium asteroid or comet impact, regional nuclear war, abrupt climate change, or extreme weather causing multiple breadbasket failures (Denkenberger 2016). This could lead to 10% mortality. Red AI risks. The risks connected with the possible creation of non-aligned Strong AI are discussed by (Bostrom, 2014), (Yudkowsky, 2008), (Yampolskiy & Fox, 2013) and others. It is widely recognized as the most serious X risk. AI could start an “intelligence explosion wave” through the Universe, which could prevent appearance of the other civilizations before they create their own AI. Purple Something like the Caribbean crisis in the past, but larger size. Currently, there are no known purple risks. If we could be sure that Strong AI will appear in the next 100 years and would probably be negative, it would constitute a purple risk. Another example would be the creation of a Doomsday weapon that could kill our species with global radiation poisoning (much greater ionizing radiation release than all of the current nuclear weapons) (Kahn, 1959). A further example would be a large incoming asteroid being located, or an extinction level pandemic has begun. These situations require quick and urgent effort on all levels.

#### Structurally err neg---corporate lysenkoism undermines credibility of aff evidence---also turns innovation

UCS 12 - nonprofit science advocacy organization (Union of Concerned Scientists, <https://www.ucsusa.org/sites/default/files/2019-09/heads-they-win-summary.pdf>, EM)

Access to the best available science allows federal decisionmakers to craft policies that protect our health and safety and the environment. Unfortunately, censorship of scientists and the manipulation, distortion, and suppression of scientific information has threatened the federal scientific enterprise in recent years. This serious problem has sparked much debate, but few have analyzed the key driver of political interference in federal science: the inappropriate influence of companies with a financial stake in the outcome. This influence affects not only the science used in decision making, but also public opinion and the decision-making process itself. By better understanding how corporations influence the use of science in federal decision making, we can both hold companies and policy makers accountable for their actions and ensure that the nation develops science-based policies that serve the public interest. The first chapter of this report explores the numerous methods corporate interests employ to inappropriately influence how the federal government uses science to make decisions. The second chapter provides an overview of the steps the Obama administration has taken to restore scientific integrity to federal policy making. The third chapter focuses on the federal reforms still essential to ensure that authoritative and independent scientific information informs policies designed to protect public health and the environment. Recognizing that solving this problem extends far beyond what the government can accomplish alone, we also suggest broader reforms that corporations, the scientific community, academic institutions, news media, and the courts can pursue to ensure transparency and accountability in the use of science. The twenty-first century presents the United States and the world with urgent science-based challenges. We must have the ability to use independent science to address problems such as the need for high-quality yet affordable health care, terrorism, climate change, rising demand for energy and natural resources, population growth, and the loss of biodiversity, and to anticipate and tackle challenges unknown today. Methods of Abuse Corporations attempt to exert influence at every step of the scientific and policy-making processes, often to shape decisions in their favor or avoid regulation and monitoring of their products and by-products at the public’s expense. In so doing, they often attempt to fundamentally alter the decision-making process and exploit executive branch agencies, Congress, and the courts. Corrupting the Science Corporations that stand to lose from the results of independent scientific inquiry have gone to great lengths to manipulate and control science and scientists by: Terminating and suppressing research. Companies have controlled the dissemination of scientific information by ending or withholding results of research that they sponsor that would threaten their bottom line. Intimidating or coercing scientists. Corporations bury scientific information by harassing scientists and their institutions into silence. Scientists have been threatened with litigation and the loss of their jobs, have had their research defunded, have been refused promotion or tenure, and have been transferred to non-research positions, leading to self-censorship and changes in research direction. Manipulating study designs and research protocols. Corporations have employed flawed methodologies in testing and research—such as by changing the questions scientists are asking—that are biased toward predetermined results. Ghostwriting scientific articles. Corporations corrupt the integrity of scientific journals by planting ghostwritten articles about their products. Rather than submitting articles directly, companies recruit scientists or contract with research organizations to publish articles that obscure the sponsors’ involvement. Publication bias. Corporations selectively publish positive results while underreporting negative results. While not directly corrupting science itself, these publishing and reporting biases skew the body of evidence. Shaping Public Perception Armed with public relations teams, private interests have launched campaigns that influence public opinion and undermine understanding of scientific consensus. Among their methods: Downplaying evidence and playing up false uncertainty. As scientific understanding of the health effects of products and substances such as tobacco and particulate emissions emerges, companies fight regulation by attacking the science, downplaying scientific consensus, exaggerating scientific uncertainty and spreading doubt. Vilifying scientists. Scientists analyzing the health and environmental effects of products such as asbestos and lead, and phenomena such as climate change, are publicly criticized and attacked. These attacks and allegations of misconduct discredit the scientists and deter them from continuing their research. Promoting experts who undermine the scientific consensus. Corporations promote individuals who overemphasize research that appears to cast doubt on the scientific consensus. Often their expertise is not in a relevant field, limiting their ability to effectively evaluate the scientific findings they are criticizing. Hiding behind front groups or “capturing” organizations. Companies use front groups, public relations firms, and other paid consultants to covertly advance corporate interests while these entities maintain the illusion of independence. Influencing the media. Corporations inaccurately portray science by feeding the media slanted reports and news stories, or biased spokespeople.

#### It resolves all of their scenarios better---

**Turns warfare and authoritarianism**

**Ahmed '19** [Nafeez; 2/22/19; Executive Director of the Institute for Policy Research and Development, MA in Contemporary War & Peace Studies and PhD in International Relations from the School of Global Studies at Sussex University; "The “Disintegration” of Global Capitalism Could Unleash World War 3, Warns Top EU Economist," https://www.resilience.org/stories/2019-02-22/the-disintegration-of-global-capitalism-could-unleash-world-war-3-warns-top-eu-economist//]

In his new paper, Hanappi concludes that **global conditions** bear unnerving **parallels** with **trends** before the outbreak of the first and second **world wars**.

Key **red flags** that the world is on a **slippery slope** to a **global war**, he finds, include:

the inexorable **growth** of **military spending**;

democracies **transitioning** into increasingly **authoritarian police states**;

heightening **geopolitical tensions** between **great powers**;

the resurgence of **populism** across the left and right;

the breakdown and **weakening** of established **global institutions** that govern transnational capitalism;

and the relentless **widening** of global **inequalities**.

These trends, some of which were visible before the previous world wars, are reappearing in new forms. Hanappi argues that the defining feature of the current period is a **transition** from an older form of “integrating capitalism” to a **new form** of “**disintegrating capitalism**”, whose features most clearly emerged after the 2008 financial crisis.

For most of the twentieth century, he says, global capitalism was on an “integrating” pathway toward higher concentrations of transnational wealth. This was interrupted by the outbreaks of **violent nationalism** involving the **two world wars**. After that, a new form of “integrated capitalism” emerged based on an institutional framework that has allowed industrialised countries to avoid a world war for 70 years.

This system is now entering a **period of disintegration**. Previously, fractures within the system between rich and poor were overcome “by distributing a bit of the gains of the tremendous increase of the fruits of the global division of labour to the richer working classes in these nations.” Similarly, international tensions were diffused through transnational governance frameworks and agreements for the regulation of capitalism.

But since the 2008 financial crisis, wealth distribution has worsened, with purchasing power for the middle and working classes declining as wealth becomes even more greatly concentrated.

Growth in the Western centres of transnational capital has **slowed**, while formerly sacrosanct international **trade agreements** are being **torn to shreds**. This has fuelled a **reversion to nationalism** in which global and transnational structures have been rejected, and ‘foreigners’ have been demonised. As global capital thus continues to disintegrate, these pressures escalate, particularly as its internal justification depends increasingly on intensifying competition with external rivals.

While integrated capitalism depended on a transnational institutional framework that permitted “stable exploitation on a national level”, Hanappi argues that “disintegrating capitalism” sees this framework become disaggregated between the USA, Europe, Russia and China, each of which pursues new forms of hierarchical subordination of workers.

Disintegrating capitalism, he explains, will resort increasingly to “direct **coercive powers** supplemented by new information technologies” to **suppress internal tensions**, as well as a **greater propensity** for **international hostilities**: “The new authoritarian empires need confrontation with each other to justify their own internal, inflexible command structure.”

Great power conflict

Hanappi explores three potential scenarios for how a new global conflict could unfold. In his first scenario, he explores the prospect of a war between the three most prominent military powers: the **US**, **Russia** and **China**.

All three have experienced large increases in **military spending** since the collapse of the Soviet Union. Despite a dip for the US since 2011, President Trump has ushered in a new spike, while Russian spending has plateaued and Chinese expenditures are rapidly increasing. All three countries have also experienced an authoritarian turn.

Drawing on **game theory**, Hanappi argues that the **calculus** that none of these countries would be capable of ‘winning’ a world war may be changing in the perceptions of the leaderships of these countries. By one estimate, China has the highest probability of survival at 52 per cent, followed by the US at 30 per cent, and Russia at 18 per cent. This calculus suggests that of all the three powers, China might be the most inclined to escalate direct hostile military activities that challenge its rivals if it perceives a direct threat to what it sees as its legitimate interests.

The US and Russia in contrast might transfer the focus of their military activities on more covert, indirect and proxy mechanisms. In the US case, Hanappi points out:

“… the military strategy of Trump seems to include the possibility to delegate part of local operational responsibility to close vassals, which receive massive weapon support from the US, e.g. Saudi Arabia and Israel in the Middle East. Turkey, one of the strongest NATO branches in the area is a special case. It seems to have been allowed to destroy an emergent state of the Kurdish population, which would have been closer to the European style of governance.”

There are growing signs of heightened great power tensions which could erupt entirely by accident or unanticipated provocation into a global conflict that nobody wants.

The US-China **trade war** is **escalating**, while both powers tussle over **technology secrets** and argue over China’s growing **military footprint** in the South China Sea. Meanwhile Trump’s massive expansion of the US Navy and Air Force point to preparations for a major potential conflict with either China or Russsia.

Both the US and Russia have jettisoned a critical nuclear treaty established since the Cold War opening the way to a nuclear arms race. North Korea remains unrepentant about its ongoing nuclear weapons programme while Trump’s tearing up of the nuclear agreement with Iran disincentivises that country from complying with disarmament and reporting terms.

Early last year, a statistical study of the frequency of major wars in human history found that the so-called 70 years of ‘long peace’ is simply not an unusual phenomenon indicating an unprecedented period of peace. The study concluded that there was no reason to believe that the 70 year period so far would not give way to another major war.

Small wars, global contagion

Hanappi’s second scenario explores the prospect of a series of “small **civil wars** in many countries”. The ingredients for such a scenario are rooted in the **resurgence** of both right-wing and left-wing **populism**. “Both variants — sometimes implicitly, sometimes explicitly — refer to a past historical national state form that they propose to return to,” explains Hanappi.

While right-wing populism harks back to the authoritarian, racist regimes established in Germany and Italy in the 1930s, left-wing populism yearns to return to the model of “integrated capitalism” that was in place during the first three decades after the Second World War, and which reacted to the unequalising effects of capitalism through the ‘**social net**’ of the so-called ‘**welfare state**’ as well as **various forms** of **state intervention** in the economy alongside private industry.

But the challenge is that “integrated capitalism” is already **engulfed** with its own **internal contradictions**, propelling the shift toward **disintegration**.

This puts left-wing populism in a **systematically weaker position**, as right-wing populism can point to the multiple failures of “integrated capitalism”: the failure to “overcome class antagonisms”, and the failure to “fulfil the promise of a substantially better life for the majority of people.” According to Hanappi:

“The representatives of Integrated Capitalism are discredited and cannot act as leaders, the movement therefore is forced to experiment with new forms of national organization. More participatory forms of democratic organization take more time, and with multiple social groups involved this weakens this movements strength vis-à-vis right-wing populism. Furthermore, its vision of an improved national Integrated Capitalism is handicapped by the fact that many people still remember its failures, while the song of national glory that right-wing populism sings refers to an imagined far-away past that no one ever had seen.”

In this context, he argues, the potential exists for outbreaks of **national civil war** between emerging **paramilitary branches** of right-wing and left-wing populist movements, in the context of either movement adopting state power and coming into conflict with the opposition.

Hanappi warns of the possibility of a regional or global “contagion” effect, if these breakdowns occur within a similar time-scale. In that scenario:

“The fluid mobility of national ideological political entrepreneurs, the creators of populist movements, meets the rigidity of dire global economic constraints. This is the crash that provokes local wars.”

This **scenario** is also **backed** by **statistical data**. In 2016, a study by Lloyds Insurers found that since 1960 there has been an increasing frequency in “pandemics” of “political violence contagion” involving regional and transnational outbreaks of civil unrest within and among states.

#### Turns development---socialism maximizes socially-conscious growth and innovation

Alexander 14 - acclaimed political commentator whose work is regularly praised by top academics (Scott, <https://slatestarcodex.com/2014/09/24/book-review-red-plenty/>, emuse)

There’s a very settled modern explanation of the conflict between capitalism and communism. Capitalism is good at growing the economy and making countries rich. Communism is good at caring for the poor and promoting equality. So your choice between capitalism and communism is a trade-off between those two things. But for at least the first fifty years of the Cold War, the Soviets would not have come close to granting you that these are the premises on which the battle must be fought. They were officially quite certain that any day now Communism was going to prove itself better at economic growth, better at making people rich quickly, than capitalism. Even unofficially, most of their leaders and economists were pretty certain of it. And for a little while, even their capitalist enemies secretly worried they were right. The arguments are easy to understand. Under capitalism, plutocrats use the profits of industry to buy giant yachts for themselves. Under communism, the profits can be reinvested back into the industry to build more factories or to make production more efficient, increasing growth rate. Under capitalism, everyone is competing with each other, and much of your budget is spent on zero-sum games like advertising and marketing and sales to give you a leg up over your competition. Under communism, there is no need to play these zero-sum games and that part of the budget can be reinvested to grow the industry more quickly. Under capitalism, everyone is working against everyone else. If Ford discovers a clever new car-manufacturing technique, their first impulse is to patent it so GM can’t use it, and GM’s first impulse is to hire thousands of lawyers to try to thwart that attempt. Under communism, everyone is working together, so if one car-manufacturing collective discovers a new technique they send their blueprints to all the other car-manufacturing collectives in order to help them out. So in capitalism, each company will possess a few individual advances, but under communism every collective will have every advance, and so be more productive. These arguments make a lot of sense to me, and they definitely made sense to the Communists of the first half of the 20th century. As a result, they were confident of overtaking capitalism. They realized that they’d started with a [disadvantage] – czarist Russia had been dirt poor and almost without an industrial base – and that they’d faced a further [disadvantage] in having the Nazis burn half their country during World War II – but they figured as soon as they overcame these [disadvantages] their natural advantages would let them leap ahead of the West in only a couple of decades. The great Russian advances of the 50s – Sputnik, Gagarin, etc – were seen as evidence that this was already starting to come true in certain fields. And then it all went wrong. II. Grant that communism really does have the above advantages over capitalism. What advantage does capitalism have? The classic answer is that during communism no one wants to work hard. They do as little as they can get away with, then slack off because they don’t reap the rewards of their own labor. Red Plenty doesn’t really have theses. In fact, it’s not really a non-fiction work at all. It’s a dramatized series of episodes in the lives of Russian workers, politicians, and academics, intended to come together to paint a picture of how the Soviet economy worked. But if I can impose a thesis upon the text, I don’t think it agreed with this. In certain cases, Russians were very well-incentivized by things like “We will kill you unless you meet the production target”. Later, when the state became less murder-happy, the threat of death faded to threats of demotions, ruined careers, and transfer to backwater provinces. And there were equal incentives, in the form of promotion or transfer to a desirable location such as Moscow, for overperformance. There were even monetary bonuses, although money bought a lot less than it did in capitalist countries and was universally considered inferior to status in terms of purchasing power. Yes, there were [Goodhart’s Law](http://en.wikipedia.org/wiki/Goodhart%27s_law) type issues going on – if you’re being judged per product, better produce ten million defective products than 9,999,999 excellent products – but that wasn’t the crux of the problem. Red Plenty presented the problem with the Soviet economy primarily as one of allocation. You could have a perfectly good factory that could be producing lots of useful things if only you had one extra eensy-weensy part, but unless the higher-ups had allocated you that part, you were out of luck. If that part happened to break, getting a new one would depend on how much clout you (and your superiors) pulled versus how much clout other people who wanted parts (and their superiors) held. The book illustrated this reality with a series of stories (I’m not sure how many of these were true, versus useful dramatizations). In one, a pig farmer in Siberia needed wood in order to build sties for his pigs so they wouldn’t freeze – if they froze, he would fail to meet his production target and his career would be ruined. The government, which mostly dealt with pig farming in more temperate areas, hadn’t accounted for this and so hadn’t allocated him any wood, and he didn’t have enough clout with officials to request some. A factory nearby had extra wood they weren’t using and were going to burn because it was too much trouble to figure out how to get it back to the government for re-allocation. The farmer bought the wood from the factory in an under-the-table deal. He was caught, which usually wouldn’t have been a problem because everybody did this sort of thing and it was kind of the “smoking marijuana while white” of Soviet offenses. But at that particular moment the Party higher-ups in the area wanted to make an example of someone in order to look like they were on top of their game to their higher-ups. The pig farmer was sentenced to years of hard labor. A tire factory had been assigned a tire-making machine that could make 100,000 tires a year, but the government had gotten confused and assigned them a production quota of 150,000 tires a year. The factory leaders were stuck, because if they tried to correct the government they would look like they were challenging their superiors and get in trouble, but if they failed to meet the impossible quota, they would all get demoted and their careers would come to an end. They learned that the tire-making-machine-making company had recently invented a new model that really could make 150,000 tires a year. In the spirit of [Chen Sheng](http://en.wikipedia.org/wiki/Dazexiang_Uprising), they decided that since the penalty for missing their quota was something terrible and the penalty for sabotage was also something terrible, they might as well take their chances and destroy their own machinery in the hopes the government sent them the new improved machine as a replacement. To their delight, the government believed their story about an “accident” and allotted them a new tire-making machine. However, the tire-making-machine-making company had decided to cancel production of their new model. You see, the new model, although more powerful, weighed less than the old machine, and the government was measuring their production by kilogram of machine. So it was easier for them to just continue making the old less powerful machine. The tire factory was allocated another machine that could only make 100,000 tires a year and was back in the same quandary they’d started with. It’s easy to see how all of these problems could have been solved (or would never have come up) in a capitalist economy, with its use of prices set by supply and demand as an allocation mechanism. And it’s easy to see how thoroughly the Soviet economy was sabotaging itself by avoiding such prices. III. The “hero” of Red Plenty – although most of the vignettes didn’t involve him directly – was Leonid Kantorovich, a Soviet mathematician who thought he could solve the problem. He invented the technique of [linear programming](http://en.wikipedia.org/wiki/Linear_programming), a method of solving optimization problems perfectly suited to allocating resources throughout an economy. He immediately realized its potential and wrote a nice letter to Stalin politely suggesting his current method of doing economics was wrong and he could do better – this during a time when everyone else in Russia was desperately trying to avoid having Stalin notice them because he tended to kill anyone he noticed. Luckily the letter was intercepted by a kindly mid-level official, who kept it away from Stalin and warehoused Kantorovich in a university somewhere. During the “Khruschev thaw”, Kantorovich started getting some more politically adept followers, the higher-ups started taking note, and there was a real movement to get his ideas implemented. A few industries were run on Kantorovichian principles as a test case and seemed to do pretty well. There was an inevitable backlash. Opponents accused the linear programmers of being capitalists-in-disguise, which wasn’t helped by their use of something called “shadow prices”. But the combination of their own political adeptness and some high-level support from Khruschev – who alone of all the Soviet leaders seemed to really believe in his own cause and be a pretty okay guy – put them within arm’s reach of getting their plans implemented. But when elements of linear programming were adopted, they were adopted piecemeal and toothless. The book places the blame on Alexei Kosygen, who implemented [a bunch of economic reforms that failed](http://en.wikipedia.org/wiki/1965_Soviet_economic_reform), in a chapter that makes it clear exactly how constrained the Soviet leadership really was. You hear about Stalin, you imagine these guys having total power, but in reality they walked a narrow line, and all these “shadow prices” required more political capital than they were willing to mobilize, even when they thought Kantorovich might have a point. IV. In the end, I was left with two contradictory impressions from the book. First, amazement that the Soviet economy got as far as it did, given how incredibly screwed up it was. You hear about how many stupid things were going on at every level, and you think: This was the country that built Sputnik and Mir? This was the country that almost buried us beneath the tide of history? It is a credit to the Russian people that they were able to build so much as a screwdriver in such conditions, let alone a space station. But second, a sense of what could have been. What if Stalin hadn’t murdered most of the competent people? What if entire fields of science hadn’t been banned for silly reasons? What if Kantorovich had been able to make the Soviet leadership base its economic planning around linear programming? How might history have turned out differently? One of the book’s most frequently-hammered-in points was that there was was a brief moment, back during the 1950s, when everything seemed to be going right for Russia. Its year-on-year GDP growth (as estimated by impartial outside observers) was somewhere between 7 to 10%. Starvation was going down. Luxuries were going up. Kantorovich was fixing entire industries with his linear programming methods. Then Khruschev made a serious of crazy loose cannon decisions, he was ousted by Brezhnev, Kantorovich was pushed aside and ignored, the “Khruschev thaw” was reversed and tightened up again, and everything stagnated for the next twenty years. If Khruschev had stuck around, if Kantorovich had succeeded, might the common knowledge that Communism is terrible at producing material prosperity look a little different? The book very briefly mentioned a competing theory of resource allocation promoted by Victor Glushkov, a cyberneticist in Ukraine. He thought he could use computers – then a very new technology – to calculate optimal allocation for everyone. He failed to navigate the political seas as adroitly as Kantorovich’s faction, and the killing blow was a paper that pointed out that for him to do everything really correctly would take a hundred million years of computing time. That was in 1960. If computing power doubles every two years, we’ve undergone about 25 doubling times since then, suggesting that we ought to be able to perform Glushkov’s calculations in three years – or three days, if we give him a lab of three hundred sixty five computers to work with. There could have been this entire field of centralized economic planning. Maybe it would have continued to underperform prices. Or maybe after decades of trial and error across the entire Soviet Union, it could have caught up. We’ll never know. Glushkov and Kantorovich were marginalized and left to play around with toy problems until their deaths in the 80s, and as far as I know their ideas were never developed further in the context of a national planned economy. V. One of the ways people like insulting smart people, or rational people, or scientists, is by telling them they’re the type of people who are attracted to Communism. “Oh, you think you can control and understand everything, just like the Communists did.” And I had always thought this was a pretty awful insult. The people I know who most identify as rationalists, or scientifically/technically minded, are also most likely to be libertarian. So there, case dismissed, everybody go home. This book was the first time that I, as a person who considers himself rationally/technically minded, realized that I was super attracted to Communism. Here were people who had a clear view of the problems of human civilization – all the greed, all the waste, all the zero-sum games. Who had the entire population united around a vision of a better future, whose backers could direct the entire state to better serve the goal. All they needed was to solve the engineering challenges, to solve the equations, and there they were, at the golden future. And they were smart enough to be worthy of the problem – Glushkov invented cybernetics, Kantorovich won a Nobel Prize in Economics. And in the end, they never got the chance. There’s an interpretation of Communism as a refutation of social science, here were these people who probably knew some social science, but did it help them run a state, no it didn’t. But from the little I learned about Soviet history from this book, this seems diametrically wrong. The Soviets had practically no social science. They hated social science. You would think they would at least have some good Marxists, but apparently Stalin killed all of them just in case they might come up with versions of Marxism he didn’t like, and in terms of a vibrant scholarly field it never recovered. Economics was tainted with its association with capitalism from the very beginning, and when it happened at all it was done by non-professionals. Kantorovich was a mathematician by training; Glushkov a computer scientist. Soviet Communism isn’t what happens when you let nerds run a country, it’s what happens when you kill all the nerds who are experts in country-running, bring in nerds from unrelated fields to replace them, then make nice noises at those nerds in principle while completely ignoring them in practice. Also, you ban all Jews from positions of importance, because fuck you.

#### Turns climate and resources---only socialism can achieve the absolute decoupling necessary to solve

Reese 20 - author of Socialism or Extinction and The End of Capitalism: The Thought of Henryk Grossman (Ted, https://grossmanite.medium.com/socialism-or-extinction-is-a-fact-not-a-slogan-3cb97b198c50, emuse)

Socialism or extinction is not just a slogan, though; it is a statement of scientific fact. If XR does not stand for socialism, then it must necessarily stand for extinction, rendering its own alleged purpose redundant. In short: capitalism is a profit-dependent system, and must therefore continue to expand production in order to keep investment flowing and profits rising (in absolute terms). And since profit arises from capital’s exploitation of commodity-producing labour, the intensity of the production based on fossil fuel and toxic, fuel-intensive metal mining is (increasingly) necessary. To flesh this out a bit more: capital’s exploitation of commodity-producing labour is the [sole source of profit](http://gesd.free.fr/kliman99.pdf) — the capitalist appropriates surplus value (surplus labour time) from the worker, i.e the worker keeps less value than they create, covering their living costs (necessary labour time), and surplus value is then realised through commodity sales. This social relation is obscured by the money-wage relation. Therefore, capital’s evermore demanding need to accumulate is based on the continual expansion of intensive production, i.e. the extraction of fossil fuel and metals, deforestation, intensive farming, etc., that is releasing carbon and other ‘greenhouse’ emissions — not to mention that they are fuel-intensive practices in the first place and toxic to the local environment — trapped in nature into the atmosphere, making the planet warmer and threatening runaway global heating that, according to numerous scientific studies, will make the planet uninhabitable for humans, probably before the end of the present century. (Capital’s exploitation of labour is therefore also the root cause of [alleged plummeting sperm counts](https://grossmanite.medium.com/declining-sperm-counts-polluted-breast-milk-autoimmune-disorders-the-diabolical-legacy-of-53462aa1245d) (down a reported 59% from 1973 to 2011), further threatening extinction. The microplastics, nanoparticles and toxic chemicals sourced from fossil fuels and metal mines and consumed in everyday products penetrate and damage human cells.) Although extractive industries are usually now very capital-intensive — the source of capitalism’s ([now existential) economic crisis](https://grossmanite.medium.com/with-hyperinflation-looming-and-capitalism-dying-socialism-is-becoming-an-economic-necessity-a031f9a746e0) — the rate of exploitation of the remaining workers is very high. It is not capitalism’s need for ‘infinite growth on a planet of finite resources’, as most leftists seem to put it, that is the central or immediate problem; rather, it is the pace of production and its expansion — determined by the size of an ever-larger total capital and its need to expand yet further by feeding off labour — relative to nature’s ability to replenish itself (something capitalism’s dependence on intensive extraction obviously hinders). Just as surplus value is converted into capital faster than it is produced — resulting in (on average) decennial recessions and, eventually, a historical limit to capital accumulation — so nature is converted into capital faster than it can be replenished. Compound accumulation Fossil fuels (petroleum, coal, natural gas and orimulsion) would shrink to roughly half of total primary energy supply in 2050, from about 77% in 2020 — [down from 81% in 2010](https://www.iea.org/data-and-statistics/charts/share-of-total-primary-energy-demand-by-fuel-2010-2019) — if the world meets the ‘minimum’ internationally agreed target of 2 degrees Celsius warming, [according to S&P Global Platts Analytics](https://www.spglobal.com/platts/en/market-insights/latest-news/oil/062320-fossil-fuels-energy-mix-infographic-interactive). (Even 1C has already seen a reported [400,000 people (and counting) a year dying from climate-related causes](https://www.inquirer.com/philly/blogs/public_health/Death-toll-from-climate-change-estimated-at-400000-In-2010.html); while the Arctic permafrost — containing 1.8 trillion tonnes of carbon, more than twice as much as is currently suspended in Earth’s atmosphere — is, we are told,[2] melting [70 years sooner than previously expected](https://bigthink.com/surprising-science/canada-permafrost). While fossil fuel may fall to 50% of the mix of energy production, its absolute production may rise, since economic output under capitalism tends to double every 20 years.[3] As Jason Hickel writes in his book Less Is More, there was “a steady rise of material use in the first half of the 1900s, doubling from 7 billion tons per year to 14 billion tons per year. But then, in the decades after 1945, something truly bewildering happens… material use explodes: it reaches 35 billion tons by 1980, hits 50 billion tons by 2000, and then screams up to an eye-watering 92 billion tons by 2017… This increase in material use tracks more or less exactly with the rise of global GDP. The two have grown together in lockstep. Every additional unit of GDP means roughly an additional unit of material extraction. “There has been a radical acceleration of fossil fuel use since 1945, rising along with the explosion in both GDP and material use. And carbon emissions have gone up right along with it. Annual emissions more than doubled from 2 billion tons per year to 5 billion tons per year during the first half of the 1900s. During the second half of the century they rose fivefold, reaching 25 billion tons by the year 2000. And they have continued to rise since then, despite a string of international climate summits, reaching 37 billion tons in 2019. Of course, there is no intrinsic relationship between energy use and CO2 emissions. It all depends on what energy source we’re using. Coal is by far the most carbon-intensive of the fossil fuels. Oil — which has grown much more quickly than coal since 1945 — emits less CO2 per unit of energy. And natural gas is less intensive still. As the global economy has come to rely more on these less polluting fuels, one might think that emissions would begin to decline.… [But] because GDP growth is driving total energy demand up at such a rapid pace … these new fuels aren’t replacing the older ones, they are being added on top of them. The shift to oil and gas hasn’t been an energy transition, but an energy addition. “The same thing is happening right now with renewable energy… To keep energy flowing when the sun isn’t shining and the wind isn’t blowing will require enormous batteries at the grid level. This means 40 million tons of lithium — an eye-watering 2,700% increase over current levels of extraction… It takes 500,000 gallons of water to produce a single ton of lithium. Even at present levels of extraction this is causing real problems. In the Andes, where most of the world’s lithium is located, mining companies are burning through the water tables and leaving farmers with nothing to irrigate their crops. Many have had no choice but to abandon their land altogether. Meanwhile, chemical leaks from lithium mines have poisoned rivers from Chile to Argentina, Nevada to Tibet, killing off whole freshwater ecosystems. The lithium boom has barely started, and it’s already a catastrophe… “Today the world is producing 8 billion more megawatt hours of clean energy each year than in 2000. That’s a lot — enough to power all of Russia. But over exactly the same period, economic growth has caused energy demand to increase by 48 billion megawatt hours. “There’s also something else going on. With every year that goes by, it becomes more and more difficult to extract the same amount of materials from the earth. Today, three times more material has to be extracted per unit of metal than a century ago.”[4] There is no such thing as ‘green capitalism’. The ‘Green New Deal’ proposed by social democrats — which actually involves privatising the last areas of common land — is species suicide. Socialism and non-intensive production Under capitalism, commodities are only produced if they are profitable, i.e. if labour is exploitable enough to expand capital. They are use-values/utilities and exchange-values. Under socialism, goods (having been decommodified) are produced if we deem them to be useful, via democratic regulation and demand. They are just use-values and socially owned, so no exchange of ownership takes place, i.e. exchange value and profit are abolished. If we deem that a good is not useful since it is damaging the environment or contributing to climate change too much, we can decide not to make it. Or we can find a way of making it that does not damage or exhaust nature. Rather than fossil fuel (which disappears into thin air and so has to be extracted anew by exploited labour, making it perfect for the needs of capital) or metals (which are finite), we could use non-labour-intensive renewables — sunlight, wind and especially (for physical products) fibrous plants ([especially hemp](https://medium.com/@Grossmanite/the-green-new-deal-is-species-suicide-only-a-hemp-based-industrial-revolution-can-save-earths-f9c3dc29c4e3), which can replace steel, concrete, graphene, lithium and fossil fuel) and [mycelium](https://blogs.scientificamerican.com/observations/the-mycelium-revolution-is-upon-us/) (from which we can even make [computers](https://royalsocietypublishing.org/doi/10.1098/rsfs.2018.0029)). And because socialism can plan and co-ordinate production as a whole on a break-even basis, instead of having to bow to the demands of capital accumulation and anarchic competition between private producers, we can grow economic output at the rate nature replenishes (or slower) — something that socialism could help instead of hinder. Achieving the abundant material wealth for all promised by communism (as it develops into its higher stage, when production becomes fully automated and, eventually, free) is part of the solution. Fibrous plants like hemp [quickly draw down and sequester CO2](https://www.huffpost.com/entry/hemp-and-lots-of-it-could_b_328275?guccounter=1) while reviving the soil, reversing desertification; and the products made from them (including bioplastic that is 10 times stronger than steel; batteries that [outperform lithium and graphene](https://www.bbc.co.uk/news/science-environment-28770876); and highly-insulating [carbon-negative hempcrete](https://www.ukhempcrete.com/services/better-than-zero-carbon-buildings/)) keep that carbon sequestered indefinitely. Abundant material wealth for all includes abundant vegetation, permaculture, afforestation, etc. There is also the potential for micro-organisms to supply a near-infinite source of energy. In 2018, scientists in the US confirmed a theory first proposed by Soviet geologists when they found [huge populations of bacteria living in the extreme temperatures of Earth’s crust](https://www.independent.co.uk/news/science/deep-life-microbes-underground-bacteria-earth-surface-carbon-observatory-science-study-a8677521.html), despite the lack of photosynthesis and nutrients, living solely from chemical reactions fuelled by geothermal energy. They estimated that up to 23 billion tonnes of micro-organisms live in this “deep biosphere”, making it the largest ecosystem on the planet and accounting for nearly 400 times the amount of carbon found in all living humans. Here lies a potential source of abundant energy (although we will have to assess whether the benefits outweigh the impacts of drilling). Other scientists have even found that the Geobacter bacteria found in human waste can convert sewage into fresh water and [produce electricity in the process](https://www.nasa.gov/vision/earth/technologies/18may_wastenot.html). It is now thought that one day [microbial fuel cells](https://www.nasa.gov/feature/ames/could-electricity-producing-bacteria-help-power-future-space-missions/) could power our phones, household appliances — and even spaceships. Investment in microbial fuel cells will remain seriously limited, however, until value-creation is based solely on utility instead of exploitation and profit, since capital cannot exploit the labour time of microbes! Modern science — which is looking more and more ‘presocialist’, i.e. systematic, holistic and dialectial-materialist (the Marxist method of assessing history as moving forward through material and social interactions)— has proven that humans depend on plants and bacteria for everyday life, [smashing the myth of The Individual](https://aeon.co/essays/science-and-metaphysics-must-work-together-to-answer-lifes-deepest-questions) — the world is powered by collectivism. Indeed, trees, plants and bacteria are our relatives. The world is one interconnected whole. The socialisation of the means of production, whereby the means of production are owned by humanity instead of capital, will thus be a ‘naturalising’ humanisation, plantification and microbiolisation of production. Other forms of existing carbon-negative production that could be scaled up include ‘sky mining’ for diamonds that are chemically identical to earth diamonds, another industry that only exists on a small scale under capitalism because of the lack of labour exploitation involved. Emissions-free, energy-dense nuclear power, is also an option. The initial impact of mining uranium on the environment must be re-assessed by an independent socialist state, but to prove our earlier point, nuclear has not been abandoned because of safety fears, but because its capital-intensity has become unprofitable as ever-growing total capital becomes harder and harder to expand by the relatively diminishing pool of human labour. In terms of worker safety, nuclear is [the safest form of energy production](https://amp.theguardian.com/science/political-science/2015/nov/04/why-eco-austerity-wont-save-us-from-climate-change). There is also the prospect of space-based solar power and associated wireless transmission, without the intermittency of night time or winter suffered by solar panels and wind turbines on Earth. This, too, however, has proven too expensive for investors who won’t invest without the prospect of a higher return. Reverting to overly local, small-scale production—which would make everything more expensive — is not an option. Sea levels are rising and we probably need to build incredibly vast dikes on every continent. Rising temperatures will also massively increase the demand for air conditioning, which will have to be powered by something abundant and emissions-free, like nuclear. But socialism never works? Clearly, we need world socialism. Countries that are arguably ‘semi-socialist’ or that are supposedly ‘working towards’ socialism, like China and Venezuela, still work to some extent on the basis of commodity-production. But even ‘fully’ socialist countries still have to trade with capitalist countries, and that means having to make concessions to capital, working within a world capitalist system and having to maintain military defences at the expense of the civilian economy. Nor can they fully plan their economies due to fluctuating, unpredictable foreign prices. The need to build up foreign currency also incentivises black markets. Again, because socialist production is based on utility, socialism will also be able to invest in things like mineralising CO2 (turning it permanently into basalt rock). This is not a silver bullet since it is water-intensive, but it could certainly be scaled up significantly where water scarcity is not an issue (or if [water can be ‘artificially’ produced](https://www.sciencedaily.com/releases/2007/10/071031125457.htm)). That we are not doing this is a travesty — but where it would be a productive industry under socialism, it is an unproductive industry under capitalism, since it does not offer a commodity that can be sold for profit (unless it is sold to the state using public debt, thereby creating no new value and contributing to money devaluation that [will eventually (imminently) cause hyperinflation](https://grossmanite.medium.com/with-hyperinflation-looming-and-capitalism-dying-socialism-is-becoming-an-economic-necessity-a031f9a746e0)). It would therefore have to be funded by taxes that eat into already thinning profit margins, and so these taxes are resisted by capitalists, who anyway run the capitalist state. They are incapable of changing the system, even as it threatens to produce an ecocidal holocaust. Capitalism is now effectively an extinction cult and can only continue to steer Earth into the sun. Socialism — which is anyway [becoming an economic necessity](https://fleetworld.co.uk/road-test-hyundai-i30/) for the first time — gives humanity the chance of steering Earth to safety, in the nick of time.

### 2NC---FW

#### Plan focus frames debate within the terms of neoliberalism

Jackson ‘16 [Richard; Director of the National Centre for Peace and Conflict Studies, the University of Otago and Former Professor of International Politics at Aberystwyth University; “To Be or Not To Be Policy Relevant? Power, Emancipation and Resistance in CTS Research” Critical Studies on Terrorism, Vol. 9, No. 1, p. 120-125]

Finally, I would argue that the effect of holding up “policy relevance” as a measure of good research can, and most often does, have a distorting effect on the research itself. This is because framing the end-point of the research in this way pushes us towards asking particular kinds of questions and looking for particular kinds of evidence. Primarily, it frames the research question in a “problem-solving” mode, conforming to the way that policymakers view reality. To illustrate this, consider the potential impact of asking, “How could my research assist counterterrorism officials to respond to terrorism more effectively?”, compared to the question, “How could my research assist ordinary people or oppressed groups achieve greater social justice and emancipation?” Research on the same topic, but pursued under the rubric of these two contrasting questions, will result in quite different sets of findings, I would argue. It is for these reasons – the inherently oppressive nature of contemporary counterterrorism, the legitimising role of academics in maintaining state power, the potentially distorting effects of policy-oriented research, and the incompatibility of a commitment to both emancipation and the maintenance of the current elite-dominated system – that I have come to believe that the time for any kind of significant engagement with policymakers and counterterrorism practitioners is now over. The pitfalls and dangers for normatively oriented and committed scholars are too great to warrant risking it. We are now in a historical period where blunt and sustained opposition to the war on terror and state counterterrorism, plus the broader questioning of neoliberal capitalism and the state, is an overriding ethical imperative, in order to protect the innocent from foreseeable harms, advance social justice, respond to climate change, and promote emancipation.

#### Independently, neoliberal discourse drives interpersonal violence within debate---reject it

Monbiot ‘16 [George; The author of the bestselling books The Age of Consent: A Manifesto for a New World Order and Captive State: The Corporate Takeover of Britain; 4-1-2016; “Neoliberalism – the ideology at the root of all our problems,” https://www.theguardian.com/books/2016/apr/15/neoliberalism-ideology-problem-george-monbiot]

Imagine if the people of the Soviet Union had never heard of communism. The ideology that dominates our lives has, for most of us, no name. Mention it in conversation and you’ll be rewarded with a shrug. Even if your listeners have heard the term before, they will struggle to define it. Neoliberalism: do you know what it is? Its anonymity is both a symptom and cause of its power. It has played a major role in a remarkable variety of crises: the financial meltdown of 2007‑8, the offshoring of wealth and power, of which the Panama Papers offer us merely a glimpse, the slow collapse of public health and education, resurgent child poverty, the epidemic of loneliness, the collapse of ecosystems, the rise of Donald Trump. But we respond to these crises as if they emerge in isolation, apparently unaware that they have all been either catalysed or exacerbated by the same coherent philosophy; a philosophy that has – or had – a name. What greater power can there be than to operate namelessly? Inequality is recast as virtuous. The market ensures that everyone gets what they deserve. So pervasive has neoliberalism become that we seldom even recognise it as an ideology. We appear to accept the proposition that this utopian, millenarian faith describes a neutral force; a kind of biological law, like Darwin’s theory of evolution. But the philosophy arose as a conscious attempt to reshape human life and shift the locus of power. Neoliberalism sees competition as the defining characteristic of human relations. It redefines citizens as consumers, whose democratic choices are best exercised by buying and selling, a process that rewards merit and punishes inefficiency. It maintains that “the market” delivers benefits that could never be achieved by planning. Attempts to limit competition are treated as inimical to liberty. Tax and regulation should be minimised, public services should be privatised. The organisation of labour and collective bargaining by trade unions are portrayed as market distortions that impede the formation of a natural hierarchy of winners and losers. Inequality is recast as virtuous: a reward for utility and a generator of wealth, which trickles down to enrich everyone. Efforts to create a more equal society are both counterproductive and morally corrosive. The market ensures that everyone gets what they deserve. We internalise and reproduce its creeds. The rich persuade themselves that they acquired their wealth through merit, ignoring the advantages – such as education, inheritance and class – that may have helped to secure it. The poor begin to blame themselves for their failures, even when they can do little to change their circumstances. Never mind structural unemployment: if you don’t have a job it’s because you are unenterprising. Never mind the impossible costs of housing: if your credit card is maxed out, you’re feckless and improvident. Never mind that your children no longer have a school playing field: if they get fat, it’s your fault. In a world governed by competition, those who fall behind become defined and self-defined as losers. Neoliberalism has brought out the worst in us Among the results, as Paul Verhaeghe documents in his book What About Me? are epidemics of self-harm, eating disorders, depression, loneliness, performance anxiety and social phobia. Perhaps it’s unsurprising that Britain, in which neoliberal ideology has been most rigorously applied, is the loneliness capital of Europe. We are all neoliberals now.

### 2NC---Perm

#### Splintering DA---capitalism breaks down resistance through endless exceptions---the permutation is a slippery slope

Parr ’13 [Adrian; Assoc. Prof. of Philosophy and Environmental Studies @ U. of Cincinnati; THE WRATH OF CAPITAL: Neoliberalism and Climate Change Politics, pp. 5-6]

The contradiction of capitalism is that it is an uncompromising structure of negotiation. It ruthlessly absorbs sociohistorical limits and the challenges these limits pose to capital, placing them in the service of further capital accumulation. Neoliberalism is an exclusive system premised upon the logic of property rights and the expansion of these rights, all the while maintaining that the free market is self-regulating, sufficiently and efficiently working to establish individual and collective well-being. In reality, however, socioeconomic disparities have become more acute the world over, and the world's "common wealth,” as David Bollier and later Michael Hardt and Antonio Negri note, has been increasingly privatized.12 In 2010, the financial wealth of the world's high-net-worth individuals (with investable assets of $1 to $50 million or more [all money amounts are in U.S. dollars] ) surpassed the 2007 pre-financial crisis peak, growing 9.7 percent and reaching $42.7 trillion. Also in 2010 the global population of high-net­ worth individuals grew 8.3 percent to 10.9 million.13 In 2010, the global population was 6.9 billion, of whom there were 1,000 billionaires; 80,000 ultra-high-net-worth individuals with average wealth exceeding $50 mil­ lion; 3 billion with an average wealth of $10,000, of which 1.1 billion owned less than $1,000; and 2.5 billion who were reportedly "unbanked'' (without a bank account and thus living on the margins of the formal financial system) .14 In a world where financial advantage brings with it political benefits, these figures attest to the weak position the majority of the world occupies in the arena of environmental and climate change politics. Neoliberal capitalism ameliorates the threat posed by environmental change by taking control of the collective call it issues forth, splintering the collective into a disparate and confusing array of individual choices competing with one another over how best to solve the crisis. Through this process of competition, the collective nature of the crisis is restructured and privatized, then put to work for the production and circulation of capital as the average wealth of the world's high-net-worth individuals grows at the expense of the majority of the world living in abject poverty. Advocating that the free market can solve debilitating environmental changes and the climate crisis is not a political response to these problems; it is merely a political ghost emptied of its collective aspirations.

### 2NC---AT: Alt Fails

#### Proletarianization makes class struggle inevitable - the alt accelerates and properly directs movements

Reese 20 - author of Socialism or Extinction and The End of Capitalism: The Thought of Henryk Grossman (Ted, <https://www.amazon.com/Socialism-Extinction-Automation-Capitalist-Breakdown-ebook/dp/B081FHF2ZQ>, emuse)

Those who are lucky enough to find or remain in work as the capitalist crisis deepens will see their pay and conditions savagely forced down. In April 2018, the World Bank recommended yet more deregulation in a report that said “high minimum wages, undue restrictions on hiring and firing and strict contract forms all make workers more expensive vis-à-vis technology”.[437] International capital is preparing a major assault on international labour in order to accelerate moves towards automation. Even if the next crash is not a final breakdown, significant sections of the middle classes would be proletarianised and impoverished and the reserve army of labour would swell. Class struggle would explode. Capitalists could be forced to slow down or stop the introduction of new automation by, say, a strong and militant neo-Luddite or trade union movement and – the usual driver for concessions – the desire for social peace. But the contradiction persists: capital accumulation, and staying ahead of or keeping up with competitors, requires higher productivity and therefore labour-saving innovation. The deeper capitalism sinks into crisis the more necessary it becomes to raise productivity. That is, the more workers are replaced by robots, the greater the underproduction of surplus value becomes, and yet the system will need to respond by replacing more workers with robots. If it cannot do this then capital goes unvalorised and the economy crashes. From the perspective of the bourgeoisie, a strong neo-Luddite or trade union movement would sooner or later have to be crushed. In an article in January 2018 headlined “When the next recession hits, the robots will be ready”, the Washington Post pointed out that innovations happen quickest “when employers slash payrolls going into a downturn and, out of necessity, turn to software or machinery to take over the tasks once performed by their laid-off workers”.[438] Pointing to growing expectations by economists of a financial crisis in 2020, the paper adds that the “next wave of automation won’t just be sleek robotic arms on factory floors. It will be ordering kiosks, self- service apps and software smart enough to perfect schedules and cut down on the workers needed to cover a shift. Employers are already testing these systems. A recession will force them into the mainstream.” Striking statistics from an upcoming paper by economists Nir Jaimovich and Henry Siu “found that 88% of job loss in routine occupations occurs within 12 months of a recession. In the 1990- 1991, 2001 and 2008-2009 recessions, routine jobs accounted for ‘essentially all’ of the jobs lost. They regained almost no ground during the subsequent recoveries.”[439] Automation under capitalism is therefore accelerating the trend towards proletarianisation, higher levels of poverty and the underproduction of surplus value. It is the sharpest of sharpening contradictions, a vicious circle from which capitalism cannot escape. It is a trend which increasingly threatens a final breakdown. The ‘Leninist’ road to socialism[440] – whereby working class organisations (soviets (workers’ councils), communes etc) effectively form an independent state and then, when strong enough, destroy what is left of the capitalist state – of course seems to be dismissed now more than ever – by liberals who claim that the demise of the Soviet Union signalled the end of history;[441] by the anarchists and autonomists who believe a leap into ‘full communism’ can be achieved without the socialist stage; and by ‘democratic socialists’ who claim socialism can be built via bourgeois democracy by voting through ‘socialist policies’. Then there is the notion that Marx and Lenin are redundant because the supposed protagonist of their revolutionary strategy – the industrial proletariat – is dead or irrelevant. There are several problems surrounding this. The accusation about the industrial proletariat is made, in slightly different ways, not just by liberals but by some anarchists, who do not claim that the industrial proletariat is dead but persist with the myth that it is the protagonist of the Leninist revolution. The Bolsheviks focused on agitating among the urban or industrial proletariat because that was the most efficient use of scarce resources, with the intention that the message would then spread outwards to the wider proletariat as a whole. This accusation that Leninists ignore the wider proletariat is often a projection of valid criticisms of some ‘Trotskyists’, who, while posing as Leninists, or at least distorting Leninism, do overemphasise the importance of the industrial worker. This is because Trotskyists – who for the same reason tend to be de facto pro-imperialist (by giving critical support to the Labour Party, for example) – tend to derive from labour aristocratic positions in trade unions and universities. Lenin though is renowned for criticising socialists who limited their agitation to “trade union consciousness” or “economism” – ie, simply supporting, or tailing, working class demands, without advocating an independent (non-social democratic) working class party or proletarian dictatorship (or, before that, the overthrow of tsarism) – and for his ruthless criticism of a labour aristocratic minority which misled the masses with solely reformist demands. Hence why he said revolutionaries had to “dig deeper into the real masses” of the poorest workers, who had the least to lose and the most to gain. This meant that, in Russia, he saw the need for an alliance between workers and poor peasants, an alliance that Leon Trotsky initially rejected. Today, real Leninists still see the poorest and most oppressed workers as the main protagonists of revolution. The claim that the industrial proletariat is dead is either dishonest or smacks of ‘first world’ myopia. The industrial proletariat may have shrunk in the imperialist nations over the past 40 years but internationally it has grown spectacularly. In 2010, 79%, or 541 million, of the world’s industrial workers lived in ‘less developed regions’, up from 34% in 1950 and 53% in 1980, compared to the 145 million industrial workers, or 21% of the total, who in 2010 lived in the imperialist countries.[442] This shift is even greater in the manufacturing industry, since in emerging nations manufacturing forms a much higher proportion of total industrial employment than in imperialist countries, and therefore, as John Bellamy Foster et al point out, “the broad category of ‘industrial employment’ systematically understates the extent to which the world share of manufacturing has grown in developing countries”, citing figures for the US and China showing these ratios to be 58.1% and 75.2% respectively.[443] “Extrapolating these two ratios to ‘more developed’ and ‘less developed’ countries as a whole, 83% of the world’s manufacturing workforce lives and works in the nations of the Global South,” says John Smith in Imperialism in the Twenty First Century.[444] Based on the integration of ‘Southern’ workers into the global economy, the IMF has also attempted to take into account qualitative as well as quantitative changes, calculating an “export-weighted global workforce” by multiplying the numerical growth of the workforce by the increasing degree to which they produce for the global market rather than the domestic market. Since Southern-manufactured exports grew more than twice as fast as GDP during the quarter-century leading up to the global crisis in 2007, the IMF estimates that the effective global workforce quadrupled in size between 1980 and 2003. But even within the imperialist nations, where the industrial working class has declined both absolutely and relatively, Smith points to “deepening proletarianisation”, saying that “the proletarians have increased their already overwhelming predominance within the economically active population [EAP].... Between 1980 and 2005 the proportion of waged and salaried workers in total EAP in ... the developed nations steadily rose, from 83% to 88% (in 2005, around 500 million people), indicating deepening proletarianisation in these countries.”[445] In the US, it is even higher, with waged workers as a proportion of the EAP increasing from 90.6% in 1980 to 93.2% in 2011.[446] Because of distortions made by the ILO’s methods, this undoubtedly underestimates or obscures the size of the labour aristocracy, something we will come back to further on, but the trend is nevertheless clear, with more and more workers being forced into low-paid services work. Obviously with China, India and the former Soviet bloc being integrated into the global economy, 1.47 billion workers joined the global capitalist workforce very suddenly. But this does not distort the overall trend. With their supposed bias for the industrial proletariat, Leninists are accused of failing to recognise the multiple sections of the working class or its fragmentation. But far from ignoring the heterogeneous make-up of the working class, this is one of the factors that contribute to the Leninist conclusion that a vanguard party is necessary – to unite the disparate and sectional struggles of the working class into one unstoppable force. Likewise, the fact recognised across the left that technological advances have fragmented the working class, that they have increased unemployment and underemployment and therefore reduced workers’ leverage in their struggles against their bosses, reflected in the imperialist countries by the low number of strikes since the 1980s, must mean that the state is the primary battleground. We are already seeing this in the re-emergence of social democratic movements (see the previous chapter), whereby downwardly mobile labour aristocracies are becoming slightly more antagonistic towards the ruling class, and are attempting to harness the power of the working class as a whole, in what is essentially a fight with the middle and ruling classes over allocations of surplus value. These strawman accusations against Lenin misrepresent or misinterpret his definition of the proletariat, which followed Marx’s. The main feature of the proletariat as a class is not its direct link with the means of production but rather its separation from them. In other words, the proletariat is first and foremost characterised as a class by the fact that it does not own the means of production and has to work for wages. The salient feature is not what differentiates them, but what unites them. The more a worker is dependant on selling their labour power for survival the deeper their proletarianisation. Indeed, it is the fact that the industrial proletariat is shrinking relative to the working class as a whole, relegating a significant proportion of previously privileged workers into the poorer sections of the working class, that sees the mass of the latter grow numerically in strength. As the mass of exploited manual workers decreases due to scientific and technological progress, particularly automation, the mass of exploited intellectual workers, ie white collar employees, engineers and scientists (who increasingly contribute to commodity production) also increases in reverse proportion. The casualisation of university employment in the past few years is a case in point. In the US, although union membership stood at a lowly 10.7% of the workforce at the start of 2019, the unionisation of traditionally non- unionised white collar labour almost doubled between 2010 and 2017.[447] According to the Pew Research Center, the median wealth (assets minus debts) of the US middle class fell by 28% from 2001 to 2013.[448] People on middle incomes[449] accounted for 50% of the US adult population in 2015, down from 61% in 1971, while the poorest tier of the working class comprised 20% of the population in 2015 compared to 16% in 1975. The number of people receiving supplemental nutritional assistance, or food stamps, exploded from 26 million in 2007 to 46 million in 2012.[450] And 63% of the population say they have less than $500 in personal savings.[451] At the same time private and household debt has gone through the roof. In the 1970s, personal and credit card debts shot up by 238% relative to the 1960s. In the 1980s it shot up on the previous decade by another 318% and by another 180% in the 1990s.[452] According to the Federal Reserve Bank of New York, household debt rose to a record $13.5 trillion in the fourth quarter of 2018, nearly 7% higher than in the third quarter of 2008. Even more troublingly, a record number of US Americans were three months or more behind on repayments for car loans (more than 7 million). As New York Times journalist Amy Chozick noted in May 2015, “the once ubiquitous term ‘middle class’ has gone conspicuously missing from the 2016 [presidential] campaign trail, as candidates and their strategists grasp for new terms for an unsettled economic era [in which] the middle class has for millions of families become a precarious place to be”.[453] Capitalism in the age of automation increasingly turns the majority of the population into proletarians and, in doing so, creates all economic, social and political prerequisites for the system’s downfall. The deeper the system sinks into crisis, the more proletarians are created, through unemployment, wage cuts and so on, and the more radical they are likely to become. This is borne out by the real development of the international proletariat. While we have already seen that the industrial proletariat has grown enormously, according to the ILO, the world’s “economically active population” (EAP) grew from 1.9 billion in 1980 to 3.1 billion in 2006.[454] Almost all of this numerical growth took place in the ‘emerging nations’, now home to 84% of the global workforce, 1.6 billion of whom worked for wages. The other one billion were small farmers and a multitude of people working in the ‘informal economy’,[455] which is, according to Mike Davis “the fastest growing social class on earth”.[456] While the industrial proletariat in the ‘Global South’ has grown enormously since 1980, its share of the South’s total workforce has been much more modest, rising from 14.5% in 1980, to 16.1% in 1990, to 19.1% in 2000, to 23.1% in 2010[457] – because the absolute growth of the non-industrial proletariat is even greater. Meanwhile, agricultural employment in the Global South has declined to 48% of its EAP, down from 73% in 1960, and from “approximately one-third” to just 4% of EAP in developed countries. However, the ILO reports: “Despite the declining share of agricultural workers in total employment, the absolute numbers of those engaged in agriculture are still rising, most notably in south Asia, east Asia, and sub-Saharan Africa.”[458] The other significant component of the growing proletariat? The unemployed. Smith reports that, apart from China, “no economy has grown fast enough to provide jobs to the legions of young people entering the labour market and the rural exodus to swollen cities in search of work. Even at the zenith of export-oriented industrialisation the ILO reported that ‘in the late 20th century, manufacturing ceased being a major sector of employment growth, except in east and southeast Asia’.” Senior ILO economist Nomaan Majid said the commerce sector, not manufacturing, “is the main employment growth sector in both low- and middle-income groups”.[459] This links back to what we saw in chapter four – that even in the developing nations, the trend towards automation is accompanied by growing unproductive work and unemployment. The numerical growth of the working class has been coupled with a massive attack on its wages, further deepening proletarianisation. In a striking example of how constant capital rises relative to variable capital, John Lanchester writes in the London Review of Books that in the US: “In 1960, the most profitable company in the world’s biggest economy was General Motors (GM). In today’s money, GM made $7.6bn that year. It also employed 600,000 people. Today’s most profitable company employs 92,600. So where 600,000 workers would once generate $7.6bn in profit, now 92,600 generate $89.9bn, an improvement in profitability per worker of 76.65 times. Remember, this is pure profit for the company’s owners, after all workers have been paid. Capital isn’t just winning against labour: there’s no contest. If it were a boxing match, the referee would stop the fight.”[460] Whereas wages in the US rose by 350% between 1927 and 1977, real terms growth has since been in decline. In Britain, wages grew at an annual average of 2.9% in the 1960s and 70s, 1.5% in the 90s and 1.2% in the 2000s. Between 2007 and 2015 that trend accelerated at an unprecedented rate, with real household wages falling by 10.4%.[461] The Resolution Foundation said the 2010s would be the worst decade for UK wage growth since the late 18th century. But as bad as the attack on wages in imperialist countries has been, it has been even worse in the countries imperialism plunders, where workers are of course already paid much less. According to the ILO’s World of Work Report 2011, since the early 1990s the “share of domestic income that goes to labour ... declined in nearly three-quarters of the 69 countries with available information”. While “the wage share among advanced economies has been trending downward since 1975”, it “occurred at a much more moderate pace than among emerging and developing economies – falling roughly nine percentage points since 1980”.[462] In contrast, the fall in Asia between 1994 and 2010 was around 20%. The imperialist countries have also seen a decline in full-time self- employment and self-employed income. This has included a continuing shrinkage in the number of small family farmers, indicating the proletarianisation of portions of the lower middle classes. Michael Elsby’s study The Decline of US Labor Share reports that the “rise in inequality is even more striking for proprietors’ income than it is for payroll income. In 1948 the bottom 90% of employees earned 75% of payroll compensation. By 2010 this had declined to 54%. For entrepreneurial income, however, this fraction plummeted from 42% in 1948 to 14% in 2010.”[463] A separate study of 2014 data by the US Small Business Administration suggests the same pattern regarding millennials (generally defined as people born between 1985 and 2004). “Fewer than 4% of 30 year-olds reported they were in full-time self-employment – a proxy for entrepreneurship – compared with 5.4% of Generation X-ers [1965 and 1984] and 6.7% of Baby Boomers [1945 and 1964] at the same age,” the FT reported.[464] Furthermore, the pace of decline in wages has accelerated in recent years, “with the wage share falling more than 11 percentage points between 2002 and 2006. In China, the wage share declined by close to 10 percentage points since 2000.”[465] Africa’s workers saw their share of national income reduced by 15% in the two decades since 1990, again “with most of this decline – 10 percentage points – taking place since 2000. The decline is even more spectacular in north Africa, where the wage share fell by more than 30 percentage points after 2000.”[466] Latin America saw the lowest decline, of 10% since 1993, and most of it before 2000, undoubtedly due to strong workers’ organisation and resistance, represented by the left-wing ‘Pink Tide’ in Venezuela,[467] Bolivia, Brazil and Argentina. As mentioned, mainstream economic accounting methods underepresent the size of the middle classes and labour aristocracy – which are bound to be proportionately bigger in imperialist nations – and do not take account of sharply increasing inequality between skilled/professional and unskilled workers or of income to capital that has been classified as income to labour, such as bonuses paid to bankers and wages and sponsorship of sports professionals etc, meaning the real extent of the fall in labour’s share is even higher, and considerably so. Elsby attempts to challenge these distortions, writing that in the US, the Bureau of Labor Statistics’ (BLS) calculation of a decline of 3.9% in the share of national income for labour over 1987-2013 becomes a 10% decline when the highest paid 1% of employees are excluded, and a 14% decline when the highest paid 10% are excluded. Based on this more honest method, the lowest 90% of wage earners (84% of the US’s total economically active population) actually earned 42% of the total payroll in 1980 and just 28% in 2011. Elsby also found that the fall for labour has accelerated as time has progressed, declining by twice as much between 2000 and 2011 as in the previous two decades.[468] Again, the trend towards deepening proletarianisation is clear. The material basis for a position of relative privilege among the lower middle classes and labour aristocracy is disappearing. The proletariat is numerically stronger than ever, especially as an international class. ‘Neoliberal globalisation’, which promised to produce prosperous nations of entrepreneurs and homeowners, has instead produced capitalism’s grave-diggers. All this is confirmed by the fact that inequality has hit record levels. In 2018 and 2019, Oxfam found that the 26 richest billionaires owned as much in assets as the 3.8 billion people who make up the poorest half of the planet’s population. The number had been 61 in 2016 and 43 in 2017, showing again that capital continues to centralise. Marx wrote that the concentration of wealth at one pole depended on the concentration of poverty at the other. And lo: the wealth of more than 2,200 billionaires across the globe increased by $900bn in 2018, a 12% increase against a fall of 11% in the wealth of the poorest half of the world’s population. Between 1980 and 2015, the global economy grew by 380%, yet the number of people living in poverty on less than $5 (£3.20) a day increased by more than 1.1 billion. In 1980, $2.20 of every $100 went to the world’s poorest 20%, but in 2003 that figure had fallen to 60 cents.[469] Inequality is most acute between rich and poor countries but it is growing within rich countries as well. In the US, for example, according to the Federal Reserve, the richest 1% owned a record-high 38.6% of the country’s wealth in 2016, nearly twice as much as the bottom 90%. Anti-socialists will still ignore all this or proclaim that the proletariat is no longer a revolutionary class because living standards are generally much higher than 100 years ago, claiming that really “we are all middle class now” or making shallow observations such as “capitalism works because workers have mobile phones!” as if cracking some kind of insightful gotcha that disproves Marxism. This ignores how as the rate of exploitation increases, the value of necessary labour falls, making the commodities workers need to buy to live cheaper. It ignores how the needs of the working class change as capitalism develops: workers need smartphones and laptops in this day and age of 24-hour connectivity if they are even to be considered employable, and so the cost of a smartphone is included in the value of labour power. It also ignores that workers in some countries may have access to better infrastructure than in others (indeed, although no technology has ever scaled as quickly as the mobile phone, while five billion people now have mobile phones, only around 2.5 billion of world’s population presently have a smartphone). But most of all, it is ignorant of the fact that capitalism is breaking down, which will impoverish and radicalise the working class. The revolutionary power of the working class is latent.

#### Transition isn’t hard

Monbiot 19 (George Monbiot, citing Erica Chenoweth - the Berthold Beitz Professor in Human Rights and International Affairs at Harvard Kennedy School, Foreign Policy magazine ranked her among the Top 100 Global Thinkers in 2013 for her efforts to promote the empirical study of civil resistance, she received the Karl Deutsch Award, which the International Studies Association gives annually to the scholar under the age of 40 who has made the greatest impact on the field of international politics or peace research. And together with Maria J. Stephan, she won the 2013 Grawemeyer Award for Ideas Improving World Order, which is presented annually in recognition of outstanding proposals for creating a more just and peaceful world order. Their book, Why Civil Resistance Works, also won the 2012 Woodrow Wilson Foundation Award, given annually by the American Political Science Association in recognition of the best book on government, politics, or international affairs published in the U.S. in the previous calendar year. 4-1-2019, "Only rebellion will prevent an ecological apocalypse," Guardian, <https://www.theguardian.com/commentisfree/2019/apr/15/rebellion-prevent-ecological-apocalypse-civil-disobedience> accessed: 8-29-2019) //bp

As the environmental crisis accelerates, and as protest movements like YouthStrike4Climate and Extinction Rebellion make it harder not to see what we face, people discover more inventive means of shutting their eyes and shedding responsibility. Underlying these excuses is a deep-rooted belief that if we really are in trouble, someone somewhere will come to our rescue: “they” won’t let it happen. But there is no they, just us. The political class, as anyone who has followed its progress over the past three years can surely now see, is chaotic, unwilling and, in isolation, strategically incapable of addressing even short-term crises, let alone a vast existential predicament. Yet a widespread and wilful naivety prevails: the belief that voting is the only political action required to change a system. Unless it is accompanied by the concentrated power of protest – articulating precise demands and creating space in which new political factions can grow – voting, while essential, remains a blunt and feeble instrument. The media, with a few exceptions, is actively hostile. Even when broadcasters cover these issues, they carefully avoid any mention of power, talking about environmental collapse as if it is driven by mysterious, passive forces, and proposing microscopic fixes for vast structural problems. The BBC’s Blue Planet Live series exemplified this tendency. Those who govern the nation and shape public discourse cannot be trusted with the preservation of life on Earth. There is no benign authority preserving us from harm. No one is coming to save us. None of us can justifiably avoid the call to come together to save ourselves. I see despair as another variety of disavowal. By throwing up our hands about the calamities that could one day afflict us, we disguise and distance them, converting concrete choices into indecipherable dread. We might relieve ourselves of moral agency by claiming that it’s already too late to act, but in doing so we condemn others to destitution or death. Catastrophe afflicts people now and, unlike those in the rich world who can still afford to wallow in despair, they are forced to respond in practical ways. In Mozambique, Zimbabwe and Malawi, devastated by Cyclone Idai, in Syria, Libya and Yemen, where climate chaos has contributed to civil war, in Guatemala, Honduras and El Salvador,, where crop failure, drought and the collapse of fisheries have driven people from their homes, despair is not an option. Our inaction has forced them into action, as they respond to terrifying circumstances caused primarily by the rich world’s consumption. The Christians are right: despair is a sin. As the author Jeremy Lent points out in a recent essay, it is almost certainly too late to save some of the world’s great living wonders, such as coral reefs and monarch butterflies. It might also be too late to prevent many of the world’s most vulnerable people from losing their homes. But, he argues, with every increment of global heating, with every rise in material resource consumption, we will have to accept still greater losses, many of which can still be prevented through radical transformation. Every nonlinear transformation in history has taken people by surprise. As Alexei Yurchak explains in his book about the collapse of the Soviet Union – Everything Was Forever, Until It Was No More – systems look immutable until they suddenly disintegrate. As soon as they do, the disintegration retrospectively looks inevitable. Our system – characterised by perpetual economic growth on a planet that is not growing – will inevitably implode. The only question is whether the transformation is planned or unplanned. Our task is to ensure it is planned, and fast. We need to conceive and build a new system based on the principle that every generation, everywhere has an equal right to enjoy natural wealth. This is less daunting than we might imagine. As Erica Chenoweth’s historical research reveals, for a peaceful mass movement to succeed, a maximum of 3.5% of the population needs to mobilise. Humans are ultra-social mammals, constantly if subliminally aware of shifting social currents. Once we perceive that the status quo has changed, we flip suddenly from support for one state of being to support for another. When a committed and vocal 3.5% unites behind the demand for a new system, the social avalanche that follows becomes irresistible. Giving up before we have reached this threshold is worse than despair: it is defeatism. Today, Extinction Rebellion takes to streets around the world in defence of our life-support systems. Through daring, disruptive, nonviolent action, it forces our environmental predicament on to the political agenda. Who are these people? Another “they”, who might rescue us from our follies? The success of this mobilisation depends on us. It will reach the critical threshold only if enough of us cast aside denial and despair, and join this exuberant, proliferating movement. The time for excuses is over. The struggle to overthrow our life-denying system has begun.

### 2NC---AT: Poverty

#### Growth does not reduce poverty AND trades off with policy measures to solve income inequality.

Giorgos **Kallis 18**. ICREA professor at ICTA, Autonomous University of Barcelona. 09/2018. “The Case for Degrowth.” Degrowth, Agenda Publishing.

What about poverty? To say that growth is necessary in order to reduce poverty is a tautology, since absolute poverty is measured in GDP terms. The total number of people and the share of the world population living in absolute poverty have declined (Figure 4.7), but this “convergence” is driven mostly by China (Hickel 2017). Assuming that current relationships between GDP growth and poverty reduction continue in the future, eliminating poverty through growth requires unrealistically high increases in global output (Woodward 2015). [[FIGURE 4.7 OMITTED]] In a rich country, even the poorest of the poor may have more than $l per day. But they are still poor. Relative rather than absolute measures of poverty are important. Overall, the number of relatively poor people around the world has been increasing (Ravillon 2012; Figure 4.7). And among OECD countries, the effect of income on poverty is weak and explains little of the variation in poverty rates (Figure 4.8), which basically means that growth does not reduce poverty. [[FIGURE 4.8 OMITTED]] That growth is not universally linked to objective well-being is reasonable. Growth increases well-being if the social benefits o f growth exceed its costs. That growth has substantial costs is well established (Mishan 1967). Data on well-being, coupled with data on environmental costs discussed below, suggests that growth, at least in rich countries, has become “un-economic” (Daly 1996): the benefits of growth do not exceed its costs. Bartolini (2014) goes further than that: he argues that most recent growth is “negative growth”, meaning growth driven by expenditures compensating for growing externalities - paying for private goods, for example, that promise to protect us from the decay of resources that were once common and free. It could also well be that stagnation of well-being is instead because of an increasingly skewed distribution of income, the result of neoliberal reforms. There is (contested) evidence that the median income in wealthy countries such as the United States has stagnated since the 1970s, even though average income has grown (Stiglitz 2012). If that is so, then the problem may not be growth itself, but the uneven distribution of its fruits. There might be a link between the two, however, insofar as the pursuit of growth is used to justify regressive tax policies, austerity and a relaxation of labour rights and social protections.

### 2NC---AT: Interdependance

#### Capitalism makes global trade collapse inevitable---transition is key

Galbraith ’18 [James K.; July 23; Professor at UT-Austin, was a delegate, at 20, to the Democratic National Convention in 1972; he teaches at the LBJ School, the University of Texas at Austin; The Nation, “Extreme Inequality Creates Global Disorder,” https://www.thenation.com/article/archive/extreme-inequality-creates-global-disorder]

The principal driver of global inequality—both within and between countries—is the global financial regime. This has been a feature since the end of the Bretton Woods system in 1971, with recurrent catastrophic effects following the onset of the 1980s debt crisis, including the collapse of the socialist nations and the 1997 Asian financial crisis. Back then, it was a conservative stroke of genius to institutionalize “market exchange rates” on a global scale. Those markets work well enough for rich nations, but they guarantee problems for everyone else. Each exchange crisis has wiped out a decade or more of progress against inequality, as anyone in Brazil, Argentina, Mexico, or much of Africa will tell you. The rise of China, on the other hand, has everything to do with its refusal to play the game of open capital markets. And while inequality in China rose rapidly for internal reasons beginning in the 1990s, it stabilized more than a decade ago.

Global inequality is a security risk—and not just because it breeds resentment, violence, and mass migrations. It also makes the entire system prone to collapse. For over 40 years, the United States has enjoyed the advantage of issuing the world’s reserve currency, running a trade deficit, and living well off the work of others. But the respect that would be due to exercising that role responsibly has been squandered by our behavior.

Reckless interventions have demonstrated the limits of military power—as our professional soldiers can attest, and as the current state of Afghanistan, Iraq, and Libya demonstrate. A self-centered economic strategy is only a bit more subtle. Yes, even when a financial crisis originates in the United States, as happened with the subprime-mortgage debacle of 2007–09, funds still flow to the safety of the US dollar and government bonds. So long as this pattern holds, the United States actually benefits from economic insecurity and instability, both at home and abroad. But you have to be very optimistic—or flat-out crazy—to think that this can go on indefinitely.

Controlling inequality—like controlling blood pressure—is good for your economic health. Economies with less inequality generally have lower unemployment and stronger productivity growth, and some researchers also claim better human health and social cohesion. In terms of the rest of the world, the peculiar organization of the United States into a boom/bust economy based on finance and high technology is the exception rather than the rule: We combine record-breaking inequality with low unemployment. But this is a formula that generates massive instability, as well as the resentments that gave us President Trump. Countries with stronger stabilizing institutions built on the principle of countervailing power may be less rich over the short term, but they are better-governed and built to last.

Our long-term safety and prosperity will therefore depend on creating a more just and stable world banking and monetary system. We can either get to work on this ourselves, or accept that other large countries and blocs will take up the task, creating regional alliances that will restructure global trade and finance—as is already beginning to happen. If we are not part of a common process, then ultimately we will be cut out and cut back. No one should think that a policy of provoking and destabilizing Russia, China, and Iran is going to work for us, over the long or even the medium run. No one should think that Europe and Japan will stay US economic allies forever if their interests dictate otherwise. No one should imagine that military power provides enduring safety in a world of multiple major powers with their own resources, technologies, and ideas.

In the United States, the key driver of inequality is capital-asset prices. This is because in a capitalist nation, capitalists and not workers own such assets and get their income from dividends, interest, stock options, and capital gains. Capitalist booms yield prosperity—often a wasteful prosperity—along with instability; as the bankers say, it’s not the speed that kills, it’s the sudden stop. Concentrated ownership of capital assets is therefore a central issue. Spreading the wealth sensibly over time means more public investment at every level and more investment by nonprofits with longer time horizons and sensible social objectives. It means fostering cooperatives and other stabilizing private economic forms that are not dependent on Wall Street. Instead of boosting the economic growth rate—a measure largely disconnected from social well-being—we should have a strategy to live better: more sustainably, more equally, with less waste and more common spaces, more public goods and enjoyments.

#### Empirics prove socialist peace theory

Oren and Hays 97 - poli sci professors (Ido and Jude, <https://sci-hub.se/10.2307/40645008>, EM)

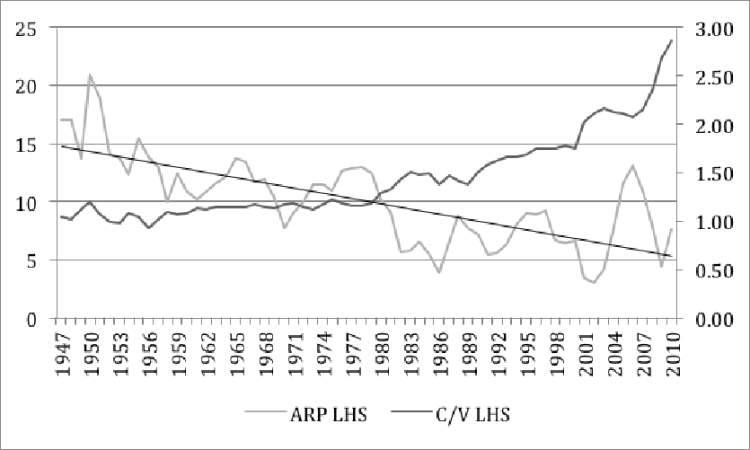
We find that during the cold war, developed socialist states were, by a wide margin, less war-prone than all other states. Developing socialist states were the most war-prone, while developed capitalist and developing capitalist states were respectively the second and third most war-prone groups. These findings are highly robust. They hold across three different counts of war (based on three separate data sets) , and they hold whether we measure war propensity in terms of wars engaged in annually or in terms of wars entered into. Now, one might question our conclusion regarding the pacific nature of the developed socialist camp on the ground that most of this camp's members were mere satellites of the Soviet Union and that, therefore, their peacefulness reflects lack of political ability to wage war, more than lack of political will. To this objection we offer two responses. First, arguments that stress the coercive character of Soviet policy toward Eastern Europe implicitly tend to compare the rigidly hierarchical intrasocialist relations with a mythical West in which allies of the United States were allegedly unconstrained in their conduct of foreign policy. But once intrasocialist relations are compared with a more realistic image of intracapitalist relations - properly acknowledging that allies of the United States were not fully free to act as they pleased either - the contrast between East and West blurs considerably, although it does not dissolve entirely. Secondly, let us compare directly the war-frequency records of the United States and the Soviet Union alone. As the leading superpowers of the era, these countries were the least fettered by alliance constraints in their decisions for war and peace. If the Soviet Union, the leader of the socialist camp, is found to have been more peaceful than its capitalist counterpart, the proposition that advanced socialist states are most peaceful would gain added credibility. The number of wars in which the United States and the Soviet Union were involved during the period 1949-1989 (through 1988 for the Tillema data), are reported in the top row of table 11. Clearly, the Soviet Union fought fewer wars than did the United States. The ratios of Soviet to US wars are .50, .27, and .54 for the COW, Gantzel, and Tillema data, respectively. If we take war-duration into consideration, adding up the number of wars each superpower was involved in every year (see the bottom row of table 11), the difference between the war propensities of the two countries becomes even starker: the ratios of Soviet to US war-years are .08, .28, and .39 for the COW, Gantzel, and Tillema data sets, respectively.39 Thus, it appears that not only did advanced socialist countries as a group fight much more rarely than the advanced capitalist counterparts, so did their leader in comparison with the leader of the capitalist world. Conclusion In this study we analyzed the comparative war propensities of groups of states classified in accordance with the analytical categories of the Soviet theory of international relations. We found that during the period 1949-1989, developed socialist states went to war very rarely. The foreign-policy behavior of developed socialist states was significantly more peaceful than the behavior of any other socioeconomic group of states, including capitalist states. On the other hand, the group of developing socialist states was more war-prone than any other group of states during the same period. In other words, our results show that during the Cold War, advanced socialist countries were far more peaceful than the developing and the developed capitalist countries (in that order), who in turn were more peaceful than developing socialist states. Our goal is not to romanticize or resurrect the Soviet theory of international relations, but to "normalize" US social-scientific claims about the peacefulness of democratic countries.

### 2NC---AT: Warming

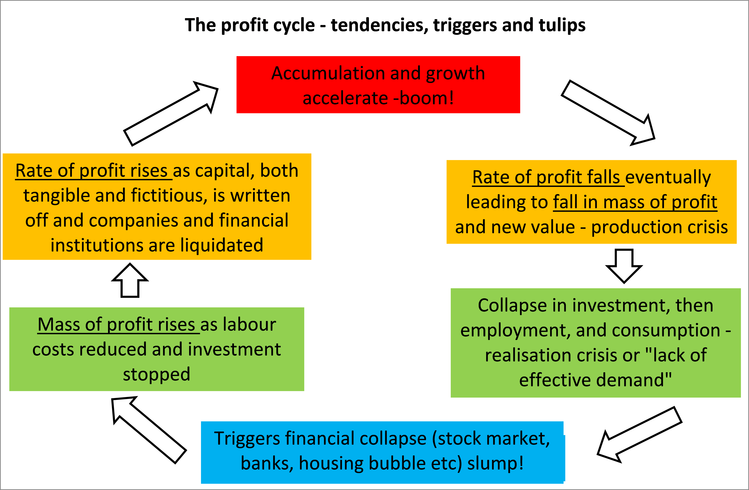
#### Marx’s law of profitability explains cyclical recessions and renders capitalism unsustainable

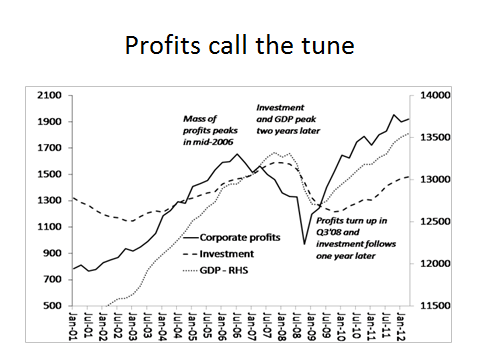
Roberts 15 - London economist (Michael, https://thenextrecession.wordpress.com/2015/12/29/the-marxist-theory-of-economic-crises-in-capitalism-part-two/, emuse)

Does Marx’s law fit the facts? Some Marxist critics of Marx’s law of profitability reckon that the law cannot be empirically proven or refuted because official statistics cannot be used to show Marx’s law in operation. But there are plenty of studies by Marxist economists that show otherwise. The key tests of the validity of the law in modern capitalist economies would be to show whether 1) the rate of profit falls over time as the organic composition of capital rises; 2) the rate of profit rises when the organic composition falls or when the rate of surplus value rises faster than the organic composition of capital; 3) the rate of profit rises, if there is sharp fall in the organic composition of capital as in a slump. These would be the empirical tests and there is plenty of empirical evidence for the US and world economy to show that the answer is yes to all these questions. For example, [Basu and Manolakos](http://gesd.free.fr/basumano.pdf) applied econometric analysis to the US economy between 1948 and 2007 and found that there was a secular tendency for the rate of profit to fall with a measurable decline of about 0.3 percent a year “after controlling for counter-tendencies.” In [my work on the US rate of profit,](http://gesd.free.fr/mr1213.pdf) I also found an average decline of 0.4 percent a year through 2009. And here is a figure by G Carchedi for the rise in the organic composition of capital (OCC) in the industrial sector of the US since 1947 versus the average rate of profit (ARP). It tells the same story. US ARP and OCC (i.e. C/V) versus the average rate of profit (ARP). It tells the same story. US ARP and OCC (i.e. C/V)

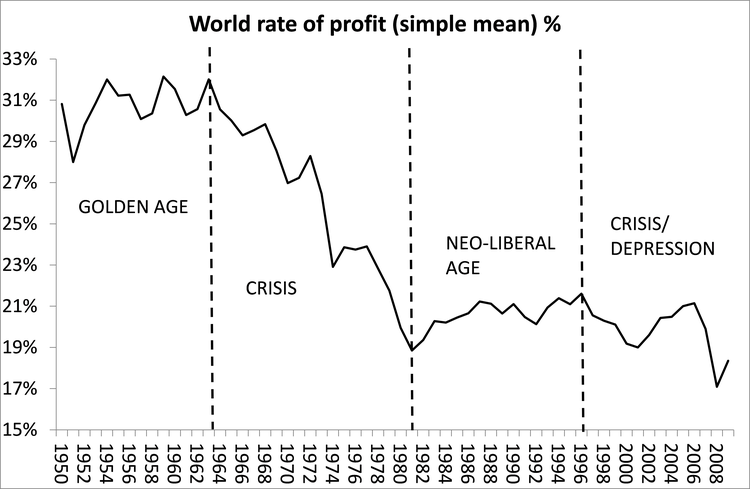
[](https://thenextrecession.files.wordpress.com/2015/12/arp.png)

There is a clear inverse correlation between a rising organic composition of capital and a falling rate of profit. Can Marx’s law explain crises? How does Marx’s law of profitability work as an explanation and forecast of slumps in capitalist economies? The law leads to a clear causal connection to regular and recurrent crises (slumps). It runs from falling profitability to falling profits to falling investment to falling employment and incomes. A bottom is reached when there is sufficient destruction of capital values (the writing off technology, the bankruptcy of companies, a reduction in wage costs) to raise profits and then profitability. Then rising profitability leads to rising investment again. The cycle of boom recommences and the whole ‘crap’ starts again, to use Marx’s colourful phrase. [There is a cycle of profit alongside the long-term tendency for the rate of profit to fall.](https://thenextrecession.files.wordpress.com/2013/07/cycles-in-capitalism.pdf)

[](https://thenextrecession.files.wordpress.com/2015/12/profit-cycle.png) The evidence of this causality between profit and investment is available. Jose Tapia Granados, using regression analysis, finds that, over 251 quarters of US economic activity from 1947, profits started declining long before investment did and that pre-tax profits can explain 44% of all movement in investment, while there is no evidence that investment can explain any movement in profits. I find a higher ‘Granger causality’ of 60% from annual changes in profit and investment (unpublished) and a correlation of 0.67 for the period since 2000. And see this by G Carchedi ([Carchedi Presentation](https://thenextrecession.files.wordpress.com/2015/06/carchedi-presentation.pptx)). In the period leading up to the Great Recession 2008-9, we can see the causality visually for US profits, investment and real GDP in the graphic below. The mass of US corporate profit peaks in mid-2006, investment and GDP follows two years later. Profits turn back up in late 2008 and investment follows one year later.

[](https://thenextrecession.files.wordpress.com/2015/12/profits-lead.png)

There are two basic regularities shown by the data: that a change in profits tends to be followed next year by a change in investment in the same direction; and that a change in investment is usually followed in a few years by changes in profits in the opposite direction. Thus we have a cycle. From these results, the “regularity” of the business cycle, and the fact that profitability stagnated in 2013 and declined in 2014 (and now the mass of profits in 2015) after growing between 2008 and 2012, it can be concluded with some confidence that a recession of the US economy, which will be also part of a world economic crisis like the Great Recession, will occur again in the next few years. And Marx’s law of the tendency of the rate of profit to fall makes an even more fundamental prediction: that the capitalist mode of production will not be eternal, that it is transitory in the history of human social organisation. The law of the tendency predicts that, over time, there will be a fall in the rate of profit globally, delivering more crises of a devastating character. Work has been done by modern Marxist analysis that confirms that the world rate of profit has fallen over the last 150 years. See the graph below ([data from Esteban Maito](https://thenextrecession.files.wordpress.com/2015/05/maito-esteban-the-historical-transience-of-capital-the-downward-tren-in-the-rate-of-profit-since-xix-century.pdfhttp:/gesd.free.fr/mrwrate.pdf) and ‘doctored’ by me).

[](https://thenextrecession.files.wordpress.com/2015/12/world-rate-of-profit-maito.png) Maito’s data for the 19th century have recently been questioned ([DUMENIL-LEVY on MAITO](https://thenextrecession.files.wordpress.com/2015/12/dumenil-levy-on-maito.pdf)), but in a recent work using different sources and countries, I find a similar trend for the post-1945 period globally ([Revisiting a world rate of profit June 2015](https://thenextrecession.files.wordpress.com/2015/12/revisiting-a-world-rate-of-profit-june-2015.pdf)). And earlier groundbreaking work by Minqi Li and colleagues, as well as by Dave Zachariah, show a similar trend. As Maito concludes: “The tendency of the rate of profit to fall and its empirical confirmation highlights the historically limited nature of capitalist production. If the rate of profit measures the vitality of the capitalist system, the logical conclusion is that it is getting closer to its endpoint. There are many ways that capital can attempt to overcome crises and regenerate constantly. Periodic crises are specific to the capitalist mode of production and allow, ultimately, a partial recovery of profitability. This is a characteristic aspect of capital and the cyclical nature of the capitalist economy. But the periodic nature of these crises has not stopped the downward trend of the rate of profit over the long term. So the arguments claiming that there is an inexhaustible capacity of capital to restore the rate of profit and its own vitality and which therefore considers the capitalist mode of production as a natural and a-historical phenomenon, are refuted by the empirical evidence.” So the law predicts that, as the organic composition of capital rises globally, the rate of profit will fall despite counteracting factors and despite successive crises (which temporarily help to restore profitability). This shows that capital as a mode of production and social relations is transient. Capitalism has not always been here and it has ultimate limits, namely capital itself. It has a ‘use-by-date’. That is the essence of the law of profitability for Marx. Alternative theories This is not to deny other factors in capitalist crises. The role of credit is an important part of Marxist crisis theory and indeed, as the tendency of the rate of profit to fall engenders countertendencies, one of increasing importance is the expansion of credit and the switching of surplus value into investment in fictitious capital rather than productive capital to raise profitability temporarily, but with eventually disastrous consequences, as The Great Recession shows ([The Great Recession](https://thenextrecession.files.wordpress.com/2013/08/the-great-recession.pdf); [Debt matters](https://thenextrecession.files.wordpress.com/2012/11/debt-matters.pdf)). Alternative theories of crisis like underconsumption, or the lack of effective demand, are taken from theories from the reactionary Thomas Malthus and the radical Sismondi in the early 19th century and then taken up by Keynes in the 1930s and by modern inequality theorists like Stiglitz and [post-Keynesian economists](http://bilbo.economicoutlook.net/blog/?p=15854). But lack of demand and rising inequality cannot explain the regularity of crises or predict the next one. These theories do not have strong empirical backing either ([Does inequality causes crises](https://thenextrecession.files.wordpress.com/2015/11/does-inequality-causes-crises.pdf)). Professor Heinrich, after concluding that Marx did not have a theory of crisis and dropped the law of profitability, [does offer a vague one of his own](https://thenextrecession.wordpress.com/2015/05/19/the-two-michaels-heinrich-and-roberts-in-berlin-dogmatism-versus-doubt/): namely capital accumulates and produces more means of production blindly. This gets out of line with consumption demand from workers. So a ‘gap’ develops that has to be filled by credit, but somehow this cannot hold up things indefinitely and production then collapses. Well, it is a sort of a theory, but pretty much the same as the underconsumption (overproduction) theory that Heinrich himself dismisses and [Marx dismissed 150 years ago.](http://www.mcg-j.org/swp_arc/english/etheory/economics/eprm29-2.htm) It seems way less convincing or empirically supported that Marx’s own theory of crisis based on the law of profitability. No other theory, whether from mainstream economics or from heterodox economics, can explain recurrent and regular crises and offer a clear objective foundation for the transience of the capitalist system.

#### Inevitable, unpredictable shocks

**Lechner et al. 16**. European Commission, Joint Research Centre (JRC), Institute for the Protection and the Security of the Citizen (IPSC). 10/01/2016. “Resilience in a Complex World – Avoiding Cross-Sector Collapse.” International Journal of Disaster Risk Reduction, vol. 19, pp. 84–91.

In a more and more globalized world we have created unprecedented connectivity, mainly by striving for better business opportunities. But with such a strong global connectivity, the risks associated have also changed: formerly local issues can now have global impact, and systems are often too complex to fully understand their interdependencies. In addition, the speed of change is increasing in many sectors of society and the economy. So we are building a future world with more and more interdependencies of which we understand less and less, and this process is accelerating sharply. This means that we are mixing together the typical ingredients for an upcoming crash, which in the worst case could mean the collapse of society as we know it. To avoid such a scenario, a coordinated effort of public authorities, civil society, industry, and academia will be required. 1. Introduction Predictions about the collapse of society are probably as old as society itself, but only in the last decades has mankind managed to approach – and sometimes even overstep – the planetary boundaries [1,2] in several dimensions, often irreversibly. The scientific approach of modeling human societies on the basis predator (mankind) and prey (planetary resources) [3], also points to the possibility of a large-scale collapse. We often reassure ourselves by noting that all the models used are based on assumptions, that they have many uncertainties, that they only approximate our highly complex reality. Critical analyses of the limits of modeling seem to confirm this [4], and we know that technical models clearly do not take into account our human ingenuity at getting ourselves out of difficulties – but is this reassurance reasonable? Even the assumption that we can define our own future within the planetary boundaries is questioned by critical voices like Russell [5], warning us against the belief in unlimited growth of exponential curves, and drawing drastic conclusions about the future of mankind. Nevertheless, our economic strategies seem to assume continuously greater efficiency in the future and even faster economic growth with literally no limit. This method of forecasting future development by extrapolation from the past is risky in two different ways. Firstly, it does not respect natural limits to growth. These may arise from the limited availability of resources, or from physical boundaries which seemed far away in the past, but now have come into reach. A good example for the latter is Moore's law [6], predicting in 1965 a doubling of the maximum number of transistors in integrated circuits every 12 months. This “law”, adjusted to 24 months in 1975 and confirmed as ‘not going to stop soon’ in 1995 [7,8], remained valid for some 50 years, but it is now at or near its limits [9], imposed by several paradigms of fundamental physics. Although completely new approaches might one day circumvent some of these limits [10], Moore's law simply cannot remain valid for another 50 years for integrated circuits as we currently know them. Secondly, a prediction based solely on experience from the past does not foresee unexpected and potentially disruptive events. The Fukushima nuclear disaster of 2011 and the global financial crisis of 2007–08 are prominent examples of sudden events ending high-flying hopes for controlled risk in energy supply or ever-increasing economic profits, respectively. Looking at the large number of fascinating growth stories from sources like digital industries, Chinese GDP, or investment banking profits, we tend to forget about the fate of the stars from the past when they reached their limits: US automotive industries, Canadian and European cell phone producers or Japanese efficiency champions all have in common that they could not maintain their excellent growth rates for eternity. We need to pay attention to the limits of growth very carefully when looking at the long-term resilience of our global society. 2. Objectives We will show that globalization and the digital revolution have led to more interdependencies, higher complexity and rapid acceleration of change in most sectors of our societies and economies. For this reason, the long-term resilience of a nation, a region or an industry cannot be considered any more as a confined matter that has little to do with the global environment. We will demonstrate by several examples from the recent years that interconnection, complexity and acceleration thereof as ingredients of globalization and digitization have increased the risk of major shocks, propagating not only inside but also across individual sectors, and to society as a whole. We will show that there are strategies to limit this risk but also show that these strategies could not have been implemented successfully so far in our current economically driven environment. During the discussion we will look at two important concepts which are relevant to resilience, but are not at the center of the attention of our growth-oriented efforts today: fairness, which is important to avoid tensions within societies, and risk transfer, which in many examples seems to flow from the better-informed expert stakeholders to the less-informed parts of our society. We make a number of suggestions as to how science can support policy decisions in a highly complex world. We also propose a radically different pattern of business incentives, aimed at taking some steps towards improving fairness, at decoupling economic growth from consumption and above all at making risk-taking at someone else's expense less attractive. 3. Methods Although there is abundant literature about resilience, sustainability and risk, there are very few scientific discussions of hyper-complex issues spanning multiple sectors of our societies, policies and economies. The notion of so-called post-normal science, introduced by Funtowicz and Ravetz [11], is a step in the direction of understanding complex systems at the borderline between science and policy, but it only gives theoretical backing rather than direct guidance. More on the practical side, Taleb [12] provides many important examples, including valuable considerations on the human inability to assess risks correctly in complex environments. The issue of the human mind often being misled is also underlined by Spiegelhalter [13], showcasing several disruptive events with economic or health impact. Because resilience and sustainability are typically discussed in communities focused on the business perspective (such as re-insurance companies), at the national level (governments), or in a particular community (e.g. the civil protection community), there is no obvious forum for a broader scale discussion at supranational level, connecting economic, political and societal dimensions. We started such a dialog on the work of the European Commission's Joint Research Centre (JRC), when around 2012 we realized that the typical crisis management activities are related to civil protection, but the predominant crisis of these years was the financial crisis, in which the JRC was performing completely different activities such as modeling the probabilities of bank failure or assessing the trends and issues in public finances of Eurozone Member States. From the idea of resilience cutting across sectors and being relevant in many places, we identified many sectors in society, policy and economy where resilience matters, and documented them in an overview report [14]. In a series of related workshops and conferences we discussed the facets of resilience with the stakeholder community and gathered valuable insights. In a 2014 workshop on 'Thinking the impossible' at the JRC in Ispra, Italy, we looked at risks that sound highly unlikely but could be devastating. At the Global Risk Forum 2014 in Davos we ran a dedicated session on risks across sectors of society. At the European Climate Foundation in Brussels early 2015 we followed up on the matter, and at a big conference of the European Commission in September 2015 (also in Brussels) we had a plenary presentation on resilience, complexity and risk across sectors of society. Finally, in joint session of the International Council of Science (ICSU) and the JRC at the World Science Forum of November 2015 in Budapest we discussed resilience in a changing world. The findings and conclusions of these workshops and conferences are presented in this article. 4. Results 4.1. Increased dependencies across sectors Crises can spread globally, and in our modern world they can easily also impact business sectors that at first glance do not seem exposed. In the following section we will show examples of how effects can hop from the digital world into the finance sector, from finance to government, on to geopolitics, to energy and finally to societal stability. The related damage in each hop amounts to several billions. Although the examples listed are not connected, in the future we might see cross-sector cascading effects. 4.1.1. From digital to finance In the digital world, computer viruses can cause damages in the millions, but these damages are usually distributed over a very large number of users and businesses. Other digital risks strike more centrally: high-speed trading algorithms, making autonomous decisions at the stock exchanges in milliseconds, caused the so-called flash crashes at the New York Stock exchange in 2010 and at the Singapore stock exchange in October 2013, with the latter reportedly wiping out 6.9bn USD [15]. It took more than four months to analyze the reasons behind the 15-min New York crash, and the report by the US authorities came to the conclusion that there was no clearly identifiable root cause that sparked the crash. They considered the events 'an important reminder of the inter-connectedness of our derivatives and securities markets' and stated that they 'clearly demonstrate the importance of data in today's world of fully-automated trading strategies and systems'[16]. Although many stocks rebounded right after the dip, the reaction of software algorithms could easily have ruined companies, and in Singapore some stocks lost 87% of their value. Safeguards were consequently installed in the systems of the stock exchanges, but other unpleasant and new surprises might come from different directions: high-frequency trading, for instance, can be vulnerable to the effects of solar storms [17], but not all financial institutions are aware of these very indirect effects: originating on the surface of the sun, solar outbreaks can create electromagnetic disturbances strong enough to take out the GPS signal, which is widely used for time synchronization in financial trading. 4.1.2. Financial to economic After the collapse of Lehman Brothers in 2008, a major shock went through the US banking system. Not only the US housing market had gone sour, but credit default swaps had been spread all over the globe – and a cascade of repackaged and distributed risk started, jumping the Atlantic Ocean easily and hitting EU banks. Some of these were hit so hard that they had to be bailed out by their governments, so the risk continued in the governments. Some EU governments needed central support, and the EU used the opportunity to overhaul its financial system. Nevertheless, the governments of eleven EU Member States resigned or were ousted over the crisis, some of them several times (Latvia and the Czech Republic in 2009, Ireland, Portugal, Greece, Italy and Spain, in 2011, Romania, the Netherlands, and Italy again in 2012, Slovenia in 2013, Italy a third time and France in 2014 and Portugal in 2015). The link between the US banking sector and EU government stability is obvious in hindsight, but very few if any observers had noted it before 2007. More obvious is the link from government to geopolitics. The Arab Spring gave rise to unstructured power relations and laid the ground for extremism and radicalism. Ukraine's attempt to sign an association agreement with the EU led to massive demonstrations and a regional political crisis, including a (civil) war. The civil war in Syria, ongoing since more than five years, has destroyed stability and economy in the region. And we recently saw in the gas supply discussions between Russia, Ukraine and the EU that geopolitics links to energy. It took a well-prepared last-minute effort to conclude a gas supply deal, which finally was agreed only shortly before winter, during the last days of October 2014. 4.1.3. Energy to society Energy is at the core of the economic development of many countries, and the power grid has become an indispensable critical infrastructure. A fictional but well-researched scenario on what the world would look like after a widespread collapse of the power grid is available in the book by Elsberg [18]. Elsberg considers an IT-based collapse, but that is not the only hazard to the power grid: several reports and studies on severe space weather suggest that this too could cause major damage, up to USD 2.6 trillion in the first year in the US alone [19,20]. In addition, energy has an obvious relation to climate policies, to the real economy and even to digital processes: modern computing centers depend on energy availability, and new digital concepts like the blockchain [21] of the bitcoin currency even exploit the obstacle of not being able to calculate highly complex matters without consuming significant energy [22]. There are numerous other examples where sectors that were reasonably independent in the past are now coupled across the globe. E. coli contaminated food traveled all across Europe. Pandemics like SARS or bird flu spread through intercontinental travelers. Ebola cases were spread by infected passengers from Africa to Europe and to the US; the disease was only contained through a major international initiative. All these examples show clearly that not only has the interrelation between sectors increased, but also the complexity of interdependencies in financial markets, of energy grids, of high-speed trading algorithms, of the food chains, of environmental changes and of global travel has grown hugely. Indeed, in many cases we only perceive these interdependencies after a major perturbation, and there is no agreement on what body or institution has the responsibility for identifying, monitoring, and controlling the risks created. The context of change is formally given a global perspective by the Global Risks Report 2016[23], which draws attention to ways global risks could evolve and interact in the next decade. The top five global risks in terms of likelihood are ranked to be: 1. large-scale involuntary migration; 2. extreme weather events; 3. failure of climate change mitigation and adaptation; 4. interstate conflict with regional consequences; and 5. major natural catastrophes. The report's Global Risks Interconnectedness Map 2016 shows strong interconnections across sectors, e.g. between environmental and societal risks (failure on climate change and water crises), but also across societal, geopolitical and economic risks (with strong links from state collapse to migration and between social instability and unemployment). 4.2. Increased complexity of systems and processes The financial crisis has brought to our attention that the lending relations in the interbanking market have become highly complex [24], which decreases systemic resilience. Haldane and May [25] identify modularity as a key feature for the topology of a stable financial system, as it helps limit contagion. Typically, one would expect that a good connectivity in financial networks allows for a sound distribution of risk, but Battiston et al. [26] have shown that in the presence of a financial accelerator (which we clearly had in the financial crisis, where the robustness of an entity was strongly assessed on the basis of its past trend) this only holds until a certain threshold is reached. Over the threshold, additional connectivity turns counterproductive and creates a pernicious feedback loop, increasing individual and systemic risk. The situation during the financial crisis was even worse than that depicted by the theoretical approaches. Little was known about the real connectivity in the banking system. Rumors about new candidates for bankruptcy were traveling fast, and the biggest unanswered question about the distribution of debt was literally: 'Where is the money?' In addition, banks were rushing to pass on questionable debt for as long as it was still possible, creating a dynamism which could not be controlled easily. The failure to understand the complexity of the market is perhaps depicted most prominently by the fact that the German KfW Bank transferred 320 million Euros to Lehman on Monday, September 15th, 2008, the very day Lehman collapsed. Luckily for the KfW, the majority of the sum was recovered later [27]. But the financial markets are just one example of a sector that has become so complex that we simply do not understand it anymore. The fact that we have also lost track of the details of our food chain became obvious when in 2011 the European E. coli bacteria outbreak caused several fatalities in Germany and beyond, and a frantic search for the origin started. Due to the precautionary principle, also suspect traces had to be addressed, resulting in Spanish cucumbers being wrongly identified as contaminated with E. coli. This led to reported weekly Spanish losses of 200 million Euros [28] due to the decline in consumer trust, whereas finally bean sprouts of completely different origin were identified as the root cause for the E. coli outbreak, although even this was contested. The issue showed how little we know about the origin and stopovers of our food. Another less damaging but unexpected complexity could be observed after the Fukushima nuclear disaster, when Ford Motors in the US and other international car makers could no longer produce models in a particular metallized black [29] due to a shortage in the Xirallic® pigment, produced by Merck plant near Fukushima, which had been affected by the catastrophe. (Note that strong impact from Fukushima also arrived on the other side of the planet, when the German government issued its Energiewende policy to abandon nuclear power as a consequence of the disaster in Japan.) This example shows that it is not only in the food sector that the complexity of supply chains has grown beyond our comprehension. The power grid is another infrastructure which has become so complex that we do not fully understand it anymore. On 4 November 2006, the cruise ship Norwegian Pearl was planned to make its way on the German river Ems to the North Sea, requiring a shutdown of a 380 kV power line across the river for safety reasons. Although a routine operation, this shutdown resulted in cascading effects all across Europe, leaving an estimated 15 million households in Germany, France, Italy, Belgium, Spain, and Portugal without power for more than an hour [30]. These examples show that our technologically driven world has developed structures and processes that cannot be fully understood or easily modeled anymore. Even if we had the time to carefully analyze this, it would not be very helpful: reality is moving on, and complexity is added on a daily basis. In a competitive world with tightly fought margins we cannot expect the complex processes to be stable over time. The opposite is true: the speed of change is even increasing in many domains. 4.3. Acceleration of interconnectedness and complexity The exponential growth of Moore's law has boosted performance and minimized the size of microelectronics. The availability of ever smaller and more powerful digital technologies has also accelerated other areas such as climate modeling, agriculture, industry automation, material sciences, genetics, economic assessment, finance, transport, construction and many other sectors. In addition, modern information technology has created a wealth of business opportunities for the digital economy. Smartphones put the information of the internet at our fingertips, social networks arose, satellite navigation systems helped with orientation and timing, digital imaging and new sensors gave us a better picture of the world, and all of these results can be joined into what we call big data. In December 2015 the international science community, Science International, published a joint statement, on Open Data in a Big Data World: An international accord[31]. They identified the opportunities and challenges of the data revolution as today's predominant issue for global science policy and proposed some fundamental principles, noting that the scientific community has a distinctive voice. The acceleration of all of these sectors has also changed many business models, which has two negative consequences for the resilience of modern society. Firstly, there is a stronger dependency of almost all of the processes of our daily life on very few players, and secondly – though associated to the first effect – we can observe a more and more uneven distribution of profits, leading to tensions in societies. Dependency has been created by new concepts such as Information as a Service (IaaS) or Software as a Service (SaaS), binding customers to suppliers in a far stronger way than the traditional model of producing and selling. Ten years ago we would buy a CD and own it, whereas today we need to sign up to music platforms which provide us with the desired content – and monitor our behavior continuously. The associated business models are pushing into other sectors of industry. Traditional companies in the automotive sector have to face competition from IT companies developing autonomous driving, thereby harvesting even more data. E-books are so convenient that hardcover and paperback revenues are sharply declining, non-digital photography has almost disappeared and smart phone apps are replacing travel agencies and taxi companies. This digital acceleration might be creating more choices for the customer, but comes at the price of dependency on very few digital players. In addition to this dependency, which is detrimental to resilience, there is a mid-term issue with wealth distribution: the agreed measure for macroeconomic growth is still GDP, which does not contain any fairness component. So we are striving for economic growth, sometimes also for inclusive growth, but not necessarily for a fair distribution of growth. An example illustrates the differences: from 2007–2015, a period covering the financial crisis, the OECD countries on average experienced moderate growth in terms of GDP [32], but the general aggregate is not telling a lot. The GDP per capita of different countries developed quite differently, and in 2015 Germany and Greece were at 107.65% and 76.75% of their 2007 values, respectively. This created significant political tensions, and is not expressed in monitoring the aggregate OECD total (which is 106.45%). But the problem also exists at national level: the majority of EU households might not agree on having experienced any economic growth since 2007, but would rather recall austerity measures, income cuts, and tax increases. The growth measured must therefore have arrived in other places – but we do not have detailed, up-to-date statistics on this. Some evidence originates from a study [33] of the European Central Bank (ECB) in 2013, comparing the mean and the median values of household wealth in the Eurozone and coming to the conclusion that fairness has suffered. Germany's households, for example, are on average (mean) comparably well-off, but the difference between the mean household wealth and the median one is the largest in Europe, indicating significant unfairness in the detailed distribution. A very clear analysis of the ECB study can be found in [34]. In addition to potential tensions in society, the risky business models leading to uneven distribution are undermining resilience even further. We were reminded during the financial crisis that our modern world is targeted at short-term profit, possibly at the expense of the system, and that governments have to intervene if society is not to end up paying the price of excessive risk taking by comparably few market players.. This strategy of leaving behind the risk for the bank (or afterwards for the government and for society) should have been known well since February 1995, when Barings Bank, the oldest UK merchant bank, was brought down by a single rogue trader [35]. But in a fierce global competition every penny counts, and we cannot expect our job-creating entrepreneurs to give way to competitors for fairness's sake. Production lines of companies are transferred for profitability reasons from Central Europe to Eastern Europe, later to China and from there to Vietnam. Domestic jobs are lost and costs are being saved, while dependencies rise and unfairness increases. So a certain share of the digital revolution may just be a silent conversion of thousands of jobs into an enormous cash flow towards the few big digital shareholders. The evolution of wealth distribution in the US is very telling, and the perceived rule of billionaires has even been exploited with some success by Bernie Sanders in his 2016 US presidential candidature campaign for the Democrats. Europe also needs to monitor its trends very carefully. The situation of many young Greek graduates without a job, in combination with loopholes for the wealthy in the national tax regime (or its enforcement) has already created massive tensions, led to government changes and to discussions with EU partners, put pressure on EU solidarity and weakened EU resilience during the financial crisis. 5. Discussion 5.1. Current situation When analyzing the resilience of our modern and complex society, we start from the UNISDR Terminology on Disaster Risk Reduction [36], defining resilience as 'The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.' The United Nations’ definition has an important addendum, expressed by the following note: 'Resilience means the ability to “resile from” or “spring back from” a shock. The resilience of a community in respect to potential hazard events is determined by the degree to which the community has the necessary resources and is capable of organizing itself both prior to and during times of need'. This notion of springing back from a shock is nicely expressed as 'Why things bounce back' by Zolli and Healy [37], who formally define resilience as 'the capacity of a system, enterprise, or a person to maintain its core purpose and integrity in the face of dramatically changed circumstances'. For a resilience assessment we therefore need to understand both the change we are exposed to and our capability to cope with it. Are we already living in dramatically changed circumstances, are dramatic changes just ahead of us, or will there be a dramatic change only at a more distant point in the future? Comparing the world of today with the world in the late 1980s, we can see huge differences, e.g. in globalization and in digitization, but there are also many areas that have remained comparably stable, such as peace in Central Europe, the economically strong position of the US, the mechanisms of the United Nations, or the simple fact that the majority of our cars still run on four wheels and are fueled by hydrocarbons. Dramatic changes there have been, but often not arriving with a big bang, but silently inserting themselves into our daily lives (e.g. the internet). The process is continuing and accelerating. Our capacity to 'bounce back' – or more formally to cope with dramatic change – is also difficult to assess. There is no formally agreed measure for resilience that could serve as a benchmark, but we have created powerful political processes to cope with change globally, such as the Sustainable Development Goals [38], the Paris Climate Agreement [39], or the global Sendai Framework for Disaster Risk Reduction 2015–2030 [40]. The latter includes in its Priorities for Disaster Risk Reduction, the statement 'Enhancing disaster preparedness for effective response, and to ‘Build Back Better’ in recovery, rehabilitation and reconstruction'. The Sendai Conference included a session on Disaster Risk in the Financial System which concluded that, by 2020, 1-in-100 and 1-in-20 risk analyses should be developed to enable the understanding of levels of resilience across all capital and support the adoption of standards by global regulators. These international agreements were all made in 2015 but it is notable that all of these instruments and procedures were the culmination of decades of work. The Paris agreement (called COP21 because it was signed at the 21st annual meeting of the Conference of the Parties of the UNFCCC) was preceded by the Kyoto [41] climate agreement of 1997 and its Doha amendment [42] of 2012. The Sendai Framework was preceded by the 2005 Hyogo Framework for Action [43]. The sustainable development goals were preceded by the original Millennium Development Goals [44] of 2000. Altogether, the international community has been working on resilience for at least 20 years in quite a determined way. Nevertheless, while global agreements on resilience and sustainability have been concluded over the last 20 years, the exploitation of resources has continued, and our remaining planetary reserve has been depleted more and more. Significant economic development took place and growth was achieved in many regions of the world, including places like China, Brazil, India and South Africa, the OPEC countries, Southeast Asia, but also in Europe, Australia and in North America. However, much of this growth was accompanied by massive exploitation of natural resources, often associated with major catastrophes. Offshore drilling created disasters like the Deepwater Horizon incident with an estimated settlement of approximately $7.8bn [45]. Massive irrigation caused a significant loss of natural water reservoirs and dried out the Aral Sea [46], and biodiversity is decreasing at a speed that made Chapin et al. [47] request the establishment of a new international body to assess changes in biodiversity already in 2000. Our complex technology has created nuclear incidents with global impact, such as the Fukushima meltdown in 2011. Even our technological progress in successfully exploring space has left so much space debris behind that it will jeopardize the success of future missions, and Hall states in [48]'… the space community is realizing that the failure to solve the problem would be disastrous.'. The role of media in these changes is complex, but important. On the one hand the mass media, often powered by an explicit political agenda, can choose to sensationalise some aspects of global risks while concealing others, thereby aggravating the problem and making it more difficult for society to find solutions; on the other hand the media – especially modern social media – can create awareness and encourage solutions. In modern democracies there should be no compromise with the principles of free speech, even where the effect may be destructive; but responsible media leaders, journalists and other commentators can be encouraged to understand the risks and help towards mitigating them. Other important factors are known but cannot be reliably predicted: the geopolitical power balance, the strength of the influence of supranational organizations and institutions, or the power of the civil society play an important role when assessing the risk of societal collapse. The authors acknowledge that these factors – as well as other drivers such as cultural, religious or historical developments – should be considered in a comprehensive assessment but go beyond the scope of this article. 5.2. Key questions Starting from the above definitions, the key questions when looking at the resilience of our current societies are (i) how much flexibility do we have left, and (ii) how can we carry on from today. It seems particularly with regards to global energy needs that whatever coping capacity is left on our planet (e.g. shale gas or nuclear fusion energy) will either be exhausted very soon or contribute to a further acceleration of the negative effects. Therefore, unless we can decouple growth from the use of resources, we are heading for, at worst, a crash, or at best an unpleasant downward spiral, even though currently the slope is still pointing up. Ehrlich [49] concludes that our modern society has a different risk of collapse than former societies which collapsed locally or regionally only. He claims that complex, multi-level systems may be better able to cope with complex, multi-level problems, but we fear that this statement only holds up to a point where the complexity of systems itself becomes an additional risk. Carrying on from today is even more difficult. Our short-term thinking often limits our vision to the next few years, and although we could still change course, we rather exercise ourselves in denial and promises of continuous and never-ending growth, missing the point that even the growth we are experiencing today is more and more unfair and therefore already eroding our social solidarity and, as a consequence, our resilience. Diamond [50] has analyzed the differences between today's dangers and the dangers that past societies faced, and identified twelve main problems specific to the world of today, including inequality. He also researched why many of the formerly ruling societies failed to recognize that big problems were looming up before they fell, and concludes that this reflex of denial has not changed over the centuries. We enjoy the speed and acceleration – but can we distinguish between the thrust of the engine and the free fall as we go over the cliff? Currently we simply try to outperform each other on speed, and leave it at that. The interconnectedness, complexity and acceleration of our modern society have brought us to the limits of exponential growth and have simultaneously exhausted the resources of the planet in several dimensions, weakening our resilience. To capitalize on what is left of it, a major rethink in society is required. In a fierce global competition such reconsideration will clearly not happen on its own, but needs to be accomplished by the right incentives to avoid unnecessary interconnectedness, reduce systemic complexity and slow down an acceleration that cannot be maintained forever anyway. But how can we achieve this? Key elements for accomplishing this challenge will be decoupling growth from consumption, introducing more fairness into the system and identifying and mastering risk. Especially this last requires a better understanding of risk in our complex systems, especially if there is a risk of major systemic failure. In addition, we need to prevent the transfer of systemic risk to less knowledgeable stakeholders (the general public, the taxpayer, etc.) not connected with the original transaction in which the risk was created. 5.3. Suggestions for a way ahead We therefore suggest three initiatives to lay the ground for an economy and society aiming at sustainable wealth rather than chasing for unrealistic never-ending growth, turning from a continued depletion of resources to a resilient continuum. The initiatives are not meant to suffocate or kill the economy but to move it rapidly from a destructive and short-term mode to a long-term healthy equilibrium. This might sound ambitious, and might be perceived as threatening by the homo economicus of our modern days, but any profit-oriented activity has long had to consider political side constraints, and moving the incentives to different objectives will only regulate markets in the desired direction, not abolish them or move to socialism. History shows that with the right incentives a single human generation is sufficient not only to turn the mindset of modern society but also to create a highly competitive technology position in the markets. Between 1970 and 2000, environmental thinking in Europe and in the US was fostered by regulators, civil society and industry altogether, and created new markets and green growth to the benefit of nature. Another example, still ongoing, is the global effort on CO2-reduction and climate change agreements, which started roughly 15 years ago and has made significant progress with the COP21 agreement of 2015. Science will have to play an important role in this respect, and a number of international initiatives with scientific involvement have already been started in the related area of sustainability. The International Council for Science (ICSU), UN agency partners and other non-governmental organizations including the International Social Sciences Council, Sustainable Development Solutions Network and Science and Technology in Society Forum, with the World Business Council for Sustainable Development (WBCSD) as an observer, have created a new global research program Future Earth: Research for Global Sustainability[51]. The goal is to provide the knowledge required for societies in the world to face risks posed by global environmental change and to seize opportunities in a transition to global sustainability. The Integrated Research on Disaster Risk Programme (IRDR) [52] (focusing on 'natural' hazards) is another approach to research on disaster risk through an international, multidisciplinary (natural, health, engineering and social sciences) collaborative programme. The Program has created IRDR International Centres of Excellence such as one on Vulnerability and Resilience Metrics and another on Disaster Resilient Homes, Buildings and Public Infrastructure. Another newly-started research programme, recognizing the importance of the urban scene and health is Urban Health and Wellbeing[53], which is an interdisciplinary research effort whose overall aim is to generate policy-relevant knowledge that will improve health status, reduce health inequalities and enhance the well-being of urban dwellers. It will focus on systems approaches to address the complexity of urban issues and their influence on health. The International Council for Science is working with UN agencies to bring together the science from these three international research programs in an integrated way to provide advice to the Climate Convention, the Sendai Agreement, the Sustainable Development Goals and other international issues. The next thirty years should be sufficient time to instill a sustainability and resilience philosophy into policies, civil society and the economy – turning from unfair growth to healthy growth. The start of any such initiative could even bring direct economic benefits: The World Business Council for Sustainable Development identified significant business opportunities in sustainability, and underlines the importance of being first in the green race [54], and first business models in creating a sustainable future have already emerged [55]. This means we have arrived at a point where not acting might make us fall behind. With the right political, economic and societal incentives, resilience will pay off, whereby it will no longer be economically viable to go for extreme risks (as the consequences could not be passed on to others). The following three suggestions by the authors are meant to support a sustainable and resilient society, and are derived from the analysis above: (1) Cut down interdependencies by putting incentives to avoid business models which – create unnecessary global interdependencies, – do not create local jobs (or no jobs at all), – force people to move, – limit customer choices and flexibility without a need, – exploit the weakest parts of society. (2) Reduce complexity by putting incentives to avoid business models which – create unnecessarily complex procedures, – transfer risk into remote places, to the taxpayer, or to less knowledgeable parties – gamble on rights not being enforceable, – exploit taxation loopholes or taxation enforcement weaknesses. (3) Stop the acceleration of interconnectivity and complexity by putting strong economic incentives for simple business models creating local or community benefit. Research can make a major contribution to setting the right incentives, as nowadays many traditional concepts are not fit for purpose, and new ways of measuring resilience, fairness and sustainability need to be established. We therefore suggest developing a scientifically solid measure for fair GDP (FGDP) as an internationally acknowledged benchmark for growth to avoid extreme inequality and tension in societies. In addition, initiatives to measure resilience of societies in their multidimensional facets, trying to identify drivers of fragility as well as tipping points for slowly increasing instability, are recommended. 6. Conclusion The world has come to an unprecedented status of interconnectedness and complexity, both growing at an enormous speed, and it urgently requires a transition from short-term thinking to sustainable resilience. Such a change needs to be triggered by the right political, economic and societal incentives. There are clear ways ahead, but they need to be accompanied by organized support from the stakeholder groups involved. It will require a joint effort of public authorities, civil society, industry, and academia to lead the global transition towards a resilient society, offering fair long-term growth in a healthy and sustainable societal equilibrium.

#### Their evidence is theoretical---even under the most optimistic assumptions, capitalism can’t decouple fast enoughs

Hickel and Kallis 19 [Jason Hickel - Professor @ Goldsmiths University of London specializes in development, finance, democracy, violence, and global political economy, PhD in Anthropology at the University of Virginia. & Giorgos Kallis- ICREA Professor in Environmental Sciences, PhD in Environmental Policy and Planning from the University of the Aegean in Greece , 4-17-2019, Taylor and Francis, “Is Green Growth Possible?” <https://doi.org/10.1080/13563467.2019.1598964> accessed: 7-14-2019 \*\*graphs are in the middle of text due to their placement in article, but I completed separated words and removed fragments]

Carbon Emissions – Is Growth Compatible with the Paris Agreement? Unlike with resource use, there is a steady long-term trend toward relative decoupling of GDP from carbon emissions, and we know that absolute reductions in carbon emissions are possible to achieve. When it comes to climate change, however, the objective is not simply to reduce emissions (a matter of flows), but to keep total emissions from exceeding specific carbon budgets (a matter of stocks). For green growth theory, then, the question is not only whether we can achieve absolute decoupling and reduce emissions, but whether we can reduce emissions fast enough to stay within the carbon budgets for 1.5°C or 2°C, as per the Paris Agreement, while still continuing economic growth. A number of high-income countries have seen declining emissions in the twenty-first century, despite continued economic growth. Figure 4(a) shows declining emissions in the US and EU28, in both territorial and consumption-based terms, from 2006 to 2016 (i.e. absolute decoupling). However, emissions from the global South have continued upward, albeit at a slower rate than GDP (i.e. relative decoupling). China’s emissions declined slightly between 2014 and 2016 (a brief period of absolute decoupling), before growing again in 2017. On a global level, CO2 emissions have increased steadily, falling only during periods of economic recession (Figure 4(b)). Global emissions did level off in 2015 and 2016 while GDP continued to rise, prompting the International Energy Agency, a research arm of the OECD, to announce ‘Decoupling of global emissions and economic growth confirmed’ (IEA 2016), while media outlets celebrated ‘peak emissions’ (Meyer 2016). This news briefly came to constitute a key element of optimistic green growth narratives, until global emissions began to rise again in 2017 (1.6 per cent) and 2018 (2.7 per cent). Analysts attribute the temporary plateau to a shift in China away from coal and (mostly) toward oil and gas, and a shift in the US to natural gas.5 Once these shifts were complete, continued economic growth drove emissions up again. Overall, global carbon productivity has been slowing. World Bank data shows that carbon productivity (CO2 per 2010 $US GDP) improved steadily from 1960 to 2000, with decarbonisation happening at an average rate of 1.28 per cent per year (relative decoupling). However, from 2000 to

Chart

Description automatically generated

2014 there was no improvement in carbon productivity – in other words, not even relative decoupling has been achieved in the twenty-first century.6 High-income nations have done better, at least in terms of territorial emissions (the World Bank does not track consumption-based emissions), but even so progress has slowed, from an average rate of 1.91 per cent per year from 1970 to 2000, down to 1.61 per cent per year from 2000 to 2014. Existing trends are incompatible with the Paris Agreement targets. Business-as-usual is set to lead to 4.2°C of warming (2.5°C to 5.5°C) by 2100. Even with the Nationally Determined Contributions and Intended Nationally Determined Contributions under the Paris Agreement, global warming is still projected to reach 3.3°C (1.9°C to 4.4°C) – an improvement over the BAU scenario but still far exceeding the 1.5°C and 2°C thresholds.7 In order to keep warming below these thresholds, the world will have to make much more aggressive emissions reductions. The IPCC’s Fifth Assessment Report (AR5) includes 116 mitigation scenarios that are consistent with Representative Concentration Pathway 2.6 (RCP2.6), which offers the best chances of staying below 2°C. All of these scenarios are green growth scenarios in that they stabilise global temperatures while global GDP continues to rise. Rising GDP is a built-in feature of the Shared Socio-Economic Pathways (SSPs), which form the basis for the IPCC mitigation scenarios (Kuhnhenn 2018). AR5 warns, however, that these scenarios ‘typically involve temporary overshoot of atmospheric concentrations’ and ‘typically rely on the availability and widespread deployment of bioenergy with carbon capture and storage (BECCS)’ (2014, p. 23). Indeed, the vast majority scenarios for 2°C (101 of the 116) rely on BECCS to the point of achieving negative emissions.8 BECCS entails growing large tree plantations to sequester CO2 from the atmosphere, harvesting the biomass, burning it for energy, capturing the CO2 emissions at source and storing it underground. Relying on these ‘negative emissions technologies’ allows for a much larger carbon budget (about double the actual size) by assuming that we can successfully reduce global atmospheric carbon in the second half of the century. BECCS is highly controversial among climate scientists. It was first proposed by Obersteiner et al. (2001) and Keith (2001) at the turn of the century. IPCC modelling teams began including it in their scenarios from 2005, despite having no firm evidence of its feasibility. With the publication of AR5, BECCS was enshrined as a dominant assumption. Obersteiner has expressed alarm at the rapid uptake of his idea; he considers BECCS to be what he calls a ‘risk-management strategy’, or a ‘backstop technology’ in case climate feedback loops turn out to be worse than expected, and says the IPCC has ‘misused’ it by including it in regular scenarios to take pressure off of conventional mitigation pathways (i.e. emissions reductions) (Hickman 2016). In Keith’s (2001) initial formulation of the idea, he noted that while ‘measured use’ of biomass could help mitigate environmental problems, ‘large scale use of cropped biomass will not.’ Anderson and Peters (2016) point out that the ‘allure’ of BECCS is due to the fact that it allows politicians to postpone the need for rapid emissions reductions: ‘BECCS licenses the ongoing combustion of fossil fuels while ostensibly fulfilling the Paris Commitments.’ There are a number of concerns. First, the viability of power generation with CCS has never been proven to be economically viable or scalable; it would require the construction of 15,000 facilities (Peters 2017). Second, the scale of biomass assumed in the AR5 scenarios would require plantations covering land two to three times the size of India, which raises questions about land availability, competition with food production, carbon neutrality, and biodiversity loss (Smith et al. 2016; Heck et al. 2018). Third, the necessary storage capacity may not exist (De Coninck and Benson 2014, Global CCS Institute 2015). Anderson and Peters conclude that ‘BECCS thus remains a highly speculative technology’ and that relying on it is therefore ‘an unjust and high stakes gamble’: if it is unsuccessful, ‘society will be locked into a high-temperature pathway.’ This conclusion is shared by a growing number of scientists (e.g. Fuss et al. 2014, Vaughan and Gough, 2016, Larkin et al. 2017, Van Vuuren et al. 2017), and by the European Academies’ Science Advisory Council (2018). It is not clear that we can justifiably rely on BECCS, an unproven technology, to underwrite green growth theory. If we accept this point, then we must return to asking whether it is possible to maintain growth without relying on BECCS to stay within the carbon budgets consistent with the Paris Agreement. Without BECCS, global emissions need to fall to net zero by 2050 for 1.5°C, or by 2075 for 2°C.9 This entails reductions of 6.8 per cent per year and 4 per cent per year, respectively (Figure 5). Theoretically, this can be accomplished with (a) a rapid shift to 100 per cent renewable energy to eliminate emissions from fossil fuel combustion (Jacobson and Delucchi 2011); plus (b) afforestation and soil regeneration to eliminate emissions from land use change; plus (c) a shift to alternative industrial processes to eliminate emissions from the production of cement, steel, and plastic. The question is, can all of this be accomplished quickly enough? Only 6 of the 116 scenarios for 2°C in AR5 exclude BECCS. These work by assuming ‘optimal full technology’ in all other areas, plus mass afforestation, and with high mitigation costs. These represent theoretically possible pathways, but without any empirical evidence as to their feasibility. Results of empirical studies are not promising. Schandl et al. (2016) model what might be achieved with aggressive mitigation policies, without relying on BECCS. Their high-efficiency scenario has a carbon price starting at $50 per ton (rising by 4 per cent per year to $236 by 2050) plus a doubling in the material efficiency of the economy due to technological innovations (improving from a historical average rate of 1.5 per cent per year up to 4.5 per cent). Schandl et al provide no evidence for the feasibility of the efficiency improvements that they assume. Even so, the result shows that with global growth of 3 per cent per year, annual emissions plateau to 2050 but do not decline. In this scenario,

Chart, radar chart

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growth in energy demand outstrips the rate of decarbonisation, violating the carbon budgets for 1.5°C and 2°C. The International Renewable Energy Association (IRENA 2018) have modelled a scenario for continued GDP growth compatible with 2°C by relying on a rapid shift to renewable energy (consistent with Jacobson and Delucchi 2011). The scenario requires adding 12,200 GW of solar and wind capacity by 2050, with a dramatic increase in installation rates (2.3 to 4.6 times faster than the present).10 The scenario also requires that the energy intensity of the global economy falls by twothirds (by 2.8 per cent per year, double the historical rate), lowering energy demand in 2050 to slightly less than 2015 levels.11 This is feasible inasmuch as the transition to wind and solar itself improves energy efficiency (Jacobson and Delucchi 2011).12 Still, even this optimistic scenario accomplishes only 90 per cent of the necessary emissions reductions for 2°C (likely because it pays no attention to emissions from land use change and cement production). The model relies on negative emissions technology to cover most of the remainder. Van Vuuren et al. (2018) consider ‘alternative pathways’ for meeting the Paris Agreement targets without relying on widespread use of negative emissions technologies. They model rising GDP in accordance with SSP2. In addition to a carbon tax and other aggressive mitigation strategies, their optimistic scenario includes the following settings: global population peaks at 8.4 billion in 2050 and declines to 6.9 billion by 2100; meat consumption declines 80 per cent by 2050; all new cars and airplanes are efficient from 2025; the world shifts to the most efficient technologies for steel and cement production, etc. Even with these highly optimistic assumptions in place, they find that the pressures of continued growth drive emissions to exceed the carbon budgets for 1.5°C and 2°C, without negative emissions technologies. Another way to approach this question is by looking at projected rates of decoupling. If we assume global GDP continues to grow at 3 percent per year (the average from 2010 to 2014), then decoupling must occur at a rate of 10.5 per cent per year for 1.5°C, or 7.3 per cent per year for 2°C. If global GDP grows at 2.1 per cent per year (as PWC predicts), then decoupling must occur at 9.6 per cent per year for 1.5°C, or 6.4 per cent per year for 2°C. All of these targets are beyond what existing empirical models indicate is feasible. The Schandl et al model indicates that decoupling can happen by at most 3 per cent per year under optimistic conditions. Other models arrive at similar conclusions. Before adopting BECCS assumptions, the IPCC (2000) projected decoupling of 3.3 per cent per year in a global best-case scenario. The C-ROADS tool (developed by Climate Interactive and MIT Sloan) projects decoupling of at most 4 per cent per year under the most aggressive possible abatement policies: high subsidies for renewables and nuclear power, plus high taxes on oil, gas and coal. All of these results fall short of the decoupling rate that must be achieved if the global economy continues to grow at expected rates. Holz et al. (2018) find that if we rule out widespread use of negative emissions technologies, the required rate of decarbonisation for meeting the Paris Agreement is ‘well outside what is currently deemed achievable, based on historical evidence and standard modelling.’ The challenge is even more difficult for rich nations. Anderson and Bows (2011) have modelled the emissions reductions necessary for achieving a 50 per cent chance of staying under 2°C (more relaxed than the two-thirds chance that the UNFCC calls for), without BECCS. They proceed from the principle of ‘common but differentiated responsibility’, whereby rich nations (Annex-1 nations) make more aggressive emissions reductions than poor nations, owing to their greater historical responsibility for emissions and their greater capacity for managing the costs of transition. They assume that Non-Annex 1 nations defer peak emissions until 2025, and thereafter reduce emissions by 7 per cent per year. They acknowledge that these are extremely ambitious assumptions but consider them to be the most feasible compromise between practicality and equity. To stay within the remaining carbon budget, Annex 1 nations need to reduce emissions by 8–10 per cent per year, beginning in 2015. This model was developed with data up to 2010; as the remaining carbon budget is now smaller, Anderson estimates that Annex 1 nations need to reduce emissions by 12 per cent per year.13 If we accept that Annex 1 nations need to achieve emissions reductions of 12 per cent per year, and if we assume that GDP growth in Annex 1 nations continues at 1.86 per cent per year (the average from 2010 to 2014), then decoupling must occur at a rate of 15.8 per cent per year.14 For perspective, this is eight times faster than the historic rate of decoupling in Annex 1 nations (viz., 1.9 per cent per year from 1970 to 2013), and it is important to bear in mind that the rate of decoupling has generally slowed over this period.15 It also exceeds the decoupling rate implied by the average G20 Nationally Determined Contributions under the Paris Agreement (viz., 3 per cent per year) by a factor of five. There is one empirical model that feasibly accomplishes emissions reductions consistent with the Paris Agreement, without relying on negative emissions technologies. Published by Grubler et al. (2018), it was included in the IPCC Special Report on 1.5°C (2018) in response to growing critiques of the IPCC’s reliance on BECCS. The scenario, known as ‘Low Energy Demand’ (LED), accomplishes emissions reductions compatible with 1.5°C by reducing global energy demand by 40 per cent by 2050. In addition to decarbonisation and afforestation, the key feature of this scenario is that global material production and consumption declines significantly: ‘The aggregate total material output decreases by close to 20 per cent from today, one-third due to dematerialization, and twothirds due to improvements in material efficiency.’ Dematerialisation is accomplished by shifting away from private ownership of key commodities (like cars) towards sharing-based models. LED differentiates between the global North and South. Industrial activity declines by 42 per cent in the North and 12 per cent in the South. With efficiency improvements, this translates into industrial energy demand declining by 57 per cent in the North and 23 per cent in the South. The LED scenario projects continued GDP growth at just over 2 per cent per year, which would make it consistent with green growth theory. However, the empirical basis for this GDP trend is not robust. It is derived from the MESSAGE-Globium model, which calculates GDP from only two inputs: labour supply (population size and productivity) and energy. The low energy demand in the LED scenario does not affect growth because it is offset by efficiency improvements. As the model is insensitive to changes in material throughput, reductions in production and consumption do not affect output. The paper offers no evidence that GDP will continue to grow despite such reductions. Charlie Wilson, one of the paper’s authors, acknowledged that ‘we did not consider broader questions of GDP growth or degrowth, and we did not explicitly report relationships between our scenario and GDP outcomes for this reason.’ 16 Conclusions and discussion The empirical data demonstrate that while absolute decoupling of GDP from emissions is possible and is already happening in some regions, it is unlikely to happen fast enough to respect the carbon budgets for 1.5°C and 2°C against a background of continued economic growth. Growth increases energy demand, making the transition to renewable energy more difficult, and increases emissions from land use change and industrial processes. Models that do project green growth within the constraints of the Paris Agreement rely heavily on negative emissions technologies that are either unproven or dangerous at scale. Without these technologies, the rates of decarbonisation required for 1.5°C or 2°C are significantly steeper than extant models suggest is feasible even with aggressive mitigation policies.

#### Price reactions make innovation under capitalism counterproductive

Winter 12 (Ralph A. Winter is a Professor of Strategy and Business at the Sauder School of Business, University of British Columbia. He is the President of the Canadian Economics Associatio n and the President of the Canadian Law and Economics Association. He is an associate editor for the RAND Journal of Economics. H is the author of “The Economics of Supply Chain Contracting,” “Organizational Form and Quality of Output,” and “Exclusionary Contracts.” “Innovation and the Dynamics of Global Warming,” 2/7/12, https://are.berkeley.edu/documents/seminar/WinterPaper.pdf)//tb

The innovation and development of clean energy sources such as wind and solar energy are emerging as a key strategy in the battle against global warming. The strategy rests on a seemingly obvious proposition: innovation lowers the cost of clean energy, leading to substitution away from fossil fuels, which lowers carbon emissions and mitigates the problem of global warming. The proposition, unfortunately, is false. Innovation in clean energy can set global temperatures on a permanently higher path. The subsidy of innovation, as a naked policy instrument unsupported by carbon pricing, is not merely suboptimal policy. Subsidizing innovation can make global warming worse. To develop the economic relationship between clean-energy innovation and climate change, I start with a paradox familiar to environmental economists. Fossil fuels are an exhaustible resource. Suppose that tomorrow a clean, inexhaustible energy substitute were universally available at a cost equivalent to 60 dollars per barrel of oil. The owner of any conventional fuel deposit with low extraction costs would prefer to sell at 59.99 or less rather than share the energy market with the substitute. Oil from these deposits will therefore be sold before clean energy captures any market share and at lower prices as a result of the innovation. The effect of the innovation in clean energy is that fuel will be exhausted - and carbon emitted – more intensively and at an earlier date. This paradox is that carbon emissions are initially higher as a result of clean energy innovation. 1 As set out in the literature, however, the theory predicts that in the long run clean energy innovation helps in the battle against global warming. Innovation in clean energy has two effects on carbon emissions. First, as in the example above, carbon is released earlier into the atmosphere as a result of innovation. In existing models, this will be left in the ground rather than extracted. Less carbon is emitted into the atmosphere – a clear benefit of clean-energy innovation. The net effect is that the paradox disappears in the long run. The prediction is that innovation eventually works as intended. 2 This prediction is too optimistic. The theory offered here represents carbon in the biosphere via two state variables, carbon in the atmosphere and carbon on the earth’s surface. This allows us to include a fundamental feature of carbon cycle dynamics: positive feedback effects. As greater atmospheric carbon raises the global temperature, reactive ice-yields melt and methane gas is released from melting permafrost (to take just two examples), resulting in a higher *rate* of flow of carbon to the atmosphere. The effect is that an initial increase in carbon emissions that raises global temperature will increase the rate at which carbon escapes from the earth’s surface and accumulates in the atmosphere. Innovation combined with the sufficiently strong feedback effects then yields higher temperature paths not just in the short run but permanently. The acceleration of carbon emissions (the first effect of innovation) may overwhelm even in the long run the benefit of reduced total carbon emissions (the second effect). Because of positive feedbacks, even a small innovation may lead the temperature path to a discretely higher steady- state temperature. Global warming is a long run problem and it is the long run consequences of global warming policies that are critical for policy. The theory here argues against clean energy innovation subsidies as a naked policy instrument. As a component of a portfolio of policies, however, clean-energy innovation subsidies are of value because the other main policy instrument, carbon pricing, eliminates the “dark side” of innovation. To render innovation of value, carbon prices must be reactive to innovation successes – and reactive in a non-obvious way. When a new innovation gives clean energy producers an advantage over conventional energy, a reactive carbon price policy is often one that magnifies this advantage, by raising the tax on fossil fuel use. Fossil fuel producers are hit with a double whammy. Carbon pricing is thus an important complementary instrument to clean energy innovation, being necessary even to ensure that the net impact of innovation is positive. This complementarity is not well understood among policymakers. With carbon taxes seemingly impossible to implement given U.S. politics, clean-energy research and development is becoming the focus across a range of the political spectrum. 3 Support for the policy trend presupposes that carbon pricing and clean energy subsidies are substitutes in the battle against global warming. This is natural assumption, given that these are two instruments available to solve the same problem, but the assumption is misguided. Carbon pricing is even more essential when clean energy innovation is successful than when it is not. This paper contributes to a growing literature on global warming and an earlier literature on exhaustible resource economics. The clean energy paradox, or green paradox, in terms of the impact of innovation described is developed in Strand (2007) and very clearly in Hoel (2008) as discussed in footnote 1. Acemoglu et al (2011) develop a dynamic model integrating the economy with climate change in which the driver of policy design is endogenous technical change. These authors assume a constant rate of environmental regeneration. This assumption would allow the environment to recover completely from any past damages if the rate of emissions could be reduced sufficiently. It is never too late to recover.

## Adv---Developing Economies

### 2NC – Model Fails

#### Complex legal mechanisms water down competition law in developing states – convergence prevents strict enforcement

Cheng 12 [Thomas, assistant professor at the Faculty of Law of the University of Hong Kong. "Convergence and Its Discontents: A Reconsideration of the Merits of Convergence of Global Competition Law." https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1362&context=cjil]

The lack of expertise, experience, and resources in the enforcement infrastructure means that bright-line rules, as opposed to nuanced rule of reason analysis, may be more appropriate.183 This may reduce the range of analytical options at the disposal of the enforcement authority when tackling a competition law issue. For instance, a per se approach for resale price maintenance may be more suitable for developing countries. While the majority in Leegin forcefully argued that RPMs are procompetitive in a sufficient number of instances that per se treatment is not appropriate,' most developing countries do not have the resources to devote to the investigation and analysis of every instance of RPM. If a sufficient proportion of RPMs is anticompetitive, such jurisdictions should opt for a per se rule.

The choice of welfare standard in merger review may similarly need to be adjusted. To the extent that the authority's independence is in doubt, Neven and Roller have argued that a consumer welfare standard will be more appropriate.' This is because the pro-consumer bias of the standard will counteract the effective lobbying by business interests, thereby creating a more balanced outcome. Market dynamism also affects the choice of welfare standard in merger review. Professor Bruce Lyons has demonstrated that a consumer welfare standard is generally preferable only when the market is large and there are alternative efficiency-enhancing mergers available in the market. He notes that "[i]f there are only two firms, the [total welfare standard] is always superior because the proposed merger has no alternatives.""' The relative weight of these considerations is likely to vary by country, or perhaps even by market.'

### 2NC – AT: Middle East

#### COVID and oil crash decimate any economic progress.

Wittes ’21 [Tamara; January 25; a senior fellow in the Center for Middle East Policy at Brookings, where she focuses on U.S. policy in the Middle East; Brookings Institute, “What to do – and what not to do – in the Middle East,” <https://www.brookings.edu/research/what-to-do-and-what-not-to-do-in-the-middle-east/>; KP]

The twin crises of the COVID-19 pandemic and the crash in global oil prices have left Gulf Arab states facing a substantial decline in wealth, with insufficient cash to bolster their own grim economies, much less to advance ambitious reform programs or massive development projects. This relative penury will likely impede their ability to wield influence across the region. The Arab Gulf’s main tool in regional geopolitical competition has always been money. That money had considerable power in years past, evident in, for example, the $30 billion a handful of Gulf states invested to prop up the government of President Abdel-Fattah el-Sissi in Egypt.

Now, however, the Gulf will have tough decisions to make: about how much they can afford to invest to keep friends like Jordan and Egypt above water, how much they are willing to spend to push back against Iranian influence in Iraq and Lebanon, and how they can protect their core interests while suing for peace in Yemen. The dreams some of them once harbored of decimating ideological adversaries and remaking the region in their own image will have to be shelved for a more propitious time.

Losing this Gulf ballast will impede any U.S.-led efforts to stabilize the region — a COVID-impaired U.S. economy will be hard-put to invest scarce assistance dollars in shoring up weak Middle Eastern states. Indeed, the overall post-COVID regional geopolitical balance may even favor Iran. Although devastated by the pandemic and by crushing sanctions, the Islamic Republic long ago learned to live without significant oil income, and is well-practiced at wielding regional influence on the cheap. The Islamic Revolutionary Guard Corps (IRGC), the main liaison to Iran’s regional proxies, makes its own money from smuggling under sanctions and from control of key economic sectors inside the country. After the crisis passes, then, all else equal, we are likely to see a Middle East where Iran’s influence in places like Iraq, Syria, and Lebanon is more-or-less constant, while the Gulf’s influence declines.

#### Declining social trust outweighs – makes effective governance impossible.

Wittes ’16 [Tamara; November 22; a senior fellow in the Center for Middle East Policy at Brookings, where she focuses on U.S. policy in the Middle East; Brookings Institute, “Want to stabilize the Middle East? Start with governance,” <https://www.brookings.edu/blog/markaz/2016/11/22/want-to-stabilize-the-middle-east-start-with-governance/>; KP]

By the time the Egyptian, Tunisian, and Libyan governments regimes fell in 2011, the social contract had broken down, and social trust had been deeply eroded. Further, because of the legacy of autocratic rule, there was very little left beneath to help manage social relations or to enable peaceful politics. In Syria and Libya, government violence and sectarian violence have further destroyed what was left of social trust.

Therefore, in addition to the geopolitical competition between Iran and Saudi Arabia, in addition to the threats posed by extremist terrorism and weapons of mass destruction, this breakdown of social trust within societies is in a way the biggest challenge to rebuilding regional order, since it is a consequence both of the way they were governed and of the way they broke down.

Several states have now collapsed into civil war, but more remain vulnerable to instability. The drivers of change—the demographic bulge, the technological effects, the economic dysfunctions—exist all across the region, in every environment. No state is immune from the imperative to repair governance and rebuild the social contract.

The biggest issue to my mind is what is happening inside states and communities—how do we prevent further breakdowns that destabilize the region even more, that give ISIS or other extremists, or Iran, even more openings?

I reject the axiom that the key to building a new stable order in today’s Middle East is fundamentally about territory and state borders. I think we have to focus on this issue of social trust.

Social trust is about communities being able to live together and share power, and that’s a problem no matter where you draw the political boundary. There’s no line you can draw between Shiite and Sunni in Iraq that won’t be fought over and, as the case of South Sudan shows, drawing new lines does not in itself end war. This suggests that the challenge is not map-making, it’s politics.

Likewise, highlighting the problem of social trust helps us avoid too much focus on institution-building. After its military victories in Iraq and Afghanistan, the United States and its allies spent a lot of time designing and propping up new state institutions: parliaments, courts, political parties, central banks—with the idea that once this complex machine of government is constructed, and the gears begin to turn, it will automatically begin working.

But we learned in Iraq and Afghanistan that building institutions is not enough. It matters how political institutions are populated, by whom, and for what purpose. Are they inclusive of all those with a stake in the process? Do they have a process that people think is fair?

Ultimately, stabilizing the Middle East requires creating capacity in these communities for negotiation, for compromise, for conflict resolution, for politics—because everywhere in the world, through human history—if differences are not resolved peacefully, they will be resolved through violent means.

So how do we rebuild social trust? It is not something you can rebuild from the outside in, or from the top down. It is something you begin to rebuild from the very local level, neighbor to neighbor, community to community, and ultimately building up to the national level.

THE ROAD AHEAD

My new paper offers much more detail on these subjects, and also offers some specific priorities and approaches for a way forward. Herewith, a few highlights:

The future of the region will largely be determined by the quality of governance, not its mere existence. Governance that will last, and that will position states to be effective and reliable partners in maintaining regional stability, will have four key characteristics: it will be more inclusive, more transparent, more effective, and more accountable. Such characteristics are best realized, in my view, in liberal democracy. The paper details the alternative models of governance competing in the region today: the fragile democracy represented by Tunisia, the renewed authoritarianism represented by Egypt, or brutal ISIS rule that offers order through savagery. But the latter two models are not sustainable except at the cost of continued, escalating violence.

#### Conflicts are complex and are not explained by economics.

Frantzman ’20 [Seth; June 15; Senior Middle East Correspondent and Middle East affairs analyst; The Jerusalem Post, “Why are there more wars in the Middle East than anywhere else?” <https://www.jpost.com/middle-east/why-are-there-more-wars-in-the-middle-east-than-anywhere-else-631510>; KP]

Iranian militias vs. the US

Iranian-backed militias in Iraq have carried out dozens of attacks on bases in Iraq where US forces are present. Four members of the US-led coalition have been killed, including one contractor. The US has launched two rounds of airstrikes, in December 2019 and March 2020 against the Kataib Hezbollah faction. The US also killed IRGC head Qasem Soleimani and Kataib Hezbollah leader Abu Mahdi al-Muhandis in January. In response, Iran fired ballistic missiles at US bases. Washington sent air defense systems. The US also has tensions with Iran in the Persian Gulf, where the Islamic Republic mines tankers and harasses American ships. And there are tensions in Syria where Iran threatens US forces. Russian contractors serving with pro-Assad militias in Syria attacked US-backed Syrian Democratic Forces in February 2018 near Deir Ezzor.

Israel vs. Iran and Hezbollah

Israel has carried out more than 1,000 airstrikes in Syria against Iranian targets, according to retired IDF chief of staff Gadi Eisenkot in The New York Times in 2019. Tensions between Israel and Iran are high regarding Iranian entrenchment in Syria. Tehran may be repositioning forces now. Last August, Israel also detected a Hezbollah “killer drone” team near the Golan. In addition, Hezbollah figures have been killed in Syria and one of their cars destroyed by a drone strike they blamed on Israel. Last fall, on September 1, 2019, Hezbollah launched an anti-tank missile at Israel. Iran launched a drone at Israel from Syria in February 2018. Israel has used its air defense to down missiles and rockets fired from Syria. A salvo was fired at Israel in May 2018. In April 2020, Hezbollah cut holes in the security fence in northern Israel.

Turkish-backed Libyans versus Egyptian-backed Libyans

Turkey intervened in the nine-year Libyan Civil War in November 2019. Now Turkish drones are active and Turkish planes and ships have appeared off the coast. Turkey backs the Government of the National Accord in Tripoli against the Libyan National Army of Khalifa Haftar. Haftar is backed by Egypt, the UAE, France, Russia and others. The LNA tried to capture Tripoli last year but Turkey helped push it back. Now Ankara wants military bases in Libya. Egypt wants a ceasefire. France is angry at Turkey for trying to conduct a grab for energy resources in the Mediterranean and transfer weapons to Libya. Turkey has asked the US to support it in Libya. Russia sent warplanes to Libya to bolster Haftar after he faced setbacks in May.

Russia and Iran in Syria versus Turkey and Syrian rebels in Syria

Iran moved into Syria around 2012 to help the Assad regime fight Syrian rebels, and Russia intervened in 2015. With their help, Assad retook Aleppo in 2016 and southern Syria in 2018. Then Russia backed the Syrian regime offensives in Idlib, signing a deal with Turkey in September 2018 and another ceasefire in March. Russia and the Syrian regime also grabbed up areas the US withdrew from during a Turkish invasion in October 2019. Turkey has increased its role in Syria since 2016, invading areas around Jarabulus, then Afrin in 2018 and then Tel Abyad in 2019. Now it has sent thousands of tanks and soldiers to Idlib. Russia and Turkey conduct joint patrols on the M4 highway but Russia continues to bomb Syrian rebels.

US vs. Russia and Iran in Syria

The US says it wants to make Syria a Russian “quagmire.” The Trump administration has carried out two rounds of air strikes on the Syrian regime. Meanwhile, Russia and the US have tensions in eastern Syria around Derik and Qamishli where patrols frequently try to run each other off the road. Things are tense. Russia has accused the US of a variety of crimes in Syria, and misinformation seeks to undermine the US role there. Meanwhile, Washington says it wants Iran to leave Syria and has condemned Moscow’s role in the country.

Saudi Arabia, the UAE and others against Iran in Yemen

In 2015 the Houthi rebels in Yemen looked set to take Aden and control the Bab al-Mandab straits. Saudi Arabia intervened with a Gulf coalition. Along with the UAE, contractors and others, they pushed the Houthi rebels back. Iran moved drones and ballistic missiles to aid the Houthis and began firing them deep into Saudi Arabia. Eventually Iran even carried out a massive drone and cruise missile attack in September 2019 against Saudi oil facilities. Iran’s Houthi allies also carried out dozens of drone attacks.

Everyone vs ISIS

The whole world has joined the anti-ISIS coalition led by the US – it has 82 members. These include heavy lifting by the US and some forces from France, the UK and other NATO members. Iran, Russia and Turkey also claim to be fighting ISIS. Although everyone is fighting ISIS, it is still having a small resurgence in Iraq. The US-backed SDF in Syria also holds 10,000 ISIS detainees and fights ISIS sleeper cells. The coalition trained and mentored more than 200,000 Iraqi soldiers and some 80,000 SDF members. These huge numbers are apparently not quite enough though: ISIS is still fighting.

The US vs. al-Qaeda

The US is still fighting al-Qaeda. In Syria, Libya and Yemen, air strikes kill members of the group from time to time. A “ninja sword” bomb used by US drones has sliced up several al-Qaeda members in recent years in Idlib. These extremists operate near the Turkish border. The US operates across borders to hunt them down.

Israel vs. Islamic Jihad and Hamas

Israel and Palestinian Islamic Jihad have seen tensions rise over the last two years. Hamas also embarked on a "March of Return" in 2018, carrying out protests for a year. In November and December 2019, Israel and Islamic Jihad came to blows. IJ leaders have been killed, as well as many of its fighters. They have launched hundreds of rockets at Israel; Hamas has refrained from joining some of the fighting.

Turkey vs. the PKK

Turkey had a ceasefire with the Kurdistan Workers Party up until 2015. When it broke down, Turkey fought a grueling war in its Kurdish cities. Then Ankara expanded the war, attacking Kurds in northern Iraq and then invading parts of Syria, claiming to be fighting PKK-affiliates. It invaded Afrin in January 2018 and carried out large scale operations in northern Iraq. On June 14, Turkey launched a new operation targeting Yazidi areas of Iraq, claiming that there are PKK bases there. Turkey also accuses the US of training PKK-linked groups in Syria.

#### War is unlikely.

Glaser ’17 [John; 1-9-2017; Associate Director of Foreign Policy Studies at the Cato Institute; “Does the U.S. Military Actually Protect Middle East Oil?” National Interest, https://nationalinterest.org/blog/the-skeptics/does-the-us-military-actually-protect-middle-east-oil-18995?page=0%2C1]

In addition, the balance of power globally and in the region today is favorable for energy security. First, an external power gaining a stranglehold over the Persian Gulf region is implausible. The Soviet Union is long gone and today’s Russia suffers from systemic economic problems that hinder its potential to project power in the Middle East. China, while increasingly powerful in its own sphere, lacks the political will to dominate the Gulf.

The regional balance of power is also favorable. According to Joshua Rovner, “the chance that a regional hegemon will emerge in the Persian Gulf during the next twenty years is slim to none. This is true even if the United States withdraws completely.” No state in the region possesses the capabilities necessary to conquer neighboring territories or gain a controlling influence over oil resources, and most are bogged down and distracted by internal problems. Overall the region is in a state of defense dominance: while too weak to project power beyond their borders, the major states do have the capability to deter their neighbors, making the costs of offensive action prohibitively high.

So, three of the major scenarios that have traditionally justified a forward deployed military presence in the Persian Gulf—the entrance of a hostile external power, the rise of a regional hegemon and a military clash among the major states—are exceedingly unlikely even absent the U.S. military presence.

#### Great powers treat the Middle East as an aside.

Al-Rashed ’16 [Abdulrahman; 10-22-16; veteran and internationally acclaimed columnist, former general manager of Al Arabiya news channel and former editor-in-chief of Asharq Al-Awsat; “The specter of World War III?” Arab News, http://www.arabnews.com/node/1000701/columns#]

Despite the sectarian and ethnic nature of the conflict, the battle of Mosul is not likely to cause a third world war, not even a broad regional war. Similarly, the war in Aleppo, Syria or Iraq would not turn into a broad war. All that is being talked about are mere incendiary talks. They have nothing to do with strategists, planners and decision-makers who sit in air-conditioned rooms thousands of miles away from our region in the United States or Russia.

The world is already grappling with several conflicts and is not likely to witness any of these turning into as devastating as a world war. World War II took 60 million lives, mostly from the West, and a World War III would be atrocious because it is estimated to kill a billion people. It will use the only weapon that can ensure “victory”, i.e., nuclear and chemical weapons.

The United States, Russia, Europe and other countries or regions of vital influence will disappear. There will be no winner and the whole world will go back to the Stone Age. The earth will no longer remain inhabitable for humans. This is why no direct wars have been engendered by the escalation of international conflicts.

What was known as the Cold War between the US and the former Soviet Union was nothing but proxy or indirect war. As many as 140,000 American soldiers were killed in the Vietnam War. However, the US did not resort to the use of nuclear weapons and withdrew after the defeat. There were 4,000 casualties in Iraq before the Americans withdrew.

The Soviet Union crumbled and Russia lost 14 countries that were part of its empire. It even lost three-quarters of its land and half of its population, and yet, the Soviets did not talk about a World War III. They did not launch a single nuclear missile. Instead, they continue with the old chess strategy in the struggle with their rivals to gain back influence and regions.

It is not impossible to imagine a lunatic leader using nuclear weapons in the future. This scenario has haunted the world since the end of World War II. Many regulations and protocols have been put in place to avoid this madness. Even if it happens, the reason won’t be conflicts such as the one taking place in Mosul, Aleppo or other parts of our region.

Super powers consider our wars as side conflicts that do not call for a suicidal war that would destroy their countries. What is being circulated in the Arab and Iranian media about World War III, and being attributed to Russian president or Henry Kissinger, is all forged.

What are the circumstances in which major countries would wage a crazy global nuclear war? It would only happen when their security is directly threatened and is on the verge of collapse. This scenario is extremely unlikely.

### 2NC – AT: Development

#### Capitalist-driven economic development increases the likelihood of conflict

Manuchehr Irandoust 17, Department of Economics and Finance, School of Business Studies, Kristianstad University, “Militarism and globalization: Is there an empirical link?” *Quality and quantity*, June 16, 2017, Springer Open Access

[GLOB = globalization index, MIS = militarized spending]

The results of the bootstrap panel Granger causality test are shown in Table 2. The findings show that GLOB and MIS are causally related in most of the countries under review. There is a bi-directional causality in UK, US, Saudi Arabia, and Russia. The causality is unidirectional running from GLOB to MIS in Australia, Brazil, India, and China, and running from MIS to GLOB in Turkey. The degree of significance level varies from country to country. There is no any causal relationship between military spending and globalization in France, Italy, South Korea, Germany, and Japan. Overall, this evidence shows a relatively robust association between changes in globalization and changes in military expenditure. In other words, countries experiencing greater globalization have relatively large increases in militarization over the past 20 years.

However, it has been shown that globalization may not lead to more peaceful relations or demilitarization. As we discussed in Sect. 2, bilateral trade increases the opportunity cost of bilateral war and may hinder bilateral war. Globalization (equivalent to multilateral economic openness) reduces this opportunity cost with any given country and devitalize the incentive to make concessions during negotiations, and, therefore, increases the probability of war between any given pair of country. Thus, an increase in trade or openness between two countries may restore peace between those but may increase the probability of conflict with third countries.

6 Conclusion

While previous studies mostly focused on the causal nexus between military expenditure and economic growth, those studies have not considered the role of globalization. This study uses data from the top 15 military expenditure spenders over the period 1990–2012 to examine the relationship between militarism and globalization. The bootstrap panel Granger causality that accounts for both cross-sectional dependence and heterogeneity across countries is utilized to detect the direction of causality. The results show that military expenditures and globalization are causally related in most of the countries under review. Despite the increasing role of globalization, the results show that military expenditures are growing and pointing to a strengthening in nationalist sentiments and militarism. This paper suggests that changes in domestic political and economic conditions might hinder the process of globalization. The results are consistent with those of Acemoglu and Yared (2010) who conclude that high military spending endangers globalization. This study also supports the results of Martin et al. (2008) who find that an increase in multilateral trade raises the chance of conflict between states. The policy implication of the findings is that greater military spending by a country increases the likelihood of military conflict in the future, the anticipation of which discourages globalization.

### 2NC – AT: Democracy

#### It structurally fails and doesn’t promote democracy or prevent war

Dr. Paul Staniland 18, Associate Professor of Political Science and Chair of the Committee on International Relations at the University of Chicago, 7/29/18, "Misreading the ‘Liberal Order:’ Why We Need New Thinking in American Foreign Policy;" Lawfare, <https://www.lawfareblog.com/misreading-liberal-order-why-we-need-new-thinking-american-foreign-policy>

Pushing back against Trump’s foreign policy is an important goal. But moving forward requires a more serious analysis than claiming that the “liberal international order” was the centerpiece of past U.S. foreign-policy successes, and thus should be again. Both claims are flawed. We need to understand the limits of the liberal international order, where it previously failed to deliver benefits, and why it offers little guidance for many contemporary questions.

First, advocates of the order tend to skim past the policies pursued under the liberal order that have not worked. These mistakes need to be directly confronted to do better in the future.

Proponents of the order, however, often present a narrow and highly selective reading of history that ignores much of the coercion, violence, and instability that accompanied post-war history. Problematic outcomes are treated as either aberrant exceptions or as not truly characterizing the order. One recent defense of the liberal order by prominent liberal institutionalists Daniel Deudney and G. John Ikenberry, for instance, does not mention Iraq, Afghanistan, Vietnam, or Libya. Professors Stephen Chaudoin, Helen Milner, and Dustin Tingley herald the order’s “support for freedom, democracy, human rights, a free press.” Kori Schake writes that Western democracies’ wars are “about enlarging the perimeter of security and prosperity, expanding and consolidating the liberal order.” Historian Hal Brands argues that the order has advocated “political liberalism in the form of representative government and human rights; and other liberal concepts, such as nonaggression, self-determination, and the peaceful settlement of disputes.”

Other analysts have persuasively argued that these accounts create an “imagined” picture of post-World War II history. Patrick Porter outlines in detail how coercive, violent, and hypocritical U.S. foreign policy has often been. To the extent an international liberal order ever actually existed beyond a small cluster of countries, writes Nick Danforth, it was recent and short-lived. Thomas Meaney and Stephen Wertheim further argue that “critics exaggerate Mr. Trump’s abnormality,” situating him within a long history of the pursuit of American self-interest. Graham Allison—no bomb-throwing radical—has recently written that the order was a “myth” and that credit for the lack of great power war should instead go to nuclear deterrence. Coercion and disregard for both allies and political liberalism have been entirely compatible with the “liberal” order.

The last two decades have been a bumpy ride for U.S. foreign policy. Since 9/11, we have seen the disintegration of Syria, Yemen, and Libya, a war without end in Afghanistan, the collapse of the Arab Spring, the rise and resurgence of the Islamic State, and the distinctly mixed success of strategies aimed at managing China’s rise. At home, the growth of a national-security state has placed remarkable power in the hands of Donald Trump. Simply returning to the old order is no guarantee of good results. Grappling openly with failure and self-inflicted wounds—while also acknowledging clear benefits of the order—is essential for moving beyond self-congratulatory platitudes.

Second, the liberal order in its idealized form had very limited reach into what are now pivotal areas of U.S. security policy: Asia, the Middle East, and the “developing world” more broadly. The core of the liberal order remains transatlantic, but Asia is now growing dramatically in wealth and military power. What is the record of the order in the region? There was certainly some democracy promotion when authoritarian regimes began to totter, but there was also deep, sustained cooperation with dictators like Suharto and Ferdinand Marcos; while there are some regional institutions (such as ASEAN), they are comparatively weak; while there are some rules, they have been deeply contested. Close U.S. allies like Japan, Taiwan, and South Korea (the latter two experiencing long bouts of U.S.-allied autocracy) were not integrated into a broad alliance pact like NATO. India and Pakistan were never part of the core order, and China was only very partially integrated (primarily into the economic pillar of the order, and through ad hoc security cooperation from the 1970s). Southeast Asia has been a site of warfare and authoritarianism for much of its post-1945 history.

The United States has long considered the Middle East vital to its security, but the extent to which the United States should invest its own blood and treasure in protecting the area was always up for debate. It was only in the 1970s that the United States decided it was prepared to use force to defend the region; “dual containment” in the 1990s was always controversial, while the invasion of Iraq and its chaotic aftermath revealed deep fissures over how much presence was enough. Meanwhile, liberalism, democracy, human rights, and international institutions have not made much of a mark in the region. Jake Sullivan, in a rather odd defense of the order, suggests that “Middle Eastern instability has been a feature, not a bug, of the system.” This is not reassuring about the order’s ability to structure politics in the area. The same can be said about the order’s history in Africa, with deep Western involvement in civil wars, support for authoritarian regimes, and often-counterproductive demands for economic liberalization contributing to ongoing instability.

The legacy of the “liberal order” is both far more complex and shallower outside of the north Atlantic core than within it. Invocations of the order are seen with greater cynicism and suspicion in these areas than in Washington or Berlin. Yet they are precisely the regions that are increasingly the focus of U.S. security policy.

Finally, and as the preceding already suggests, the idea of “liberal order” is itself frequently too vague a concept, and was too incomplete a phenomenon, to offer guidance on a number of key contemporary questions. Allison goes so far as to call it “conceptual Jell-o.” The extremely abstract principles that experts use to define the order are confronted with a reality of extreme historical variation. This amorphousness undermines its usefulness as an actual guide to future foreign policy.

U.S. alliances in Western Europe since World War II looked dramatically different than those in East Asia. Both have achieved their basic goals, so which should be the model for the future? The United States often applied pressure to coerce its allies into adopting economic and security policies conducive to U.S. interests—going so far as to threaten abandonment of close European allies—even as it simultaneously built key elements of the liberal order. The core of the liberal order was a more tenuous and contested political space than we often remember.

This inconsistency applies to involvement in the domestic politics of other states. The United States has regularly embraced authoritarian leaders (and distanced itself from democratic regimes), while at other times it has helped to push these leaders out in the face of domestic mobilization. Advocates of the order tend to stress the latter and dismiss the former as aberrant, but both strategies contributed to the ultimate victory of the liberal order over the Soviet bloc.

The order’s history offers support for aggressively promoting democracy, accepting democratization when it emerges, and strongly supporting friendly dictators. This makes it unhelpful for grappling with the question of whether and how to promote democracy. The same is true of military interventions and covert operations abroad. U.S. leaders invested heavily in Cold War proxy wars and the overthrow of foreign regimes, while at other times and places they avoided such interventions.

This history carries important implications for addressing today’s policy challenges. Simply appealing to the order does not, for instance, tell us much about how to deal with a rising China: Since the liberal order included highly institutionalized alliances, loose “hub-and-spoke” arrangements, and coalitions of the willing, and was characterized by both preventive wars and containment, it is extremely unclear what the order suggests for America’s China strategy. While “rules-based” order is a term in vogue, it doesn’t tell us what the rules should actually be, or how they should be decided.

Nor does appealing to the liberal order help us understand whether the United States needs to be deeply involved or largely absent from the Middle East, or somewhere in between. Under the order, democracy promotion and assertive liberal intervention sometimes occurred, but so too did restraint and an acceptance of autocracy. There are no answers in the liberal international order for navigating the enormously difficult terrain of the contemporary Middle East.

## Adv---Resources

### 2NC—AT: Climate

#### Capitalism-based green tech can’t solve---empirics, rebound, outsourcing, and politics

John Wiseman 17, Professorial Research Fellow at the Melbourne Sustainable Society Institute and with the Climate and Energy College, University of Melbourne, Adjunct Professor at the Melbourne School of Population and Global Health, Research Fellow at the Centre for Policy Development and Climate Change Policy Adviser, Sustainability Victoria, Ph.D. from Latrobe University, Samuel Alexander, lecturer with the Office for Environmental Programs, University of Melbourne, and research fellow, Melbourne Sustainable Society Institute, 2017, “The Degrowth Imperative: Reducing Energy and Resource Consumption as an Essential Component in Achieving Carbon Budget Targets,” in Transitioning to a Post-Carbon Society, p. 95-97

The first heroic assumption underpinning techno-optimist solutions is the ongoing reliance in many of the most influential large scale decarbonization strategies on CCS (carbon capture and storage). While CCS may play a valuable, albeit modest, long term role, the current state of knowledge suggests that we are still a very long way from affordable and scalable CCS deployment. Even the Global CCS Institute (2013: 5) has recently reported that, “while CCS projects are progressing, the pace is well below the level required for CCS to make substantial contribution to climate change mitigation”. The growing “emissions gap” is also providing increasing impetus for speculation about the “necessity” of geoengineering “solutions” with all their attendant concerns about ethical implications and unintended consequences (see Hamilton 2013).

The second debatable assumption is that technological innovation will necessarily and rapidly translate into global reductions in energy consumption. Important questions remain about the speed with which 100% renewable energy can realistically be achieved (see e.g. Smil 2010, 2014); the extent of fossil fuel energy consumption required to drive the initial massive expansion in renewable energy infrastructure; and the full life cycle energy return on investment (EROI) outcomes of solar and wind energy—particularly if these calculations factor in the full costs of energy storage (see e.g. Palmer 2013; Prieto and Hall 2013). Noting that emissions reductions of 4% p.a. in an economy growing at 2% p.a. are likely to require carbon intensity improvements of around 6% p.a., Anderson (2013) notes that he has yet to find any credible mainstream economist prepared to argue that prolonged emissions reductions of 3% or 4% or more are compatible with economic growth.

Indeed, as Lord Stern (2006: 231) himself has noted: There is likely to be a maximum practical rate at which global emissions can be reduced. At the national level, there are examples of sustained emissions cuts of up to 1% per year associated with structural change in energy systems... whilst maintaining strong economic growth. However, cuts in emissions greater than this have historically been associated only with economic recession or upheaval, for example, the emissions reduction of 5.2% per year for a decade associated with the economic transition and strong reduction in output in the former Soviet Union. These magnitudes of cuts suggest it is likely to be very challenging to reduce emissions by more than a few percent per year while maintaining strong economic growth.

The third reason for caution in assuming overly optimistic relationships between technological innovation, carbon intensity and emissions reductions is the impact of the “rebound effect” (see Jevons 1865; Herring and Sorrell 2009; Holm and Englund 2009; Jackson 2009). This phenomenon refers to the tendency for innovation and efficiency gains to be rapidly overwhelmed as cheaper unit costs combined with the formidable reach and power of the global advertising industry enable and encourage individuals to consume more of the same or alternative services and products. The harsh reality remains that global emissions continue to grow (IPCC 2013)—along with the global trends in the consumption of energy and resources—with apparent improvements in developed economy energy efficiency often masking the reality of energy intensive production being offshored to developing economies.

The likelihood of full and fast deployment of new technologies is the fourth problematic assumption that needs to be addressed given the formidable political and social obstacles standing in the way of rapid implementation. As noted in the recent Post Carbon Pathways review of learning from the implementation of large-scale decarbonization strategies (see Wiseman et al. 2013), experienced climate scientists and policymakers consistently come to the conclusion that the key obstacles standing in the way of rapid decarbonization are political and social rather than technological. Key roadblocks include the following.

### 2NC – AT: Food Wars

#### The countries most likely to draw in great powers have the best resilience.

Cliffe ’16 [Sarah; 3-29-2016; Director of the Center on International Cooperation at New York University; “Food Security, Nutrition, and Peace,” Center on International Cooperation at New York Universityhttp://cic.nyu.edu/news\_commentary/food-security-nutrition-and-peace]

However, current research does not yet indicate a clear link between climate change, food insecurity and conflict, except perhaps where rapidly deteriorating water availability cuts across existing tensions and weak institutions. But a series of interlinked problems – changing global patterns of consumption of energy and scarce resources, increasing demands for food imports (which draw on land, water, and energy inputs) can create pressure on fragile situations.

Food security – and food prices – are a highly political issue, being a very immediate and visible source of popular welfare or popular uncertainty. But their link to conflict (and the wider links between climate change and conflict) is indirect rather than direct.

What makes some countries more resilient than others?

Many countries face food price or natural resource shocks without falling into conflict. Essentially, the two important factors in determining their resilience are:

First, whether food insecurity is combined with other stresses – issues such as unemployment, but most fundamentally issues such as political exclusion or human rights abuses. We sometimes read nowadays that the 2006-2009 drought was a factor in the Syrian conflict, by driving rural-urban migration that caused societal stresses. It may of course have been one factor amongst many but it would be too simplistic to suggest that it was the primary driver of the Syrian conflict.

Second, whether countries have strong enough institutions to fulfill a social compact with their citizens, providing help quickly to citizens affected by food insecurity, with or without international assistance. During the 2007-2008 food crisis, developing countries with low institutional strength experienced more food price protests than those with higher institutional strengths, and more than half these protests turned violent. This for example, is the difference in the events in Haiti versus those in Mexico or the Philippines where far greater institutional strength existed to deal with the food price shocks and protests did not spur deteriorating national security or widespread violence.

# 1NR

## CP---Taxes

#### It can be tailored to specific practices AND solves by forcing companies to internalize the costs of lost competition.

Lemley ’21 [Mark and Andrew McCreary; January 2021; William H. Neukom Professor of Law and Stanford Law School, Partner at Durie Tangri LLP; J.D./M.B.A. Candidate, Stanford Law School and Stanford Graduate School of Business; Boston University Law Review, “Exit Strategy,” vol. 101]

1. Tax Transactions

One way to discourage anticompetitive mergers and to encourage companies to continue operating is to vary the tax treatment of those two options. 359

Right now, liquidity events are generally not taxed directly. When companies go public, they generate enormous amounts of money by selling stock, and that influx of cash isn't taxed at all. 360That might make sense; we want people to create and fund public companies. The same thing happens when companies merge. They usually do so by exchanging stock, again avoiding taxation when various conditions are met. 361But here the social value of giving them a tax exemption is less clear. Merging can be a good thing that creates savings or synergies within the merging companies. But it poses enough of a threat to competition that we require costly antitrust review for mergers of a certain size. 362If we think that incumbent acquisitions are worse for society than IPOs, one way to push people towards IPOs may be a Pigouvian tax on acquisitions. 363 We might tailor the tax to particular sectors or acquisitions and base it on an adequate proxy of an acquisition's likely social cost. 364

The problem may be worse than the equal tax treatment of options that are not equally good for society. Right now, mergers that threaten to reduce social welfare by decreasing market competition not only are not taxed but may also sometimes obtain tax breaks that separately managed firms cannot. This incentivizes mergers, including anticompetitive ones. 365Some of these breaks are achieved through structures that, on paper, are available to firms reorganizing for an IPO but that, in practice, may be most easily attained by firms reorganizing through merger. 366Performance-related subsidies might be most readily exploited through acquisition. 367And agreements once formed at arm's length can be set so that revenues accrue where taxed the least and expenses where they result in the greatest tax deductions. 368This doesn't encourage the acquisition of direct competitors, but it may drive the acquisition of companies that provide complements. And mergers offer other tax benefits as well. 369

Tax incentives matter to exit decisions. Startups become increasingly sensitive to tax issues the more they generate revenue and the later they are in their lifecycle. 370And past tax reforms appear to have changed merger activity. 371Right now, however, far from rewarding firms that resist incumbent acquisition - the mergers that may reduce competition and cause social harm - the tax system equally or in some cases especially rewards these exits.

We should closely consider ways we might tax mergers to force companies to internalize the cost that the merger imposes on society. 372A firm that sells out does not bring the same benefits to society as a firm that continues to compete. We might consider not only changes to tax law designed to entice individual GPs and founders involved with companies to continue to operate the firm, which we touched on above 373but also others to directly discourage companies from merging with incumbents. This kind of tax could be aimed at mergers by particular firms in particular sectors. And its basis could be set to capture the social harm likely to result. We propose a few approaches here to prompt discussion.

A one-time merger tax on the combined market value of merging companies could discourage acquisition, especially acquisition by large rivals, by raising the cost to the acquiring firm - complementing antitrust laws to discourage anticompetitive mergers. Taxing the combined value of the merging firms rather than the value of the acquired firm alone would make it more costly to merge as firms get bigger. 374That may be desirable as a matter of social policy in general, offering a market-based alternative to antitrust law as a means of promoting competition. And it would be a particularly good way to tackle the exit strategy problem because it would encourage startups that decide not to keep operating to merge with small rather than large firms. 375

#### Substituting taxes creates an identical effect but solves better by avoiding legal blowback.

Gruodis ’17 [Povilas; June 8; Ph.D. and Lecturer at Vilnius University Faculty of Law, Attorney, JD in Law from Vilnius University; Doctoral Dissertation at Vilnius University, “Tax Norms as a Regulatory Tool of Credit Institutions’ Activities,” <http://talpykla.elaba.lt/elaba-fedora/objects/elaba:22914651/datastreams/MAIN/content>]

3. Regulatory tax laws are a suitable measure for regulation of the credit institutions. While making decisions on certain behaviour model in the credit institutions, the economic arguments usually prevail, and the activity of the credit institutions is relatively insignificantly affected by morals – values. The regulatory impact of the tax laws on the credit institutions is justified by regulation of economic conditions of decision making rather than classifying a certain behaviour as legal or illegal, therefore, the tax laws allow a legislator to regulate the decision making process itself. Certain behaviour model is forbidden by imperative administrative orders by making it illegal with the help of the laws, however, the causes (economic motives) of the illegal behaviour model are not always eliminated, and this weakens the regulatory impact of the administrative orders and reduces their effectiveness. Regulation of the credit institutions by the tax laws, unlike traditional method of legal permissions or prohibitions, allows ensuring the significantly lower extent of forced nature of legal regulation and decreasing the risk of possible legal conflicts.

4. The tax laws might be used both as individual measure for regulation of the credit institutions and as additional measure for regulation of the credit institutions together with the current legal regulation of the credit institutions. Regulation of the credit institutions by the tax laws might significantly improve the possibilities of a legislator to regulate the risky activity of the credit institutions and to ensure the stability of financial sector. The regulatory impact of the tax laws can be better directed towards all activity elements of the credit institutions than the administrative orders, prevailing in regulation of the credit institutions. More accurate regulation allows ensuring constant and easier effect on the financial condition of the credit institutions, and enables to improve the solvency, liquidity and panic resistance indicators. In case of regulating the activity of the credit institutions, the tax laws allows achieving the same regulatory effect as the administrative orders, however, by keeping the variety of the credit institutions and more freedom than in case of regulating the activity of the credit institutions by legal prohibitions and permissions, therefore, the tax laws should be considered as proportional measure of regulation of the credit institutions. What is more, the price of possible error, made by a legislator, will be significantly lower because of the features of the regulatory impact of the tax laws than in case of regulating the same relationships by prohibitions and permissions.

#### Adaptive taxation stabilizes demographic waves---nuke war AND turns every impact.

Iparraguirre ’19 [Jose; 2019; Chief Economist at Age UK and Professor of Applied Econometrics at the University of Moron, PhD in the Sociology of Demographic Change from the Universidad Nacional de Educación a Distancia; Economics and Aging: Volume II: Policy and Applied, p. 45-60]

For a given supply, the more inelastic the demand for a good, the smaller is the deadweight loss of imposing a tax. The ‘Ramsey rule’ states that more necessary goods should be taxed more heavily than goods with greater demand elasticities.11 This way the total excess burden caused by the introduction of the tax will be minimised: this tax structure would be economically efficient. ‘And extremely regressive!’, you may decry because the price-demand elasticity of a good is higher the more necessary the good, and it is the poor who tend to allocate a higher proportion of their income to ‘basic necessities’. Well, I said ‘under certain assumptions’, one of which is that the economic actor being model is a representative agent: all agents are assumed to be identical, so there are no distributional problems. If we assume there are, say, two groups of individuals—namely, the poor and the rich—and that the former have more inelastic demands because they tend to allocate a higher proportion of their lower income on necessities compared to the other group, Ramsey’s model highlights the tension between efficiency and equity that runs through much of the discussions in public finance and economic policy in general. As Mirrlees et al. (2011, p. 36) put it: ‘Optimal tax theory is all about the choice of a system of taxation that balances efficiency losses against the government’s desire for redistribution and the need to raise revenue.’

When it comes to efficient tax structures, a tailor-made tax on consumption that were able to distinguish between agents would be theoretically optimal: any two agents with different demand elasticities would be taxed differently. Butwhy restrict the analysis to the consumption of goods and services?Ramsey did not concentrate only on the demand side—after all, demand and supply are but the two blades of the same pair of scissors (Marshall 2013, V.III.7, p. 164). In fact, his basic insight was that—assuming linear and separable demand and supply schedules and the absence of income effects—the ratio between the unit tax on a good and its unit price must be equal to the sum of the inverse of the elasticity of demand and the inverse of the elasticity of supply; see Stiglitz (2015).

One key service is labour, so a tax on labour income could also be structured along Ramsey’s rule. Labour income is the product of the number of hours worked and the hourly wages, so the tax rate would be higher for agents with higher labour supply elasticity. Another important source of income, particularly for well-off individuals, is capital income; hence, in theory a tax on interest income could follow similar guidelines. Here we come to one intersection between ageing and taxation: age-adjusted optimal taxes.

2.2.2 Age-Adjusted Optimal Taxation

Ramsey was concerned about efficiency. The levying of taxes (other than lump-sum) introduces deadweight losses or inefficiencies. If the governments could observe things closely associated with efficiency such as effort or skills, they could estimate the elasticities of effort or skills and consequently levy taxes optimally. However, effort or skills cannot be observed directly—this is a key assumption: that the government (or social planner) cannot observe each individual’s labour ability or effort; hence taxes cannot be based on this characteristic, which is assumed to remain ‘private’ information.

We further assume that the government cannot even observe unit wages. Instead, only total income is observable, which conditions the fiscal instruments the government can use.More generally, time is assumed to be available solely either for labour or leisure.12 And leisure cannot be taxed directly, which, according to Erosa and Gervais (2002, p. 339), constitutes the ‘fundamental problem in setting optimal fiscal policy’. If we agree that labour income is positively and closely related to effort and skills, or inversely associated with leisure, then it could constitute an acceptable base for Ramsey-type taxation. Therefore, we need to look into the wage elasticity of labour supply.

Crucially, the elasticity of labour supply varies with age (Peterman 2016; Whalen and Reichling 2017), and the age profiles of capital income show a positive gradient, as the life-cycle hypothesis suggests—see, for example, Brugiavini and Padula (2003), Burtless (2005), and Garbinti et al. (2017). Consequently, the Ramsey model would recommend that income taxes should be adjusted by age. As we mentioned above—see also Chap. 1 in Volume III— older workers tend to exhibit a higher elasticity of labour supply with respect to changes in labour income, particularly along the extensive margin.

In labour economics, there is a distinction between the extensive and the intensive margin of labour supply: the extensive margin refers to the decision of whether to work in paid employment or not; the intensive margin refers to the decision of how many hours to allocate to paid employment, having already decided to work. For men and women the elasticity of labour supply, both at the extensive and the intensive margins, varies along their life cycle (Blundell et al. 2013). As Hemel (2010, p. 1888) explained:

If individual workers cannot make marginal adjustments to their hours, then we would expect the price elasticity of labor supply to be greater for individuals who are considering exit from the workforce than for individuals who might desire an incremental reduction in hours. In other words, we would expect the disincentive effects of taxation to be greater around the retirement decision than at midcareer.

This changing elasticity over the life cycle constitutes the main theoretical pillar of the position that proposes the adoption of age-dependent taxation: ‘The need for age-dependent taxes is a natural implication of life-cycle behavior’ (Erosa and Gervais 2002, p. 341).

Akerlof (1978) advanced the idea that if poorer groups of the population could be identified or ‘tagged’ costlessly according to relevant characteristics they could not modify, transferring subsidies to them would increase social welfare. Chronological age is an observable and non-manipulable trait and, given its association with income, a good candidate for tagging (Bastani et al. 2013).

Furthermore, unlike other observable traits which are also associated with earnings and economic behaviour in general, such as height or gender, tagging based on chronological age may be more acceptable politically given that most people are expected to reach a given chronological age at some time during their lifetimes (Banks and Diamond 2010). For example, in a US context, Hemel (2010, p. 1896) noted that the endorsement by interest groups representing older people of age-dependent tax rates, which made the policy recommendations stemming from optimal taxation theory easier to implement, was ‘a rare (and perhaps unique) congruence’ between economic theory and interest group politics.

Given that labour supply elasticity increases with chronological age, the fiscal policy conclusion (based upon a number of simplifying assumptions) is that marginal tax rates should decline with advancing chronological age (Hemel 2010). The literature on this topic, as on any other in economics, has developed from relatively simple models13 to more complex specifications, where initial assumptions are gradually relaxed. We are going to use Weinzierl (2011a,b) as a guide to reflect on the relationship between taxation and individual ageing, without going into the mathematical details. Weinzierl discussed there alternative tax policies: a labour income tax that is a function of the income but unrelated to the chronological age of the taxpayer; a labour income tax that depends on the income and the chronological age of the taxpayer; and a labour income tax that depends on the income, the chronological age, and the lifetime path of incomes of the taxpayer—termed, respectively, ‘Static Mirrlees’, ‘Partial Reform’, and ‘Full Optimum’ policies. The starting point is an individual’s utility function, which is generally assumed to depend on consumption and leisure. Instead of leisure, what in this case enters the utility function is the disutility of the labour effort. Labour effort is equal to the ratio between the labour income and the wage per unit of labour. Labour income, in turn, is the product of the wage and the labour effort. Ability or effort is not readily observable and is assumed to be distributed among the population. Economic life starts in period 1 when an individual enters the labour market and finishes in period T , when she retires. Each individual lives and works for the same number of periods: in this model there is no retirement and chronological age and period coincide. The utility of an individual of ability i and age t results from the difference between the utility derived from consumption and the disutility from labour: Each individual maximises her utility subject to the budget constraint after the taxes whose specification depends on the policy. For example, under a Static Mirrlees regime where income tax only depends on income, we have T = T (y), whereas under a Partial Reformpolicy, we have T = T (y, t) as the income tax depends on income and age; finally, in the Full Optimum case, the tax becomes T y(.)T t=1, t because it depends on the lifetime path of income and the current chronological age of the taxpayer. Finally, the model assumes the existence of a social welfare function that a benevolent policy maker or social planner seeks to maximise. The standard assumption, adopted by Weinzierl, is that this social welfare function can be represented by a weighted utilitarian function of the individual utilities—that is, as the weighted sum of the individual utilities, where the weights, known as Pareto weights (Saez and Stantcheva 2016), reflect social preferences (d’Aspremont and Gevers 2002; Sen 1986).Weinzierl (2011b) calibrated the model with data for over 10,000 people in paid employment aged 25–55 in the USA between 1968 and 2001 and obtained that age-dependent taxes generated efficiency (i.e. welfare) gains equivalent to between 0.6 per cent and 1.5 per cent of aggregate annual consumption. These efficiency gains resulted from a reduction in the marginal taxes on high-income young workers (because higher taxes on these individuals would introduce substantial the deadweight costs withmuch lower tax revenue fromthis same group of people) and from a reduction, on average, on younger workers relative to older workers under the assumption of imperfections in the capital markets such that private saving and borrowing were restricted. The conclusion was that the welfare gains under age dependence would exceed those under an age-independent tax regime. Similarly, based on US data between 1982 and 2008, Bastani et al. (2013) estimated that switching from a non-linear age-independent income tax to a non-linear age-dependent income tax would generate welfare gains equalling about four per cent of total output. The same approach has been extended to taxes on consumption and interest income: if elasticities vary with chronological age, under the same assumptions as above—particularly, the separability of the utility function—it would be optimal to levy these age-dependent taxes. However, would it be optimal to introduce age-dependent taxes on wages, consumption, and interest income at the same time? Bymeans of a similarmodel as the one described above, Alvarez et al. (1992) showed that it would not. Under the separability assumption between consumption and leisure, these authors presented the following ranking of tax (or subsidy) configurations in terms of the decreasing distortions or deadweight losses each configuration would create (Alvarez et al. 1992, Table 1, p. 119): 1. Age-conditioned wage taxes (or subsidies) and age-conditioned consumption taxes (or subsidies), or a uniform, non-aged-conditioned consumption tax (or subsidy) and age-conditioned wage taxes (or subsidies), or ageconditioned wage taxes (or subsidies) 2. Age-conditioned consumption taxes (or subsidies) and a non-agedconditioned interest income tax (or subsidy) 3. Uniform, non-aged-conditioned consumption tax (or subsidy) and a nonaged- conditioned interest income tax (or subsidy) 4. Age-conditioned consumption taxes (or subsidies) or uniform, non-agedconditioned consumption taxes (or subsidies) This ranking is not based on redistributive arguments or on consideration of the social insurance repercussions of imposing age-dependent taxes, but purely on efficiency grounds. Nevertheless, Gervais (2012) showed that agedependent tax rates on labour income and on capital income would be progressive: under age-dependent labour income tax, the tax rates would increase with labour supply and vice versa, whilst the tax rates on capital income would be negative when labour supply increased (and vice versa). The models in the optimal taxation literature have become more and more complex as authors have relaxed assumptions and explored particular conditions and situations. Different specifications have included the interplay between labour decisions and retirement—for example, the elasticity of labour supply to changes in the pension system, which we will touch upon in Volume III, Part II—or between investment in human capital and wages and productivity along the life cycle; see Volume III, Part I. Lehmann et al. (2013), using data for France between 2003 and 2006, presented the interesting finding that the elasticity of labour supply (at the extensive margin) with respect to the marginal net-of-income-tax rate would be higher than that with respect to the marginal net-of-payroll (or social security contribution) tax rates (which would not be significantly different from zero) despite both taxes affect after-tax income in exactly the same amount. Furthermore, these authors also reported that for workers aged 50 or over, the elasticity was negative, whilst it was positive for younger workers, which adds empirical clout to the recommendations that marginal income tax rates should be lower for older workers. A study looking into Swedish data for 2007 (Laun 2017) concluded that the introduction of two income tax credits—an earned income tax credit which increases for workers aged 65 or over and a reduction in social security contributions (a payroll tax credit) for workers aged 65 or above—had positive short-term effects at the extensive margin: the elasticity of labour supply to these age-related tax credits was 0.22, meaning workers aged 65 years old extended their labourmarket participation as a result of these tax credits, which contributed to a gain in welfare per dollar spent of about 1.15. Other extensions have considered the effects on capital accumulation, the uncertainty around the extension of the lifespan, decisions about planned bequests, and the stochasticity of the relationship between labour productivity and chronological age. Woodland (2016, p. 742) surveyed the literature and concluded that there seems to be an agreement that age-dependent taxes produce net welfare gains, which could ‘partially relieve’ the pressure that population ageing creates on government budgets. 2.2.3 Taxation in Dynastic Models With infinitely lived agents, life-cycle considerations cease to exist.14 However, the timing of saving decisions does matter because of the repercussions on capital accumulation, economic growth, and welfare. These distortions in inter-temporal choices lead to the conclusion that the optimal tax rate on capital or inheritance is zero (Chamley 1986; Judd 1985). Alas, it only takes the introduction of additional assumptions to, or the relaxation of, some assumptions in the most basic dynasticmodels to reach the conclusion that the optimal tax rate on wealth or assets is positive. Among other extensions that lead to tax rates on inheritance and capital income greater than zero, we can list: idiosyncratic labour income shocks—that is, shocks that affect individuals or their households rather than whole economic aggregates; accidental bequests; and the lack of government commitment over time (infinitely, in fact) to the fiscal policy (Piketty and Saez 2013). Furthermore, in their influential survey of direct taxation, Banks and Diamond concluded: The empirical evidence on the consumption patterns of parents and adult children alive at the same time is strongly contradictory of the idea that people typically behave as if there were a single dynastic utility function being jointly maximized.Moreover, taking this literally and recognizingmarriage (which links dynasties to each other) leads to absurdities. (Banks and Diamond 2010, p. 575) 2.3 Population Ageing and Fiscal Space Fiscal space has been defined as the availability of budgetary room that allows a government to provide resources for a desired purpose without any prejudice to the sustainability of a government’s financial position. (Heller 2005, p. 3) and as the financing that is available to government as a result of concrete policy actions for enhancing resource mobilization, and the reforms necessary to secure the enabling governance, institutional and economic environment for these policy actions to be effective, for a specified set of development objectives. (Roy et al. 2009, p. 33) Ostry et al. (2010, p. 17) proposed a different definition of fiscal space focused on fiscal sustainability: ‘the difference between the current level of public debt and the debt limit implied by the country’s historical record of fiscal adjustment’. These authors estimated, using data from 2015, that many developed countries needed to implement fiscal adjustment efforts that far exceeded their historical records. The concept of fiscal space is not without critics: according to Perotti (2007), it is nothing new as it merely re-states the notion of the inter-temporal government budget constraint. However, other analysts see it as a useful conceptual tool to look beyond budgetary straitjackets in the sense that fiscal space can be created and expanded. For instance, Ortiz et al. (2015, p. 1) listed eight policy options available even in the poorest countries to ‘make budgetary room’: • increasing tax revenues • expanding social security coverage and contributory revenues • lobbying for increased aid and transfers • eliminating illicit financial flows • borrowing or restructuring debt • adopting a more accommodative macroeconomic framework • reallocating public expenditures • tapping into fiscal and foreign exchange reserves Park (2012) looked into the impact of population ageing on fiscal space using yet another definition: ‘[the] distance between the current tax revenue level and the peak of Laffer curve’ (p. 3).15 Using data from 1995 to 2009 for the G-7 countries,16 this author estimated a Laffer curve under the then existing population structure and calibrated the Laffer curve for each of these countries up to 2050 using demographic projections. The idea behind the exercise was that population ageing would shrink labour supply and hence reduce revenue capacity (i.e. the tax base) and the fiscal space, but if a country was on the ‘right’ side of the Laffer curve (i.e. if the average tax rate was below its maximum revenue-generating level), the pressure from the change in the demographic structure could be offset, at least in part, by the excess room for fiscal manoeuvre. The results pointed to a smaller fiscal space for Germany, France, and Italy—the three countries in the G-7 with a relatively larger share of the public sector in the economy. These countries would be ‘more susceptible to aging shock’ (op. cit., p. 14). Bogetic et al. (2015) also looked into population ageing and fiscal space, but operationally defined the latter as debt per dependent person ‘as a measure of fiscal space to finance the aging related commitments that are no longer feasible to be financed by the contributions from the active population’ (p. 20). They defined a maximum threshold for the debt-to-GDP ratio and then estimated the policy adjustments needed to avoid exceeding that target. The authors explained that this cap showed ‘the extent to which the government can implement a transfer and expenditure system if it cannot be financed by the aging work force’ and elaborated: Typically, any age-related expenditures are financed by higher taxes or borrowing beyond a certain threshold. Because the threshold is determined by the relative size of the dependent population and the characteristics of the tax and transfer systems and of public spending, the extent to which a government can issue debt per dependent person without breaching a specified debt ceiling shows how much fiscal space it has available to accommodate the fiscal pressures of an aging society. A cap on the growth rate of debt per dependent person -a “speed rule” defined by the fiscal target- will be tighter if the dependent population grows faster than the working-age population. Similarly, an increase in the initial debtto- GDP ratio or a tightening in the fiscal target will suggest need for a downward adjustment to the speed rule. (Bogetic et al. 2015, p. 20) The authors analysed long-term fiscal policy options in 40 countries in Europe and Asia by means of one population ageing indicator—the oldage dependency ratio (see Volume I, Chap. 2)—and several fiscal variables as a percentage of gross domestic product, such as gross public expenditure, revenue, and debt, social contribution revenues, social benefit expenditure, and so on. From these simple bivariate relationships and the threshold defined as explained above, they concluded that the fiscal space in most of these countries is limited ‘for discretionary and growth-oriented public spending’ and ‘to accommodate increases in aging-related spending’ (Bogetic et al. 2015, p. 7). Fiscal space is a useful concept for macroeconomic analysis, but economists should be wary of the danger that lies within: an over-mechanistic numerical approach that does not take into account that: …decisions on financing and spending usually respond to the specific interests of stakeholders that have sufficient power to influence them. No intervention on financing or public spending is neutral in terms of which groups in society are winners or losers. Thus, the creation of fiscal space, whatever its purpose, unfolds in a context dominated by the relationships between the power groups in society. (Durán-Valverde and Pacheco 2012, p. 1) Or, in the words of (Estes et al. 2003, p. 19): …portrayals of the threatened bankruptcy of public treasuries to support the retirement of the elderly and the ‘appropriate’ policy response (such as the proposed privatisation of social security) are crisis constructions embedded in intense power struggles that are momentous in their social, political and economic consequences, including the sacrifices that are demanded.

The financial situation of the public sector in a country is a relevant variable to assess its fiscal space. However, its growth prospects, debt reduction and consolidation policies, the political commitment by policy-makers, the relative clout and effectiveness of the different interest groups, institutional characteristics and dynamics, and—for developing countries—the use of development assistance from abroad are of equal importance.

Finally, economists should be wary of the prevalent mode of political competition (Roemer 2009) in the jurisdiction under study or where they work and provide their advice or make decisions, because as Lynch (2006, pp. 67–68) correctly asserted ‘…the dominant mode of political competition is crucial for the eventual age orientation of social spending’. 2.3.1 The Global Aging Preparedness Index The Global Aging Preparedness Index (or GAP Index), compiled by the Global Aging Initiative of the Center for Strategic and International Studies in Washington, D.C., USA, is an index that seeks to assess how countries are getting ready for ‘particularly the “old-age dependency” dimension of the challenge’ (Jackson et al. 2013, p. iii) posed by population ageing (the authors of the index define old age as 60 years or over). In part, it includes the notion of fiscal space, but it extends the concept as it brings together two sub-indices: a Fiscal Sustainability Index and an Income Adequacy Index. The Fiscal Sustainability Index is composed of three ‘categories’: • the Public Burden category, which measures the level of and projected (all projections for the 2013 edition were run until 2040) growth in total public benefits to older people and is composed of two indicators: – the Benefit Level (the projected public benefits to older people as a proportion of GDP) – the Benefit Growth (the projected growth in public benefits to older people as a proportion of GDP) • the Fiscal Room category, which measures the fiscal space of a country by combining three indicators: – the Tax Room (projected government revenue as a percent of GDP if all growth in benefits to older people are paid by taxes) – the Budget Room (projected proportion of benefits as a percentage of total public spending assuming cuts in all other items finance the projected growth in benefits to older people) – the Borrowing Room (the projected net debt as a percent of GDP assuming all projected growth in benefits to older people is funded by borrowing) • the Benefit Dependency category,which measures the degree of dependence of older people on public benefits and is composed of two indicators: – the Benefit Share (average of projected benefits to older people as a per cent of the cash income of the median-income older person) – the Benefit Cut (the percentage of older people that would fall into poverty—measured as earning an income below 50 per cent of the median income of the whole population—if public benefits were cut by 10 per cent) The indicators in the first two categories of the Fiscal Sustainability Index are weighted equally, but in the Benefit Dependency category, the share indicator receives two-thirds and the cut indicator receives one-third. The Public Burden category receives a weighting factor of 40 per cent, whilst the Fiscal Room and the Benefit Dependency categories are assigned 30 per cent each. The Income Adequacy Index is also composed of three ‘categories’: • the Total Income category, which measures the ratio between the level of income of older people and younger people, and the trends, and is composed of two indicators: – the Income Level (the projected ratio of average after-tax total income per capita of older people to younger people) – the Income Trend (the projected change in the ratio of average after-tax total income per capita of older people to younger people) • the Income Vulnerability category, which measures income adequacy for middle-income older people and the extent of poverty in old age, and is composed of three indicators: – the Median Income Level (the projected ratio of median after-tax cash income per capita of older people to younger people) – the Median Income Trend (the projected change in the ratio of median after-tax cash income per capita of older people to younger people) – the Poverty Level (the percentage of older people with incomes below 50 per cent of the median income for the whole population) • the Family Support category, which measures family support networks, and is composed of two indicators: – the Family Ties (the percentage of older people livingwith adult children) – the Family Size (the projected change in the number of surviving children of older people) The indicators in the first two categories of the Income Adequacy Index are weighted equally, but in the Family Support category, the Family Ties indicator receives two-thirds and the Family Size indicator receives one-third. The Total Income and the Income Vulnerability categories receive a weighting factor of 40 per cent each, whilst the Family Support category is assigned 20 per cent. Finally, the Global Preparedness Index is calculated by assigning the Fiscal Sustainability and the Income Adequacy indices the same weights. The latest (2013) GAP index report found that fiscal sustainability would not be an important policy concern: India, Mexico, and Chile, but that countries such as Brazil, Japan, France, the Netherlands, Germany, Italy, and above all Spain would be highly vulnerable. Looking into income adequacy, Netherlands, the United States, Brazil, Australia, and Germany stand out as highly prepared; amongst the most vulnerable countries are Mexico, Russia, South Korea, and Poland.

2.4 The Fiscal Implications of Risk

Population ageing is one of the socially amplified risks (Kasperson et al. 1988, 2003) in contemporary societies, and what Taylor-Gooby (2004) identified as one of the four processes of ‘social risk’ in post-industrial societies. In fact, Taylor-Gooby understands that population ageing exerts the most important pressure on welfare states, which emerges as ‘new social risks’. These new risks translate, from the perspectives of citizens, into changes in employment relations, family life, social care, career, and so on. From the perspective of governments, the new social risks are manifested in changes in policy-making, institutional structures, power dynamics, and legitimisation.

We saw in Volume I, Chap. 1, examples of apocalyptic demography, with concerns that population ageing would bring about a ‘crisis’, a ‘time bomb’, an ‘agequake’, or a ‘silver tsunami’ and authors warning of the seismic consequences of ‘gray dawn’ and the ‘coming generational storm’. Some go even beyond this. For example, Richard Jackson, President of the Global Aging Institute based in Virginia, USA, suggested that global population ageing threatens to ‘overturn’ (Jackson 2006) or ‘shape’ (Howe and Jackson 2011) the world order. In the same vein, Heller (2003a,b) asserted that a number of major long-term risks and challenges beset almost every country and pose mounting threats to fiscal stability, including population ageing—which Heller17 placed on the same level with climate change, rapid technological change, the intensification of globalisation, increasing inequality, and bioterrorism and the proliferation of weapons of mass destruction. Such a statement may look hyperbolic, but it mirrors what Peterson (1999a,b) had previously written:

The list of major global hazards in the next century has grown long and familiar. It includes the proliferation of nuclear, biological, and chemical weapons, other types of high-tech terrorism, deadly super viruses, extreme climate change, the financial, economic, and political aftershocks of globalization, and the violent ethnic explosions waiting to be detonated in today’s unsteady new democracies. Yet there is a less-understood challenge -the graying of the developed world’s population- that may actually do more to reshape our collective future than any of the above.

(Peterson 1999b, p. 42)

#### AI and nanotech are coming fast and cause extinction---taxes solve.

McGuiness ’17 [Jeffrey; August 29; CEO Emeritus of the HR Policy Association, Senior Partner of McGuiness, Yager & Bartl, JD from the American University School of Law; HR Policy Association, “Lessons Learned from a Summer Binge Reading About the Impact of Artificial Intelligence on Work and Society,” https://www.hrpolicy.org/commentary/blog/lessons-learned-from-a-summer-binge-reading-about-the-impact-of-artificial-intelligence-on-work-and-society-13545]

The development of artificial intelligence is nearing an inflection point such that improvements will be accelerating at exponential rates, increasing productivity and potentially putting millions out of work. Will that be a blessing or a curse, or both? Will the ranks of the long-term unemployed further deepen, or will advanced automation come to the rescue as the labor participation rate continues to fall, boomers retire, and the job market tightens? Will our tax, health, training, employment, income assistance, and other structures fit this new era? All these questions create public policy issues with enormous implications for employers.

Regarding the future of work, the debate is not about whether AI will cause displacement. Rather, it is about its extent, rapidity, and the solutions for its mitigation. Of even more importance, this displacement is not speculation by academics, screen writers, reporters and consultants. It is what business leaders themselves are saying.

In a recent survey of HR Policy Association members, all of whom are large employers, 23 percent said that automation will replace up to 10 percent of their current workforce by 2030, 39 percent said up to 30 percent and 10 percent said as many as 50 percent of their company’s staff will no longer be needed.

I asked our Chief Economist, Mark Wilson, what numbers like these really mean. He said that if they are extrapolated across all large employers, between 4.3 and 11.1 million Americans may have their jobs eliminated by the end of the next decade. He further suggested when keeping in mind historical trends in BLS data on average monthly job growth, it can be said that 13.3 million jobs will be created by 2030. However, factoring in the AI job loss indicated by the survey and extrapolating that loss across all employers with more than 100 employees, we may see 47 to 118 percent of all new net jobs that otherwise would be created by 2030 simply vanish. That means when the Labor Department does its monthly announcement of the unemployment rate and job figures in the next decade, there may be times when no new jobs are reported. More detail regarding his projections can be found here.

Previous economic revolutions have demonstrated that while some workers lose their jobs, far more opportunities are created in new career fields. We have seen that appropriate training and upskilling along with the passage of time help the displaced move into new occupations. With the AI revolution, however, one question is whether that historical trend will hold true. Will there be enough new occupations to absorb those affected? How much difficulty will the displaced have being repositioned? Will some be pushed out of the job market altogether? This same survey posited that as machines acquire greater capability to take on cognitively complex tasks, there will be significantly less need for humans in the workplace. Only 33 percent disagreed with the statement.

We know that any new technology implemented on a broad scale tends to set off alarms at its introduction but is assimilated over time. Still, from a public policy perspective, there are caveats with the coming AI revolution. First, the world has never gone through a major industrial change during a time when social media, the internet, and 24/7 news were ubiquitous with most everyone walking around carrying a camera, video recorder, and microphone capable of recording and publishing content globally. If there is pain, we will hear about it. Second, the steam engine which powered the first industrial revolution didn’t come with machine learning and connectivity to the web enabling it to improve its capabilities autonomously and take actions not contemplated by its inventors. Yes, automation has been a key element of all industrial revolutions, but a type of automation capable of perceiving, evaluating, reasoning, communicating, and engaging in self-transformation will be something altogether different.

For these reasons, it may be important to begin an exploration of the impact of artificial intelligence on work and determine which public policy issues may need to be addressed. The following are some worthy of consideration.

What does AI replace?

The point is frequently made that AI will not displace occupations as much as it will transform the processes used to get work done. As described in a New York Times article, "Learning to Love our Robot Co-Workers," people will be realigned to work with new machines as they have since the beginning of the first industrial revolution to enhance their capabilities, achieve greater output, and create new job opportunities. Dangerous jobs humans have been performing can be taken over by machines. Still, a lot of people are going to have their jobs eliminated. McKinsey has done several studies on this subject, finding that currently demonstrated technologies could automate 45 percent of all the activities people are paid to perform. One study found that 59 percent of all manufacturing activities can be automated, 73 percent of activities in accommodations and food service, and 53 percent in retail. Said another way, 60 percent of all occupations could see 30 percent or more of their constituent activities automated, according to McKinsey.

That’s why Erik Brynjolfsson and Andrew McAfee caution in The Second Machine Age, “There has never been a worse time to be a worker with only ‘ordinary’ skills and abilities to offer, because computers, robots, and other digital technologies are acquiring these skills and abilities at an extraordinary rate.” A Washington Post story published earlier this month illustrates what happens when a low-tech manufacturing plant in a rural area struggles to staff its lines. Giving up on recruiting, the owners begin installing robots alongside humans, the company finding the robots less expensive than even the lowest-paid worker plus capable of operating at a far faster pace. The clear inference in the story is that the robots will be replacing additional production workers in that plant.

But not just production workers are threatened. The literature describes how automation will impact any job that is routine, predictable and can be reduced to a formulation. Already, many large companies have instituted administrative and financial systems using robotic processes that have eliminated dozens of employees. Machines are even penning financial and sports news as well as business reports. Click here for an example that will give pause to anyone who writes for a living.

How fast will the changes come?

The U.S. may have been fortunate with previous economic revolutions. For example, 70 to 80 percent of the workforce was employed in agriculture in 1870 while less than 2 percent was by 2008. That nearly 140-year period helped mitigate cataclysmic dislocations. However, with the exponential growth in AI applications, this change could come far more rapidly with little time to adjust. According to Jerry Kaplan in Artificial Intelligence, “as long as these effects are gradual, the labor markets can adapt gracefully, but if they are rapid or abrupt, significant dislocations occur.”

Are changes necessary in our economic system?

The literature discusses how our economy is based primarily on people purchasing goods and services, with individual consumer spending constituting two-thirds of GDP in the U.S. and around 60 percent in most other developed countries. In addition, major government programs are funded largely by payroll taxes. If AI results in far fewer people working, then who will purchase what the machines produce and pay the taxes necessary for government to function? And if companies are incentivized by tax, demographic and other factors to substitute machines for humans, will a labor-based tax system remain appropriate? Some manufacturers and users of robots say things such as “we are engineering the labor out of the product” and “our device isn’t meant to make employees more efficient, it’s meant to completely obviate them.” As more work is done by machines and less by humans, calls are being made to consider changing tax policy away from labor and more towards capital. Bill Gates, for example, believes a company’s use of robots should be taxed to both slow the spread of automation and fund other forms of employment. Both Tennessee and Massachusetts are already considering a per-mile tax on self-driving cars.

What regulation may be necessary?

“If there is one myth regarding computer technology that ought to be swept into the dustbin,” Martin Ford writes in Rise of the Robots, “it is the pervasive belief that computers can only do what they are specifically programmed to do.” In fact, there are many, including Elon Musk and Stephen Hawking, who believe that AI represents an existential risk to the existence of human civilization. They fear that machine learning will lead to singularity, the point at which AI produces runaway technological growth in the form of a superintelligence beyond the ability of humans to decipher or control. There are others, such as Mark Zuckerberg, who are far less worried, but even Facebook is under fire as are other tech giants with threats of regulation as utilities. The nanotechnology community is concerned that its ability to engineer at the atomic level may produce applications that could get totally out of control. The Chairwoman of the Federal Trade Commission recently announced its interest in artificial intelligence “because it has a consumer protection element to it but also has a competition element to it.” Therefore, it seems inevitable that regulation of these new technologies will begin in earnest and that will sweep in an examination of their implications on employment.

How should displacement be addressed?

Among those assuming that AI will displace millions of Americans, there is a debate underway as to appropriate responses. The idea most often discussed is creation of a Universal Basic Income, or UBI. The payment could come in a variety of forms, such as a negative income tax, a different form of EITC, or a straight payment like Social Security. Proposals are being made that everyone between the ages of 18 and 65 receive a government payment without any means testing or other evaluation regarding individual circumstances. The idea is to provide a basic income floor that provides a minimum standard of living. The hope is that people will use this floor to improve their circumstances, but most proponents accept the possibility that some portion of the population will choose to drop out and play video games all day.

The most eloquent proponent of the UBI is former SEIU president Andy Stern who has written Raising the Floor: How a Universal Basic Income Can Renew Our Economy and Rebuild the American Dream.

The idea would be to use UBI to replace dozens of poverty programs now in place—welfare, food stamps, tax credits, unemployment comp, workers comp, minimum wage, housing assistance, and SSDI, for example. However, that by itself would not create sufficient revenue to provide a minimum annual payment of $10,000, the number most often proposed. Additional taxes would be required, and any policy that encourages people not to work and requires higher taxes promises to be highly controversial. Also, nothing emerges from the legislative process without conditions being attached. For example, do some individuals get a different level of benefit if they participate in certain types of training programs, engage in community service, or stay off drugs? And what size army of bureaucrats would be required to police that? Still, Stern has found people on both the right and the left who support the concept—“Conservatives see it as a means of eliminating costly and inefficient welfare programs. Libertarians view it as a way to encourage greater individualism and personal choice.”

#### Wealth tax doesn’t solve the internal net benefit-- authority for pure revenue-raising is established, but taxes with the primary goal of regulatory compliance are still up in the air.

Yonah ’21 [Reuven Avi and Yoseph Edrey; January 22; Irwin I. Cohn Professor of Law and Director of the International Tax LLM Program at the University of Michigan Law School, PhD in History from Harvard University, AM in History from Harvard University, JD from Harvard Law School; Professor of Law at the University of Haifa, PhD in Law from The Hebrew University of Jerusalem, LLM from The Hebrew University of Jerusalem; Law and Economics Working Papers, “Constitutional Review of Federal Tax Legislation,” no. 175]

The definition of “tax” for constitutional purposes has become important in light of the Supreme Court’s 2012 decision in NFIB v. Sebelius, in which Chief Justice Roberts for the Court upheld the constitutionality of the individual mandate of the Affordable Care Act under the taxing power. This has led to commentators questioning the utility of Roberts’ distinction between a “tax” (where Congress’ power is almost unlimited) and a “regulation” (where Congress’ power under the Commerce Cause is limited).

We should make a very clear note at the outset: Tax law is a too broad term. It includes both provisions intended at raising revenue and provisions intended to regulate behavior. Personal income tax (PIT), corporate income tax (CIT) and even value added tax (VAT) laws include both type of provisions. Using the distinction that Prof. Stanley Surrey has proposed about 60 years ago, tax legislation includes both types of provisions; those that aimed at raising revenue in accordance with the tax base, and regulatory provisions as well ("tax expenditures"). In other words, almost any tax legislation includes both aspects. Hence referring to PIT means its base, and not necessarily all its code provisions. The purpose of this article is to draw this distinction and to use it for basic guidelines for constitutional judicial review over tax legislation.

We would propose a different distinction. A “tax” for purposes of the Taxing Clause is a pure tax, namely a tax implemented “to pay the Debts and provide for the common Defence and general Welfare of the United States”, i.e., a tax intended primarily to raise revenues in order to finance the elected government’s policy and its implementation. In addition, a progressive “income tax” for purposes of the Sixteenth Amendment is a tax intended for redistribution of wealth from the rich to the poor. We do not address redistributive tax provisions (like the progressivity feature of PIT or a wealth tax) further, beyond noting that they are inherently political and therefore their distributive function (reducing inequality) should not be subject to judicial review.

Even a pure tax has constitutional limits, but they are relatively few. It should be emphasized though, that the traditional basses for constitutional judicial review - such as discrimination on the basis of gender, race, or sexual orientation, are applied to tax legislation in a very limited way. As noted already, one could detect the Supreme Court’s significant reluctance to review tax legislation in the US on constitutional grounds, although one could also argue that a tax provision that has disparate impact on racial or gender grounds (or other protected category) should be evaluated using struct scrutiny (as some provisions involving gender have in fact been evaluated by lower courts).

This should be distinguished from a regulatory tax legislation, i.e., tax legislation whose main purpose is not to raise revenue but to change taxpayer behavior. Regulatory taxes include Pigouvian taxes (e.g., tobacco taxes and carbon taxes) designed to reduce negative externalities and tax expenditures (deviations from a normative tax base, which we name negative Pigouvian taxes, since their purpose is to treat favorably taxpayers who create positive externalities). Regulatory Tax legislation should be subject to constitutional review under various clauses of the Constitution including the Due Process Clause, the Equal Protection Clause, the Establishment Clause, and the limits on the Commerce Clause.

#### The perm makes taxes and prohibitions co-dependent, denying a special status for regulatory taxation.

Kobylnik ’21 [Dmytro; January 4; PhD in Law, Associate Professor, Associate Professor of the Department of Financial Law of Yaroslav Mudryi National Law University; Law and Innovative Society, “The Impact of Tax Policy on the Implementation of the Regulatory Function of Tax Law,” <http://apir.org.ua/en/archives/1425>, translated via Google Translate]

Conclusions and prospects for the development. As we have shown, tax policy has its own meaning, it is organically linked to tax law, which by implementing the regulatory function implements the vectors indicated by the policy. Given the profound transformation of public relations that has taken place in our country in recent years, tax policy should be given a special role as a strong foundation for ensuring the effectiveness of tax and legal regulation.

Formulation of the problem. The social value, role and purpose of tax law are revealed in its functions as the main directions of its impact on public life. At the same time, the value potential of law is revealed by both general social and special legal functions. Scientists in the first group of functions through which law in general, and tax law in particular, influence the public consciousness, forming values, creating a certain dimension of social interaction, in which possible, appropriate and forbidden find their clear delineation in human actions, include the following : humanistic, organizational / organizational-managerial, epistemological / cognitive, informational / communicative, educational, orienting, evaluative / evaluative, security, economic, political, cultural [17, p. 32, 33]. As for the special legal functions of law, they usually include regulatory and protective. However, in their system, the prominent, defining place of these sciences give a regulatory function. So it is no coincidence that OS Emelyanov argues, reflecting on the functions of financial law, as follows: "expressed financial law in the form of regulations or financial planning acts, implemented in absolute or relative legal relations, or seeks to determine the legal status of participants in financial relations - in all these forms social purpose - to regulate public relations in the field of public finance "[1, p. 32]. The scientist sees specific features of this function, first of all, in the establishment of positive rules of conduct, organization of social relations, coordination of social relationships in the process of redistribution of social wealth [1,

p. 33]. At the same time, it is obvious that the implementation of the regulatory function of law is influenced by a number of factors, among which tax policy is important. Therefore, the purpose of the article is to characterize the impact of tax policy on the implementation of the regulatory function of tax law.

Analysis of recent research. Note that the question of the functions of tax law, tax policy and their interaction is not entirely new to the science of tax law, because to some extent resorted to their consideration OS Emelyanov, AA Kovalenko, MP Kucheryavenko, Yu. L. Smirnikov, VV Chaika and others. However, at present it cannot be said that they have received a proper scientific analysis, as the financial scientists did not resort to a comprehensive examination of them, but conducted fragmentary research. Thus, the purpose of the article is to consider the impact of tax policy on the implementation of the regulatory function of tax law.

Presenting main material. In the scientific literature it is noted that the content of the regulatory function of law is revealed through the separation of two aspects: static (establishment of legal norms) and dynamic (implementation of legal norms). In this regard, TM Radko argues that the regulatory function of law includes two components: regulatory-static function or the function of consolidation, stabilization of social relations and regulatory-dynamic, through which the law determines the future behavior of people [16, p. 31]. Other scientists say the same. Thus, Yu. L. Smirnikov notes that the regulatory function of financial law includes regulatory static and regulatory-dynamic subfunctions. Delimitation between them is due to the manifestation of two patterns of development of law - reflection in law and legal anticipatory reflection. From these positions, the regulatory-static function of financial law is manifested in the ability of financial law to reflect the essential properties of financial relations and to organize public relations in a particular period, which is expressed in the content of financial law. The regulatory and dynamic function of financial law provides an opportunity to predict the need for financial and legal influence on public relations, their transformation through public financial activities to ensure the public interest, finding the most effective means of legal influence based on monitoring financial legislation and its impact on society no relationship [18, p. 24].

As we can see, scholars characterizing the regulatory function of law emphasize the establishment of legal norms and the way of detecting the activity of law, calling the first aspect dynamic, and the second - static. At the same time, in our opinion, it is not entirely correct to call the corresponding phenomenon static or dynamic. First, the establishment of the rules of tax law, I and any law, is not a static phenomenon. Second, tax relationships, like any legal relationship, are hardly static in nature, but rather dynamic. They do not exist in statics as such, but are constantly in a certain motion, when in the presence of certain circumstances they arise, change and cease. Therefore, such a characteristic of the regulatory function is hardly logical.

However, there is no doubt that in any case, the tax law is able and intended precisely to regulate tax relations. "By enshrining in the sources of law the limits of the desired and permissible conduct for all subjects of law, grounds and types for the application of coercive measures to those of them that go beyond certain limits, the law (compared to other types of social norms) most effectively regulates social relations, giving them such features as organization, predictability, predictability, which ensures their stability and at the same time lays the foundation for development. This ultimately means awareness of its positive role for the individual, society, humanity in general [17, p. 32, 33].

The establishment of the norm of tax law is the most important kind of manifestation of the essence of tax law as a regulator of public relations. As VI Shcherbyna notes, the establishment of the rule of law is the definition of its content, the definition of real, adequate to social relations content of the rules of law as a guarantee of the viability of law [20, p. 55]. At the same time, the effective implementation of the considered function is possible under the condition of logical, consistent formulation of the prescriptions of tax and legal norms, which will ensure their effective implementation. Therefore, it is important to properly determine the content of the tax law, which largely depends on the tax policy that is implemented in the state. State tax policy is defined differently by scholars. For example, the activity of the state in the field of establishment, legal regulation and organization of collection of taxes and tax payments to the centralized funds of state resources [5], or systemic activities of public authorities and local governments to create and improve an effective mechanism for taxation. legal regulation aimed at mobilizing funds to public centralized funds to finance public expenditures and tasks and functions of the state, as well as based on balancing public and private tax interest [19, p. 85]. The state's tax policy covers the content of ideological, theoretical and activity-practical aspects of state management of the processes of functioning, improvement and development of the tax system of Ukraine. As a phenomenon of ideological and theoretical plan, it is a system of conceptually conscious ideas, goals, objectives, principles, programs that express the official position of the state on key issues of tax regulation and is the ideological and theoretical basis of tax activity in the state (tax policy in statics) . At the same time, tax policy is the activity of state and non-state institutions, citizens, which consists in developing, adjusting and implementing state legal strategy (tactics) in the field of tax regulation, creating conditions that ensure the state of legal protection of tax law subjects (tax politics in dynamics) [19, p. 86]. It is characteristic that scientists consider tax legislation to be the main, but not the only form of tax policy implementation [3, p. 57; 19, p. 90]. Therefore, we can talk about the corresponding dialectical dependence of tax and legal regulation and tax policy. This is manifested in two areas: (1) through the definition of the purpose, objectives, results of tax policy outlines the direction of regulation of tax relations, its subject, limits and methods, which establishes rules of conduct for taxpayers, ie the impact on lawmaking activities in the field of taxation, implementation of the regulatory function of tax law; (2) by determining the quality, effectiveness of tax legislation, assesses whether the tax policy has been fully implemented. This approach allows us to see deviations from the desired model of the tax system; establish the level of implementation of those provisions that you know strategically; identify shortcomings in both tax law and tax policy in general; to develop new approaches to ensuring the sustainable and efficient functioning of the state tax system.

Ensuring the formation and implementation of a unified state tax policy in our country is entrusted to the Ministry of Finance of Ukraine (paragraph 1 of the Regulation on the Ministry of Finance of Ukraine, approved by the Cabinet of Ministers of Ukraine dated August 20, 2014 № 375 [12]), as well as State Tax Service of Ukraine (paragraph 1 of the Regulation on the State Tax Service of Ukraine, approved by the resolution of the Cabinet of Ministers of Ukraine of March 6, 2019 № 227 [13]). The main tasks and directions of tax policy are defined in the Strategy for Reforming the Public Financial Management System for 2017-2020, which was approved by the order of the Cabinet of Ministers of Ukraine of February 8. 2017 № 142-r, which include: improving the quality and efficiency of administration of taxes and fees and the level of compliance with tax legislation; strengthening control over fiscal risks and implementing measures to minimize them, in particular with regard to state-owned enterprises, state guarantees and other contingent debt obligations, etc. [15].

Scholars rightly point out that the main contradiction of tax policy is to find a compromise between economic efficiency and social justice, the content of which long before the clear mathematical proofs of modern optimal taxation theory was formulated in the well-known aphorism of Jean-Baptiste Colbert: "Taxation goose so as to obtain the maximum number of feathers with a minimum of hissing. In modern scientific discourse, this contradiction should answer the question: what exactly should be formed tax system in terms of its composition of different taxes and elements of each individual tax, so that it provides funding for social needs and is the least harmful to economic growth [4, with. 7]. And in this context there are many problems, because on the agenda there are a number of issues, both regarding the establishment of a set of taxes and fees, their specific legal mechanisms, and control over the collection of taxes and fees, the powers of the tax administration and meetings, etc.

For example, let's look at a few aspects. Thus, one of the tasks in the Strategy for Reforming the Public Financial Management System for 2017–2020 is to increase the stability and predictability of the tax system. It is further noted that the Ministry of Finance will develop a Strategy for the development of the tax system in the medium term, which should be consistent with the strategy of economic development, reform of the budget process and the pension system. The control over the observance of the requirement to provide compensators of tax revenues or reduction of state budget expenditures in case of reduction of such revenues due to amendments to the tax legislation will be strengthened, as well as to ensure that changes to any elements of taxes and fees are not made later than six months before the start of the new budget period [15]. Taking into account the outlined direction of tax policy, this task should be implemented in tax and legal regulation. However, did it really happen? The answer is obvious, as at the end of 2020 the Strategy for the development of the tax system in the medium term has not been developed and approved. However, the report on the implementation of the action plan for the implementation of the Strategy for reforming the public financial management system for 2017–2020, approved by the order of the Cabinet of Ministers of Ukraine dated 24.05.2017 № 415-r, states that this aspect has been implemented [2]. The development of the mission and strategic goals of the State Tax Service until 2022, which was approved on December 10, can be attributed to the fulfillment of this task with a certain conditionality. 2019 by order № 205 of the State Tax Service of Ukraine [11]. However, as you can see, these are all such different regulations. As a result, we get unsystematic, frequent changes in tax legislation, because it is unlikely that a logical transformation of tax legislation can be achieved without a clear strategy, which indicates the state's chosen course for the future, aimed at solving tax issues. Therefore, the implementation of tax policy in this context has a negative impact on the implementation of the regulatory function of tax law.

#### 2. REDUNDANCE---overlapping prohibitions and taxes will be uncoordinated and duplicative.

Logue ’10 [Kyle; June 2010; Wade H. McCree Jr. Collegiate Professor of Law at the University of Michigan Law School, JD from Yale Law School, BA from Auburn University; Cardozo Law Review, “Coordinating Sanctions in Tort,” vol. 31]

Take the quintessential example of a negative externality - some activity that spews CO<2> into the atmosphere thereby contributing to the global problem of climate change. If a fully cost-internalizing Pigovian tax (say, a carbon-based tax of the sort that many commentators have recently proposed) were imposed on domestic companies by the U.S. government, there obviously need not (and, from an efficiency perspective, should not) be a state-level carbon-based tax on the same polluters for the same carbon emissions. Nor should there be any overlapping command-and-control regulations or any other sort of regulation (including tort liability) designed to regulate the same conduct. It - the external harm caused by CO<2> emission - has, by assumption, already been fully regulated. Redundant regulation represents unnecessary administrative costs and potentially excessive deterrence. The same analysis can be applied to torts. Consider automobile accidents or product-related injuries or medical malpractice harms. All are potentially affected, at least in theory, by the same problem of overlapping, uncoordinated, and thus possibly redundant sanctions; this means either over-deterrence or duplicative and therefore excessive administrative costs, or both. Again, the literature has largely neglected this subject. 7

#### Negative effects of the interaction will be blamed on taxes---that prevents mainstreaming.

Sorrell ‘5 [Steven and Jos Sijm; April 15; Professor of Energy Policy in the Science Policy Research Unit at the Centre on Innovation and Energy Demand, PhD from the University of Exeter; Ph.D., Netherlands Organisation for Applied Scientific Research; ECN-RX-05-130 Technical Report, “Carbon Trading in the Policy Mix,” https://www.osti.gov/etdeweb/biblio/20767429]

The interactions summarized in Table 1 lead to a series of examples of double regulation and double counting (Sorrell, 2003c). Unless resolved, these interactions could lead to substantial economic impacts for the affected groups, and/or threaten the overall environmental integrity of the policy mix. For example:

* organizations eligible for the energy tax will also face electricity price increases as a consequence of the generators participating in the EU ETS. Under a number of simplifying assumptions, 8 an EU ETS allowance price of €€7/ tCO2 could increase average electricity prices by some 0.7c€€ /kWh, which is approximately equivalent to the current level of the tax.
* the UK trading scheme allows a project to be awarded carbon credits for improving downstream electricity efficiency. But this action also ‘frees up’ allowances held by the electricity generators participating in the EU ETS. If the project credits are subsequently traded into the EU ETS, the cap will be breached and the environmental integrity of the scheme will be undermined.

To avoid these problems, the existing UK policy mix will need to be rationalized. But such changes are likely to create administrative costs for both government and industry. They are also likely to encounter resistance from a range of sources—particularly since none of the above instruments is more than 3 years old.

In the UK, as elsewhere, policy instruments resist replacement even when a more viable alternative is available. This inertia may derive from a number of sources. For example: a legislative framework will have been established which may be difficult to change; regulatory institutions will have been established, or responsibilities assigned to existing institutions; procedures and standards will have been established for functions such as monitoring, reporting, and verification; a network of private organizations will have become involved in implementation; and the target groups themselves will have invested substantial time and money in gaining familiarity with the policy instruments and putting the appropriate procedures in place. All these activities are separate from investment in abatement, but each will cultivate vested interests and encourage resistance to change. As a result, there is a strong possibility that many of these instruments will continue after the ETS has been introduced, whether or not this is helpful to overall government objectives. In the case of the UK, the government is reviewing the policy mix in the light of the EU ETS and is anticipated to make some small changes—such as exempting EU ETS participants from a portion of the energy tax. But a major overhaul of the policy mix does not appear likely, at least not before 2008. This means that policy interaction could have a determinate impact on the success of the EU ETS in the UK.

V. Summary and Conclusions

Policy interaction has been neglected within the economics literature, but is of central importance in determining the success of individual instruments and of the overall policy mix. This is particularly true within climate policy, where the introduction of a carbon ETS into an already overcrowded ‘policy space’ poses a particularly difficult challenge. In theory, cap-and-trade schemes should provide assurance of meeting an overall emissions target at least cost. It follows that, if we assume a perfect economy with no market failures, any instruments which directly or indirectly interact with a carbon ETS will raise overall abatement costs while providing no additional contribution to emission reductions. Hence, once a cap is in place, the rationale for introducing or retaining such instruments must rely upon either their contribution to overcoming market failures other than carbon externalities, or in delivering social objectives other than efficiency. Their contribution to emission reductions can no longer form part of their rationale.

#### 3. CONFUSION---it nukes solvency AND the effectiveness of later tax application.

Tickell ’11 [Oliver; 2011; Editor of The Ecologist, Campaigner on Health and Environment Issues; Kyoto 2: How to Manage the Global Greenhouse, Google Books]

This complex mix of taxes, levies, obligations and subsidies sends out confused signals, creates unintended interactions and opportunities for double or treble counting. In particular no consistent ‘carbon price’ emerges, and the carbon prices reflected by these different mechanisms cover a wide range, between £216/tC02 for fuel duty (on the admittedly unsustainable assumption that 100 per cent of the fuel duty reflects climate change costs) and around £100/tCO2 for the Renewables Obligation, down to -£50/tCO2 (that is, a £50 ‘carbon subsidy’) through the reduced rate of VAT on domestic fuel and electricity.

As Steven Sorrell and Jos Slim comment,

The complex, elaborate and interdependent mix of climate policies developed in the UK provides a particularly rich example of the challenges to be faced. [...] The net result may be a mix of overlapping, interacting, and conflicting instruments which lack any overall coherence. In short, a policy mix may easily become a policy mess.70

#### 4. COST BASIS---prohibition eliminates the tax’s regulatory target, so it can’t be evaluated for future use.

Tsindeliani ’19 [Imeda; November 4; PhD in Law, Associate Professor, Head of the Department of Financial Law at the Russian State University of Justice; Utopía y Praxis Latinoamericana, “Main Elements of Taxation in the Conditions of the Development of Digital Economy, “ vol. 24]

Therefore, due to the fact that this issue has not been sufficiently studied in the science of financial and tax law, it is difficult to make a clear distinction between the meanings of the concepts "object of taxation" and "tax object." At the same time, one should agree that the presence in the legal doctrine of the category "tax object" along with the object of taxation is necessary. In this connection, in this article the terms "object of taxation" and "tax object" are considered as synonyms. If you turn to property taxes, for example, to the tax on the property of individuals, then residential houses, apartments, rooms, car places, etc. with ownership of these objects are the object of taxation. In this context, it is rightly noted that the right of ownership, which is the basis of personal rights and freedoms, also serves the public interest of taxation. The object of land tax is land plots that are both in the ownership right and owned by taxpayers on the right of permanent (unlimited) use or the right of lifetime inheritable possession. If there is a right of gratuitous use of the land plot or its lease, which by definition are characterized by a much less stable legal relationship with the taxpayer, then the object of this tax is absent (Cockfield: 2002).

It is obvious that the tax base is regarded as a cost, quantitative, or physical characteristic of the object of taxation, which is determined for each tax independently. One cannot but agree with the opinion of scientists that the tax base is one of the tools of the State's tax policy, and this, in turn, allows the regulatory function of the tax to be realized.

The main function of the tax base, as A.V. Demin considers, is to express the object of taxation quantitatively, i.e., measure it. For this, it is necessary to select a parameter that will be used as the basis for measuring the object of taxation. However, the tax base is not just a parameter. It is a parameter expressed in certain tax units, i.e. the tax base is the size (value) of the object of taxation in units of taxation. Since the tax base and the procedure for determining they are established for each tax separately, the task of the legislator is to select from the set of possible parameters of the object of taxation the most optimal and then determine the procedure for calculating the tax base in relation to a specific tax. It is rather often, such parameters coincide for different taxes, but the tax bases are always calculated differently (Babin & Vakaryuk: 2018).

Most often, in practice, a cost (money) parameter is used. The value (monetary) parameter has VAT. Physical parameters represent a variety of physical characteristics, including area, volume, power, mass, etc. Water and transport taxes are an example (Babin & Vakaryuk: 2018, pp. 21-40). Today, the definition of the tax base for personal property tax based on the cadastral value of real estate remains one of the topical issues.

It is also disputable to establish a date with which the cadastral value, revised according to the results of the contest, is valid. In accordance with Article 403 of the Tax Code, in the event of the change of the cadastral value of the property object, according to the decision of Commission on consideration of disputes on results of definition of cadastral cost or judgment of any court, a new information about the cadastral value is taken into account when determining the tax base, starting with the tax period in which the relevant application has been submitted. Given the fact that the taxpayer actually learns about the tax base and tax liability upon receipt of a tax notice (i.e., in the new fiscal period), this provision requires adjustments (Shestak & Volevodz: 2019). The tax base is determined with the help of the methods that include: direct, indirect, conditional, lump-sum. For example, to calculate the profit tax, a direct method is used, which means measuring the tax base based on objectively existing and documented indicators.

The process of levying taxes will be effective only when the tax base accurately characterizes and determines the object of taxation. At the same time, the dependence between financial indicators and tax liabilities should be taken into account. The reliability, completeness of the collected and processed by the tax authorities with the help of digital technologies will allow improving the applicable tax forms in future. In order to ensure this process, it is necessary to harmonize tax and accounting legislation. On the one hand, the methodological approach to calculating the tax base based on accounting data requires the formation of accounting data with a greater degree of objectivity. On the other hand, the tax legislation must take into account the specifics of the formation of accounting indicators when choosing the limitations and norms that determine the method of calculating the tax base. In conditions of development of digital economy it will allow ordering algorithms of data processing and access to such data.

#### Accurately measuring and analyzing antitrust rents is necessary to develop an overall theory of regulatory taxation.

Schwerhoff ’20 [Gregor, Ottmar Edenhofer, and Marc Fleurbaey; April 2020; Economist for in the Multilateral Surveillance Division of the IMF's Research Department, PhD from the University of Bonn; Director of the Mercator Research Institute on Global Commons and Climate Change, PhD in Economics from Technical University Darmstadt; Robert E. Kuenne Professor in Economics and Humanistic Studies, and Professor of Public Affairs and the University Center for Human Values at Princeton University, PhD in Economics from Ecole des Hautes Etudes en Sciences Sociales; Journal of Economic Surveys, “Taxation of Economic Rents,” vol. 34]

Abstract

Economic rents have long been identified as an efficient tax base. In addition, the recent literature documents that rent income is highly concentrated and that rents are quickly increasing. Rent taxation thus seems attractive for reasons of both efficiency and equity. Nevertheless, rent taxation remains a marginal topic in research and policy making. In a systematic review of the neoclassical literature on different rent types, we find that some types of rents reflect inefficiencies and should thus be minimized, while others reward investments and should be supported in line with social welfare. What remains for taxation are land rents, one of the few true scarcity rents. Land rents have significant potential to improve the efficiency of the tax system. We then begin to develop a comprehensive theory of land rent taxation by identifying relevant efficiency and equity effects. The interaction of many of these effects remains unexplored, which might explain policymakers' hesitation in using land taxes to date.

1 Introduction

Progressive income taxation as discussed in Mirrlees (1971) has received a great amount of attention by economists as a response to inequality and as an approach to redistribution. Recently, authors, such as Piketty (2014), have pointed out that a strong concentration of wealth is a major source of inequality, which cannot be addressed by progressive income taxation. Stiglitz (2015) refines this analysis by pointing out that a major driver of the concentration in wealth is an acceleration in rent income. He continues to note that models that equate wealth and capital are therefore insufficient to understand increasing inequality.

The high concentration of rents and the disproportionate increase in rents identified in the recent literature suggest that rent taxation could be an ideal tool of redistribution. Rent taxation does not distort the supply of the tax base. For this reason, it is much better suited for redistribution than are capital taxes. Nevertheless, rent taxation is a marginal topic, both in research and policy making.

This paper aims to bridge the gap between the conceptual appeal and the practical irrelevance of rent taxation. As a first step, we outline the scope of a potential theory of optimal rent taxation. We identify seven types of rents. Three types of rents are based on exerting market power and need to be addressed by competition policy. Inframarginal rents have been analyzed theoretically, but empirical analysis is thus far insufficient to guide policy. True scarcity rents and “regulation rents” are suitable for taxation. Regulation rents are those rents that result from regulation motivated by social and environmental concerns.

Empirically, both scarcity rents and regulation rents turn out to be mostly land rents. Land rents are considered to be an efficient source of taxation, but a major obstacle for their introduction is a concern about distributional effects. We propose to make the trade-offs explicit by identifying the most relevant effects for efficiency and equity. Efficiency effects include the nondistortionary effect of land rent taxation on the tax base and incentive effects for the development of land-augmenting technical change. Equity effects include vertical equity, the effect of taxation on households with different levels of wealth, and revenue recycling, reflecting that households may indirectly benefit from increases in land rent taxes, even though they have to pay more for their land.

The empirical literature shows that nonrenewable resources are not scarce in an economic sense. The reason is that progressing technology allows access to ever more resources. The rents obtained in the resource sector have been proven to be rents from market power, not scarcity rents. Rent taxation is thus not an efficient approach for resource rents. Instead, it would be welfare enhancing to apply competition policy and environmental regulation according to the environmental damages caused by the extraction and consumption of the resources. Environmental regulation might include environmental taxes, but these are distinct from rent taxes.

The theoretical appeal of land rent taxation is widely acknowledged and accepted. It is often considered practically infeasible, however. One important reason is the measurement of land rents—they are often bundled with buildings, thereby making the rent not directly observable. This is discussed in more depth in Section 4.2, in which we conclude that identifying land rents is a challenge that has been mastered well enough for practical purposes. A second important reason for the practical infeasibility of land rent taxation is the associated distributional effects. This is discussed in Section 5. We conclude, however, that land rent taxation is very likely to be progressive. As in other areas of optimal taxation, it is important to separate the analysis of welfare optimizing policy from the debate of the political economy of introducing it.

Among economists, the interest in rent taxation has resurged recently (after it had been of great interest to some early economists) due to the empirical observation that rents are quickly increasing and that their ownership is highly concentrated. Piketty (2014) pointed out that there has been a sustained increase in the capital/income ratio, which has been driven largely by housing capital. Knoll et al. (2017) break down the housing value into its components and identifies increasing land prices as the major driver of the increase in housing prices. Cowell et al. (2018) show that housing wealth is distributed very unequally among households in developed countries. Stiglitz (2015) considers different types of rents and argues that they reflect large amounts of wealth and are also highly concentrated.

While there has been no attempt at developing a comprehensive theory of rent taxation, some papers have considered some of the trade-offs between efficiency and equity effects of land rent taxation. Feldstein (1977) and Petrucci (2006) point out that an uncompensated land tax would have distortionary effects. In response to Feldstein, Fane (1984) clarifies the difference between compensated and uncompensated taxes. Koethenbuerger and Poutvaara (2009) analyze the distributional consequences when land ownership is heterogeneous in an overlapping generation model. Plummer (2010) and Choi and Sjoquist (2015) draw attention to potential effects of land rent taxation on horizontal equity. We use these and other papers to assess the full range of effects that would determine the impact of land rent taxation on social welfare.

The idea of developing a theory of optimal rent taxation is based on the existing approaches in the literature concerning other tax bases. Mirrlees (1971) provides a breakthrough concerning labor taxation. One of the important innovations in that study was to consider households with different endowments of labor productivity. The model shaped the basic understanding of how taxes can be made progressive to reconcile the objectives of efficiency and equity. The same basic idea is applied to capital taxes by Chamley (1986) and Judd (1985). Their models consider the effect of capital taxes on households with different capital endowments. In this paper, we take the first steps to develop a theory of land rent taxation in which households with different levels of land rent income are considered.

In this paper, we review the understanding of rents in neoclassical welfare economics and propose a classification of the different types of rent and as well as determinants of optimal rent taxation. A review of the literature on economic rents in all economic schools of thought would go beyond the scope of a single paper and reviews on rents in other schools of thought are already available. Outside of neoclassical economics, other schools of thoughts, such as classical economics and Marxist economics, contributed to the understanding of economic rents. Ward and Aalbers (2016) provide an overview on these approaches. To determine the potential scope of rent taxation, in Section 2 we define a rent and present a systematic classification of rent types. In Section 3, we use empirical evidence to identify the appropriate rent-type classification for some of the most important sources of rents. As land rents are a potentially attractive tax base, we present all major effects of land rent taxation on efficiency in Section 4 and on equity in Section 5. We conclude in Section 6. 2 The Scope of Rent Taxation Theory An analysis of rent taxation requires a precise definition of the term, but also an understanding of the limits of taxation compared to other policy options to influence rents in the interests of social welfare. In this section, we propose a scope of what rent taxation should address. 2.1 Definition of Rent The precise meaning of the term economic rent has been subject to debate (Brown, 1941; Mishan, 1959; Currie et al., 1971). Modern public economics settled for economic rent as being “those payments to a factor of production that are in excess of the minimum payment necessary to have it supplied” (Varian, 2006, p. 412), which is a linguistic update of a definition introduced by Wessel (1967). As the authors providing these definitions have primarily land and natural resources in mind, the definition refers to a factor of production. However, there is nothing in the text of Wessel (1967) and Varian (2006) about rents that is specific to production factors. In addition, inframarginal rents as well as the “pure profits” resulting from market power are understood to be economic rents in the literature. We therefore generalize the definition of economic rent to “those payments to a good that are in excess of the minimum payment necessary to have it supplied.”1 This is a minor adjustment following the spirit of Wessel (1967) and Varian (2006) and reflecting the use of the term in the literature. There is, however, no reason to focus on supply rather than demand, and a further generalization of the definition would refer to “those benefits to an agent that are in excess of the minimum necessary for the agent to accept the transaction.” This additional generalization is important to incorporate monopsony rents in the analysis, in particular. Piketty (2014) gives two more definitions of a rent, one more general and one narrower than the definition used in public economics, see Figure 1. The one he uses in the book is more general: “income on capital, whether in the form of rent, interest, dividends, profits, royalties, or any other legal category of revenue, provided that such income is simply remuneration for ownership of the asset, independent of any labor.” Dictionaries' definition of “rentier” refers to this definition of the word rent. Definitions of Rent. According to Piketty (2014), the meaning of the word rent shifted over time and is now often used “to denote an imperfection in the market (as in ‘monopoly rent'), or, more generally, to refer to any undue or unjustified income.” This explains why “the words ‘rent’ and ‘rentier’ took on highly pejorative connotations in the twentieth century.” This meaning of rent is termed “exploitation rent” by Stiglitz (2015). Piketty (2014) uses a broad definition of rent because his book is concerned with wealth inequality. In this paper, we are concerned with a specific type of assets: those that yield rents in the sense of public economics. In the remainder of this paper, we therefore use the definition of rent given by Wessel (1967) and Varian (2006), and its generalization to demand. 2.2 Types of Rents Among the rents that conform to our definition, different types can be distinguished. Before introducing a taxonomy of rents, it should be clarified that rents can appear in at least three different contexts. Consider the partial equilibrium demand–supply framework. In this framework, two types of rents can be identified, as illustrated in Figure 2. Rents in the Partial Equilibrium Setting. In this figure, a rent appears when the quantity traded is below the equilibrium. This rent will be captured by the supply side in case of monopoly for instance, by the demand side in case of monopsony and by the government in case the wedge between supply and demand is generated by a tax. Whether this situation generates a deadweight loss (DWL in the figure) depends on the presence of social costs and benefits, in addition to private costs and benefits that determine the demand and supply curves. The surplus obtained by either side of the trade is another form of rent, since the curves are not perfectly elastic. The surplus is usually considered to be an acceptable form of benefit. However, the difference between the surplus and rent is sometimes thin, as illustrated below. Moreover, consider an industry in which the firms manage to externalize some of their costs. This increases their surplus (as well as consumer surplus), even under perfect competition, but it is not a socially optimal form of increasing it. Therefore, one can always suspect some of the producer and consumer surplus to come from externalized costs (such as health problems for workers), a form of rent-seeking behavior. Another setting in which similar rents can occur is bilateral trade bargaining. In this case, one can identify rents with the benefit that either side obtains above and beyond the disagreement point. In standard situations, this benefit is very much like surplus. However, rent seeking occurs when a party tries to enhance its bargaining power, and one can also identify a form of rent simply when one party has a greater bargaining power due to certain positional advantages (e.g., wealth that decreases risk aversion). A third setting in which a rent is observed is when information is asymmetric among agents and some agents are able to obtain an advantage by keeping their information private. This type of informational rent is pervasive in adverse selection when high-type (e.g., high skilled or high risk) agents are able to derive a benefit from their ability to mimic low-type agents’ observable behavior. In this paper, we focus on the partial equilibrium setting and devote the remainder of this section to a taxonomy of rents in this setting. In order to make the classification practically relevant, we base the clustering on the different types of government intervention, which are required to address them. We obtain seven categories: regulation rents, political rents, investment rents, natural monopolies, market power, inframarginal rents, and scarcity rents. Following the description of the types of rents, we discuss the optimal policy responses in Section 2.3 and discuss examples in Section 3. 2.2.1 Regulation Rents For goods that cause an externality, there is a difference between the private marginal cost and the social marginal cost of production. In order to internalize the externality, the government can use regulation to shift the market equilibrium from the intersection of the private marginal cost with demand toward the intersection of the private plus social marginal cost with demand. If the dashed line in Figure 2 is interpreted as a government imposed maximum of production, the dark gray area represents the regulation rent. The produced quantity and the price correspond to the social optimum. When the regulation is implemented in the form of taxes or sale of quotas, the government automatically captures the rent and there is no DWL. 2.2.2 Political Rents Political rents are similar to regulation rents in the mechanism, but the objective of the policy is different. Political rents are those that are tolerated or even actively created with the intention of granting a private source of income. The creation of political rents was described by Stigler (1971) and has been broadly documented (Benmelech and Moskowitz, 2010; Mian et al., 2010; Duchin and Sosyura, 2012). Political rent creation often works through excluding competitors (Djankov et al., 2002), so that these rents could also be termed exclusion rents. As politicians create these rents intentionally, it may be naive to attempt to reduce these rents. Djankov et al. (2002), however, show that better institutions, and democracy in particular, are more successful in reducing political rent creation. Political rents can be more or less subtle. An aggressive form of political rent is described in Parente and Prescott (1999), in which policy makers actively maintain monopolies with the intention of enriching themselves. An intermediate form for political rent occurs when firms develop ways to exclude competitors. While the firms take the initiative and in many cases do not share the benefits actively with policy makers, the government still fails to regulate effectively and thus tolerates the creation of rents. Examples for this latter type of political rent are rents in the financial sector, see Section 3.4. Whenever economic activities are restricted, rents are generated. Politicians can channel these rents to support groups, but the rents also provide an incentive for individuals to engage in rent seeking (Krueger, 1974). This effect may be particularly pervasive in the early stage of democratization when more openness increases the opportunity to gain access to rents (Mohtadi and Roe, 2003). In a situation with strong political polarization, governments have an incentive to capture the rents of government spending for their own constituencies, by spending all available revenue. The attempt to spend all available revenue can cause government spending to become procyclical and thus lose the opportunity of using government spending for countercyclical consumption smoothing (Ilzetzki, 2011). Apart from the obvious distributional implications, rent-seeking activities also reduce aggregate efficiency. Murphy et al. (1991) show that economies grow more slowly when they provide incentives for their most talented workers to engage in rent seeking instead of innovation. When there are competing social groups and aid is not linked to binding policy commitments, then foreign aid causes so much rent seeking that the provision of public goods does not increase through the aid (Svensson, 2000). Similarly, newly discovered natural resources shift entrepreneurial activity from productive firms to rent seeking so that aggregate welfare may fall (Torvik, 2002). When the dashed line in Figure 2 is interpreted as a deliberate reduction of supply by a collusion between government and producers, the dark gray area corresponds to political rents. The necessity of government intervention, or a reform of governance to prevent this type of collusion, derives from the creation of a DWL. 2.2.3 Investment Rents Investment rents are created when private investments allow firms to obtain market power. Van Reenen (1996), Bresnahan et al. (1997), and Petrin (2002) show directly how innovation allows the innovator to obtain market power and the resulting rents. The literature on endogenous growth (Grossman and Helpman, 1991; Aghion and Howitt, 1992) points out that rents are crucial as an incentive for innovators. The reason is that creating an innovation requires investment, but the innovation can be used at zero cost. In an unregulated market, this would cause a market failure and no innovations would be created. Regulation can take the form of patents, given to innovators so that they can limit supply, create rents, and finance their innovations with these rents. Hayek (1948) and Weizsäcker (1980) argue that establishing a brand is an investment with similar properties as an investment into innovation. Investment rents are closely related to political rents and are also represented by the dark gray area in Figure 2. The difference between the two is that investment rents compensate the investor for the innovation. They thus serve as a means for correcting a market failure that would otherwise occur for an investment with fixed costs but no marginal costs of production. As the endogenous growth literature emphasizes, investments into research and development are based on a cost–benefit calculation of firms. On the cost side are investments into capital and labor as well as a risk premium, since there is a significant amount of uncertainty involved in research. On the benefit side are the rents, which can be obtained under the protection of the patent for as long as the patent lasts. If the patent duration is too short, there will be no investment into expensive research projects. If it is too long, firms will earn a rent exceeding the amount necessary to motivate the investment. In this case, the exploitation of the market power will last inefficiently long. The government should thus set patent duration to optimize this trade-off. As Antonelli and Gehringer (2017) point out, Schumpeterian creative destruction can have important benefits for society: New innovations destroy the business of wealthy incumbents and thus reduce inequality. A healthy rate of technological progress thus ensures not only economic efficiency, but also contributes to equity. 2.2.4 Natural Monopolies Natural monopolies are defined by Baumol (1977) as “an industry in which multifirm production is more costly than production by a monopoly.” Natural monopolies arise in industries with barriers to market entry like high fixed costs. A natural monopoly can create rents through the monopolist's market power. However, part of the rent may serve to cover the fixed costs, as in the case of investment rents. Here again, the rent is excessive only if it more than compensates for the fixed costs. 2.2.5 Market Power Market concentration can occur spontaneously through economic forces, such as network effects and aggressive anticompetitive behavior by some firms. An example for this are the large internet-based companies. Some of these firms may not engage in anticompetitive activities and may simply try to grow as much as possible. As their market power increases, their rent increases along with their markup (Barkai, 2016; De Loecker and Eeckhout, 2017, 2018). The distinction between these rents and political rents is subtle, considering that it would be the role of the government to regulate these markets in the interest of social welfare. Possible regulation ranges from prohibiting the acquisition of competitors to an enforced break-up of the company. A government that does not make use of regulation is effectively tolerating the creation and exploitation of rents, becoming an accomplice to the persistence of the rent. 2.2.6 Inframarginal Rents Inframarginal rents occur when the production technology is convex, see the lower light gray area in Figure 2. In this case, the market price is higher than the production cost of inframarginal units, so that the revenue on them exceeds costs, thus providing a rent. Hellwig and Irmen (2001) show that inframarginal rents can have a similar role as the rents created through the market power of an innovator: They can finance innovation. Inframarginal rents are difficult to measure precisely, because they require information on the cost of production. Because of their potential role of financing innovation, they might also have a socially beneficial function. In addition, “little is known about the source and significance of these rents” (Boldrin and Levine, 2008). It may appear odd that “little is known” about this type of rents, even though every student of economics is familiar with graphs of increasing supply curves in economics textbooks. The apparent contradiction is resolved by Varian (2006) when he distinguishes between the supply curves of individual firms, which may be increasing, and industry supply curves, which determine the market equilibrium: “In an industry with free entry and exit, the long-run average cost curve should be essentially flat at a price equal to the minimum average cost” (Varian, 2006, p. 408). At such a price, the marginal cost is also equal to the price and there is no scarcity rent in the form of the dark gray area of Figure 2. Moreover, the inframarginal rent (producer surplus) exactly covers the fixed cost. The free entry condition automatically apportions the inframarginal rent to the fixed costs that need to be covered. 2.2.7 Scarcity Rents from Bounded Supply For some goods, the cost of production is an increasing function of the total amount produced. As a result, the supply curve is upward sloping and this slope can become extremely steep. As long as the supply curve is continuous, however, there will be an equilibrium price at which the cost of production is equal to demand. This kind of good yields inframarginal rents, but the good is not really scarce—more could be produced if demand were higher. For some goods, the supply curve is below demand and then breaks off, meaning that no additional production is possible. In these cases, demand at the maximum amount of production determines the price. Since this price is higher than the marginal cost of production, a scarcity rent results, see Figure 3. The intertemporal management of a resource available in finite supply is analyzed in “Hotelling models” named after Hotelling (1931). Scarcity Rents (Gray Area) Result When There is a Definite Limit to the Supply of a Good and When Demand at the Maximum Possible Amount of Production Exceeds the Marginal Cost for Producing the Good. Figure 3 illustrates how similar a scarcity rent is to producer surplus. In the figure, the demand curve intersects the marginal cost curve (in its vertical part) and, referring to Figure 2, the gray area is technically a surplus. But, imagine that for some reason (regulation or political intervention), production stopped just before the maximum amount was reached. In this case, a rent is clearly created. By making the production come closer and closer to the maximum, this rent tends toward the surplus that we see in Figure 3. 2.2.8 Classification of Rents The distinction of rents described above highlights that rents can be classified in different ways. Some rents have similarities that could justify grouping them together: Political rents, investment rents, and natural monopolies all associate with market power. Scarcity rents, due to bounded supply, could be seen as a variety of inframarginal rents, the difference between the two simply being the discontinuity in the supply function in the case of scarcity rents. Regulation rents are related to scarcity rents due to bounded supply since the regulator effectively acts (partially or fully) like a monopolistic owner of a scarce resource by reducing supply to more sustainable levels. Political rents and regulation rents both result from political interventions, which cause a reduction in supply. They are distinguished by whether or not the intervention increases social welfare. If a different criterion of classification were used, naturally, different categories would result. Apart from the superordinate term “economic rent,” only the term “monopoly rent” is defined in the literature. The need for further distinction, however, becomes clear in the literature on rents from resources like oil. The literature shows that rents from the production of oil exist, but also shows that they originate from the market power of the producers and not from a genuine scarcity rent as described here. 2.3 Optimal Policy Based on this classification, we can identify which type of rent should be addressed with which kind of policy. We assume that the government maximizes a Bergson–Samuelson welfare function and that reductions in aggregate efficiency and increasing inequality are reflected in lower welfare. Regulation rents result from deliberate welfare-increasing government intervention. They do not indicate an inefficiency and do constitute an efficient tax base. In many cases, however, the regulation takes the form of market instruments like taxes or certificates. This leaves no room for additional taxation. When the regulation takes the form of excluding a part of the resource from economic use, as in the case of forest protection, the resulting rent can be subjected to taxation. Political rents can be seen as the result of an inherent principal–agent problem between the population (the principal) and the government (the agent), as the government's interests are not perfectly aligned with social welfare. This makes the complete elimination of political rents very difficult. As political institutions mature, however, there are options to minimize political rents. One option is competition policy (Motta, 2004; Wilks, 2010), which is also central for other types of rents. In addition, political rents can be reduced by improving governance. Hill and Hupe (2014) provide an overview of how this can be implemented.

Investment rents are justified by the socially beneficial investments financed with these rents. This type of rents is thus also subject to competition policy, but the focus here is to identify the right level of rents, not to eliminate the rents altogether. An important part of competition policy with respect to investment rents is the regulation that concerns patents and trademark law. The optimal design of patent systems is analyzed in Gilbert and Shapiro (1990), Encaoua et al. (2006), and Judd et al. (2012) for example. In addition, Mazzucato (2013, 2018) emphasizes that the government has an important direct role in developing innovations. When these innovations are made freely available, the respective rent is appropriated by society at large.

For natural monopolies, it is insufficient to remove entry barriers and ensure fair competition. Market power cannot be avoided in this way. Instead, strong government action is required (Joskow, 2007; Joskow and Wolfram, 2012; Lim and Yurukoglu, 2017), for example, in the form of publicly run providers2 with a regulated pricing strategy.

Market power emerging from spontaneous economic forces is the object of competition policy. While competition policy is usually understood as a form of regulation, it actually often involves fines that can be interpreted as a form of taxation of illegitimate profit. In the dynamic evolution of the level of market concentration, taxes on profits made by dominating firms can operate as a deterrent and are efficiency enhancing. Modulating corporate tax as a function of market concentration does not necessarily mean that the optimal average level of corporate tax should be higher than current levels. However, high levels of recidivism, for instance in Europe, indicate that the current level of fines is insufficient, in spite of a steep increase in the last decades (Geradin and Sadrak, 2017).

Taxing rents that result from market power can complement more direct approaches to reducing market power. When rents from market power occur, they should be separated from other components of profits for the purpose of taxation (Griffith and Miller, 2014). Once these rents are identified, it is optimal to tax them at 100% since they are nondistortionary (Judd, 2002; Coto-Martínez et al., 2007).

Inframarginal rents are insufficiently understood thus far (Boldrin and Levine, 2008). Before they can be addressed politically, they will thus have to be analyzed in more detail. As indicated above, in the case of free entry and exit, in the long run these rents adjust to cover fixed costs.

Scarcity rents, due to bounded production, cannot be abolished with competition policy or with any other government intervention. By definition, the production of the good creating the rents cannot be expanded. Just like regulation rents, these rents should thus be subjected to optimal taxation. Optimal taxation does not necessarily mean “maximal taxation,” since taxation can cause negative effects, in particular for the distribution of income. In Sections 4 and 5, we explore which aspects have to be considered in optimization. 3 Major Examples of Rent Generation Different types of assets, including resources, certain types of investments, and government-granted privileges, yield rents. It is not always evident which type of rent they generate. Some resources, for example, are scarce, but the high rents result from regulation that protects these resources from being exploited unsustainably. Other resources are not scarce at all, yet they nevertheless generate rents, because there are only a few producers, who can exert market power and thus generate market power rents or preserve them as political rents. In this section, we review the empirical evidence to classify rent-yielding assets according to the categories defined in Section 2.2. 3.1 Nonrenewable Resources The Hotelling (1931) model of exhaustible resources has strongly influenced the economic analysis of nonrenewable resources. This model is based on the assumption that resources are very limited and thus earn a scarcity rent. Empirical research, however, has revealed that the amount of resources available is sufficient to maintain current economic consumption for centuries (Krautkraemer, 1998). These resources are available more or less easily. As technology progresses more and more, resources can be acquired (Hart, 2016). As a consequence, tests of the Hotelling model are typically rejected (Halvorsen and Smith, 1991; Lin and Wagner, 2007; Atewamba and Nkuiya, 2017). Ellis and Halvorsen (2002) find that the difference between the price and the marginal cost of resources is mostly due to market power rather than scarcity rents. Livernois (2009) concludes that “the empirical evidence seems to suggest that scarcity rent may actually have been the least important determinant of price so far.” Hart and Spiro (2011) find “that scarcity rents seem to have been marginal or non-existent historically” and “that they almost certainly do not dominate resource prices today.” Even profits in the oil sector do not seem to be originating from scarcity rents. Hamilton (2009) conclude that “scarcity rent made a negligible contribution to the price of oil” and Cairns and Calfucura (2012) find the “scarcity rent to Saudi oil production to be negligible.” Instead, the profitability of oil production seems to originate in market power (Hansen and Lindholt, 2008; Huppmann and Holz, 2012; Nakov and Nuno, 2013). Garnaut (2010) claims that there are significant resource rents to be taxed in Australia. However, these rents originate from the allocation of mining leases by the Australian governments and from rents obtained by prior exploration activity (called “quasi-rents”). According to our classification, these are regulation and investment rents, respectively. The regulation rent would not arise if the government would demand market prices for the mining leases. The investment rents should not be taxed, as also highlighted by Garnaut (2010). According to the classification presented in Section 2.2, rents from nonrenewable resources are thus market power rents and political rents. Governments allow their domestic resource producers to exercise market power that keeps prices high even though the resources are not constrained “in the sense of the economics of exhaustible resources” (Cairns and Calfucura, 2012). The case of nonrenewable resources discussed here shows that a single national government cannot ensure fair competition, since there is a global market. It is important to note that the supply of nonrenewable resources could be much higher if regulation encouraged free competition. This stands in contrast to a situation in which resources are naturally scarce. In addition to sound competition policy, a welfare maximizing regulation of resource markets would, of course, require environmental regulation. We thus have to make the important distinction between the taxation of a resource and the taxation of a rent. Consider a government of a closed economy and assume that it intends to regulate resource extraction to maximize social welfare. As resource extraction and/or consumption generates environmental externalities, the government needs to implement Pigouvian taxation. The Pigouvian tax generates a regulation rent that is automatically absorbed by the government. If a given resource is not harmful to the environment, then supplying the resource at a competitive price would optimize social welfare. A resource that does not cause environmental externalities is just a commodity like many others. The literature on commodity taxation (e.g., Atkinson and Stiglitz (1976) and Kaplow (2006)) indicates that the reasons to tax commodities involve issues of complementarity with leisure and correlation of consumption patterns with inequalities. Otherwise, income taxation is a more suitable method of redistributive taxation. Franks et al. (2017) give an apparent counterexample to the claim that resource rents should not be taxed. In the paper, the government of a resource-importing economy taxes CO2 emissions in order to capture the rent of the resource exporter. This indirect taxation of a resource rent increases welfare. The important point, however, is that the two governments do not act cooperatively and thus do not achieve globally optimal policy. It would be efficient from a global perspective to ensure competitive production3 and then, if the resource is environmentally harmful, to apply Pigouvian taxation. 3.2 Land All over the world land is protected from economic use for conservation purposes. The total area of land under protection was 12.9% in 2009 (Jenkins and Joppa, 2009) and 14.6% in 2015 (Butchart et al., 2015), continuing a long run upward trend (Watson et al., 2014). Much of this land would be valuable for agriculture—the conservation policy thereby withdraws some land from the market that would otherwise be used. As a consequence, the remaining land has a higher market price than it would have without the regulation. According to Section 2.2, land thus generates a regulation rent. This regulation rent could be subjected to taxation, since the regulation typically does not take the form of a land tax or permits for land use. The steadily rising prices for urban land, as documented by Knoll et al. (2017), cannot be explained with regulation for conservation purposes alone. Agricultural land is more valuable near cities (Guiling et al., 2009) and urban land is more valuable in city centers (Capozza and Helsley, 1989). Land in good locations is thus scarce and earns a scarcity rent. Lichtenberg (1989), Gurgel et al. (2011), and Bustos et al. (2016) describe technical change that has a land-augmenting effect: it increases land rent because it increases the productivity of the land. The part of the land rent gained with this kind of investment in technology is thus an investment rent. Similarly, investments in infrastructure can generate an investment rent in surrounding land. Caselli and Feyrer (2007), Table 1, give an empirical estimate of the importance of land rents. According to these data, cropland, pasture, and urban land had shares of, respectively, 11.4%, 4.5%, and 13.1% in total wealth globally. Kalkuhl et al. (2018), Table 10 in the Online Appendix, present a calculation of land rent, and thus their empirical importance, in individual countries. 3.3 Renewable Resources Renewable resources are often linked to scarcity. Fish stocks and forest resources, for example, are reduced by harvest and have a natural regrowth. When the harvest exceeds the pace of regrowth, the stock can reach zero without the prospect of recovery (Stavins, 2011). For this reason, in most cases, these resources are regulated: harvest is limited by regulation. This regulation gives rise to rents that are reflected in the high value of fishing quotas (Homans and Wilen, 2005; Andersen et al., 2010; Arnason, 2012). Fish and forest resources are thus examples of regulation rents. In many cases, the government directly skims these rents through the sale of quotas, which is equivalent to taxation. For timber with extremely slow regrowth rates, regulation rents are very similar to the scarcity rent of a monopolist (in this case, the government) selling off a nonrenewable resource (Livernois et al., 2006). A very important type of renewable resource is the “disposal space in the atmosphere” (Edenhofer et al., 2015a; Jakob and Hilaire, 2015). Without regulation, this disposal space is not scarce. Once it is regulated, however, emission rights for CO2 can be very valuable. Governments can appropriate these rents by selling emission certificates or taxing emissions. Hydropower seems to be an interesting special case. As the sources for hydropower are limited, it generates “significant” rents (Banfi et al., 2005; Banfi and Filippini, 2010). As the water flow does not require protection through regulation, this is a genuine scarcity rent. The government of Switzerland captures these rents through fees. 3.4 The Financial Sector There is a strong intuition that some indicators of the financial sector can only be explained with the exploitation of economic rents. Private-sector debt more than tripled as a share of national income between 1950 and 2006, from 50% to 170% (Turner, 2017). Salaries are perceived to be higher than in comparable positions in other sectors with “CEOs who make 10 times as much as they would if they applied their talents to manufacturing firms” (Epstein, 2018). Some charges, for example, interest rates of credit cards, have been described as “extortionate” (Hudson and Bezemer, 2012). Arcand et al. (2015) provide empirical evidence that the relationship between financial depth and output growth is nonmonotonic. When credit to private sector exceeds 100% of GDP, it has a negative effect. If the financial sector manages to grow beyond that, incentives cannot be aligned with social welfare. However, in the words of Epstein (2018), “The sources of these rents… are not completely understood.” Referring to their observation on the effect of financial deepening, Arcand et al. (2015) observe, “the causality issue has not been fully resolved.” Nevertheless, there are some indications where these rents are coming from. Banks derive rents from implicit government guarantees to bail them out in a crisis (Admati and Hellwig, 2014). Actors in the financial sector can also externalize some of their costs (Di Tella, 2019) and manipulate the market (Putniņš, 2012). These cases fall in the category of political rents as they result from insufficient regulation. Further, there are rents from market power. The over-the-counter derivatives market is strongly concentrated (Epstein, 2018) and the credit card market is dominated by just two main companies, for example. Finally, Ryan-Collins et al. (2017) and Turner (2017) describe a feedback cycle between land and private credit. Land value is used as a collateral for private credit and the supply of credit is increasing land value. This indicates that the financial sector takes a share of land rents. 3.5 Electricity Capacity Since the production of electricity from some renewable resources is variable, electricity prices can reach high levels in times of low supply. Electricity providers, like gas-fired power plants, have marginal costs above those of renewable resources, so that renewables are the cheapest supplier when there is a large supply. When supply is low, however, gas-fired power plants can earn prices well above their marginal cost by exercising market power. At these times, they thus earn a rent that they use to finance the cost of maintaining capacity at the times of low demand. See Finon and Pignon (2008) and the other papers in that issue of Utilities Policy. The rents earned by electricity providers in times of low renewable supply are investment rents according to the classification in Section 2.2. Maintaining capacity, just like financing innovations, requires investments, but there is no market for the obtained product (security of supply and innovations, respectively). Instead, the investment is refinanced by selling a derived product (electricity or the product incorporating the innovation) at a high price achieved with the use of market power. 3.6 Rents on Beauty and Height A number of studies report that taller or more beautiful people earn higher wages. This is not among the most pressing of distributional questions, but it does raise the question of what type of rent the “beauty premium” and the “height premium” constitute, if any. The evidence for the height premium indicates that it does not reflect a rent at all. Case and Paxson (2008) find that height is correlated with cognitive ability. Vogl (2014) argues that the correlation results from “childhood inputs” and shows that taller workers sort into occupations with greater intelligence requirements. The beauty premium has been described as “pure employer discrimination” (Hamermesh and Biddle, 1994). It occurs with high school graduates (Fletcher, 2009) and can be based on no more than a photo (Bóo et al., 2013). The willingness of employers to pay more for attractive workers can be explained to some extent by the success of beautiful people with clients (Biddle and Hamermesh, 1998; Pfann et al., 2000), but it occurs across all sectors (Hamermesh and Biddle, 1994). This evidence suggests that part of the beauty premium is a scarcity rent, because customers and employers are willing to pay for beauty, a “good,” which is in limited supply and cannot be produced. In addition, Mobius and Rosenblat (2006) find that beautiful workers obtain a payment premium, because they have particular skills that enable them to manipulate employers in negotiations. 4 Efficiency Effects of Land Rent Taxation As we have seen, many forms of rent are political rents, investment rents, or rents from natural monopolies. The efficient policy response to these rents is governance reform and regulation to reduce them to zero or, in the case of investment rents, to their socially productive level. Inframarginal rents need to be better understood before they can be addressed by policy. This leaves regulation and scarcity rents (and possibly market power) for taxation. In the following, we will focus on land rent taxation as the most clear-cut example. Rent taxation is attractive compared to other forms of taxation because it does not cause tax avoidance in the form of supplying less of the tax base. In practice, however, a number of possible effects need to be considered when rent taxes are introduced. These effects can be grouped into efficiency effects (discussed in this section) and equity effects (discussed in Section 5). We begin with two clarifications. First, land generates different amounts of rents, so that there is a difference between taxing units of land and taxing the land rent, see Section 4.1. Second, there is no direct way of measuring the land rent, it therefore takes some effort to identify, see Section 4.2. With those clarifications made, four effects of how land rent taxes affect aggregate efficiency can be discussed. In Section 5, we go beyond the aggregate view and take the heterogeneity of households into consideration. Households own different amounts of land rents. Introducing a land rent tax would therefore cause a distributional effect: Households would have to pay different amounts of land taxes. This alone would have important implications for political implementation. A comprehensive assessment of distributional effects, however, must consider the effect of the additional revenue by the government. Households could benefit in the form of tax reductions on other taxes or from improved public good provision. The distributional effect will thus depend on the net effect of rent taxes paid and benefits received. 4.1 Types of Taxes In Section 3.1, we distinguished between the taxation of a resource and the taxation of a rent. For land, this translates into unit taxes and value taxes. This difference in the tax base has implications for both the surplus and the supply of land. The leftmost panel of Figure 4 shows the situation without taxes. The total amount of land (urn:x-wiley:09500804:media:joes12340:joes12340-math-0001) is sorted from highest to lowest value (V). The shaded area is the rent received by the landowner. The central panel shows the case of a roughly 50% value tax. Half of the rent remains with the landowner and the other half is taken by the government through the taxes (dotted area). The right panel illustrates the case of a unit tax. Only the land with a high value (up to L1) remains in use. Both types of taxes can be meaningful—they correspond to different policy objectives. Value taxes are applied primarily as a nondistortionary form of taxation, see the first effect described in Section 4.3. Unit taxes serve as a source of government revenue, but also allow for a sparing effect, see the second effect described in Section 4.3. If both a nondistortionary form of taxation and a sparing effect are desired, a combination of these types of taxation is meaningful. Some countries apply unit taxes differentiated by land type without the intention of achieving land sparing. In these cases, the unit tax is an approximate form of value tax as the type of land is the only information the government has available on its value.

4.2 Identifying the Rent

In Section 2.3, we identify which kind of policy is optimal to address the different types of rents. It is, however, not straightforward to separate rents from returns to capital, nor to distinguish the different types of rents. The performance of the policy depends on precisely identifying these rents.

#### 5. POLITICAL SUPPORT---the perm deflates the political foundation of progressive taxation.

Crane ’16 [Daniel; July 2016; Associate Dean for Faculty and Research and Frederick Paul Furth, Sr. Professor of Law at the University of Michigan; Cornell Law Review, “Antitrust and Wealth Inequality,” vol. 101]

A further complication relates to the political effects of changes in the levels of market power and market concentration. Work in economics and political science suggests that the political demand for higher tax rates increases as market concentration increases. 156 If so, systematic enforcement of the antitrust laws to ensure competitive markets could, over time, translate into lower electoral demand for progressive income taxation and eventually translate into a reduction in marginal rates and lower incidences of redistribution through governmental taxation and spending. That, in turn, could have very significant regressive effects, since progressive taxation and income redistribution have much more direct progressive effects than antitrust enforcement has (if any).

In sum, the trust-busting prescription to cure wealth inequality is highly speculative, at best. Economy-wide, the wealth distribution effects of anticompetitive conduct and remediation through antitrust enforcement are too ambiguous, attenuated, and dynamically interactive to permit the sort of broad claims commonly advanced in the monopoly regressivity thesis.

#### Generating Congressional will is key to spillover and effectiveness of future taxes.

Yonah ’21 [Reuven Avi and Yoseph Edrey; January 22; Irwin I. Cohn Professor of Law and Director of the International Tax LLM Program at the University of Michigan Law School, PhD in History from Harvard University, AM in History from Harvard University, JD from Harvard Law School; Professor of Law at the University of Haifa, PhD in Law from The Hebrew University of Jerusalem, LLM from The Hebrew University of Jerusalem; Law and Economics Working Papers, “Constitutional Review of Federal Tax Legislation,” no. 175]

The same analysis should be used when it comes to tax incentives. Congress must make an effort and calculate what is the economic advantage the public gains from the activities the government seeks to encourage. If the tax relief rate is higher than the benefit that will be generated for the public, we will be in a situation where the firms which will be entitled to the incentives are treated favorably compared to other firms who do not enjoy the tax relief. Such a legislative process would surely serve the public's constitutional right to information, prevent distortion of the voter's will and lead to efficiency in the fiscal activity of the government. As a result, this may incline some lawmakers to be less receptive to the pressure from lobbyists to enact new tax expenditures to favor their special interests.

In what follows, we will first define pure taxes and regulatory taxes (part 2). We will then discuss the constitutional limits on pure taxes (part 3) and on regulatory taxes, including tax expenditures (part 4). Part 5 concludes.

2. Defining Pure vs. Regulatory Taxes

A pure tax is a tax imposed for the purpose of either raising revenue in order to finance the implantation of the elected government's fiscal policy. A regulatory tax legislation is a tax imposed for the purpose of changing individual behavior.

In essence, regulatory tax legislation aims to improve the free market economy and regulate commercial activity by transferring the damages created by a particular activity (negative externality) from the injured party to the creator of the damage; or to transfer the benefits generated from a desirable activity (positive externality) from the beneficiary (usually the general public) to the firm who create the activity and causes the benefit.

For example: If Congress seeks to impose a Pigouvian tax on tobacco, it must receive a significant accurate evaluation of the amount of damage the public suffers from the smoking, and accordingly calculate the amount of tax/mandatory payment on cigarettes. In case the total amount to be collected from the manufacturers or smokers is higher than the total damage to the public, it means that it is discriminatory – nonsmokers do not pay this tax; or a penalty imposed without due process.

The same analysis should be use when it comes to tax incentives. Congress must make an effort and calculate what is the economic advantage the public gains from the activities the government seeks to encourage. If the tax relief rate is higher than the benefit that will be generated for the public, we will be in a situation where the firms which will be entitled to the incentives are treated favorably compared to other firms who do not enjoy the tax relief. Such a legislative procedure would surely serve the public's constitutional right to information, prevent distortion of the voter's will and lead to efficiency in the fiscal activity of the government.

#### 6. SHIRKING---the IRS will scale back if there’s also a prohibition. That guts the credibility of the tax.

Sacher ’19 [Seth and John Yun; Summer 2019; PhD in Economics from the University of Maryland; Professor at the Antonin Scalia Law School at George Mason University; George Mason Law Review, “Twelve Fallacies of the "Neo-Antitrust" Movement,” vol. 26]

IX. Fallacy Nine: Neo-Antitrust Proposals Can Be Efficiently Implemented Through the Existing Regulatory and Legal Framework

As noted above, expanding the scope of antitrust into new areas beyond the confines of the relevant market, or even beyond the economic field to concerns such as environmental quality, will have costs for competition agencies as their resources become stretched more thinly. However, to the extent such areas already are, or should be, the concern of other governmental bodies or other areas of law, a number of additional harms can result beyond those relevant to the competition agency itself.

The primary harm is simply waste, as multiple agencies actively study and intervene in the exact same things. Nevertheless, there are numerous other concerns. For example, "overdeterrence" can result if competition agencies get involved in areas that are the province of regulatory agencies, or handled through other means, such as contracting, as is often the case with privacy concerns. 148While proponents of neo-antitrust seem to be primarily concerned with issues of underdeterrence, the potential for overdeterrence is broadly recognized in both the legal and economic realms and the costs can be very real. 149

Overdeterrence is somewhat related to the issue of false positives, and both have similar effects. However, whereas false positives go more to the issue of the incorrect detection of a violation, overdeterrence goes more to the issue of the chilling effects from overly harsh punishment for a particular practice. It is also the case that by imposing a second level of review, which may be less accurate than the primary level, the likelihood of false positives is increased when competition agencies step into the areas already covered by regulators or other areas of the law.

Another key argument for limiting the role of competition agencies in non-competition issues is that other regulators may be led to believe that they can shirk their responsibilities. In a sense, this may mitigate some of the concerns with overdeterrence stated above. That is, if the regulator believes the competition agency will handle matters on its behalf, it may not start an investigation or impose a penalty. However, this is hardly an argument for allowing competition agencies to get involved in such matters because this essentially impairs the effectiveness of the regulatory regime. This can be particularly harmful in less developed nations with emergent antitrust and regulatory institutions. 150

On the other hand, with respect to detailed industry-specific knowledge, the regulatory agency may have informational advantages over the competition authority. (In the case of regulated industries, industry-specific knowledge often relates to a particular firm.) Thus, the competition agency will often not be adding to the expertise of the regulator and could also be undermining the legitimacy of both agencies. 151

#### ‘Prohibitions’ are an edict that forbids by law.

Mueller ’15 [Kimberly; February 25; Judge on the United States District Court California Eastern District; United States District Court for the Eastern District of California, “Peña v. Lindley,” Lexis]

The law does not, however, "prohibit[] the commercial sale of firearms." Marzzarella, 614 F.3d at 92 n.8; see also United States v. Barton, 633 F.3d 168, 175 (3d Cir. 2011) (noting Heller's distinction between "regulations" and "prohibitions"). Whereas the "imposi[tion] of conditions and qualifications on the commercial sale of arms" is "presumptively lawful," Heller, 554 U.S. at 627 n.26, the prohibition of commercial sale "would be untenable," Marzzarella, 614 F.3d at 92 n.8, because it would "effect[] a 'destruction of the [Second Amendment] right,'" Peruta, 742 F.3d at 1168 (quoting Heller, 554 U.S. at 629) (emphasis in original). As opposed to "conditions and qualifications," Heller, 554 U.S. at 627, "[a] 'prohibition' does more than merely alter or restrain a person's behavior; it is an edict, decree, or order which forbids, prevents, or excludes," Barton, 633 F.3d at 175 (internal quotation marks omitted); see also Jackson, 746 F.3d at 964 ("[A] ban is not merely regulatory; it prohibits . . . ." (internal quotation marks omitted, emphasis in original)). Thus, categorical prohibitions "go too far." Peruta, 742 F.3d at 1170. In Heller, for example, the Court invalidated the contested law, without subjecting it to constitutional scrutiny, because it was a "complete ban on handguns in the home . . . ." Id. at 1170 (citing Heller, 554 U.S. at 629). Similarly, in Peruta, the court summarily struck down the law in question because it was a "near-total prohibition on keeping [arms] . . . ." Id. In Silvester v. Harris, the subject of plaintiffs' second notice of supplemental authority, a fellow district judge found a ten-day waiting period to purchase a firearm an unconstitutional burden on the rights of those who already owned [\*34] firearms. 41 F. Supp. 3d 927, 2014 U.S. Dist. LEXIS 118284, 2014 WL 4209563, at \*28 (E.D. Cal. Aug. 25, 2014) (discussing longstanding presumptively lawful regulations as discussed in Heller, finding that waiting periods do not qualify, but noting laws "prohibiting the sale of certain types of firearms" may qualify).

#### Tax-based penalties are not a ‘prohibition.’

Gruodis ’16 [Povilas; June 3; Ph.D. and Lecturer at Vilnius University Faculty of Law, Attorney, JD in Law from Vilnius University; Social Transformations in Contemporary Society 2016, “Regulatory Function of the Tax Law: Methodological Origins and Specific Features,” ISSN: 2424-5631]

Abstract

It is common to think that the primary function of the tax law are fiscal which means that tax laws should be effective to collect budgetary income. Modern economics and modern tax law admit that tax law also has regulatory function which can be effectively used to regulate behavior. Every tax norm has strong regulatory impact which cannot be omitted. The regulatory function of the tax law is completely independent and cannot be originated from the fiscal function of the tax law. Tax laws can be very effective regulator and the fiscal function of the tax law is completely unnecessary for regulative purposes. The regulatory function and the regulatory impact of the tax norms are completely different from the regulatory function and regulatory impact of traditional “command and control” legal norms. In this research author analyzes the methodological origins and specific features of the regulatory function and the regulatory impact of the tax norms. As it is opposite to traditional “command and control” legal norms, tax norms can regulate behavior without setting any prohibitions or restrictions to taxpayers. That means that the regulatory function of the tax law are based on specific economically based self regulation mechanism which can be even more effective than traditional legal regulation based on sanctions and restrictions.

#### The most precise evidence agrees---taxes and prohibitions are categorically distinct.

Vesely ’21 [Arnost and Ivan Petrusek; Spring 2001; Ph.D. and Professor in the Department of Public and Social Policy and Staff at the Center for Social and Economic Strategies in the Faculty of Social Sciences at Charles University; PhD Candidate in Political Sociology at the Center for Social and Economic Strategies at the Faculty of Social Sciences at Charles University; European Policy Analysis, “Decision Makers’ Preferences of Policy Instruments,” vol. 7]

The third theoretical question relates to how instruments are conceptualized and classified by respondents. Classification of instruments is one of the most discussed topics in policy instrument scholarship (Hood & Margetts, 2007; Howlett, 2011; van Nispen, 2011; Salamon, 2002). Although there is no generally accepted typology, a distinction is nowadays commonly made between three families of policy instruments, also referred to as “sticks, carrots, and sermons” (Bemelmans-Videc, Rist, & Vedung, 1998; van Nispen, 2011). The first family consists of regulatory instruments such as orders, prohibitions (licenses, permits, regulations), and rights. The second family embraces financial means and incentives. They may be positive (grants, subsidies) as well as negative (taxes, user charges) from a consumer's perspective. The third family includes information and education tools. Sometimes a fourth family of tools is added, namely direct government, that is, the provision of goods and services by the state.

#### Taxation does not ‘prohibit.’

O’Donnell ’10 [Terrence; December 27; Judge on the Ohio Supreme Court, Juris Doctor at Cleveland-Marshall College of Law; Supreme Court of Ohio, “DirecTV, Inc. v. Levin,” Lexis]

The tax commissioner responds that the tax "simply differentiates between two forms of interstate commerce, not between a local economic activity and an out-of-state economic activity." Tax differentials, he asserts, are not "prohibited simply because the business adversely affected by the tax treatment generates less economic activity in the subject state than the business that received favorable tax treatment." The tax commissioner maintains that even if the tax technically discriminates against commerce, the sales tax may be "properly sustained as 'compensatory' or 'complementary' " to the franchise fees imposed on cable companies. Also, he contends that the satellite companies have abandoned the issue of intentional discrimination.

#### It’s understood by businesses as identical to a prohibition because the penalty for violating the plan is also ultimately financial. The response will be equivalent.

Rixen ’21 [Thomas and Brigitte Unger; July 2021; Ph.D. and Professor at the Otto Suhr Institute for Political Science at the Freie Universität Berlin; Chair of Public Sector Economics at the Utrecht University School of Economics; Regulation and Governance, “Taxation: A Regulatory Multilevel Governance Perspective,” p. 1-2]

Many introductory and foundational texts in the political and administrative sciences present taxation and regulation as distinct instruments of governance (e.g., Lowi 1972; Hood 1986; Knill & Tosun 2012). Regulation is understood as rules proscribing certain behaviors and sanctioning others. It is justified in terms of protecting the public interest and usually takes the form of laws, but may also include standards, principles and norms (cf. Levi-Faur 2011: pp. 4–6). In contrast, taxation works through the medium of money and shapes individual behavior through material incentives that leave actors leeway to act according to their individual cost–benefit calculations. While this distinction certainly makes sense, it collapses if one steps back to take a broader perspective. First, like regulation, taxation is based on laws, standards, principles, and norms. Tax law is backed by sanctions threats and (ultimately) state coercion. It is legitimized by reference to the public interest. Second, while the primary objective of taxes – with the important exception of environmental and sin or health taxes – may be to raise revenues, they discourage the taxed activity and thus shape individuals' or firms' behavior, that is, they have regulatory impacts (Barnett & Yandle 2004). Likewise, while the primary purpose of regulation is to proscribe certain behaviors, they can be understood as implicit taxes (Posner 1971). “From the standpoint of the affected individual or firm, all regulations are taxes and all taxes regulate” (Barnett & Yandle 2004, p. 217). Another reason why regulation and taxation are often seen as distinct is that regulation is conceived as a dynamic process, in which regulators and regulated are engaged in a continuous, personal interchange, whereas taxation is seen as a “static, stultified, coercive, and impersonal exchange” that consists merely in handing over money (Braithwaite 2007, p. 3). As Braithwaite and her colleagues have shown (Special issue of Law & Policy, vol. 29, issue 1, 2007), this juxtaposition has never held empirically. In contrast, tax systems at the national, regional, and global level are dynamic regulatory systems and they can and should be studied as that.

#### They’re value-maximizers who will instantly comply.

Riza ’13 [Limor; 2013; Senior Lecturer of Law, Faculty of Law at Ono Academic College; Houston Business and Tax Law Journal, “Should Tax Law Mind Minority and Monitor Majority: The Case of Undistributed Dividends and the Ability-To-Pay Principle,” vol. 13]

In the first alternative, the paper discussed the set of sections dealing with accumulated earnings. 217 One of the advantages of tax law is attributable to its importance in the decision-making process and in that respect, it is an efficient regulatory mechanism. 218 Tax considerations are fundamental to individuals and entities in making business decisions, and they generally react rather promptly to tax reforms. 219 Tax law is a fundamental consideration taken by taxpayers -- especially business persons -- before and in the course of their activities. 220 Thus, it is plausible to assume that the additional tax imposed on corporations for their accumulation shall induce entities to distribute their earnings. 221 Namely, corporations are induced to distribute dividends to all shareholders; otherwise, they are exposed to additional tax. 222 The accumulated earnings provision taxes corporations on undistributed earnings. 223 This can serve as a tool to minimize the conflict between minority and majority shareholders. Since agents are value maximizers and are part of their corporation, they are induced to reduce the corporation's tax burden. And since eventually corporate tax is borne by individuals (though, not necessarily shareholders), in a highly concentrated corporation a tax imposed on corporations has a larger effect on shareholders than in a corporation with dispersed ownership. As long as the majority shareholders' holdings in the corporation are substantial, they are motivated to escape this extra taxation levied on their corporation. 224 Thus, tax law and corporate law go hand in hand since agents have incentives to reduce their tax burden.

#### The result is a de facto prohibition.

Noked ’17 [Noam; November 2017; Assistant Professor in the Faculty of Law at The Chinese University of Hong Kong; William and Mary Business Law Review, “Can Taxes Mitigate Corporate Governance Inefficiencies?” vol. 9]

It is important to distinguish between corrective taxation that aims to internalize negative externalities, and tax penalties that are used to ensure compliance with a particular rule regardless of the externalities involved. 211 A sufficiently high tax penalty can be used to enforce a de facto ban or obligation. For example, the 30 percent withholding tax imposed on certain payments to non-participating foreign financial institutions under the Foreign Accounting Tax Compliance Act was adopted as a tax penalty to achieve the full cooperation of foreign financial institutions. 212 One consideration that might support using tax penalties rather than a ban is the political ability to legislate these penalties. Another consideration is institutional: which agency should enforce this rule? The IRS is likely to enforce the tax penalty, whereas the SEC is more likely to enforce a ban imposed on publicly traded firms. 213

It is possible that the intercorporate taxation in the United States is a tax penalty that operates as a de facto ban, although it still allows pyramidal structures where the benefits are large enough. A few years ago, Israel adopted a ban on a pyramidal structure with more than two levels. 214 A controlled firm can control no more than one other firm. 215 If the lower firm controls another firm, a court will appoint a trustee to sell the remaining firm. 216 The Israeli legislature considered and rejected following the American model of taxing the intercorporate dividends. 217 It is unclear which model is superior, though it seems that either a ban or a tax penalty that is high enough can achieve similar results.

A corrective tax on pyramidal structures should be set on the negative externality resulting from that structure. 218 The inefficiencies associated with pyramids increase where the gap between voting rights and cash flow rights are larger. 219 Therefore, corrective tax should increase in a similar manner. The current tax rules in the United States impose a higher tax on holdings lower than 20 percent, a lower tax on holdings between 20 and 80 percent, and no tax where the holdings exceed 80 percent. 220 This may serve as a very rough approximation of the negative externalities that increase where the controller's share is lower. One advantage of having these three categories is the simplicity of this rule. However, imposing a similar tax where the holding is 21 percent and where it is 79 percent cannot be justified on corrective grounds, as the externalities should be very different. In addition, imposing a higher tax on intercorporate dividends where there is no effective control--where the holding is lower than 20 percent--would be hard to explain as a corrective measure.

If the negative externality decreases with ownership, the tax on intercorporate dividends can track this relationship by adjusting the tax to the ownership rights. We should find the level of ownership which enables an effective control--for example, 30 percent--and the level of ownership which is high enough to provide sufficient incentives to the owner--for example, 80 percent. If the negative effects decrease linearly, the tax should follow this by decreasing from a high tax rate, where the ownership is 30 percent, to a zero tax rate, where the ownership is 80 percent.

One advantage of optimal corrective taxation over a ban or a tax penalty--that serves as a de facto ban--is that the former does not prevent efficient pyramids, where there is a value-maximizing reason to have a pyramidal structure. 221 However, assessing the accurate negative externalities associated with different pyramidal structures would be very hard. 222 A corrective tax which is too low would result in a social cost from having many inefficient pyramids, whereas a corrective tax which is too high would be a de facto ban. In addition, it may be more politically feasible to adopt a tax, including a tax penalty that is a de facto ban, rather than an outright ban. 223

#### Means we solve all of their arguments about changing the “domestic regulatory framework” --- here’s evidence that taxes spillover globally

Yonah ’15 [Reuven Avi; July 21; Irwin I. Cohn Professor of Law and Director of the International Tax LLM Program at the University of Michigan Law School, PhD in History from Harvard University, AM in History from Harvard University, JD from Harvard Law School; University of Michigan Public Law Research Paper, “Constructive Unilateralism: US Leadership and International Taxation,” no. 463]

4. Conclusion: Constructive Unilateralism or Multilateralism?

The above has been an attempt to suggest that unilateral actions by the US have historically played a positive role in constructing the international tax regime, and some suggestions for further US unilateral actions that could also be constructive.

But, it will be argued, why not try a multilateral approach, which seems to better fit 21st century multipolar realities than unilateral action by the no longer quite as hegemonic US?

The problem is that there is yet no good example of multilateralism working in tax matters. Both the MAATM and BEPS are very much works in progress. In my opinion MAATM has potential as a deterrence device and BEPS, while imperfect, has achieved some meaningful progress, especially in the treaty context. But change comes slowly, and for now I believe that constructive unilateralism is still the most promising way forward.

In the end, we should remember what our normative goals are. I believe that the individual income tax is necessary to achieve redistribution, and for that to happen each residence country should be able to effectively tax its individual residents on a global basis at its domestic rate structure. I also believe that the corporate tax is necessary to regulate corporate behavior, and for that corporations should be subject to tax on a global basis at a rate that represents the current consensus for corporate tax rates at source (in the 20-­‐30% range). Those have been the normative goals of the international tax regime since its inception close to a hundred years ago, and the above has been an attempt to suggest some ways to move it forward into its second century.

#### 2. Institutions---it builds broader administrative apparatus with full awareness of businesses---that unlocks the full range of mechanisms, including prohibitions.

Mehrotra ’10 [Ajay; 2010; Professor of Law at the Northwestern Pritzker School of Law, and an Affiliated Professor of History at Northwestern University, PhD, University of Chicago, JD, Georgetown University; Theoretical Inquiries in Law, “The Public Control of Corporate Power: Revisiting the 1909 U.S. Corporate Tax from a Comparative Perspective,” vol. 11]

Prominent among the standard institutional explanations is the historical interaction of politics and business. As a variety of scholars have demonstrated, American statecraft has long been distinguished by its antagonism towards big business. The early arrival of American managerial capitalism in the mid and late 1800s preceded and in some ways compelled the development of the modern regulatory and administrative state. As a result, a unique American divide between private enterprise and public administration began to develop.22 Although antitrust law is generally the policy arena that scholars have explored to substantiate this claim,23 the tensions between American government and big business can also be clearly seen in the evolution of U.S. subnational corporate tax policy and transnational comparisons of corporate tax laws and concepts.

A primary focus on political and economic institutions, however, only explicates part of the story. Institutions do not just suddenly appear. They are created and composed of individuals and groups with specific interests, ideas, and cultural beliefs. And, perhaps more importantly, institutions change and develop over time as they interact with other groups and institutions, and respond to changing historical conditions. Thus, while it is vitally important to examine how institutional frameworks mediate political interests, social ideas, and cultural beliefs, these interests, ideas, and beliefs in turn also shape institutional frameworks.24 Put differently, political, social, and cultural factors are endogenous to institutional explanations of the American approach to taxing business corporations. In the context of the comparative history of corporate tax policy, this means that attending to the historically-determined political interests, social ideas, and cultural beliefs may help explain the American obsession with disciplining large-scale business corporations through the use of punitive tax laws and policies.25

Before turning to the comparative analysis, this Article begins in Part I with a brief summary of the 1909 corporate excise tax, succinctly recapitulating the conventional accounts about the beginnings of American corporate taxation. Part II turns to the subnational story to explain how and why leading American states and commonwealths attempted to tax corporate property under their respective general property taxes; how they searched for alternative corporate taxes; and how even newly-created state income taxes were applied to business corporations. This analysis shows that state-level lawmakers purposefully used tax policy in a punitive manner not only to make corporations more transparent, but also to check the growing power and authority of corporate capital.

Part III is devoted to briefly exploring transnational comparisons between the United States, England, and Germany. It focuses on how differences in the organizational structures of big businesses in the three countries led to variations in political economy that were ultimately expressed in the legal ideas and cultural attitudes toward corporate capitalism. These variations, in turn, shaped the differences in corporate tax laws and policies. Part III begins by contrasting the U.S with Britain. In the latter country, a form of family managerial capitalism and an intertwined public/private sector pervaded British ideas and beliefs to the point that it was often assumed that corporations were simply aggregations of individuals. Consequently, English lawmakers were loath to adopt the American system of corporate taxation, which they did only briefly in the early 1920s and again in the late twentieth century. Part III also investigates Germany, and more particularly the Prussian experience with corporate taxation, to explicate how differing commercial organizational capabilities, business-government relations, and beliefs about corporations interacted with the pressures of fiscal federalism to shape corporate tax policy. Finally, the Article concludes by considering the possible long-term implications of the U.S.’s unique historical role in corporate taxation.

I. REGULATION VERSUS REMITTANCE: THE STANDARD ACCOUNTS OF THE ORIGINS OF THE 1909 CORPORATE TAX

The Tariff Act of 1909 contained a national tax on the legal privilege of doing business in corporate form. More specifically, the law required "every corporation, joint stock company or association, organized for profit and having a capital stock represented by shares" to pay a "special excise tax with respect to the carrying on of doing business."26 The tax was set at an annual flat rate of one percent on net income above $5,000, and even applied to all foreign corporations engaged in business in the United States.27 The multiple legislative rationales behind the 1909 tax have provided modern scholars with sufficient evidence to ascribe different meanings to the origins of the American regime of corporate taxation. Whereas some scholars have focused on the regulatory aspects of the law, others have emphasized how the mechanics of the measure suggest that the tax was aimed mainly at shareholder, not corporate, wealth and power.28

The 1909 tax was not, however, the first national levy on business corporations. From the Civil War to the Spanish-American War, national lawmakers in the late nineteenth century experimented with several temporary corporate taxes. Yet none of these early measures seemed specifically designed to capture the taxpaying ability of corporations qua corporations. The Civil War income tax, for example, applied to business profits, but mainly as an indirect means to tax individual shareholders.29 Similarly, the short-lived 1894 income tax, which was declared unconstitutional the following year,30 imposed a two percent tax on the net income of all corporations, but because dividends from taxable corporations were excluded from shareholder income and because the levy was also imposed on undistributed corporate income, the law was essentially a crude form of withholding—a remittance method for taxing shareholder wealth.31

The 1898 excise tax on the sugar— and oil-producing industries, enacted in response to the funding needs of the Spanish-American War,32 was perhaps the first instance of a national levy imposed on "the occupation or privilege of doing business" in specific industries.33 Yet, in its final form the law operated as a blatant, rifle-shot provision aimed at taxing the gross profits of the American Sugar Refining Company and the Standard Oil Company.34 Thus, even this temporary wartime tax, which was upheld by the U.S. Supreme Court,35 provides ample evidence for the dueling interpretations of the roots of American corporate taxation. On the one hand, the statute’s legislative history and its general application to all sugar and oil refinery businesses, not just corporations, suggest that lawmakers were not singling out corporations as regulatory targets, but rather that they were using the excise levy as a proxy to tax the owners of sugar and oil companies, and hence generate the revenue necessary to prosecute a war.36 On the other hand, if the ultimate targets of the tax were specifically Standard Oil and American Sugar, two of the largest and most powerful industrial corporations in America at the time,37 then perhaps the 1898 excise tax was a forerunner of the legislative attempt to control the wealth and power of corporate capital. Moreover, since the 1898 law did not contain disclosure requirements, lawmakers seemed less concerned about transparency as a form of public control, and more interested in using the levy to curb the growing profits of specific corporations.38 The early versions of American national taxation thus provide mixed guidance on whether the beginnings of U.S. corporate taxation were rooted in regulatory desires or attempts to remit more effectively a shareholder-level tax.

The political and legal context of the 1909 tax itself, similarly, does little to settle the regulation/remittance debate. Like the 1898 tax, the 1909 levy was structured as an excise tax mainly to comply with the constitutional restrictions established by the Court’s invalidation of the 1894 income tax and its support for the 1898 excise tax on sugar and oil production.39 The legislative debates and political rhetoric underpinning the 1909 tax also demonstrate that key lawmakers held conflicting views about the new corporate tax—conflicting views that lend credence to each side of the competing standard historical interpretations.40

The differing interpretations of the 1909 tax can even be seen within single key pronouncements on the need for corporate taxation. Consider, for instance, President William Howard Taft’s June 16th message to Congress recommending the 1909 corporate tax and a constitutional amendment permitting an income tax without apportionment.41 By all accounts, Taft’s leadership and his June congressional message played a pivotal role in the passage of the corporate tax.42 In his message, Taft provided a variety of justifications for the new revenue bill. Citing to a "rapidly increasing deficit," the president called for tariff revision and the adoption of "new kinds of taxation" to help "secure an adequate income" for the growing federal government.43 More specifically, Taft supported the corporate tax both for administrative reasons, as a possible proxy for taxing shareholders, and as a regulatory tool to publicize and expose the abuses of growing corporate power, and thus to control it. For administrative reasons, Taft supported the tax because it imposed "a burden at the source of income at a time when the corporation is well able to pay and when collection is easy."44 As modern scholars have noted, the focus on sources of income and collection ease implies that Taft believed the levy could be an effective indirect means to tax shareholder wealth.45

Other parts of Taft’s message convey a different rationale, one that emphasizes the need for regulatory control of corporations as separate legal entities. At the outset, Taft explained that the levy "is an excise tax upon the privilege of doing business as an artificial entity," and hence "not a direct tax on property." He continued that "another merit of this tax is the federal supervision which must be exercised to make the law effective over the annual accounts and business transactions of all corporations." Taft acknowledged that the corporate form "has been of the utmost utility in the business world," but he also reminded Congress that "substantially all of the abuses and all of the evils which have aroused the public to the necessity of reform were made possible by the use of this very faculty."46

With American society still reeling from a financial panic linked to abuses in the banking industry and an earlier series of corporate scandals in the insurance industry,47 Taft’s address underscored the regulatory potential of a corporate tax. Indeed, the President spelled out how the tax in a "perfectly legitimate and effective" way could help the government, stockholders, and the greater public gain "knowledge of the real business transactions and the gains and profits of every corporation in the country." By making the inner dealings of big businesses more transparent, the corporate tax, Taft insisted, would be a "long step toward that supervisory control of corporations which may prevent a further abuse of power."48 Taft’s sustained emphasis on the public disclosure aspects of the law supports the interpretation of the 1909 corporate tax as a regulatory device.

Like Taft’s message, the congressional debates surrounding the 1909 law evidence multiple justifications for the corporate tax.49 Moreover, the broader legal discourse about the shifting views of corporate personality and the unknown incidence of corporate taxes seemed to provide contending camps with additional, though contradictory, justifications for their respective positions. As the Columbia University philosopher John Dewey noted in 1926, the differing theories of what constituted a corporation were infinitely flexible, reflecting the contingency of abstract concepts. "Each theory,"Dewey succinctly explained, "has been used to serve . . . opposing ends."50

Ultimately, the search for a singular, or even a dominant, explanation for the emergence of the 1909 corporate tax may be not only elusive, but perhaps even counterproductive. After all, tax laws — like nearly all legislation — frequently appeal to a variety of constituencies for a multiplicity of reasons. Just as Baptists and bootleggers could develop a peculiar alliance to support American prohibition, so too populist regulators and rational administrators could come together to back the 1909 corporate tax.51 Lawmakers who harbored hostility towards large-scale business corporations and who viewed these economic organizations as independent legal entities could support the corporate tax as a means toward disciplining capital. At the same time, those who believed that corporations were mere conduits that helped generate economic prosperity could still back the corporate levy as an effective way to collect badly needed revenue from some of the country’s wealthiest individuals. Simply put, regulating corporate power and remitting tax revenue were not necessarily mutually exclusive aims.

#### Removing opacity enables aggressive antitrust enforcement.

Geradin ’21 [Damien and Dimitrios Katsifis; October 18; Professor of Competition Law and Economics at Tilburg University and Visiting Professor at University College London and the University of East Anglia; Senior Associate at Geradin Partners; Social Science Research Network, “Strengthening Effective Antitrust Enforcement in Digital Platform Markets,” https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3945004]

2. Asymmetry of information

Another important challenge for antitrust enforcement in digital markets is the considerable asymmetry of information between dominant digital platforms and antitrust agencies.73 Antitrust agencies (and public authorities more generally) lack insight into the numerous and complex algorithms powering the services of digital platforms which oftentimes determine the fate of business users relying on the platform and the prices paid by end users.74

This opacity can make it extremely hard for an antitrust agency to evaluate allegations of self-preferencing involving algorithmic changes, especially in the absence of dedicated technical teams. Antitrust authorities may also have limited insight into the enormous data collection and processing activities of digital platforms and how these may translate in unique informational advantages (e.g., market intelligence) when combined with state-of-the-art predictive algorithms.75 In practice, this means that platforms may engage in various exclusionary – or even collusive – practices right under the nose of regulators,76 which may at best have only anecdotal evidence of wrongdoing and no “hard” data at their disposal.

#### 3. Lobbying---it removes the war chest from the key political barriers to enforcement.

Jarsulic ’19 [Marc, Ethan Gurwitz, and Andrew Schwartz; April 3; Ph.D. in Economics from the University of Pennsylvania, J.D. at the University of Michigan, Senior Fellow, Chief Economist, and Vice President for Economic Policy at the Center for American Progress; JD Candidate at Harvard Law School, Former Policy Analyst for Economic Policy at the Center for American Progress; Senior Policy Analyst for Economic Policy at the Center for American Progress; CAP, “Toward a Robust Competition Policy,” https://www.americanprogress.org/issues/economy/reports/2019/04/03/467613/toward-robust-competition-policy/]

When barriers remain, a monopoly tax can help level the competitive playing field.

Because it may not be possible to reduce barriers for all firms and across all industries—and because changes in fundamental policies, such as antitrust and intellectual property rules, may be difficult and time-consuming to implement—the report also proposes a monopoly tax to reduce the flow of rents to large firms.

Instituting a monopoly tax would have three effects. While such a tax would not directly aid new firm entry, it would reduce the flow of economic rents, making these revenues available for public purposes without harming efficiency. It would also discourage further efforts to enhance market power through actions such as mergers and acquisitions. Moreover, a monopoly tax would diminish the ability of firms with market power to use their outsize returns to influence political and regulatory outcomes.

#### **That creates a virtuous cycle of future prohibitions**

Manduca ’19 [Robert; 2019; Professor of Sociology at the University of Michigan; The Annals of the American Academy of Political and Social Science, “Antitrust Enforcement as Federal Policy to Reduce Regional Economic Disparities,” vol. 685]

The lack of effective antitrust enforcement over the past 40 years has been a major contributor to economic stagnation in many parts of the country, and a reinvigorated approach to enforcement offers a promising route to help restore prosperity across the country. If implemented carefully, with attention to potential policy feedbacks, a renewed antitrust movement could maintain and expand itself over time.

Policy Feedback Considerations in the Development of New Antitrust Policy

There are several features of antitrust enforcement as a political issue that make it a particularly promising federal regional development policy. These features occur with respect to all of the “three E’s” that Jacob Hacker mentions in his article in this issue (Hacker, this volume). Its bipartisan appeal to voters, potential to attract business support, and logistical ease of enactment make the establishment of a reinvigorated antitrust regime likely to be easier than many other regional development policies. Once established, initial successful antitrust actions are likely to change the politics of the issue in ways that make its entrenchment and expansion more likely. Here I briefly describe these attractive features and potential for policy feedbacks, along with certain strategic recommendations related to sequencing and the use of federalism in the initial establishment phase.

Note that two types of regulatory action form the core of the antitrust toolkit. One is to block proposed mergers, preventing new monopolies from being created. The second is to break up currently existing companies with excess market power into their component parts. Both types of enforcement would benefit from the promising political considerations facilitating the establishment of a renewed antitrust movement. But many of the most promising feedback effects related to the entrenchment and expansion of such a movement will be felt most strongly with the successful breakups of currently existing firms. For this reason, a revitalized antitrust movement should strongly consider pursuing such breakups whenever possible, even though regulators have been hesitant to pursue them in the past (Wu 2018).

Features of antitrust enforcement that make its establishment more likely

Among possible federal regional development policies, reinvigorated antitrust enforcement stands out in several ways that make its establishment as a policy more likely. First, it is salient and familiar to voters. Most voters have encountered monopolies in their daily lives, whether they be airlines, utilities, internet providers, or tech platforms. Almost everyone has had a negative experience with a company too large or omnipresent to avoid in the future. Breaking such companies up offers a response to angry customers who would otherwise not have any way to express their frustration.

Moreover, aggressive antitrust enforcement has a long history in the United States, and it was widely practiced within the lifetimes of many voters. It has been a stated principle of capitalist economics since Adam Smith (Smith 1827), albeit one that has often been honored in the breach. In the United States specifically, antitrust enforcement fits with a longstanding American skepticism toward “bigness” (Lemann 2016; Rosen 2016). Perhaps for these reasons, the current antitrust movement has managed to find support among both liberals and conservatives. A poll conducted in September 2018, for instance, found that 65 percent of Americans—and 54 percent of Trump voters—think the government “should do more to break up corporate monopolies” (Dayen 2018). And leading proponents of antitrust enforcement in Congress and the media are found on both sides of the aisle (Crane 2018).

Perhaps more important than its broad appeal among voters, antitrust enforcement has the potential to attract support, or at least avoid opposition, from a wide range of organized interest groups. Of particular note is the potential for corporate ambivalence on this issue. Unlike many progressive economic policies, many companies—including quite powerful ones—stand to benefit from a reinvigorated antitrust regime. Yelp, for instance, has been a major critic of Google’s abuse of its search monopoly for several years (Dougherty 2017). When AT&T attempted to acquire T-Mobile in 2010, some of the most vocal opposition came from competitor Sprint (Singel 2011), though that did not stop Sprint from initiating its own bid for T-Mobile recently. Even Walmart, the largest retailer in the country, recently joined with other brick and mortar retailers to call on the Federal Trade Commission (FTC) to examine “persistent oligopolies in other parts of the retail system,” specifically singling out the market power of Amazon and Google (Dodge 2019). Companies like these could potentially become strong supporters of specific antitrust enforcement actions or a new antitrust movement in general.

This potential to attract corporate support is a key advantage of antitrust enforcement as a regional development policy. A major question will be whether proponents of the new enforcement regime will be able to secure support, or at least neutrality, from overarching corporate lobbying organizations like the U.S. Chamber of Commerce. As I discuss, choosing initial enforcement targets to maximize the possibility of such support or neutrality is a strategic imperative for the new antitrust movement.

A third advantage of antitrust enforcement relative to many potential federal redevelopment policies is the comparative ease with which it could be enacted. For the most part, the current antitrust movement is calling for better enforcement of laws already on the books, by agencies that already exist. This means that large parts of the policy could be implemented without creating new government entities or requiring large increases in federal spending, and perhaps even without new legislation.

These three features of reinvigorated antitrust enforcement—its widespread support among voters, potential for ambivalence from corporations, and legislative ease of enactment—suggest that it may be easier to establish than many other federal regional development policies. Should initial enforcement actions be successful, they are also likely to entrench the policy and lay the groundwork for further expansion.

Entrenchment and expansion: The finality of breaking up companies

Should initial enforcement actions succeed—and specifically should existing oligopolistic companies be broken apart—they are likely to alter the political landscape in ways that entrench the new antitrust regime and promote future regional development efforts in general.

When a company is successfully split apart, it no longer exists as an independent entity capable of political action. That in itself may remove the single biggest source of potential backlash to a given enforcement action—as Patashnik describes in his contribution to this issue, sometimes the most effective way to reduce backlash is to fragment the organizations most likely to mobilize such backlash (Patashnik, this volume).

The entrenchment effects of breaking up existing monopolies extend beyond their particular enforcement action. Monopoly rents are a key source of political donations, either from the companies themselves or from the individuals who own them (Skocpol and Williamson 2012). Reducing those rents through increased competition will thus decrease the money available to fund future anti-enforcement lobbying.

Beyond reducing the availability of monopoly rents to fund future advocacy, successful enforcement actions may reduce the political clout of targeted industries by changing the number and nature of corporate players. In the case where one company is split horizontally into several competitors, this would occur by increasing the total number of actors that need to be coordinated for industry-wide lobbying, which is likely to make such coordination more difficult. In the case where a company is split vertically into firms that each occupy different stages in the chain of production, the successor firms may have policy interests that directly conflict. Amazon the online market platform and its client Amazon the bookseller are likely to have a tense relationship and might end up on opposite sides of debates about Internet policy.

A particularly promising dynamic, which is plausible though by no means guaranteed, would be if the successor companies created by one round of trustbusting become agitators for the next round. Firms in some cases pursue mergers and acquisitions defensively in response to observed or anticipated consolidation in their own or related industries (Gorton, Kahl, and Rosen 2009; Ahern and Harford 2014). This process can lead to vertical or horizontal merger waves where all tiers of an industry’s supply chain quickly consolidate. If some of these mergers were undone, the resulting smaller companies might push for further antitrust enforcement up or down their supply chain to even the playing field once more. That could create a virtuous cycle in which the successor companies from one enforcement action lobby for the next action.

#### Antitrust is glacial---enforcement takes decades, rendering the initial rule meaningless.

Chopra ’20 [Rohit and Lina Khan; March 2020; Commissioner of the Federal Trade Commission; Academic Fellow at Columbia Law School, Counsel to the Subcommittee on Antitrust, Commercial, and Administrative Law, US House Committee on the Judiciary and Former Legal Fellow at the Federal Trade Commission; University of Chicago Law Review, “The Case for ‘Unfair Methods of Competition’ Rulemaking,” vol. 87]

The current approach to antitrust also makes enforcement highly costly and protracted. In 2012, the American Bar Association (ABA) published the report of a task force that sought to "study ways to control the costs of antitrust litigation and enforcement." 9The task force, the authors explained, was "a response to concerns" about both "the costs imposed on businesses by the American system of antitrust enforcement" and "the length of time required to resolve antitrust issues both in litigation and in enforcement proceedings." 10 Out-of-control costs undermine effective antitrust enforcement by agencies and private litigants, but [\*361] may advantage actors who profit from anticompetitive practices and can treat litigation as a routine cost of business.

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

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

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

#### Taxes are dynamic and adaptable, optimizing for evolving market conditions.

Libson ’21 [Adi and Gideon Parchomovsky; February 2021; Assistant Professor at the Bar-Ilan University Faculty of Law; Robert G. Fuller, Jr. Professor of Law at the University of Pennsylvania Law School and Professor of Law at the Hebrew University Faculty of Law; Texas Law Review, “Reversing the Fortunes of Active Funds,” vol. 99]

Our proposal offers three potential advantages over competing mechanisms aimed at bolstering engagements by shareholders. First, tax incentives constitute a far more effective tool for encouraging the growth of active funds and active participation in corporate matters than legislation or regulation that forces passive funds to become active. If a passive fund has no interest in assuming an active role in the management of a company, it is highly doubtful that legal mandates forcing engagement would achieve their desired goal of meaningful engagements. Worse yet, mandatory measures would necessitate significant expenditures on monitoring and enforcement. Tax benefits, by contrast, allow each category of funds, active and passive, to act as it prefers, while maintaining a stable market equilibrium between the two groups. Furthermore, tax instruments are flexible and dynamic. Unlike binary regulatory mechanisms, a tax benefit can be keyed to multiple performance indicators and can be adjusted to fit the changing magnitude of the positive externalities generated by sophisticated investors. 17

Footnote 17:

Louis Kaplow & Steven Shavell, On the Superiority of Corrective Taxes to Quantity Regulation, 4 Am. L. & Econ. Rev. 1, 7-10 (2002) (emphasizing that the price element of taxes provides the government with vital information that can be utilized to optimize the tax instrument). The price element of taxes can also serve as a mechanism for revealing information to the parties. See, e.g., Brian Galle, Tax, Command ... or Nudge?: Evaluating the New Regulation, 92 Texas L. Rev. 837, 848 (2014) (explaining that prices reveal information about the subjective valuations of parties).