## 1

#### Interpretation: The affirmative must defend a currenting existing democracy.

#### Violation: they don’t – their democracy is made up – even if the people exist, the democratic structure is something that does not.

#### Vote neg –

#### 1] Ground –

#### 2] Circumvention –

#### 3] Predictability and clash –

#### 4] Doesn’t violate their future argument and it doesn’t make sense

#### Fairness – debate is a competitive activity that requires fairness for objective evaluation. Outweighs because it’s the only intrinsic part of debate – all other rules can be debated over but rely on some conception of fairness to be justified.

#### Drop the debater – a] deter future abuse and b] set better norms for debate.

#### Competing interps – [a] reasonability is arbitrary and encourages judge intervention since there’s no clear norm, [b] it creates a race to the top where we create the best possible norms for debate.

#### No RVIs – a] illogical, you don’t win for proving that you meet the burden of being fair, logic outweighs since it’s a prerequisite for evaluating any other argument, b] RVIs incentivize baiting theory and prepping it out which leads to maximally abusive practices

## Case

### 1NC – Framing

#### Extinction outweighs:

#### A] Comes before value-to-life.

Tännsjö 11 (Torbjörn, the Kristian Claëson Professor of Practical Philosophy at Stockholm University, “Shalt Thou Sometimes Murder? On the Ethics of Killing,” <http://people.su.se/~jolso/HS-texter/shaltthou.pdf>) //BS 1-27-2018

\*\*Bracketed to avoid triggers

I suppose it is correct to say that, if Schopenhauer is right, if life is never worth living, then according to utilitarianism we should all [die] commit suicide and put an end to humanity. But this does not mean that, each of us should commit suicide. I commented on this in chapter two when I presented the idea that utilitarianism should be applied, not only to individual actions, but to collective actions as well.¶ It is a well-known fact that people rarely commit suicide. Some even claim that no one who is mentally sound commits suicide. Could that be taken as evidence for the claim that people live lives worth living? That would be rash. Many people are not utilitarians. They may avoid suicide because they believe that it is morally wrong to kill oneself. It is also a possibility that, even if people lead lives not worth living, they believe they do. And even if some may believe that their lives, up to now, have not been worth living, their future lives will be better. They may be mistaken about this. They may hold false expectations about the future.¶ From the point of view of evolutionary biology, it is natural to assume that people should rarely commit suicide. If we set old age to one side, it has poor survival value (of one’s genes) to kill oneself. So it should be expected that it is difficult for ordinary people to kill themselves. But then theories about cognitive dissonance, known from psychology, should warn us that we may come to believe that we live better lives than we do.¶ My strong belief is that most of us live lives worth living. However, I do believe that our lives are close to the point where they stop being worth living. But then it is at least not very far-fetched to think that they may be worth not living, after all. My assessment may be too optimistic.¶ Let us just for the sake of the argument assume that our lives are not worth living, and let us accept that, if this is so, we should all kill ourselves. As I noted above, this does not answer the question what we should do, each one of us. My conjecture is that we should not [die] commit suicide. The explanation is simple. If I [die] kill myself, many people will suffer. Here is a rough explanation of how this will happen: ¶ ... suicide “survivors” confront a complex array of feelings. Various forms of guilt are quite common, such as that arising from (a) the belief that one contributed to the suicidal person's anguish, or (b) the failure to recognize that anguish, or (c) the inability to prevent the suicidal act itself. Suicide also leads to rage, loneliness, and awareness of vulnerability in those left behind. Indeed, the sense that suicide is an essentially selfish act dominates many popular perceptions of suicide. ¶ The fact that all our lives lack meaning, if they do, does not mean that others will follow my example. They will go on with their lives and their false expectations — at least for a while devastated because of my suicide. But then I have an obligation, for their sake, to go on with my life. It is highly likely that, by committing suicide, I create more suffering (in their lives) than I avoid (in my life).

#### B] Extinction outweighs

MacAskill 14 [William, Oxford Philosopher and youngest tenured philosopher in the world, Normative Uncertainty, 2014]

The human race might go extinct from a number of causes: asteroids, supervolcanoes, runaway climate change, pandemics, nuclear war, and the development and use of dangerous new technologies such as synthetic biology, all pose risks (even if very small) to the continued survival of the human race.184 And different moral views give opposing answers to question of whether this would be a good or a bad thing. It might seem obvious that human extinction would be a very bad thing, both because of the loss of potential future lives, and because of the loss of the scientific and artistic progress that we would make in the future. But the issue is at least unclear. The continuation of the human race would be a mixed bag: inevitably, it would involve both upsides and downsides. And if one regards it as much more important to avoid bad things happening than to promote good things happening then one could plausibly regard human extinction as a good thing.For example, one might regard the prevention of bads as being in general more important that the promotion of goods, as defended historically by G. E. Moore,185 and more recently by Thomas Hurka.186 One could weight the prevention of suffering as being much more important that the promotion of happiness. Or one could weight the prevention of objective bads, such as war and genocide, as being much more important than the promotion of objective goods, such as scientific and artistic progress. If the human race continues its future will inevitably involve suffering as well as happiness, and objective bads as well as objective goods. So, if one weights the bads sufficiently heavily against the goods, or if one is sufficiently pessimistic about humanity’s ability to achieve good outcomes, then one will regard human extinction as a good thing.187 However, even if we believe in a moral view according to which human extinction would be a good thing, we still have strong reason to prevent near-term human extinction. To see this, we must note three points. First, we should note that the extinction of the human race is an extremely high stakes moral issue. Humanity could be around for a very long time: if humans survive as long as the median mammal species, we will last another two million years. On this estimate, the number of humans in existence in the The future, given that we don’t go extinct any time soon, would be 2×10^14. So if it is good to bring new people into existence, then it’s very good to prevent human extinction. Second, human extinction is by its nature an irreversible scenario. If we continue to exist, then we always have the option of letting ourselves go extinct in the future (or, perhaps more realistically, of considerably reducing population size). But if we go extinct, then we can’t magically bring ourselves back into existence at a later date. Third, we should expect ourselves to progress, morally, over the next few centuries, as we have progressed in the past. So we should expect that in a few centuries’ time we will have better evidence about how to evaluate human extinction than we currently have. Given these three factors, it would be better to prevent the near-term extinction of the human race, even if we thought that the extinction of the human race would actually be a very good thing. To make this concrete, I’ll give the following simple but illustrative model. Suppose that we have 0.8 credence that it is a bad thing to produce new people, and 0.2 certain that it’s a good thing to produce new people; and the degree to which it is good to produce new people, if it is good, is the same as the degree to which it is bad to produce new people, if it is bad. That is, I’m supposing, for simplicity, that we know that one new life has one unit of value; we just don’t know whether that unit is positive or negative. And let’s use our estimate of 2×10^14 people who would exist in the future, if we avoid near-term human extinction. Given our stipulated credences, the expected benefit of letting the human race go extinct now would be (.8-.2)×(2×10^14) = 1.2×(10^14). Suppose that, if we let the human race continue and did research for 300 years, we would know for certain whether or not additional people are of positive or negative value. If so, then with the credences above we should think it 80% likely that we will find out that it is a bad thing to produce new people, and 20% likely that we will find out that it’s a good thing to produce new people. So there’s an 80% chance of a loss of 3×(10^10) (because of the delay of letting the human race go extinct), the expected value of which is 2.4×(10^10). But there’s also a 20% chance of a gain of 2×(10^14), the expected value of which is 4×(10^13). That is, in expected value terms, the cost of waiting for a few hundred years is vanishingly small compared with the benefit of keeping one’s options open while one gains new information.

#### Economic data restricts biases, promotes critical thinking, and prevents flawed decision-making errors---rejecting economists plagues public discourse with innumeracy that results in worse outcomes.

Ip 17, \*Greg Ip is a Canadian-American journalist, currently the chief economics commentator for The Wall Street Journal. A native of Canada, Ip received a bachelor's degree in economics and journalism from Carleton University in Ottawa, Ontario; (August 25th, 2017, “In Defense of the Dismal Science”, https://www.wsj.com/articles/in-defense-of-the-dismal-science-1503679118) Recut Jet

But such misjudgments don’t justify the charges leveled at economists. Take, for example, their inability to predict financial meltdowns. Crises almost by definition are unpredictable. In a recent essay, Ricardo Reis, an economist at the London School of Economics, argues that failing to foretell a financial crash is no more an indictment of economics than failing to predict when a patient will die is an indictment of medicine. Economists didn’t predict the financial crisis, Prof. Reis notes, but they did help to arrest it by applying theory and experience: “The economy did not die, and a Great Depression was avoided, in no small part due to the advances of economics over many decades.” Another caricature of economists is that they try to emulate physicists, fetishizing elegant, abstract mathematical models disconnected from economic reality. Paul Romer, the chief economist at the World Bank, derisively calls this approach “mathiness.” The critique is certainly fair in some corners of academia, but it is increasingly untrue of the profession as a whole. In 1963, roughly half the papers published in the top three American economics journals were theoretical, according to a tally by Daniel Hamermesh, now at Royal Holloway, University of London. By 2011, that figure had shrunk to 28%; the remainder were empirical papers based on public data, on data gathered by the authors or on experiments. Economic debates these days are won not by the best theory but by the best data: Statistics are more important than calculus. Economists are far more obsessed with measurement than with math. When public discourse is plagued by innumeracy, this capacity to count is no small thing. Economists are also instinctively skeptical of simple explanations. They are trained to look for equilibrium, which is another way of saying, “When you change one thing, how do other things respond? Where do things settle once all interactions have occurred?” Advocates for a higher minimum wage extol the benefits to workers. Economists ask: Will it change employers’ demand for workers who earn the minimum wage? Or what they pay workers who earn just above the minimum? Or the prices they charge, or how much market share they lose to companies that don’t face the higher minimum or how much they invest in automation? Does it reduce turnover and thus make workers more productive? Advocates of tariffs on imported steel focus on the benefit to domestic steelmakers and their workers. But economists ask: What happens to steel-consuming companies that now face higher prices, as well as to their workers and customers? Does penalizing imports boost the dollar and hurt U.S. exports? The more data economists collect, the better they can map such complex interactions. Seemingly simple questions seldom have simple answers. A higher minimum wage helps workers in some circumstances but hurts them in others. Tariffs help some workers but hurt many others. Global warming will do some economic harm, but not enough to justify banning fossil fuels. Sometimes, this attachment to numbers conveys a false precision. Critics say that the Congressional Budget Office overestimated how many people would get insurance under Obamacare and must therefore be overestimating how many will lose it if the law were to be replaced. But the CBO always warned that its estimates were highly uncertain; what no economists doubted, including those working in Mr. Trump’s administration, is that the number would be large. Economists could confidently predict that price controls would lead to shortages in Venezuela, though not how severe they would be. Non-economists see all this as hopeless equivocation, but it is actually the way that evidence drives science. Economists still have their ideological leanings, but data has helped to restrict these biases. Surveys of top academic economists by the University of Chicago show considerable agreement, even among liberals and conservatives. For example, the scholars almost all agree that fiscal stimulus reduced unemployment after the last recession and that trade with China benefits Americans by providing them with cheap goods. A study by Gordon Dahl and Roger Gordon of the University of California, San Diego, found that disagreement among economists was greatest where the empirical research was most sparse, as with the issue of whether natural-gas fracking helps U.S. exports. Though economics remains an imperfect science, it has come a long way in 200 years. Its greatest challenge today isn’t the quality of the analysis it supplies, but whether there is still sufficient demand for it.

### 1NC – Capitalism sustainable… Maybe we don’t??

#### Robinson is horrible –

#### 1] about limits to political power

#### 2] assumes conflict occurs

#### 3] zero data or examples

#### Innovation –

#### 1] No impact – if we win that occurs in capitalism too, then that’s not a unique reason to shift

#### 2] Proportional incentives key and frame their impacts – otherwise communism rewards any small innovation which kills drive for innovation

#### 1] No alternative to growth for emissions – EKC is true for developed countries – their datasets include countries that haven’t reached the tipping point.

Acaravci and Akalin 17 [Ali Acaravci & Guray Akalin 17. 1 Faculty of Economics and Administrative Sciences, Mustafa Kemal University. 2017. “Environment–economic Growth Nexus: A Comparative Analysis of Developed and Developing Countries.” International Journal of Energy Economics and Policy, vol. 7, no. 5, pp. 34–43.] Recut Jet

6. CONCLUSIONS AND POLICY IMPLICATIONS Since the early 1970s, especially after the United Nations Conference on the Human Environment in 1972, the relationship between production and environmental concerns has been handled by different methods in different disciplines. This is because the environment is of vital importance for human life, and they are confronted with serious environmental problems. The most important of these problems are as follows: The risk of going over the environmental pollution assimilation capacity; the difficulty in return of natural balance in the environment; large-scale health problems caused by environmental pollution; rapid depletion of natural resources; global warming and climate change, and the resulting related natural disasters such as floods; the reduction of biodiversity, air pollution, and soil pollution. Empirical studies on the environmental pollution–economic growth nexus explore the validity of the EKC hypothesis which states that environmental pollution will increase up to a certain threshold of income growth, and after this threshold, will begin to decrease due to the demand for a clean environment and structural and technological inputs. If the EKC hypothesis is valid, economic growth is both cause of and solution to environmental pollution. This approach is often used when arguing that countries should not compromise economic growth policies to reduce environmental effects. The EKC hypothesis is not valid in cases where economic growth that increased production is the only cause of environmental pollution. This has accelerated the search to replace the neoclassical growth strategy. Especially highlighted by the 1992 UNCED conference in Rio de Janeiro, a win-win approach to understanding the appropriate account of the ecological paradigm has gained importance in recent years. Therefore, the validity of the EKC hypothesis is an important issue in formulating economic growth policies for all countries. In this study, the following two samples are used: (i) 40 highincome countries (OECD members and non-members) and (ii) 33 upper middle-income countries. These countries are selected according to data available from related income groups. The results from the dynamic panel data methods are as follows: (i) The Durbin–Hausman cointegration test shows that there is a long-term relationship between variables. (ii) The results from the CCE estimator indicate that there is evidence of validity of the EKC hypothesis in developed countries. (iii) The EKC hypothesis is not valid in the developing countries. These results show that economic growth is sufficient enough to safeguard environmental quality for developed countries. However, developing countries have not yet reached income levels high enough to be able to derive their turning points. Therefore, to reduce environmental pollution that comes with economic growth, developing countries should give importance to R&D activities and institutionalization of environmental awareness. An increase in environmental awareness is imperative and developing and developed countries must not forget the fact that the natural world of tomorrow will be created today. Also, our findings show that trade liberalization is not harmful for the environment in developed and developing countries. This means that the increase of trade volume will not produce more carbon emissions. Despite the results obtained for the developed countries, we cannot assume that environmental betterment will continue to accompany further growth of per capita income in developed countries. So that, future studies can examine the relationship between economic growth and other pollutants. Because, along with the economic growth it may increase the amount of other pollutants.

#### 2] It’s sustainable – data proves we’re entering the golden age

**Hausfather 21** – a climate scientist and energy systems analyst whose research focuses on observational temperature records, climate models, and mitigation technologies. He spent 10 years working as a data scientist and entrepreneur in the cleantech sector, where he was the lead data scientist at Essess, the chief scientist at C3.ai, and the cofounder and chief scientist of Efficiency 2.0. He also worked as a research scientist with Berkeley Earth, was the senior climate analyst at Project Drawdown, and the US analyst for Carbon Brief. He has masters degrees in environmental science from Yale University and Vrije Universiteit Amsterdam and a PhD in climate science from the University of California, Berkeley. (Zeke, "Absolute Decoupling of Economic Growth and Emissions in 32 Countries," Breakthrough Institute, 4-6-2021, https://thebreakthrough.org/issues/energy/absolute-decoupling-of-economic-growth-and-emissions-in-32-countries, Accessed 4-11-2021, LASA-SC)

The past 30 years have seen immense progress **in improving the quality of life for much of humanity**. Extreme poverty — the number of people living on less than $1.90 per day — has fallen by nearly two-thirds, from 1.9 **billion to** around 650 **million**. Life expectancy has risen in most of the world, along with literacy and access to education, while infant mortality has fallen. Despite perceptions to the contrary, **the average person born today is likely to have access to more opportunities and have a better quality of life than at any other point in human history**. Much of this increase in human wellbeing has been propelled by rapid economic growth driven largely by state-led industrial policy, particularly in poor-to-middle income countries. However, this growth has come at a cost: between 1990 and 2019, global emissions of CO2 **increased by 56%.** Historically, economic growth has been closely linked to increased energy consumption — and increased CO2 emissions in particular — leading some to argue that a more prosperous world is one that necessarily has more impacts on our natural environment and climate. There is a lively academic debate about our ability to “absolutely decouple” emissions and growth — that is, the extent to which the adoption of clean energy technology can allow emissions to decline while economic growth continues. Over the past 15 years, however, **something has begun to change.** Rather than a 21st century dominated by coal that energy modelers foresaw, **global coal use peaked in 2013 and is now in structural decline**. We have succeeded in making clean energy cheap, with solar power and battery storage costs falling 10-fold since 2009. The world produced more electricity from clean energy — solar, wind, hydro, and nuclear — than from coal over the past two years. And, according to some major oil companies, **peak oil is upon us** — not because we have run out of cheap oil to produce, but because demand is falling and companies expect further decline as consumers increasingly shift to electric vehicles. The world has long been experiencing a relative **decoupling** between economic growth and CO2 emissions, with the emissions per unit of GDP **falling for the past 60 years**. This is the case even in countries like **India and China** that have been undergoing rapid economic growth. But relative decoupling alone is inadequate in a world where global CO2 emissions need to peak and decline in the next decade to give us any chance at limiting warming to well below 2℃, in line with Paris Agreement targets. Thankfully, there is increasing evidence that the world is on track **to absolutely decouple CO2 emissions and economic growth** — with global CO2 emissions potentially having peaked in 2019 **and unlikely to increase substantially in the coming decade**. While an emissions peak is just the first and easiest step towards eventually reaching the net-zero emissions required to stop the world from continuing to warm, it demonstrates that linkages between emissions and economic activity are not an immutable law, but rather simply a result of our current means of energy production. In recent years we have seen more and more examples of absolute decoupling — economic growth accompanied by falling CO2 emissions. Since 2005, 32 countries with a population of at least one million people **have absolutely decoupled** emissions from economic growth, both for terrestrial emissions (those within national borders) and consumption emissions (emissions embodied in the goods consumed in a country). This includes the United States, Japan, Mexico, Germany, United Kingdom, France, Spain, Poland, Romania, Netherlands, Belgium, Portugal, Sweden, Hungary, Belarus, Austria, Bulgaria, El Salvador, Singapore, Denmark, Finland, Slovakia, Norway, Ireland, New Zealand, Croatia, Jamaica, Lithuania, Slovenia, Latvia, Estonia, and Cyprus. Figure 1, below, shows the declines in territorial emissions (blue) and increases in GDP (red). To qualify as having experienced absolute decoupling, we require countries included in this analysis to pass four separate filters: a population of at least one million (to focus the analysis on more representative cases), declining territorial emissions over the 2005-2019 period (based on a linear regression), declining consumption emissions, and increasing real GDP (on a purchasing power parity basis, using constant 2017 international $USD). We chose not to include 2020 in this analysis because it is not particularly representative of longer-term trends, and consumption and territorial emissions estimates are not yet available for many countries. There is a wide range of rates of economic growth between 2005-2019 among countries experiencing absolute decoupling. Somewhat counterintuitively, there is no significant relationship between the rate of economic growth and the magnitude of emissions reductions within the group. **While it is unlikely that there is not at least some linkage between the two factors, there are plenty of examples of countries (e.g., Singapore, Romania, and Ireland) experiencing both extremely rapid economic growth and large reductions in CO2 emissions.** One of the primary criticisms of some prior analyses of absolute decoupling is that they ignore **leakage**. Specifically, the offshoring of manufacturing from high-income countries over the past three decades to countries like China has led to “illusory” drops in emissions, where the emissions associated with high-income country consumption are simply shipped overseas and no longer show up in territorial emissions accounting. There is some truth in this critique, as there was a large increase in emissions embodied in imports from developing countries between 1990 and 2005. After 2005, however, structural changes in China and a growing domestic market led to a reversal of these trends; the amount of emissions “exported” from developed countries to developing countries **has actually declined over the past 15 years.** This means that, for many countries, both territorial emissions and consumption emissions (which include any emissions “exported” to other countries) **have jointly declined**. In fact, on average, consumption emissions have been declining slightly faster than territorial emissions since 2005 in the 32 countries we identify as experiencing absolute decoupling. Figure 2, below, shows the change in consumption emissions (teal) and GDP (red) between 2005 and 2019. There is a pretty wide variation in the extent to which these countries have reduced their territorial and consumption emissions since 2005. Some countries — such as the UK, Denmark, Finland, and Singapore – have seen territorial emissions fall faster than consumption emissions, while the US, Japan, Germany, and Spain (among others) have seen consumption emissions fall faster. Figure 3 shows reductions in consumption and territorial emissions for each country, with the size of the dot representing the size of the population in 2019. **Absolute decoupling is possible.** There is no physical law requiring economic growth — and broader increases in human wellbeing — to necessarily be linked to CO2 emissions. All of the **services that we rely on today that emit fossil fuels** — electricity, transportation, heating, food — can in principle **be replaced by near-zero carbon alternatives**, though these are more mature in some sectors (electricity, transportation, buildings) than in others (industrial processes, agriculture).

#### 3] Demat

**McAfee 19**, \*Andrew Paul McAfee, a principal research scientist at MIT, is cofounder and codirector of the MIT Initiative on the Digital Economy at the MIT Sloan School of Management; (2019, “More from Less: The Surprising Story of How We Learned to Prosper Using Fewer Resources and What Happens Next”, https://b-ok.cc/book/5327561/8acdbe)

There is **no shortage** of examples of dematerialization. I chose the ones in this chapter because they illustrate a set of fundamental principles at the intersection of business, economics, innovation, and our impact on our planet. They are:

We do want more all the time, but **not more resources**. Alfred Marshall was right, but William Jevons was wrong. Our wants and desires keep growing, evidently without end, and therefore so do our economies. But our use of the earth’s resources **does not**. We do want more beverage options, but we don’t want to keep using more aluminum in drink cans. We want to communicate and compute and listen to music, but we don’t want an arsenal of gadgets; we’re happy with a single smartphone. As our population increases, we want more food, but we don’t have any desire to consume more fertilizer or use more land for crops.

Jevons was correct at the time he wrote that total British demand for coal was increasing even though steam engines were becoming much more efficient. He was right, in other words, that the price elasticity of demand for coal-supplied power was greater than one in the 1860s. But he was wrong to conclude that this would be permanent. Elasticities of demand can change over time for several reasons, the most fundamental of which is **technological change**. Coal provides a clear example of this. When fracking made natural gas much cheaper, total **demand** for coal in the United States **went down** even though its price decreased.

With the help of **innovation** and **new technologies**, economic growth in America and other rich countries—growth in all of the wants and needs that we spend money on—has become **decoupled** from resource **consumption**. This is a recent development and a **profound** one.

Materials cost money that companies locked in competition would rather **not spend**. The root of Jevons’s mistake is simple and **boring**: resources cost **money**. He realized this, of course. What he didn’t sufficiently realize was how strong the **incentive** is for a company in a contested market to **reduce** its spending on **resources** (or anything else) and so eke out a bit more profit. After all, a penny saved is a penny earned.

Monopolists can just pass costs on to their customers, but companies with a lot of competitors can’t. So American farmers who battle with each other (and increasingly with tough rivals in other countries) are eager to cut their spending on land, water, and fertilizer. Beer and soda companies want to minimize their aluminum purchases. Producers of magnets and high-tech gear run away from REE as soon as prices start to spike. In the United States, the 1980 Staggers Act removed government subsidies for freight-hauling railroads, forcing them into **competition** and **cost cutting** and making them all the more eager to not have expensive railcars sit idle. Again and again, we see that **competition** spurs **dematerialization**.

There are multiple paths to dematerialization. As profit-hungry companies seek to use fewer resources, they can go down four main paths. First, they can simply find ways to use **less** of a **given material**. This is what happened as beverage companies and the companies that supply them with cans teamed up to use less aluminum. It’s also the story with American farmers, who keep getting bigger harvests while using less land, water, and fertilizer. Magnet makers found ways to use fewer rare earth metals when it looked as if China might cut off their supply.

Second, it often becomes possible to **substitute** one resource for **another**. Total US coal consumption started to decrease after 2007 because fracking made natural gas more attractive to electricity generators. If nuclear power becomes more popular in the United States (a topic we’ll take up in chapter 15), we could use both less coal and less gas and generate our electricity from a small amount of material indeed. A kilogram of uranium-235 fuel contains approximately 2–3 million times as much energy as the same mass of coal or oil. According to one estimate, the total amount of energy that humans consume each year could be supplied by just seven thousand tons of uranium fuel.

Third, companies can use **fewer molecules** overall by making better use of the materials they **already own**. Improving CNW’s railcar utilization from 5 percent to 10 percent would mean that the company could cut its stock of these thirty-ton behemoths in half. Companies that own expensive physical assets tend to be fanatics about getting as much use as possible out of them, for clear and compelling financial reasons. For example, the world’s commercial airlines have improved their load factors—essentially the percentage of seats occupied on flights—from 56 percent in 1971 to more than 81 percent in 2018.

Finally, some materials get replaced by **nothing** at all. When a telephone, camcorder, and tape recorder are separate devices, three total microphones are needed. When they all collapse into a smartphone, only one microphone is necessary. That smartphone also uses no audiotapes, videotapes, compact discs, or camera film. The iPhone and its descendants are among the world champions of dematerialization. They use vastly less metal, plastic, glass, and silicon than did the devices they have replaced and don’t need media such as paper, discs, tape, or film.

If we use more renewable energy, we’ll be replacing coal, gas, oil, and uranium with **photons** from the **sun** (solar power) and the **movement** of **air** (wind power) and water (hydroelectric power) on the earth. All three of these types of power are also among dematerialization’s **champions**, since they use up essentially **no resources** once they’re up and running.

I call these four paths to dematerialization slim, swap, optimize, and evaporate. They’re not mutually exclusive. Companies can and do pursue all four at the same time, and all four are going on all the time in ways both obvious and subtle.

Innovation is **hard** to **foresee**. Neither the fracking revolution nor the world-changing impact of the iPhone’s introduction were well understood in advance. Both continued to be underestimated even after they occurred. The iPhone was introduced in June of 2007, with no shortage of fanfare from Apple and Steve Jobs. Yet several months later the cover of Forbes was still asking if anyone could catch Nokia.

Innovation is not **steady** and **predictable** like the orbit of the Moon or the accumulation of interest on a certificate of deposit. It’s instead inherently jumpy, uneven, and **random**. It’s also **combinatorial**, as Erik Brynjolfsson and I discussed in our book The Second Machine Age. Most new technologies and other innovations, we argued, are combinations or recombinations of preexisting elements.

The iPhone was “just” a cellular telephone plus a bunch of sensors plus a touch screen plus an operating system and population of programs, or apps. All these elements had been around for a while before 2007. It took the vision of Steve Jobs to see what they could become when combined. Fracking was the combination of multiple abilities: to “see” where hydrocarbons were to be found in rock formations deep underground; to pump down pressurized liquid to fracture the rock; to pump up the oil and gas once they were released by the fracturing; and so on. Again, none of these was new. Their effective combination was what changed the world’s energy situation.

Erik and I described the set of innovations and technologies available at any time as **building blocks** that ingenious people could combine and recombine into useful new configurations. These new configurations then serve as more blocks that later innovators can use. Combinatorial innovation is exciting because it’s unpredictable. It’s not easy to foresee when or where powerful new combinations are going to appear, or who’s going to come up with them. But as the number of both building blocks and innovators increases, we should have **confidence** that more breakthroughs such as fracking and smartphones are ahead. Innovation is highly decentralized and largely uncoordinated, occurring as the result of **interactions** among **complex** and **interlocking** social, technological, and economic systems. So it’s going to keep surprising us.

As the Second Machine Age progresses, dematerialization **accelerates**. Erik and I coined the phrase Second Machine Age to draw a contrast with the Industrial Era, which as we’ve seen transformed the planet by allowing us to overcome the limitations of muscle power. Our current time of great progress with all things related to **computing** is allowing us to **overcome** the **limitations** of our mental power and is **transformative** in a different way: it’s allowing us to **reverse** the Industrial Era’s bad habit of taking **more** and **more** from the earth every year.

Computer-aided design tools help engineers at packaging companies design generations of aluminum cans that keep getting lighter. Fracking took off in part because oil and gas exploration companies learned how to build **accurate** computer **models** of the rock formations that lay deep underground—models that predicted where hydrocarbons were to be found.

Smartphones took the place of many separate pieces of gear. Because they serve as GPS devices, they’ve also led us to print out many fewer maps and so contributed to our current trend of using less paper. It’s easy to look at generations of computer paper, from 1960s punch cards to the eleven-by-seventeen-inch fanfold paper of the 1980s, and conclude that the Second Machine Age has caused us to chop down ever more trees. The year of peak paper consumption in the United States, however, was 1990. As our devices have become more capable and interconnected, always on and always with us, we’ve sharply turned away from paper. Humanity as a whole probably hit peak paper in 2013.

As these examples indicate, computers and their kin help us with all four paths to **dematerialization**. Hardware, software, and networks let us slim, swap, optimize, and evaporate. I contend that they’re the **best tools** we’ve **ever invented** for letting us tread more **lightly** on our planet.

All of these principles are about the **combination** of technological **progress** and **capitalism**, which are the first of the two pairs of forces causing **dematerialization**.

#### 4] Innovation.

Linus **Blomqvist 18**. Director of the Conservation and Food & Agriculture programs at the Breakthrough Institute, visiting researcher at the University of Tasmania where he is part of a team studying drivers of agricultural expansion and forecasting future land-use change, MESc from Yale’s School of Forestry and Environmental Studies, where he specialized in environmental economics, and a BA in Geography from Cambridge University. 04-04-18. “Decoupling or Degrowth? Why "Peak Stuff" May Not Be As Dire As You’ve Heard.” Breakthrough Institute. <https://thebreakthrough.org/issues/conservation/is-decoupling-doomed>

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

#### 5] New state capitalism is resilient.

Larry Elliott 21, The Guardian’s Economics editor, 7-30-21, “During the pandemic, a new variant of capitalism has emerged,” https://www.theguardian.com/commentisfree/2021/jul/30/pandemic-new-variant-of-capitalism-spending-covid-state

Over the past 18 months, the world has been amazed at how slippery an enemy Covid-19 has proved to be. The virus first detected in China at the end of 2019 has mutated on a regular basis. Vaccines need to evolve because the virus is changing to survive.

The shock to the global economy from the pandemic has been colossal, but things are now looking up – especially for advanced countries. Some are surprised by the pace of recovery, but they perhaps shouldn’t be, because alongside new variants of the virus there has been a new variant of global capitalism.

This matters. For decades the Austrian variant of political economy – the small state, non-interventionist, trickle-down, free-trade, low-tax model based around the ideas of Friedrich von Hayek – was dominant. It replaced the Keynesian variant because in the 1970s a free-market approach was seen as the answer to the challenges of the time: inflation, weak corporate profitability, and a loss of business dynamism.

Not even the biggest fan of capitalism would say it is a perfect system, merely that – so far at least – it has proved more durable than its rivals. And the flexibility to adapt to changing circumstances is a big part of that. The state is now a much more powerful economic actor than it was before the pandemic, much to the disappointment of the free-market thinktanks which are home to Hayek’s disciples.

Change was coming even before Covid-19. In retrospect, the last hurrah for the Austrian variant was the aftermath of the 2008-9 financial crisis, a period when the economic orthodoxy insisted on austerity to balance the books.

The upshot was weak growth, low investment, stagnating living standards and a backlash from voters. Central banks found it impossible to raise interest rates from their rock-bottom levels, because so many people on low incomes were relying on debt to get by, and higher borrowing costs would have tipped them over the edge.

At the other end of the spectrum, corporate and personal taxes were cut, and the rich got richer. The big tech giants, minnows themselves in their early days, used their market power to prevent new startups from posing a threat. Voters started to get the impression that the system only really worked for those at the top: and they were right. The populist backlash was aimed primarily at governments, but the real problem was that capitalism was starting to eat itself.

There were signs of a shift, from the middle of the last decade onwards. Donald Trump was no believer in free trade and was proud to call himself “tariff man”. The unexpectedly strong performance of Jeremy Corbyn at the UK general election in 2017 – with his powerful anti-austerity message – moved the dial too. It led then prime minister Theresa May to pledge an end to the policy. Boris Johnson’s shtick at the 2019 election – and subsequently – has all been about levelling up, not about trickling down.

This process has accelerated since the start of 2020, both at a domestic and global level. Governments of left, right and centre have intervened in their economies in ways that would have been unthinkable two years ago: paying wages for furloughed workers; keeping businesses afloat through grants and loans; preventing landlords from evicting tenants; and generally throwing financial caution to the wind. The world has been fighting a war against Covid, and in wartime the power of the state always increases.

It has not just been about governments spending and borrowing more, though that is part of the story. Fiscal policy – which covers tax and spending decisions – has taken centre stage for the first time since the Keynesian model ran into trouble in the mid-1970s. Central banks have become bit-players, and are having to fend off the accusation that their prime role is to print the money needed to cover the vast sums finance ministries are spending. The European Central Bank, previously tough in acting against the threat of price rises, has said it will tolerate more inflation before raising interest rates.

The race to the bottom on tax is coming to an end. US president Joe Biden has said he will pay for his latest spending plans by raising income tax on Americans earning more than $400,000 (£290,000) a year. At least 130 countries have signed up to plans, put together by the Organisation for Economic Co-operation and Development, for a minimum global corporate tax rate. Critics say the proposal doesn’t go far enough, but it is a significant moment nevertheless.

Meanwhile, the International Monetary Fund is telling member governments that they need to tackle the entrenched power wielded by a small number of dominant companies – or risk stifling innovation and investment. The IMF says the tech giants are a case in point because “the market disruptors that displaced incumbents two decades ago have become increasingly dominant players”, and they “do not face the same competitive pressures from today’s would-be disruptors”. But it is not just the tech sector. The IMF says the same trend towards falling business dynamism can be seen across many industries.

The building blocks of new-variant capitalism are already there. Governments are going to tax and spend more, and they will use regulatory powers to weaken monopolies. There will be selective use of nationalisation – as happened with UK defence manufacturer Sheffield Forgemasters this week.

Governments will borrow money to invest in infrastructure projects and to increase the budget for science. Industrial and regional policies will be back in vogue. The idea is to harness the power of the state with the dynamism of the private sector and, as was the case with Keynes, to save capitalism from itself.

There will be pushback, and it would be naive to think otherwise. This is evolution not revolution, and many of the weaknesses of the old order – insecurity at work, for example – remain untouched. Enemies abound. The mixed-economy model is anathema to those who think state intervention is either unnecessary or harmful, and to those who think the demise of capitalism is merely a matter of time.

The new variant of capitalism may prove to be a dud, but for now it has things going for it. These are times that call for a multilateral, collaborative approach, in which rich countries dig deep to help poorer nations, and themselves in the process.

Failings of the old model were exposed in the run-up to the crisis, while the benefits of a more hands-on approach have been demonstrated during the pandemic response. Unsurprisingly, there is appetite for a different way of running the economy. The reason a new variant has emerged is simple: there is a need for something stronger and more resilient than the old model.

#### 6] Capitalism solves war – its anti-imperialist.

Mousseau 19, Michael. "The end of war: How a robust marketplace and liberal hegemony are leading to perpetual world peace." International Security 44.1 (2019): 160-196. Props to DML for finding. (Professor in the School of Politics, Security, and International Affairs at the University of Central Florida)//Elmer

Is war becoming obsolete? There is wide agreement among scholars that war has been in sharp decline since the defeat of the Axis powers in 1945, even as there is little agreement as to its cause.1 Realists reject the idea that this trend will continue, citing states' concerns with the “security dilemma”: that is, in anarchy states must assume that any state that can attack will; therefore, power equals threat, and changes in relative power result in conflict and war.2 Discussing the rise of China, Graham Allison calls this condition “Thucydides's Trap,” a reference to the ancient Greek's claim that Sparta's fear of Athens' growing power led to the Peloponnesian War.3 This article argues that there is no Thucydides Trap in international politics. Rather, the world is moving rapidly toward permanent peace, possibly in our lifetime. Drawing on economic norms theory,4 I show that what sometimes appears to be a Thucydides Trap may instead be a function of factors strictly internal to states and that these factors vary among them. In brief, leaders of states with advanced market-oriented economies have foremost interests in the principle of self-determination for all states, large and small, as the foundation for a robust global marketplace. War among these states, even making preparations for war, is not possible, because they are in a natural alliance to preserve and protect the global order. In contrast, leaders of states with weak internal markets have little interest in the global marketplace; they pursue wealth not through commerce, but through wars of expansion and demands for tribute. For these states, power equals threat, and therefore they tend to balance against the power of all states. Fearing stronger states, however, minor powers with weak internal markets tend to constrain their expansionist inclinations and, for security reasons, bandwagon with the relatively benign market-oriented powers. I argue that this liberal global hierarchy is unwittingly but systematically buttressing states' embrace of market norms and values that, if left uninterrupted, is likely to culminate in permanent world peace, perhaps even something close to harmony. My argument challenges the realist assertion that great powers are engaged in a timeless competition over global leadership, because hegemony cannot exist among great powers with weak markets; these inherently expansionist states live in constant fear and therefore normally balance against the strongest state and its allies.5 Hegemony can exist only among market-oriented powers, because only they care about global order. Yet, there can be no competition for leadership among market powers, because they always agree with the goal of their strongest member (currently the United States) to preserve and protect the global order

#### 7] Decline shreds US China relations which are key to solve emerging existential threats

Johnson and Gramer 20 [Keith Johnson is Foreign Policy's global geoeconomics correspondent, Robbie Gramer is a diplomacy and national security reporter at Foreign Policy, covering the State Department. “The Great Decoupling”, May 14th, https://foreignpolicy.com/2020/05/14/china-us-pandemic-economy-tensions-trump-coronavirus-covid-new-cold-war-economics-the-great-decoupling/] Recut Jet

Here, decoupling refers to decoupling with China’s economy

“What we have now through the beginnings of economic decoupling is the removal of that economic ballast in the U.S.-China relationship, which has historically differentiated it from the characteristics of the U.S.-Soviet relationship in the Cold War,” said Rudd, the former Australian prime minister.

“If we have another pandemic, or environmental issues, or financial-sector issues, or Iran, or North Korea, how effective are you going to be if you don’t have a working relationship with China?”

In concrete terms, that will likely make it harder for the United States to nudge China to make any of the reforms Washington has pushed for years, let alone to moderate its increasingly belligerent and aggressive foreign policy. “If the question is whether breaking economic ties will lead to increased friction, the answer has to be yes,” Zoellick said. “The nature of decoupling doesn’t mean the Chinese will stop” their disruptive behavior, “they will just be less concerned with norms that the United States would otherwise push.”

In other words, after almost two decades of urging, sometimes successfully, China to become a “responsible stakeholder” in the global system, as then-Deputy Secretary of State Zoellick famously urged in a 2005 speech, the United States would essentially be throwing in the towel. And, on a host of global challenges, giving up influence and engagement with the world’s largest population, second-largest economy, and a permanent member of the U.N. Security Council could undermine U.S. interests across the board, he warned.

#### 8] Growth key to space col---solves everything

Everett 16 (Sean, CEO of Prome Biological Intelligence, a global biotechnology company, editor of Medium’s news outlet dedicated to space colonialization titled “The Mission”, BS Mathematics & Actuarial Science, MBA from UChicago,“Humanity’s Extinction Event Is Coming” https://medium.com/the-mission/humanitys-extinction-event-is-coming-c0f84f1803f)

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

#### 9] Trade wars doesn’t occur

Bedell, ‘21 (Denise Bedell has an Honors BA in Psychology at the University of Windsor and wrote a thesis, Peace Through Profit: How Capitalism Helps Restore and Revive Former Warzones, This is Capitalism presented by Stephens Inc., <https://www.thisiscapitalism.com/peace-through-profit-how-capitalism-helps-restore-and-revive-former-warzones/>, 2021, Accessed: 7-6-2021)//ILake-HG

Meet and Greet Looking more closely at the experiences of recent war zones makes clear how capitalism can bring together former opponents. By improving citizens’ quality of life through economic development, and by creating interdependency through trade, this can reduce the incentive for nations to take up arms against their neighbors. Take the Balkans. The Balkan peninsula is made up of Croatia, Bosnia and Herzegovina, Slovenia, Serbia, Montenegro, Kosovo, Macedonia, Romania, Bulgaria, Albania, Greece and the European part of Turkey. This region was a hotbed of conflict when the former Yugoslavia broke up at the end of the cold war (and, in fact the region has a long history of armed conflict). The Kosovo War in 1998-1999, for example, was fought between the Serbian Yugoslav authority (by then, Yugoslavia was made up of Serbia and Macedonia) — which controlled Kosovo — and the rebel Kosovo Liberation Army (backed by NATO air support). The deadly conflict saw thousands massacred in what a U.N. court would later deem a “systematic campaign of terror.” Those dark days are far gone, however, and these neighbors now work together in a virtuous economic cycle. Early in 2018, Pristina, the capital of Kosovo, hosted a four-day trade fair — at which 70 of the 174 companies present were Serbian. “I hope we will send the signal that the cooperation is already there,” noted Marko Cadez of Serbia’s Chamber of Commerce and Industry. “The people are working, the people are employing, making products, making profits — and that is most important for our country.” Or consider relations between India and Pakistan — strategic and military rivals that have threatened nuclear war on numerous occasions. Despite these tensions, bilateral trade between the two countries was worth around $2.6 billion in 2016, according to Indian government figures. Unofficial estimates suggest that it is twice that amount — and that the potential for trade is many times greater yet. “Peace building and peacemaking will always be subject to the larger political issues between India and Pakistan,” according to a report in 2017 from the independent and non-partisan federally mandated United States Institute of Peace (USIP). But, according to USIP, economic and trade cooperation can offers a path toward greater stability and peace between the countries — and across South Asia as a whole. A research report titled “Pakistan-India Relations: Peace Through bilateral Trade” — by Muhammad Ali, Noreen Mujahid and Aziz ur Rehman of the University of Karachi — determined that by increasing bilateral trade, it can help resolve political issues between the two countries — and reduce poverty. The report, published in the European Scientific Journal, noted: “If Pakistan and India normalize their economic relations, it will enhance the formal trade — and as a result, both the countries will earn significant revenue, which is lost due to informal trade.” The authors stated that as formal trade volumes rise, “both governments will be compelled to normalize their political relations and resolve their border disputes in an amicable manner.” Hence — as trade increases, pressure mounts on the authorities to ensure nothing interferes with those economic ties. Internal Strength Capitalism not only facilitates peace between nations, but also within them. Rwanda experienced a horrific genocide in the 1990s. But since then, the country has undergone a dramatic transformation — in part, because of the hard work of companies that have partnered with the government and outside agencies to create sustainable businesses and industries that are building a stable and growing economy. One of the many companies that has helped engender peace and create stability since Rwanda’s darkest days is Westrock Coffee. CEO Scott Ford’s pioneering work has helped to build a sustainable, free-market system for independent coffee producers in the country. Ford espoused a direct trade model — paying local smallholder farmers a fair market value for their coffee beans. He also built an agricultural training institute for local farmers, many of whom are women. As Ford explained: “What we are trying to do in Rwanda is be the engine that helps them create their own [economic] ecosystem.” (read more of his story here). Another example in Rwanda is Africa Improved Foods, which specializes in fortified foods to combat malnutrition. At an event earlier this year to mark the genocide, AIF’s chief executive, Amar Ali, outlined how business can help prevent the divisions that lead to conflict. “At Africa Improved Foods, we want to be a flagship for Rwanda — not only in what we build and the products we produce, but also the way we treat each other,” he said. “Everybody is a human being first, and should be treated as such — irrespective of gender, race, religion, tribe, or any other categorization.” In September of 2018, AIF received an SDG award for sustainable consumption (based on the UN’s Sustainable Development Goals) from the Swiss Green Economy Symposium. The award recognized the company for its innovative joint venture in Rwanda, along with the government of Rwanda, a consortium of various banks, and the International Finance Corporation, for promoting local production by buying farmers’ maize and soy yields directly at competitive prices. AIF’s factory in Kigali, the Rwandan capital, provides work to some 300 people, and the local-sourcing program provides around 24,000 Rwandan farmers with stable, sustainable income. Capitalism not only creates an environment for peace but when capitalism stumbles, so do the prospects for international harmony. In 2016, more countries experienced violent conflict than at any time in nearly 30 years. Not coincidentally, trade growth has been in something of a rut for most of the period since the global financial crisis. In that calamitous year of 2016, trade growth fell below 3% for the fifth consecutive year.

### 1NC – AT: Revolution

#### 1] Empirics conclude revolution is structurally impossible – no working class support, capitalist opposition, and results in tyranny or reversion to capitalism

Calnitsky 21 [Dr. David Calnitsky 21, Assistant Professor in the Department of Sociology at Western University, Sociology PhD from the University of Wisconsin-Madison, 8/8/2021, “The Policy Road to Socialism,” Critical Sociology, Sage Online] Recut Jet

Workers don’t want it

Loss aversion phenomenon means workers err on capitalism

Capitalists hate socialism so they would fight against it

Current government replaced by tyranny

If its democratic, they vote back into capitalism

I do not, however, think that the revolutionary road is implausible. Rather, it is impossible, at least inside the rich capitalist democracies. And between the implausible and the impossible the choice is clear. Again, this can be framed as an empirical hypothesis: You do not see revolutions in developed capitalist democracies. As Przeworski and Limongi (1997) have written, there has never been a revolution in a moderately middle-class democracy (see also Przeworski, 2019). Drawing on a thousand years of data, cumulatively collected across 37 democratic countries, they show that not one had collapsed with a per-capita GDP higher than that of Argentina in 1976. Among countries with half that figure, collapse was exceedingly rare. Even a modest GDP brings with it an enormous amount of regime stability. These data in fact include any kind of regime collapse; narrowing the data to socialist revolution makes the empirical case against it even more impressive. Any case for revolution must begin by acknowledging rather than ignoring this evidence. To look at this question in a different way, I draw on the Cross-National Time-Series Data Archive, which contains information on revolutions (rather than government collapse) for over 200 countries since 1919. Their definition of revolution is very broad (see footnote 7) and includes “attempts” to overthrow government as well as “unsuccessful” rebellions. The data were compiled from newspaper sources and warrants caution, but nonetheless constitutes the most systematic evidence available for these questions. In Figure 9, I present the GNP per capita distribution of revolutions, from 1919, where GNP is first available, to the present. By considering only those country-years with revolutions I reduce the observation count from 17,520 to 184. Unlike Przeworski, I do not further restrict the data to democracies. The graph displays an extreme skew: The vast, overwhelming majority of cases of revolutionary threat occur in countries with a per capita GNP below $5,000 USD. For reference, the figure for the US in the data is about $65,850 in 2019. The hypothesis above—that we do not see revolutions in developed democracies—seems borne out by the evidence. figure Figure 9. Histogram of country-years with revolutions. Source: Cross-National Time-Series Data Archive. Data drawn from 200 plus countries between 1919 and 2018 are then restricted to country-years (N = 184) in which there were “revolutions,” as well as a “major government crisis” and “anti-government protests.” Why exactly is this true and what are the mechanisms to explain it? Why is the revolutionary strategy impossible for a country like the US? There are, at bottom, three reasons, each of which stands alone as a sufficient condition to snap the last threads of one’s revolutionary faith.23 The first two suggest that revolution is unachievable, and the last suggests that even if it is achievable, socialism by revolutionary means is unachievable. The revolutionary road is closed on the following grounds: (1) Workers do not want it (2) Capitalists would sooner grant reforms (3) A smashed state is more likely to result in tyranny than deep democracy Not only has there never been a successful revolution in a developed democracy, there has never been a working class that has wanted one (e.g. Erikson and Tedin, 2015; Sassoon, 1996).24 There are no clear cases where the dominant inclination of the working class in a developed democracy was revolutionary. Recall that the above graph also includes attempts and unsuccessful cases. It is self-evident that workers have not joined revolutionary groups en masse at any point in the context of a rich democracy. Nor were their aspirations to join such groups thwarted by violence or ideology. When gains inside a capitalist democracy are available—either individual or collective ones, and this has been true even through the neoliberal period, where median living standards have continued to (slowly) go up and not down—it is not worth risking everything for an uncertain future (Thewissen et al., 2015).25 More important than the dynamic point is the static one: When standards of living are moderately high, as shown in Figure 9, the modal worker has more to lose than her chains. This is not an argument against socialism; but to revise Werner Sombart, the life raft of revolution really was shipwrecked on shoals of roast beef and apple pie. Therefore, the reasons workers are not revolutionary are materialist in character. Explaining their reformist politics does not require appeal to venal trade union leaders or false consciousness. Most people wish to minimize risk in their lives, and revolution involves taking on colossal risks. For example, home-ownership in the developed world hovers around 70%; this means that a lot of people have a lot to lose. By contrast, the materialist case for revolution proposes that people favor it when their expected post-revolutionary standards of living are greater than their current standard (Roemer, 1985). But when we add moderate risk- and loss-aversion the calculation changes (Kahneman and Tversky, 1991). Say you have a low income, but own a few assets, maybe a house, a car, and perhaps you also have a child; what risk profile would you require to gamble your modest holdings for an uncertain future which might be better but might be worse? Even if you are certain that the probability of better is greater than the probability of worse, you have to envision workers as a class of inveterate gamblers to take the bet. Moderately cautious people who prefer a bird in the hand will still view the downside risk as too great. Equal gains and losses are not experienced equally. This is the loss aversion phenomenon. But the assumption of a population confident about improved standards of living—and a willingness to take risky strategies to achieve them—is itself unwarranted. This is the risk aversion phenomenon. The modal worker is of course correct to suspect that her post-revolutionary welfare is uncertain; socialists after all do not have satisfactory answers to the problems of coordination, motivation, and innovation under socialism (for attempted answers that are provocative and oftentimes brilliant, see Albert, 2004; Cottrell and Cockshott, 1992; Corneo, 2017; Roemer, 1994; and Wright and Hahnel, 2016). When one compares the status quo to a future where both heaven and hell are seemingly plausible, it is perfectly rational that people everywhere would abandon the barricades. And abandon them they did. Now perhaps the revolutionaries have persuaded us that negative outcomes are far-fetched, that we are very confident that revolution will usher in, eventually, the land of milk and honey. It is still the case that in this model the promised land will only be reached after a social breakdown of unknown duration: A complete overhaul in the organization of production will lead to some middle period of deteriorating material welfare as capitalists rapidly exit the economy. This means chaos and uncertainty, but it could also mean war. The interregnum could last a year, but it might last two decades, and however optimistic we are about the end point, we cannot in advance know how long this interim phase will persist. In the meantime, revolutionary enthusiasm will wane, erstwhile supporters will decamp, a “stay-the-course” electoral strategy will be outflanked by competitor parties promising a return to normalcy, and the desire to consolidate gains will make the authoritarian impulse greater. From a materialist perspective, the uncertain passage through what Przeworski (1986) calls the “transition trough” makes the journey less appealing.26 To my mind, these factors explain why all working classes in all developed democracies have been decidedly reformist in orientation. The reason why revolutionary socialism has always been marginal in rich capitalist economies—and will always be outflanked by reform-oriented socialism—is that only the latter consistently deliver high (and usually increasing) standards of living and low (and usually decreasing) levels of risk. As long as the Mad Max world of catastrophic collapse can be avoided, reform-oriented parties will always better capture the enthusiasm of poor and working people. Thus, when we try to explain the non-revolutionary attitudes of our working-class friends and family, we do not need to lean on the false consciousness account, for there is a more parsimonious materialist explanation. As such, any case for revolution must be non-materialist in character: You can be a materialist or a revolutionary, but not both. This is the dilemma the revolutionaries must consider: Revolution is only possible when the forces of production are underdeveloped, but it can only be successful when they are sufficiently developed to make socialism (or communism) objectively viable.27 As Elster (1986) has argued, the circumstances under which revolutions spark and succeed never coincide. What about the capitalists? Under these circumstances, it is reasonable to expect that they will fight far harder against a revolution than they would against reformist drives. Indeed, ignoring the response from capitalists violates Elster’s first law of political rationality: Never assume your opponent is less rational than you. If revolution were the alternative, employers would grant every imaginable reform, from far higher taxes to the rejiggering of power relations in the workplace. In a mugging, most people will surrender their wallet before their life. Actors in the state ought to respond in more or less the same way—that is, as long as you admit your adversary the competence to read the situation as well as you. If our theory of the state suggests that it acts on behalf of the capitalist class, its apparatchiks would anticipate and preempt any revolutionary crusade with a cocktail of concession and repression. And while it will certainly contest reforms, it will devote all of its resources to break the revolution. Nonetheless, this means that revolutionaries can play a crucial role, even if it is not to foment revolution. Militancy is a powerful strategy to foment reform (for an argument about the history of social democracy along these lines, see Piketty, 2014). Thus far, the main reason revolution is off the table is because no one wants it—not workers, nor employers, nor the state. The third point above asks us to imagine the prospects for revolutionary success even if we ignore the wrinkle that workers have neither an interest nor capacity to make it. But let us pretend they did: Why then would we imagine that total social breakdown would prompt a deepening of democracy rather than authoritarian entrenchment? This happy outcome has never before emerged in the wake of social collapse, and there is little reason why the final showdown with the American military ought to produce fertile ground for deepening democracy in all spheres of life. In fact, evidence from the General Social Survey suggests that in response to recession and economic downturn people tend to become less altruistic and less concerned with questions of fairness.28 After situations of economic crisis, voters tend to shift to the right (Lindvall, 2014). The old union song cries out that “we can bring to birth a new world from the ashes of the old,” but life is not birthed on ash. None of the historical case studies track this narrative, and indeed everything we know about human psychology suggests that social devastation makes people more, not less, prone to demagoguery. This means that even if a revolution were achievable, it is probably undesirable. The argument I have thus far laid out against revolution contends only that it is off the table in middle-class democracies. I have in mind social dynamics within developed capitalist democracies, countries “like the US,” but the premise no longer holds true if we imagine a society that has already suffered some sort of catastrophic societal disintegration—at that point all bets are off. We are of course now talking about a world we are not living in, but it is worth considering the thought experiment nonetheless. It is possible that America, after some world-historic environmental or economic collapse, begins to look something more like Russian feudalism than contemporary developed capitalism. Revolution then might again be on the table, but the context of desperation and scarcity in this scenario gives little reason to expect it would incubate an egalitarian democratic society. The historical evidence is unambiguous: None of the communist revolutions of the 20th century ushered in deeply democratic egalitarian social structures. Not only are there no examples, but there are also no clear mechanisms on offer. The fact that this scenario generates an interest in bringing about an egalitarian society by means of revolution does not mean there will be a capacity to do so. The theory is little more than “where there is a will there is a way.” But, as Elster (1980: 124) argues, the general interests of society do not secrete the conditions for their fulfillment. Interests and capacities need not overlap. There is a final reason to be skeptical of non-evolutionary strategies: The highly dubious premise that the system we erect the morning after will actually work. A socialist economy, if plopped down tomorrow, would be so rife with unintended consequences and pathologies that it is easy to imagine a democracy voting its way back into capitalism. This is true even if we believe (mistakenly, in my view) that the socialist calculation debate is solvable in the age of big data (Morozov, 2019). Interlocutors in the calculation debate have had very little to say about the politics of transition. Indeed, it is hard to imagine success of any kind without a slow and incremental transformation, experimenting with bits and pieces along the way—as we have been doing for the past century. An experimental approach is likely the only way to avoid devastating blunders that undermine the whole project. Moments of institutional upheaval and big change may at times be necessary, but to be successful they will have to rest on a foundation of smaller changes that have been tested.

### 1NC – AT: Climate

#### 1] Transition is worse for emissions– Socialist leaders value victories over the environment

Smith '19 [Noah; 4/5/19; Bloomberg Opinion columnist, former assistant professor of finance at Stony Brook University; "Dumping Capitalism Won’t Save the Planet," https://www.bloomberg.com/opinion/articles/2019-04-05/capitalism-is-more-likely-to-limit-climate-change-than-socialism] Recut Jet

It has become fashionable on social media and in certain publications to argue that capitalism is killing the planet. Even renowned investor Jeremy Grantham, hardly a radical, made that assertion last year. The basic idea is that the profit motive drives the private sector to spew carbon into the air with reckless abandon. Though many economists and some climate activists believe that the problem is best addressed by modifying market incentives with a carbon tax, many activists believe that the problem can’t be addressed without rebuilding the economy along centrally planned lines. The climate threat is certainly dire, and carbon taxes are unlikely to be enough to solve the problem. But eco-socialism is probably not going to be an effective method of addressing that threat. Dismantling an entire economic system is never easy, and probably would touch off armed conflict and major upheaval. In the scramble to win those battles, even the socialists would almost certainly abandon their limitation on fossil-fuel use — either to support military efforts, or to keep the population from turning against them. The precedent here is the Soviet Union, whose multidecade effort to reshape its economy by force amid confrontation with the West led to profound environmental degradation. The world's climate does not have several decades to spare. Even without international conflict, there’s little guarantee that moving away from capitalism would mitigate our impact on the environment. Since socialist leader Evo Morales took power in Bolivia, living standards have improved substantially for the average Bolivian, which is great. But this has come at the cost of higher emissions. Meanwhile, the capitalist U.S managed to decrease its per capita emissions a bit during this same period (though since the U.S. is a rich country, its absolute level of emissions is much higher). In other words, in terms of economic growth and carbon emissions, Bolivia looks similar to more capitalist developing countries. That suggests that faced with a choice of enriching their people or helping to save the climate, even socialist leaders will often choose the former. And that same political calculus will probably hold in China and the U.S., the world’s top carbon emitters — leaders who demand draconian cuts in living standards in pursuit of environmental goals will have trouble staying in power. The best hope for the climate therefore lies in reducing the tradeoff between material prosperity and carbon emissions. That requires technology — solar, wind and nuclear power, energy storage, electric cars and other vehicles, carbon-free cement production and so on. The best climate policy plans all involve technological improvement as a key feature.

#### 2] The aff causes transition wars---the move away from capitalism cause mass starvation, ecological collapse, and doesn’t solve their offense.

Monbiot 9 [George Monbiot 8-17-2009. Visiting Professor in the School of the Built Environment, Oxford Brookes University; recipient of the United Nations Global 500 Award for outstanding environmental achievement; named one of the forty international prophets of the twenty-first century by the UK’S Independent. “Is There Any Point in Fighting to Stave Off Industrial Apocalypse.” Guardian. <http://www.guardian.co.uk/commentisfree/cif-green/2009/aug/17/environment-climate-change>.] Recut Jet

The interesting question, and the one that probably divides us, is this: to what extent should we welcome the likely collapse of industrial civilisation? Or more precisely: to what extent do we believe that some good may come of it?

I detect in your writings, and in the conversations we have had, an attraction towards – almost a yearning for – this apocalypse, a sense that you see it as a cleansing fire that will rid the world of a diseased society. If this is your view, I do not share it. I'm sure we can agree that the immediate consequences of collapse would be hideous: the breakdown of the systems that keep most of us alive; mass starvation; war. These alone surely give us sufficient reason to fight on, however faint our chances appear. But even if we were somehow able to put this out of our minds, I believe that what is likely to come out on the other side will be worse than our current settlement.

Here are three observations: 1 Our species (unlike most of its members) is tough and resilient; 2 When civilisations collapse, psychopaths take over; 3 We seldom learn from others' mistakes.

From the first observation, this follows: even if you are hardened to the fate of humans, you can surely see that our species will not become extinct without causing the extinction of almost all others. However hard we fall, we will recover sufficiently to land another hammer blow on the biosphere. We will continue to do so until there is so little left that even Homo sapiens can no longer survive. This is the ecological destiny of a species possessed of outstanding intelligence, opposable thumbs and an ability to interpret and exploit almost every possible resource – in the absence of political restraint.

From the second and third observations, this follows: instead of gathering as free collectives of happy householders, survivors of this collapse will be subject to the will of people seeking to monopolise remaining resources. This will is likely to be imposed through violence. Political accountability will be a distant memory. The chances of conserving any resource in these circumstances are approximately zero. The human and ecological consequences of the first global collapse are likely to persist for many generations, perhaps for our species' remaining time on earth. To imagine that good could come of the involuntary failure of industrial civilisation is also to succumb to denial. The answer to your question – what will we learn from this collapse? – is nothing.

This is why, despite everything, I fight on. I am not fighting to sustain economic growth. I am fighting to prevent both initial collapse and the repeated catastrophe that follows. However faint the hopes of engineering a soft landing – an ordered and structured downsizing of the global economy – might be, we must keep this possibility alive. Perhaps we are both in denial: I, because I think the fight is still worth having; you, because you think it isn't.

#### 3] Timeframe means transition can’t solve

Polychroniou et al. '20 [CJ; 9/16/20; PhD in Political Science from the University of Delaware; Noam Chomsky, Professor & Professor of Linguistics emeritus at the Massachusetts Institute of Technology; Robert Pollin, Professor of Economics and Co-Director of the Political Economy Research Institute at the University of Massachusetts; "The Political Economy of Saving the Planet," https://bostonreview.net/science-nature-global-justice/noam-chomsky-robert-pollin-c-j-polychroniou-political-economy-saving] Recut Jet

A good argument can be made that inherent features of capitalism lead inexorably to the ruin of the environment, and that ending capitalism must be a priority of the environmental movement. But there’s one fundamental problem with this argument: time scales. Dismantling capitalism is impossible in the time frame that we have for taking urgent action, which requires national and international mobilization if severe crisis is to be averted. Furthermore, the whole discussion around eco-socialism is misleading. The two efforts—averting environmental disaster, and dismantling capitalism in favor of a freer and more just society—should and can proceed in parallel. One example is Tony Mazzocchi’s efforts to forge a labor coalition that would not only challenge owner-management control of the workplace, but also be at the forefront of the environmental movement while attempting to socialize major sectors of U.S. industry. There’s no time to waste. The struggle must be, and can be, undertaken on all fronts. CP: Bob, in your view, can eco-socialism coexist with the Green New Deal project? And, if not, what type of a politico-ideological agenda might be needed to generate broad political participation in the struggle to create a green future? RP: In my view, details of rhetoric and emphasis aside, eco-socialism and the Green New Deal are fundamentally the same project. The Green New Deal, as we have discussed the term, offers the only path to climate stabilization that can also expand good job opportunities and raise living standards in all regions of the world. It defines an explicit and viable alternative to austerity economics on a global scale. My coworkers and I have worked on this issue—advancing the Green New Deal as an alternative to austerity economics—in different country settings over the past few years, including in Spain, Puerto Rico, and Greece. In my view, the Green New Deal is the only approach to climate stabilization also capable of reversing rising inequality and defeating global neoliberalism and ascendant neofascism. Beyond the Green New Deal, I don’t know what exactly “eco-socialism” could mean. Does it mean the overthrow of all private ownership of productive assets for public ownership? As Noam suggested, do people seriously think that this could happen within the time frame we have to stabilize the climate, that is, within less than thirty years? And are we certain that eliminating all private ownership would be workable or desirable from a social justice standpoint—i.e. from the standpoint of advancing well-being for the global working class and poor? How do we deal with the fact that most of the world’s energy assets are already publicly owned? How, more specifically, can we be certain that a transition to complete public ownership would itself deliver zero net emissions by 2050? To me, the overarching challenge is trying to understand alternative pathways to most effectively building truly egalitarian, democratic, and ecologically sustainable societies—putting all labels aside and being willing, as Marx himself insisted, to employ “ruthless criticism” toward all that exists, including all past experiences with Communism and Socialism. And, for that matter, being open to criticizing all authors, including Marx himself. Indeed, my favorite quote from Marx is “I am not a Marxist.”

#### 4] Transition wars – Low-growth world causes great power conflict

Drezner 16 [Daniel W. Drezner 16, nonresident senior fellow at the Brookings Institution, professor of international politics at the Fletcher School of Law and Diplomacy at Tufts University, May 2016, “Five Known Unknowns about the Next Generation Global Political Economy,” <https://www.brookings.edu/wp-content/uploads/2016/07/IOS-Drezner-web-1.pdf>]

Geopolitical ambitions could reduce economic interdependence even further.120 Russia and China have territorial and quasi-territorial ambitions beyond their recognized borders, and the United States has attempted to counter what it sees as revisionist behavior by both countries. In a low-growth world, it is possible that leaders of either country would choose to prioritize their nationalist ambitions over economic growth. More generally, it could be that the expectation of future gains from interdependence—rather than existing levels of interdependence—constrains great power bellicosity.121 If great powers expect that the future benefits of international trade and investment will wane, then commercial constraints on revisionist behavior will lessen. All else equal, this increases the likelihood of great power conflict going forward.