# 1AR

# Case

## Overviews

### Overview – Warming vs. DA’s

#### Runaway warming at 2050 is existential – short term nuclear wars over food and water and future uninhabitable temperatures ensure no future generations. The plan solves – it creates a monetary incentive for renewable adoption and development

### Overview – Warming vs. K’s

#### Global warming kills every single living being on earth – multiple existential scenarios from irreversible tipping points to nuclear resource wars deny any future value and ensure the devastation of the human race. The plan solves – a carbon tax incentivizes a switch to low carbon tech that exists in the squo which massively lowers emissions.

### Overview – CCP vs. DA’s

#### Absent the US taking the lead on climate leadership, China’s cap and trade model gets locked in worldwide which causes massive permit trading and the creation of an artificial carbon market bubble ensues. Economic decline causes the decline of US primacy that allows for rogue actors to massively proliferate and lashout. The plan solves – [modeling extension]

### Overview – CPP vs. K’s

#### Authoritarian China locks in opaque cap and trade worldwide which causes massive permit trading and the creation of a market bubble. The bubble collapses and causes the decline of the US economy and leadership which allows for rogue actors to fill-in, proliferate, and cause the worst forms of unrestrained violence. The plan solves because the US as a global leader prevents global cap and trade – [modeling extension]

### Overview – EU ETS

#### European Emissions trading in the status quo leads to massive offshoring, decks econ competitiveness, and can’t even solve warming – a modeled carbon tax from Border Carbon Adjustments is key. EU econ collapse destroys European stability and vital institutions – the impact is global war.

### Overview – Heg

#### US energy dependence decks US readiness – foreign energy reliance makes the military susceptible to the whim of authoritarian powers. The plan solves by providing a market incentive for a renewable transition. Independently, reliance on foreign oil causes miscalc and Iran nuclear escalation – perception of possible strait closure escalates tensions.

### Overview – Leadership

#### Cap and trade causes a subprime bubble which collapses the economy – trading permits creates an artificial high price of carbon that is susceptible to a market collapse similar to the housing bubble collapse of 08. The impact is US drawdown which causes conflict and proliferation – countries will prolif because uncertain security guarantees mean no nuclear protection.

### Overview – Blackouts

#### The grid will collapse because of rising oceans and new storms – that destroys grid which has vulnerabilities now. The impact is blackouts – it causes nuclear meltdowns, chemical power plant explosions, and military drawdown which invites military draw-in. The plan solves – it creates a monetary incentive to switch to green tech which improves resiliency and flexibility.

### Overview v K – Magnitude First

#### Prioritize existential threats --- our Pamlin and Armstrong is the best framing card in this round

#### One --- Reversibility --- it effects all future lives, is irreversible AND a pre-requisite to solving any other impact --- you shouldn’t risk it

#### Two --- Bias Goes Aff--- we psychologically disregard large impacts because they’re difficult to imagine --- flip that bias and presume towards preventing extinction

#### Three --- We Access Their Framing Better --- climate change is violent, causes mass starvation, poverty, etc AND scarcity of resources fuel every system of oppression --- it happens on a LARGER SCALE and polarizes all minority groups including <specific analysis for the alt> --- that means any existential risk at worst serves as a tie breaker

#### The Probability Debate ---

#### One --- It’s Not Low Probability --- none of their ev assumes the specifics of the aff AND our 1AC ev says conditions for global catastrophic events are increasing---which makes it even more likely

#### Two --- They Don’t Assume Debate --- dropped arguments are true and they must dispute our scenario --- anything else destroys clash

#### Three --- Evaluate by Solvency --- alt causes like <contextualize> make their impacts inevitable, the kritik is only a drop in the bucket, but you can solve 100% of the aff impact

## Extensions

### Extension – BCA’s/Modeling

#### Our ev is great – using game theory it concludes that either countries would let the US absorb revenue because of the tax or impose their own tax to capture revenues that go to the US.

### Extension – Renewables Cheap

#### Diesendorf 18 takes out their indicts – massive upscaling reduces the cost of renewable tech and batteries making a transition possible – Germany and Denmark prove it’s possible in the short term

### Extension – Yes Fuel Replacements

#### REN21 19 proves there are replacements in sectors – electric vehicles, biofuels, solar heating and cooling, and renewable hydrogen can be used.

## Case Defense

### Link – Gas Transition

#### Absent a change to profit incentives we get locked-in to natural gas – that leads to overreliance and bars a transition to renewables

Emily **Hammond**, Professor of Law, The George Washington University Law School, **and** Jim **Rossi**, Professor, Vanderbilt Law School, Stranded Costs and Grid Decarbonization, October 20, 20**16**, Brooklyn Law Review, Forthcoming

Coal and natural gas power plants account for more than 60% of the grid’s energy supply portfolio.89 Many of these plants have already been in operation for decades. Given the high fixed costs that have been paid to build and keep these plants in operation, firms face **strong incentives** to keep them in operation as long as they produce positive revenue streams from energy sales. The marginal costs to the firm of using these plants to produce energy can be **very low**, depending on the price of the fuel they use to produce the next unit of energy.90 The impact of the carbon transition on these “legacy” fossil fuel plants presents one of the most **significant stranded cost barriers** to the decarbonization transition. Coal-fired power is the obvious loser in the transition to a low-carbon future.91 The Clean Power Plan (CPP) expressly contemplates a phase-out of existing coal—to be replaced in the short term by increased utilization of natural gas combined cycle (NGCC), and ultimately by increased new renewables penetration.92 Moreover, other Clean Air Act (CAA) mandates—including the Cross-State Air Pollution Rule93 and the Utility MACT Rule94—have put pressure on coal-fired power in recent years, increasing both the **capital** and **operating costs** associated with such plants.95 These are regulatory changes, but they should not be a surprise. The 1990 Clean Air Act Amendments directed the EPA to address both cross-state air quality issues for criteria pollutants and toxic emissions from the power sector.96 And although greenhouse gas (GHG) regulation under the CAA may have come as a surprise to some,97 the power sector’s role in climate change has long been recognized.98 At the very least, serious conversations about mitigation in the United States are nearing a decade old. Market forces have also put pressure on coal. Natural gas has stepped in as a baseload competitor; its low prices have made it attractive to investors funding new power plants, and have also contributed to low short-run marginal costs, making it a hard competitor to beat on the competitive wholesale markets.99 In fact, in its rule for new sources of carbon dioxide emissions in the electricity sector, the EPA justified its strict approach for coal-fired power partly by explaining that very little new coal will be built anyway given these market forces.100 The result is that coal-fired power plants are closing, coal companies are going bankrupt,101 and coal’s share of power generation is expected to decrease from well over half of the power supply portfolio in the 1990s and early 2000s to about 18% by 2040.102 Despite these negative results for coal companies and coal industry workers, there are significant carbon and other air-quality benefits to be gained by weaning ourselves from coal. 103 But it is also true that there are social costs associated with closing these plants. In parts of the country where natural gas pipeline capacity is lacking—for example, the northeast during winter’s high demand—coal provides the security of reliability because the fuel itself is easily stored. 104 Furthermore, the economies of coal-producing states like West Virginia are heavily dependent on the resource. As just one metric, the coal industry has lost tens of thousands of jobs in recent years. 105 As coal’s share of the electricity supply wanes, **natural gas’s share is growing**. In many states today, almost **all of the new power plant capacity** coming online **is natural gas**. The use of natural gas to produce electricity is expected to continue to **increase in the near future,** given its abundant supply, low costs relative to other fuel sources, and lower carbon impacts compared to other fossil fuels.106 In contrast to older baseload coal plants, natural gas plants are usually built as peaking resources (i.e., those that are primarily deployed to meet peak customer loads) and offer many efficiencies as load following resources that can complement the integration of variable resources such as wind and solar into the grid.107 Yet one lurking concern is **overinvestment in natural gas power plants** for purposes of power supply, which could **readily lead to overreliance** on the fuel as a generation resource. For example, the Union of Concerned Scientists has warned that many states’ heavy short-term reliance on natural gas plants presents a **long-term risk of locking in investments** in power plants that could **peak in use by 2030**, **potentially creating massive new excess capacity problems**.108 Concerns with the grid’s future overreliance on natural gas are heightened by the **need for increased decarbonization over the coming decades**, as natural gas is not carbon-free; as some scholars have argued, meeting our climate policy goals will require “eliminating virtually all [of our] natural gas use by 2050.”109 The prospect of future stranded costs for natural gas, akin to what is currently being claimed by the coal industry, seems highly likely a decade or two into the decarbonization transition.

### Impact D – Anthropogenic

#### Warming is anthropogenic and causes extinction

**Adams 16** --- has a degree in agriculture and cites studies done by NASA and the IPCC   
(Andrew, Prince George Citizen, 4/16/16, “There is no debating scientific facts,” http://www.princegeorgecitizen.com/opinion/columnists/there-is-no-debating-scientific-facts-1.2229437)//ernst

Last week I wrote about the signs of early spring and put a few jabs at climate change deniers. This column did exactly what I had hoped. It sparked conversation on the topic. Those who commented on the article were in fact climate change deniers, stating random outliers of data in the overall trend, which is akin to the Republican senator of Oklahoma who brought a snowball to the senate floor as evidence that global warming was a hoax. I am so glad this type of outlandish behavior has not manifested itself in Canadian politics as of yet. Weather is what you get and climate is what you expect. This week I hope to explain climate change to those who don't fully understand the science behind it. I write this column with a mere bachelor of science and only a handful of classes in a human and environmental interaction masters program before I left school to tackle other adventures that I felt academia would only prevent me from doing all the while furthering my student debt. So while I am not an expert on this topic I do however have an understanding of the scientific process and natural processes that allow us to understand climate change. Glancing into my personal library one could reasonably make the statement that I may have a better understanding than your average Joe. It's true the climate has always been changing. While observed records of our climate indeed are not extreme in age, pollen in lake sediment, trapped air bubbles and neutrons in glaciers can give us a reasonable degree of accuracy (of the past 800,00 years according to NASA) when looking to the past climate fluctuations. In our last century of climatic observations we have observed an overall increase of approximately [0].74 degrees Celsius increase in global temperatures according to NASA and the IPCC. While this number does not seem significant, it is when you live in an extreme environment such as the arctic. Think back to your history book's description of the Franklin expedition, now remember last week's stories from CBC on the cruise ships traveling the Northwest Passage with thousands of people aboard the ships. 97 percent of climate scientist agree that this warming (which is happening) is not caused by orbital variation nor sun spots or solar flares. These experts agree this climate change is anthropogenic. While I believe Prince George has no doubt its share of scientific geniuses, I don't believe that there is a scientific genius in P.G. that is more informed on climate change than the leading 97 percent of top climate scientists. It is true that the climate has been warm before and this is not the problem. The problem is the rate at which the change is occurring. According to NASA, "As the Earth moved out of ice ages over the past million years, the global temperature rose a total of four to seven degrees Celsius over about 5,000 years. In the past century alone, the temperature has climbed 0.7 degrees Celsius,

roughly ten times faster than the average rate of ice-age-recovery warming." **We are now in the sixth great extinction on Earth. I**n fact geologists are now calling our current Epoch the Anthropocene as our industrial existence has now left its mark geologically on Earth forever. In 1750, there was 250 PPM of carbon dioxide (the most important greenhouse gas) in our atmosphere now there is 400 PPM. If you were to drive a car somehow up through our atmosphere for 100 kilometres you would then be in outer space. This is how small our atmosphere is. It is ludicrous to think that all of our industrial emissions have not been able to change the composition of our thin veil of an atmosphere It saddens me that some still deny these dire facts because we have work to do and no time to waste. There is no one to blame but ourselves. To those who think this is a nefarious plot against the common man from the government and scientists, I think you must first assume our government is intelligent enough to push such a plot as this onto the public and ask yourself, why would they do such a thing, what would be the benefit, and also, "Have I been spending too much time on YouTube watching conspiracy theories?" P.s. The Earth is not flat.

### Impact D – Author consensus

#### The 97 percent consensus is real, their authors are hacks; we o/w on probability

**Abraham 2016** - professor of thermal sciences University of St. Thomas School of Engineering   
John, "Fossil fuel funded report denies the expert global warming consensus," Feb 22, www.theguardian.com/environment/climate-consensus-97-per-cent/2016/feb/22/fossil-fuel-funded-report-denies-the-expert-global-warming-consensus

We all know about the various organizations that fund or support the climate-change denial industry. Perhaps the best known is the Heartland Institute, which actually puts on climate “conferences” and publishes materials that appear at first glance to be scientifically sound. We who work and follow the climate change science and public discussions know enough to be skeptical about anything produced by groups like the Heartland Institute – their veneer of scientific credibility is very thin. On the other hand, perhaps the intended audience isn’t scientists are even people who closely follow the science. Perhaps their intended audience is legislators, teachers, and others who have influence over society? With this as a backdrop, I received a copy of a humorous report from an elected official in the USA. The report was entitled “Why Scientists Disagree about Global Warming,” published by Heartland. Since elected officials have too much going on to do a thorough debunking, I looked into this report to see what substance was there. As a scientist, when I read any manuscript I ask a number of questions. Who wrote it and what is their expertise in the field? When statements and conclusions are made, what is the evidence? How do these conclusions fit into prior work in the field? Is the new study confirming prior work or in conflict with it? If there is conflict, why? The authors of this manuscript are Craig Idso, the late Robert Carter, and Fred Singer. These three are not exactly (or even nearly) a trio of reputable climate scientists. According to a literature search performed using the search engine SCOPUS, **neither Idso nor Singer published a credible paper on global climate change or its implications in years.** One way to measure the authors’ impact is by counting how many people have read and cited their work. For both of these authors, the number of people who have cited them is shockingly low. To put their impact in perspective, a scientist like Kevin Trenberth receives three times more citations each year than the combined citations of Singer and Idso in their entire careers. So, having these guys be lead author on a climate change document is a bit like hiring retired scientists or op-ed writers to do your research. But just because they are not active and reputable scientists, could they be correct? Sure, they could be. So let’s look at the content. The central theme of this manuscript is an attack against the expert consensus on human-caused global warming. The consensus refers to the very strong and repeatable measure of what scientists think about climate change. What do the best scientists say? It turns out multiple groups have measured the consensus. The measurements have been done many different ways, all leading to the same conclusion – the consensus is strong. Not only is the consensus strong, contrarian scientists are less talented than those in the consensus. They publish less on the subject, and peer review has found the work of most high-profile contrarians to be faulty. So, on the one hand, **you have approximately 97% of the best scientists in agreement, and** on the other hand, **you have about 3% of the less-talented scientists in dissent**. Dr. Naomi Oreskes conducted the first major study that looked at consensus more than a decade ago. Dr. Oreskes examined the abstracts of hundreds of papers and found that they strongly confirmed the human influence on climate. In fact, she found no papers that dissented. The Heartland publication falsely calls Dr. Oreskes a “non-scientist.” In fact her scientific impact measured by citations is approximately four times that of the combination of Idso and Singer. Instead, they try to refute her with references to think-tank non-reviewed publications and websites. Peter Doran and Margaret Zimmerman performed the second major consensus study in 2009. This was the first peer-reviewed study that quantified that 97% agreement among climate scientists. The authors accessed a large database of Earth scientists and created a secure polling system to ask about their level of agreement. The authors broke the scientists into groups based on whether climate change was their field of study and whether they published a majority of their papers in that field. Approximately 10% of the respondents were in the most expert category. There were a series of questions for the respondents and a very strong consensus that temperatures had increased and humans were the cause. The Heartland Institute falsely claimed that the survey was only two questions, and their sole reference used to rebut the paper was an article in the National Post. William Anderegg and his colleagues completed the third major measure of consensus in 2010. They created a database of the most prominent climate scientists by searching the scientific literature for papers and citations. They found that only 2% of the experts were unconvinced on the extent of human impact. Importantly, **the contrarian scientists were found to publish less and publish less impactful studies** – simply put, the best scientists agreed. How does the Heartland document counter this study? They claimed that the mainstream scientists are “hyper productive.” They even accuse these scientists by saying “It is unlikely these scientists actually participated in most of the experiments or research contain in the articles bearing their name.” Next, they point out that the contrarians tend to be older and retired. I wouldn’t disagree with either of their conclusions. The 97% of scientists that agree are more productive and younger than those who disagree. The references that the Heartland uses to support its conclusions are from its own website, from the Wall Street Journal, and other non-scientific outlets. Not very convincing. The Heartland document finally attacks the 2013 study by John Cook and colleagues of the scientific literature. The authors examined over 12,000 abstracts and found that among those taking a position, less than 3% rejected or minimized human-induced climate change. Among the abstracts that gave a position, 97% were in agreement. Just like before, in response to this the Heartland document cites no peer-reviewed scientific sources — just think-tank literature, websites, and blog posts. What was surprising was that the Heartland report actually cited a consensus in favor of their viewpoint. The article “Scientists’ Views about Attribution of Global Warming” was published in 2014. The authors found a strong correlation of expertise with recognition that humans are a cause of climate change. For instance, for scientists who have published more than 10 papers on the topic, there is a 90% consensus that human influences dominate. I could go on, but you get the point. What we see is that it doesn’t matter how you measure the consensus. Whether you ask the scientists, whether you read the papers, or whether you trawl the literature in other ways. The results are reinforcing, which why we know there is such a strong consensus. While I won’t spend too much time on the scientifically incorrect or misleading statements in the Heartland report, I will mention a few. In chapter 4, they claim that a doubling of carbon dioxide would result in approximately 1°C warming. They neglected to remind the readers that we have nearly already reached that and we are nowhere near doubling of carbon dioxide yet. The report claims that meteorological observations are consistent with a climate sensitivity of 1°C but they provide no support for this assertion and in fact, the research does not support this. The report falsely claims that climate models assume all the warming since the industrial revolution is from carbon dioxide. Climate models include many factors in addition to carbon dioxide. The report also falsely claims that models do not attempt to simulate internal climate oscillations. They claim that thawing of permafrost is not likely to emit dangerous methane, which will add to the warming, but they give no evidence to support their claim. This is what happens when you have a fossil fuel-funded political organization parade a document as a scientific publication. You get nonsense and non-science. This is why we should be skeptical of anything published by an advocacy organization such as Heartland. Fortunately, we are used to their nonsense.

### Impact D – Inevitable

#### Warming can be stopped but the plan now is key

**Stover 15** – Editor at Bulletin of the Atomic Scientists, writer for Scientific American, Conservation, Popular Science, New Scientist, The New York Times

(Dawn, “Climate change: irreversible but not unstoppable”, 2/26/15, <http://thebulletin.org/climate-change-irreversible-not-unstoppable8044>, Bulletin of the Atomic Scientists)

**When scientific experts** moved the hands of the Bulletin’s Doomsday Clock two minutes closer to midnight last month, **calling current efforts to prevent catastrophic global warming “entirely insufficient,”** **some people responded that climate change is a far less disastrous threat than nuclear war because it is reversible. This is a common misconception.** In ongoing data collection by the Cultural Cognition Project at Yale Law School, fewer than one in four people in a general population sample in Southeast Florida understood that if human beings stopped emitting carbon dioxide tomorrow, global temperatures would continue to rise. “Believers” in human-caused global warming were just as likely as “disbelievers” to misunderstand the extent to which we are already committed to future temperature rises. **The widespread notion that the climate is something we can fix later**—after more pressing priorities have been addressed—**may be the biggest obstacle to actions and policies that would slow global warming**, avoid some of its worst potential impacts, and allow more time for humans and other species to adapt to a changing climate. **Even though scientists have repeatedly emphasized the urgency of the situation, their message isn’t getting through to the general public or to legislators** who could make a difference. What’s missing are vivid, personalized depictions of what life will be like in the future if emissions continue unabated. Human activities have already altered the climate so radically that many scientists refer to the current geologic era as the Anthropocene, from the Greek words for “human” and “new.” But that sounds friendly and progressive compared with what actually lies ahead: a climate very similar to that of Earth’s last major warm period, the Pliocene epoch of several million years ago, minus the mastodons and mammoths. **And unlike nuclear war, it’s not a question of whether climate change will rock our world, only of how bad things will get.** Committed to climate change. Though we’re seeing obvious warning signs of what is to come, such as melting glaciers and steadily increasing levels of atmospheric carbon dioxide, thus far the global average surface temperature has risen by only about 0.8 of a degree Celsius (or 1.4 degrees Fahrenheit) since 1880. However, **the climate system has some built-in inertia, and the impacts of past human activities will be felt far into the future. Scientists refer to these unavoidable future changes as our climate change “commitment.”** Some of the inertia comes from the elevated levels of carbon dioxide and other greenhouse gases already in the atmosphere. If humans were to cease their emissions overnight, the oceans would quickly absorb some of these gases. But the oceans also release gases back to the atmosphere, and the level of greenhouse gases in the atmosphere would not subside back to pre-industrial levels for many centuries. Another problem is that industrial **air pollution has a cooling, as well as a warming, effect.** Fossil fuel combustion releases aerosols, tiny particles and droplets that reflect sunlight and enhance cloud formation, masking the impacts of greenhouse gases. If we stopped burning fossil fuels, this cooling effect—which is difficult to quantify, but probably has less than half the impact of the greenhouse warming effect—would end. “A large fraction of climate change is largely irreversible on human time scales,” the most recent assessment report from the Intergovernmental Panel on Climate Change (IPCC) warned. Only if human emissions were “strongly negative over a sustained period”—for example, if tree planting and other activities were to sequester far more carbon than humans release—would climate change begin to be reversed. At the moment, of course, emissions are still rising rapidly. Points of no return. If the concentration of carbon dioxide in the atmosphere can be limited to a doubling—from about 280 parts per million (ppm) in the pre-industrial era to 560 ppm in the future (we’re currently at about 400 ppm)—the IPCC assessment estimated with “high confidence” that Earth’s temperature will reach an equilibrium somewhere between 1.5 and 4.5 degrees Celsius above pre-industrial temperatures. However, the report cautioned, “some aspects of climate will continue to change even if temperatures are stabilized.” Among some of the most likely changes: The melting of snow and ice will expose darker patches of water and land that absorb more of the sun’s radiation, accelerating global warming and the retreat of ice sheets and glaciers. Scientists agree that the Western Antarctic Ice Sheet has already gone into an unstoppable decline. Currents that transport heat within the oceans will be disrupted. Ocean acidification will continue to rise, with unknown effects on marine life. Thawing permafrost and sea beds will release methane, a greenhouse gas. Droughts predicted to be the worst in 1,000 years will trigger vegetation changes and wildfires, releasing carbon. Species unable to adapt quickly to a changing climate will go extinct. Coastal communities will be submerged, creating a humanitarian crisis. Some of these changes may persist for hundreds or even thousands of years after the Earth’s temperature stabilizes. Scientists worry that elements of the climate system could even reach tipping points beyond which abrupt and planetary-scale changes might occur, such as the disappearance of monsoon cycles or the Amazon’s vast tropical forests. Welcome to the Pliocene. **Even if countries reduce emissions enough to keep temperatures from rising much above the internationally agreed-upon “danger” threshold of 2 degrees Celsius** (which seems increasingly unlikely), **we can still look forward to conditions similar to those of the mid-Pliocene** epoch of 3 million years ago. At that time, the continents were in much the same positions that they are today, carbon dioxide levels ranged between 350 and 400 ppm, the global average temperature was 2 to 3 degrees Celsius higher than it is today (but up to 20 degrees higher than today at the northernmost latitudes), the global sea level was about 25 meters higher, and most of today’s North American forests were grasslands and savanna. **A mid-Pliocene climate looks comfortable, though, compared with what will happen if we continue to emit carbon dioxide at today’s rate.** As noted in the Doomsday Clock announcement, the IPCC “warned that **warming—if unchecked by urgent and concerted global efforts to greatly reduce greenhouse gas emissions—would reach 3 to 8 degrees Celsius** (about 5.5 to 14.5 degrees Fahrenheit) by the end of the century.” Social inertia. Is there any way to avoid Pliocene-like conditions? “If carbon dioxide emissions could be eliminated entirely,” two scientists argued in Nature Geoscience in 2010, “temperatures would quickly stabilize or even decrease over time. **Future warming is therefore driven by socio-economic inertia, and is only as inevitable as future emissions.**” **That is about as helpful as telling obese people that if they just stopped eating, they would lose weight** quickly. At the moment, we’d be doing well to cut humanity’s diet of fossil fuels to a level that would merely prevent further weight gain. **Instead what we see is a planetary binge**, with increases in fossil fuel consumption that have dwarfed the development of low-carbon energy sources during the past decade. The scientists, however, put their finger on what is needed to turn things in the right direction: socio-economic action. Changing self-destructive behaviors can be extremely difficult, as any dieter knows, and unrealistic optimism can be just as counterproductive as defeatism. In fact, these are the twin enemies of climate action. **Even climate “believers” seem to feel that either there is little they can do to prevent disaster** (beyond pointing fingers at “disbelievers,” of course) or, alternatively, that technology is making (or will make) speedy progress against the problem. Those in the over-optimistic camp may think that geoengineering, for example, can turn back the climate clock in a pinch. **Unfortunately, although measures such as injecting sulfate aerosols into the stratosphere merit increased research and development, they are not ready to be safely deployed at the scale necessary to combat climate change**. As a National Research Council committee recently concluded, “**there is no substitute for dramatic reductions in greenhouse gas emissions.” The world needs an emissions diet plan**—and a full complement of socio-economic incentives and support systems to ensure its success. Out of the fire and into the frying pan. **The inevitability of climate change doesn’t mean that we don’t have a choice to make: If we act quickly and boldly, there is a small window of opportunity in which we can work to keep global warming to a minimum**. **Or we can keep accelerating toward catastrophe.** As Richard Somerville, one of the climate scientists on the Bulletin’s Science and Security Board, recently told me: “People today, whether they realize it or not, have control of the thermostat that will set the climate for future generations.” Humans are constantly distracted by immediate gratifications and immediate worries. **To prevent nuclear war and catastrophic climate change, we have to force ourselves to take a longer view.** **It’s difficult to imagine the devastating, centuries-long impacts that climate change could have on human health and the environment. Still, we stopped at two nuclear bombs. We can stop at two degrees.**

### Impact Turn – CO2 Ag

#### Try or die – long term warming definitely devastates crops which makes the impact inevitable absent the aff

#### Experts agree warming turns food security--evaporations, insects, crop stress and desertification outweigh CO2 benefits

**Sticklen 15** (Mariam, Department of Crop, Soil and Microbial Sciences, Michigan State University, “Studies of the Negative Effects of Climate Change on Crop Productivity and Global Food Security” August 14th 2015 <http://www.esciencecentral.org/journals/studies-of-the-negative-effects-of-climate-change-on-crop-productivityand-global-food-security-2329-8863-1000e129.pdf)>

The earth ‘climate change’ has been well documented. Climate change is a long-term (decades to millions of years) distribution means of weather pattern changes caused by physical and biological factors. Physical factors that contribute to climate change include; volcanic eruptions, plate tectonics, and solar energy radiations. The biological factors that affect climate change mostly include human activities including CO2 concentration increases due to fossil fuel combustion emissions and CO2 released by cement manufacturing, and by aerosols (i.e., articulate matter in the atmosphere), ozone depletion, deforestation and also by animal agriculture [1]. Climate change has a non-linearity effect on the global food supplies system when the atmospheric CO2 reaches a new level. **Although one may assume that higher CO2 may increase the earth vegetations** due to the need for CO2 in photosynthesis, increase in CO2 has **negative effects** on plant growth mostly because increases in CO2 increases the earth temperature causing **greater soil moisture evaporations** affecting the plant growth. However in certain cases, the increase in warmth along with rain falls has resulted in improved plant growth via the sequestration of airborne CO2 in plants. As far as the global climate change is concerned, increase in CO predicted to increase vegetation in Northern Latitudes; but to decrease the vegetation in Southern Latitudes, **resulting in decline of amount of overall vegetation worldwide.** Insects and pathogens can also increase under higher temperatures and the gradual increase in temperature can cause radical changes in vegetative stress, crop losses and desertification [2,3]. In extreme situations, **plant and animal species can become extinct**, as did due to the loss of rain forests during Carboniferous Rainforest Collapse (CRC) of event 300 million years ago [4]. **Climate change is the fundamental threat** to sustainable development, **global food security and poverty eradication.** **All climate change experts agree** on industrial governments needs on investing in agricultural adaptation to the climate change based on regions predicted to be affected such as South and Southeast Asia (e.g. Bangladesh, Philippines and Vietnam) and Africa (e.g. Malawi and Sudan) which are the major targets of the negative impacts of the climate change [5]. Furthermore, multilateral linked global strategies are needed to assure sustainable food supplies to feed the fast growing population of countries that are to become the further target of climate change [6]. While industrialized countries contribute to Greenhouse Gas emissions, most of these countries also provide opportunities via modern technologies to increase yield and productivity as an incentive mechanism to adapt to the climate change and to contribute to the environmental substantially and rural development in both industrialized and less-industrialized nations. The United States National Academy of Sciences recently recommended [7] the needs for more studies to further understand and advance the science of climate change, and to assure sufficient and fast progress on adapting of the agriculture to predicted climate change via effectively de carbonizing of the economy by shifting from fossil fuels to renewable energy in order to cut planet-warming emissions to a net zero. Among many other measures, governments need to invest in changes in water resources via the science and tools of agricultural engineering, commit to reduce the temperature below the 2.4C and stabilize the target of 550ppmv CO2 (i.e., part per million volume Co2 equivalent) and reduce environmental pollutions within the next few decades [8]. Several models have been developed in order to be able to analyze and evaluate the global consequences to crop productivity and the risk of hunger. For example one model is based on cereal crops productions, prices and number of people at the risk of hunger due to climate change variables such as CO2 effects and increase in temperature [9]. In all models/scenarios studied, the industrialized nations are less at risk of climate changes while they are mostly considered to cause the earth’s climate change due to their industrializations. As an indirect measure of accepting that industrialized nations are to be taxed for polluting of the earth, and on socio-political humanitarian bases, industrialized nations have made commitments to set standards to their creation of CO2 emissions, and to transferring crop improvement technologies to less developed nations. Transfer of technologies indeed fits well within the concept of climate change adaptation and the fact that food security cannot become sustainable without its’ four factors of ‘food availability via modern technologies, food access, food sustainability and food utilization’. It is the goal of the United Nations to reach the above goals prior to an **extreme climate change** **that is expected to become an uncontrolled disaster.**

#### Empirics are on our side- Warming swamps the benefits of CO2, cutting food production by 10 percent and locking in price spikes

**McDonnel 2016**- citing a 2016 Nature paper about warming and crop production   
Tim, "Climate change could have a bigger impact on developed countries' food systems," Jan 6, grist.org/article/climate-change-could-have-a-bigger-impact-on-developed-countries-food-systems/

For billions of people around the world, the most immediate threat posed by climate change is at the dinner table, as staple crops face a steadily worsening onslaught of drought, heatwaves, and other extreme weather events. The United States certainly isn’t immune to these challenges; for proof, just look at California, where an unprecedented drought has cost the state’s agriculture industry billions. Still, the conventional thinking among many scientists is that developing countries, particularly in sub-Saharan Africa and Southeast Asia — where people are typically hit harder by food price spikes and generally more reliant on agriculture as a primary source of income — are the most vulnerable to food-related climate impacts. A paper published today in Nature may add a wrinkle to that assumption. Scientists often track the impact that an individual weather disaster has on crops (again, see California), but the new research takes it a step further. A team of scientists from Canada and the United Kingdom compiled the first-ever global tally of how weather disasters over past 50 years cut into production of staple cereals. After merging a database of global weather records with a United Nations record of country-level crop production, the researchers found that, as a rule of thumb, **droughts and heatwaves typically cut a country’s cereal production by 10 percent**. That basically accords with predictions from the United Nations’ Intergovernmental Panel on Climate Change’s predictions for agricultural vulnerability in the future. But unexpectedly, the researchers also found that the impacts were 8 to 11 percent more severe in developed countries than in developing ones. “That was a surprise to us,” said Navin Ramankutty, an agricultural geographer at the University of British Columbia. Ramankutty said it’s not yet clear why droughts and heatwaves tend to hit yields in the United States, Europe, and Australia harder than those in Asia, Africa, and Latin America. But he suspects that it relates to how farmers set their priorities. In developed countries, the emphasis is often on maximizing profit with big monoculture farms that work great in good climates but get trashed when the weather turns sour. Farmers in developing countries, by contrast, may prioritize minimizing their risk, taking a smaller yield in exchange for better resilience. Of course, these findings don’t mean developing countries are out of harm’s way. They still face major challenges from climate change, since comparatively small yield losses can have an outsized impact on local economies and food security. But Ramankutty says the new research shows that even in the developed world, farmers may be more at risk from climate change than anyone previously realized.

#### No ag impact.

Steven **Pinker 11**, Prof @ Harvard, Steven Pinker: Resource Scarcity Doesn’t Cause Wars, <http://www.globalwarming.org/2011/11/28/steven-pinker-resource-scarcity-doesnt-cause-wars/>

Once again it seems to me that the appropriate response is “maybe, but maybe not.” Though climate change can cause plenty of misery… it will not necessarily **lead to armed conflict**. The **political scientists** who track war and peace, such as Halvard **Buhaug**, Idean **Salehyan**, Ole **Theisen**, and Nils **Gleditsch**, are skeptical of the popular idea that people **fight wars** over **scarce resources**. **Hunger and resource shortages** are tragically common in sub-Saharan countries such as **Malawi**, **Zambia**, and **Tanzania**, **but wars involving them are not. Hurricanes, floods, droughts, and tsunamis** (such as the disastrous one in the Indian Ocean in 2004) do not generally lead to conflict. The American dust bowl in the 1930s, to take another example, caused plenty of deprivation **but no civil war**. And while temperatures have been rising steadily in Africa during **the past fifteen years**, **civil wars and war deaths have been falling.** Pressures on access to land and water can certainly cause local skirmishes, but a genuine war requires that hostile forces be **organized** and **armed**, and that depends more on the influence of **bad governments**, **closed economies**, and **militant ideologies** than on the sheer **availability** of land and water. Certainly any connection to terrorism is in the imagination of the terror warriors: terrorists tend to be underemployed lower-middle-class men, not subsistence farmers. As for genocide, the Sudanese government finds it convenient to blame violence in Darfur on desertification, distracting the world from its own role in tolerating or encouraging the ethnic cleansing. In a regression analysis on armed conflicts from 1980 to 1992, Theisen found that conflict was more likely if a country was **poor**, **populous**, politically unstable, **and abundant in oil**, but not if it had suffered **from droughts**, **water shortages**, or mild **land degradation**. (Severe land degradation did have a small effect.) Reviewing analyses that examined a **large** number (**N**) **of countries rather than cherry-picking** one or toe, he concluded, “Those who foresee doom, because of the relationship between resource scarcity and violent internal conflict, **have very little support from the large-N literature.”**

### Impact Turn – Ice Age

#### Our impact turns their silly science

**McGuire, 3** [Bill, director of the Benfield UCL Hazard Research Centre, “Will global warming trigger a new ice age?”, November 12, The Guardian, http://www.theguardian.com/environment/2003/nov/13/comment.research]

If you can remember back to the bitter winters of the late 1970s and early 80s you might also recall that there was much discussion in scientific circles at the time about whether or not the freezing winter conditions were a portent of a new ice age.¶ Over the past couple of decades such warnings have been drowned out by the great global warming debate and by consideration of how society might cope in future with a sweltering planet rather than an icebound one. Seemingly, the fact that we are still within an interglacial period, during which the ice has largely retreated to its polar fastnesses, has been forgotten - and replaced with the commonly-held view that one good thing you can say about global warming is that it will at least stave off the return of the glaciers.¶ Is this really true, or could the rapidly accelerating warming that we are experiencing actually hasten the onset of a new ice age? A growing body of evidence suggests that, at least for the UK and western Europe, there is a serious risk of this happening - and soon.¶ The problem lies with the ocean current known as the Gulf Stream, which bathes the UK and north-west Europe in warm water carried northwards from the Caribbean. It is the Gulf Stream, and associated currents, that allow strawberries to thrive along the Norwegian coast, while at comparable latitudes in Greenland glaciers wind their way right down to sea level. The same currents permit palms to flourish in Cornwall and the Hebrides, whereas across the ocean in Labrador, even temperate vegetation struggles to survive. Without the Gulf Stream, temperatures in the UK and north-west Europe would be five degrees centigrade or so cooler, with bitter winters at least as fierce as those of the so-called Little Ice Age in the 17th to 19th centuries.¶ The Gulf Stream is part of a more complex system of currents known by a number of different names, of which the rather cumbersome North Atlantic Meridional Overturning Circulation (Namoc) is probably the most apt. This incorporates not only the Gulf Stream but also the cold return currents that convey water southwards again. As it approaches the Arctic, the Gulf Stream loses heat and part of it heads back to warmer climes along the coast of Greenland and eastern Canada in the form of the cold, iceberg-laden current responsible for the loss of the Titanic. Much, however, overturns - cooling and sinking beneath the Nordic seas between Norway and Greenland, before heading south again deep below the surface.¶ In the past, the slowing of the Gulf Stream has been intimately linked with **dramatic regional cooling**. Just 10,000 years ago, during a climatic cold snap known as the Younger Dryas, the current was severely weakened, causing northern European temperatures to fall by as much as 10 degrees. Ten thousand years before that, at the height of the last ice age, when most of the UK was reduced to a frozen wasteland, the Gulf Stream had just two-thirds of the strength it has now.¶ What's worrying is that for some years now, global climate models have been predicting a future weakening of the Gulf Stream as a consequence of global warming. Such models visualise the disruption of the Namoc, including the Gulf Stream, as a result of large-scale melting of Arctic ice and the consequent pouring of huge volumes of fresh water into the North Atlantic, in a century or two. New data suggest, however, that we may not have to wait centuries, and in fact the whole process may be happening already.¶ So that the warm, saline surface waters of the Gulf Stream can continue to push northwards, there must be a comparable, deep return current of cold, dense water from the Nordic seas. Disturbingly, this return current seems to have been slowing since the middle of the last century. Bogi Hansen at the Faroese fisheries laboratory, and colleagues in Scotland and Norway, have been monitoring the deep outflow of cold water from the Nordic seas as it passes over the submarine Greenland-Scotland ridge that straddles the North Atlantic at this point. Their results show that the outflow has fallen by 20% since 1950, which suggests a comparable reduced inflow from the Gulf Stream.¶ Although there is as yet no direct substantiation of this, and his colleagues point to reports of the cooling and freshening of the Norwegian Sea and to temperatures that are already falling in parts of the region as possible evidence of contemporary Gulf Stream weakening.¶ It also seems that it is not only the intensity of the outflow of cold water that is changing. Bob Dickson of the Centre for Environment, Fisheries, and Aquaculture Science at Lowestoft, and colleagues, have reported a sustained and widespread freshening of returning deep waters south of the Greenland-Scotland ridge, which appears to have been going on for the past three or four decades.¶ Already the freshening is extending along the North American eastern seaboard towards the equator, in the so-called Deep Western Boundary current.¶ One of the scariest aspects of the current dramatic changes occurring in the system of North Atlantic currents is that the deep, southward-flowing limb of the Namoc can be thought of as representing the headwaters of the worldwide system of ocean currents known as the Global Thermohaline Circulation. The possibility exists, therefore, that a disruption of the Atlantic currents might have implications far beyond a colder UK and north-west Europe, perhaps bringing dramatic climatic changes to the entire planet.¶ Yet again, this highlights the fact that global warming, for which we have only ourselves to thank, is nothing more nor less than a great planetary experiment, many of the outcomes of which we cannot predict. Wallace Broecker, an ocean circulation researcher at New York's Lamont-Doherty Earth observatory, described the situation perfectly when he pointed out that "climate is an angry beast and we are poking at it with sticks". Let's hope that when it truly turns on us, its teeth don't match its outrage.

#### Those studies are bunk – prefer actual science

-if there is an ice age, it would be like the one a few hundred years ago not the one from the Ray Ramano movie Ice Age 3  
**Romm 2015-**  Fellow at American Progress and is the Founding Editor of Climate Progress  
Joe, "Media reports the world will enter a 'mini ice age' in the 20130s. The Reverse is true." Jul 13, thinkprogress.org/climate/2015/07/13/3679662/global-warming-speed-up-not-ice-age/

U.K. tabloids, conservative media, and others are (mis)reporting that the Earth will enter a “mini ice age” in the 2030s. In fact, not only is the story wrong, the reverse is actually true. The Earth is headed toward an imminent speed-up in global warming, as many recent studies have made clear, like this June study by NOAA. Indeed, a March study, entitled “Near-term acceleration in the rate of temperature change,” makes clear that a stunning acceleration in the rate of global warming is around the corner — with Arctic warming rising 1°F per decade by the 2020s! Also, right now, we appear to be in the midst of a long-awaited jump in global temperatures. Not only was 2014 the hottest year on record, but 2015 is in the process of blowing that record away. On top of that, models say a massive El Niño is growing, as USA Today reported last week. Since El Niños tend to set the record for the hottest years (since the regional warming adds to the underlying global warming trend), if 2015/2016 does see a super El Niño then next year may well crush the record this year sets. Whatever near-term jump we see in the global temperatures is thus likely to be followed by an accelerating global warming trend — one that would utterly overwhelm any natural variations such as a temporary reduction in solar intensity. A recent study concluded that “any reduction in global mean near-surface temperature due to a future decline in solar activity is likely to be a small fraction of projected anthropogenic warming.” That’s true even for one as big as the Maunder Minimum, which was linked to the so-called Little Ice Age. The “Little Ice Age” is a term used to cover what appears to have been two or three periods of modest cooling in the northern hemisphere between 1550 and 1850. I know you are shocked, shocked to learn that unreliable climate stories appear in U.K. tabloids, the conservative media, and those who cite them without actually talking to leading climate scientists. Often there is a half truth underlying such stories, but in this case it is more like a nano-truth. Last week, in Llandudno, north Wales, the Royal Astronomical Society (RAS) held Cyfarfod Seryddiaeth Cenedlaethol 2015 — the “National Astronomy Meeting 2015” (in case you don’t speak Welsh). An RAS news release had this startling headline, “Irregular Heartbeat Of The Sun Driven By Double Dynamo.” Okay, that wasn’t the startling part. This was: “Predictions from the model suggest that solar activity will fall by 60 per cent during the 2030s to conditions last seen during the ‘mini ice age’ that began in 1645.” Ah, but the word choice was confusing. We’re not going to have temperature “conditions” last seen during the Little Ice Age. If this one study does turn out to be right, we’d see solar conditions equivalent to the Maunder Minimum in the 2030s. This won’t cause the world to enter a mini ice age — for three reasons: The Little Ice Age turns out to have been quite little. What cooling there was probably was driven more by volcanoes than the Maunder Minimum. The warming effect from global greenhouse gases will overwhelm any reduction in solar forcing, even more so by the 2030s. So how little was the Little Ice Age? The most comprehensive reconstruction of the temperature of the past 2000 years done so far, the “PAGES 2k project,” concluded that “there were no globally synchronous multi-decadal hot or cold intervals that define a worldwide Medieval Warm Period or Little Ice Age.” The Little Ice Age was little in duration and in geographic extent. It was an “Age” the way Pluto is a planet. Writing on Climate Progress, climatologist Stefan Rahmstorf noted the researchers “identify some shorter intervals where extremely cold conditions coincide with major volcanic eruptions and/or solar minima (as already known from previous studies).” That brings us to the second point: The latest research finds that what short-term cooling there was during the Little Ice Age was mostly due to volcanoes, not the solar minimum. As “Scientific American” explained in its 2012 piece on the LIA, “New simulations show that several large, closely spaced eruptions (and not decreased solar radiation) could have cooled the Northern Hemisphere enough to spark sea-ice growth and a subsequent feedback loop.” The period associated with the LIA “coincide with two of the most volcanically active half centuries in the past millennium, according to the researchers.” The cooling effect from the drop in solar activity during even a Maunder Minimum is quite modest. Environmental scientist Dana Nuccitelli discussed the literature underscoring that point in a U.K. Guardian post from the summer of 2013, the last time the “Maunder Minimum” issue popped up. That brings us to the third point: Whatever cooling the Little Ice Age saw as result of the Maunder Minimum, it pales in comparison to the warming we are already experiencing — let alone the accelerated warming projected by multiple studies. That’s clear even in Pages 2k reconstruction above. Just last month “Nature Communications” published a study called, “Regional climate impacts of a possible future grand solar minimum.” This found that, “any reduction in global mean near-surface temperature due to a future decline in solar activity is likely to be a small fraction of projected anthropogenic warming.” As with the Little Ice Age, any significant effects are likely to be regional in nature — and, of course, temporary, since a grand solar minimum typically lasts only decades. So, no, the Daily Mail is quite wrong when it trumpets, “Scientists warn the sun will ‘go to sleep’ in 2030 and could cause temperatures to plummet.” In actuality, what is going to happen in the business-as-usual emissions scenario (RCP8.5) is closer to the figure below, which plots “rate of change” of warming: In the RCP8.5 scenario, the rate of warming post-2050 becomes so fast that it is likely to be beyond adaptation for most species — and for humans in many parts of the world, as I discussed here. The warming rate in the central case hits a stunning 1°F per decade. Arctic warming would presumably be at least 2°F per decade. And this goes on for decades. No Maunder Minimum can save homo sapiens from that catastrophic outcome. Only humanity can — by ignoring those who deny or mislead on climate science and instead taking aggressive action to slash carbon pollution ASAP.

### Impact Turn – Dedev

**The consumption mindset is sustainable and good**

**Pyka and Prettner, 18**—Institute of Economics, University of Hohenheim (Andreas and Klaus, “Economic Growth, Development, and Innovation: The Transformation Towards a Knowledge-Based Bioeconomy,” Bioeconomy pp 331-342, springer, dml)

The alternative approach of neo-Schumpeterian economics (e.g., Hanusch and Pyka 2007) challenges this quantitative orientation and instead emphasizes the importance of qualitative aspects, which make fundamental changes of economic structures over longer periods visible. Without the consideration of the **qualitative levels** of economic growth, the quantitative figures **cannot tell much** about the **massive technological** and **socioeconomic developments**. The neo-Schumpeterian approach highlights that **innovations**, **market forces**, **structural change**, and **urban ways of life** are both **part of the problem** and **part of the solution** to the sustainability problem. Innovation-triggered development generates both **quantitative**, i.e., income-increasing growth, and **qualitative**, i.e., structure-changing development. **Only** the creative solutions **characteristic for capitalistic-organized economies** will enable to **reform our future economy** in the sense of sustainability, thereby **supporting** the UN’s **sustainability** goals and **simultaneously ensuring growth** and **development** (Mazzucato and Perez 2015).

The **central role of innovation** in neo-Schumpeterian economics highlights that abstinence in the sense of **economic downscaling** is **neither the first nor the only solution**. This does not mean that all ideas of the proponents of the camp are rejected: in perfect accordance, certain past patterns like the high energy intensity of production because of too low oil prices not covering the total environmental costs or so-called planned obsolescence in consumption require urgent adjustments. Especially concepts resulting in a **more intensive use of goods** and therefore contributing to the **economization of resources** like the sharing economy or displacing physical goods by digital goods are **promising**. The same applies for closed-loop material cycles, recycling systems, and intelligent waste avoidance and treatment. These concepts are perfectly applicable to **foster** learning and **behavioral changes** on the supply and the demand side. The core idea of neo-Schumpeterian economics, however, is the supply of and demand for new technological solutions within a comprehensive economic transformation process (Geels 2002), i.e., different goods and services are produced and demanded in different, namely, sustainable ways. Exploring and exploiting the technological possibilities of the bioeconomy not only creates new investment opportunities but is also the **condition sine qua non** for the required socioeconomic and cultural changes. The **consumers’ acceptance of** bio-based **products** and their **demand** are **indispensable for a successful transformation**. Innovations and changed consumer attitudes are complementary conditions for the creation of a sustainable production system.

Change can be either of an incremental type in terms of small improvements step-by-step along well-known technological trajectories, or it can be fundamental, leading to structural changes and the emergence of new and the disappearance of old industries. To simplify, we assume in this chapter that incremental technological changes are based on existing technological solutions, whereas radical technological changes question major existing production processes. They might lead to massive upheaval in the global production system in the sense of creative destruction (Schumpeter 1943). Because this chapter deals with the fundamental transformation of current production systems, **radical technological innovations are in the spotlight** which encompass the **overcoming of the lock-in situation in fossil fuels** (Unruh 2000) and the **establishment of a knowledge-based bioeconomy** (Pyka 2017; Pyka and Buchmann 2016). Without doubt this transformation process is **radical**, **qualitative**, and **long term**. It was already in Business Cycles, published in 1939, when Schumpeter revitalized Kondratieff’s theory of long waves in order to explain such processes as regular processes in long-term economic development. His illustration of the discontinuous nature of economic development is famous: “Add successively as many mail coaches as you please, you will never get a railway thereby” (Schumpeter 1934, p. 64). So far, the literature highlights five long waves: The beginning industrialization around the year 1800 represented the first long wave and was fueled by the steam engine and by cotton processing. Then, starting around the year 1850, the widespread availability of steel and the diffusion of railways constituted a second long wave. Again, in the early twentieth century, this Kondratieff cycle was replaced by electricity and chemicals. In the postwar period, the third long wave gained momentum by mass production and the automobile as well as the petrochemical industries. Since then, manufacturing activities built on oil as a second fossil fuel apart from coal. From the 1980s, one refers to the fifth long wave, which is reflected in the fast and ubiquitous diffusion and application of information and communication technology. **Now**, at the beginning of the twenty-first century, **another paradigmatic change is in the air**, being characterized, however, by one major difference to previous situations of radical change: whereas previous cycles were driven by technological bottlenecks and their overcoming, in the twenty-first century, we face the vital question of how to restore environmental sustainability of economic activities. The **knowledge-based bioeconomy** plays a key role in this transformation process which, of course, like previous radical changes, still is confronted by fundamental uncertainty (Knight 1921).

The literature provides many alternative terms for the massive change, shaking global production systems: Freeman (1991) and Dosi (1982) call them techno-economic paradigm changes; Sahal (1985) uses cartographic analogies and refers to technological guideposts that are pointing to technological avenues. All authors highlight the confrontation with profound changes economic systems are faced with over longer periods of time, which question all established production approaches. Not a single technology is responsible for this phenomenon but several complementary developments that include, apart from a package of mutually dependent technologies (e.g., combustion engine, petrochemistry, assembly line production), numerous infrastructural developments (e.g., road structure, filling station network), behavioral changes (e.g., suburbs and commuter flow, shopping malls outside the city centers), as well as institutional changes (e.g., spatial planning and commuter allowance, etc.). The old paradigm will not be replaced by the new one until all these elements interact.

The neo-Schumpeterian approach provides us with crucial hints on the process of the forthcoming change. For this purpose, we discuss in the following section how innovations are **supported by the discovery** and **successful diffusion** of new knowledge. Knowledge-based economies organize innovation systems composed of different actors which establish a creative environment for mutual learning and knowledge creation. **No innovation would have ever been established if it had not attracted consumers’ interest** and if it had not been **leveraged by their purchasing power**. We will focus on these questions in Sect. 11.3. Knowledge-based societies consider new concepts in the sense of responsible innovation that are decisive in bringing an entire economy on a new sustainable path-shaping growth and development. Section 11.4 deals with the massive economic impacts originating from these technological and knowledge-driven changes. It requires, besides technological change, also institutional change in a coevolutionary fashion, if new sustainable technologies are to achieve the aspired transformation of the economic system.

11.2 Innovation Systems and Knowledge Neo-Schumpeterian scholars (e.g., Dosi et al. 1988; Lundvall 1992, 1998; Nelson 1993) strongly emphasize the systemic character of innovation processes. So-called innovation systems are composed of different actors (companies, research institutions, political actors, consumers, etc.) and linkages between these actors (flows of goods, R&D cooperation, knowledge transfer relationships, user-producer relationships, etc.). These linkages are required to ensure mutual learning and common knowledge development to solve complex innovation challenges. Such systems are characterized by their dynamic and coevolutionary nature and are thus enormously complex, as both actors and their knowledge and linkages and interactions between actors may change over time. Dosi (1982) takes this systemic conception as a starting point in defining technological paradigms as “[…] set of procedures, or a definition of the ‘relevant’ problems and of the specific knowledge related to their solution.” Transferred to the knowledge-based bioeconomy, the core idea is substitution, i.e., replacing carbon-based materials and energy with bio-based materials and energy. This can only be achieved by applying a variety of technological processes in the entire breadth and depth of the value-added chain. In this process the exploration of economic complementarities in terms of cross-fertilization of different knowledge fields matters. For example, to a large extent, digitalization allows for an extension of value chains by increasing the added value in new sustainable production sectors in a CO2-neutral way (e.g., by electric mobility based on renewables, by establishing so-called smart grids, etc.). The concept of technological paradigms also illustrates that a paradigm shift is not possible at any time. A window of opportunity will only occasionally be opened and allow for a paradigm shift when several interconnected technologies are established and the creation of conducive demand side and institutional conditions happens simultaneously. This, of course, also holds for the emergence of a new bioeconomic innovation system and requires a sound balance of the various actors and their activities. For this reason, we introduce the notion of a dedicated innovation system.

The theory of industrial life cycles, which emphasizes the strong dynamics in the emergence and decline of industries, gives a first hint on the meaning of the development of a dedicated innovation system supporting the transformation towards a knowledge-based bioeconomy. Typically, industrial development is divided into four stages: (1) a development phase (new knowledge creates prerequisites for innovation), (2) an entrepreneurial and growth phase (many market entries of smaller innovative firms), (3) a saturation and consolidation phase (formation of industrial standards, mergers, and acquisitions as well as market exits), and (4) a downturn phase (oligopolistic competition in only less innovative industries) (e.g., Audretsch and Feldman 1996). Although the bioeconomy does not represent a well-defined industrial sector, understanding the theory of industrial life cycles is of crucial importance to govern the transformation process towards the knowledge-based bioeconomy. Without doubt, the bioeconomy has to be characterized as cross sectional. On the one hand, **several new sectors will emerge**, e.g., in the fields of **bioplastic**, **waste management**, or **biorefineries**. On the other hand, **already existing sectors** in the fields of **vehicle construction**, **battery technology**, **pharmaceuticals**, etc. will **gain new momentum** by the arrival of bioeconomic approaches. Therefore, we argue that new sectors will emerge by establishing bioeconomic technologies and development dynamics of some already existing industries will receive new impetus at the same time. **Adjustments** of old and development of new **institutions** (e.g., in Germany the Renewable Energy Act, the Greenhouse Gas Emissions Trading Law, etc.), adjustments of **consumer habits**, and the emergence of **new educational opportunities** in terms of coevolution will **accompany these processes** and establish the institutional, the industrial, and the consumer pillars of a **dedicated innovation system**.

The patterns and nature of new businesses in the bioeconomy are thus strongly influenced by national institutions and organizations (Casper et al. 1999; Whitley 1999). Institutions are defined as “a set of rules, formal or informal, that actors generally follow, whether for normative, cognitive, or material reasons.” “Organizations are durable entities with formally recognized members, whose rules also contribute to the institutions of the political economy” (North 1990; Hall and Soskice 2001). In this interplay between organizations and institutions, the knowledge base of an economy is created by the education and research system and represents one of the most important prerequisites for the transformation towards a bioeconomic production system (Geels 2002). This automatically relates to a high level of uncertainty in particular concerning the required future competences. In this complex process, numerous individual knowledge fields are potentially relevant for the transformation and are already identified, e.g., synthetic chemistry, process engineering, genetic engineering, food technology, or informatics. It is decisive to understand the dynamics of these knowledge fields and the possibilities of their recombination with other knowledge fields and adequate actors in order to create an innovation system. In many cases, linkages of different knowledge fields (cross-fertilization) are responsible for the emergence of extensive technological opportunities: for instance, a complete new industry, bioinformatics, has been initiated by the fusion of two so far unrelated knowledge fields, database technology and molecular biology. Because linking different knowledge fields is highly uncertain, private actors might not start and governmental innovation policies matter. Knowledge about future potentials, therefore, is essential for supporting research and innovation policies: the analysis of knowledge and network dynamics allows for the identification of development trajectories showing sectors requiring public attention and support concerning research and development in order to close existing knowledge gaps and build bridges between various knowledge domains (Burt 2004; Zaheer and Bell 2005). 11.3 Innovation in Knowledge-Based Societies It has already been mentioned that also consumer knowledge plays an important role for the development and establishment of sustainable consumption patterns in a knowledge-based bioeconomy (Geels 2002). Therefore, the analysis of the transformation process has to include the interaction of technological development, demand, and acceptance of innovative solutions as well as sociological variables. The latter include education, age, income, and gender. All are important explanatory factors determining attention and readiness to deal with bioeconomic issues. A bioeconomic innovation will only be successful when consumers accept it. The direction of the transformation process is, comparable to the importance of the policy realm, determined by consumers, i.e., an important question has to address consumers’ openness to the bioeconomy and its products. Finally, (real and virtual) social networks matter for the establishment of new consumption patterns. They can contribute significantly to a diffusion of consumers’ behavioral patterns and values (Robertson et al. 1996; Valente 1996; Nyblom et al. 2003; Deffuant et al. 2005). Recent studies show that attitudes are substantial for the development of social relationships and that, in turn, social relationships considerably influence behavior and attitudes. In the field of renewable energies, for example, the initiative of municipal utilities’ customers has led in many cases to a “green” orientation of regional power supply. In some cases, citizens’ networks finally transformed to investment companies that are engaged in wind farms. Critical issues are to be dealt with in democratic processes in order to be widely accepted. Not everything that is technically possible is also socially desirable. In the field of the bioeconomy, this may, for instance, include the use of genetically modified organisms in agriculture. In fact, these organisms promise efficiency advantages with regard to the consumption of land and water, etc., but their long-term health and environmental risks cannot be completely (as with any new technology) anticipated. Accordingly, technological developments require consumers’ acceptance and thus depend on the level of education in an economy. This raises the question of a society’s openness towards innovations that are fundamentally associated with uncertainty. The concept of responsible innovation summarizes the future-oriented organization of development and is currently discussed with a high priority by European policy makers and institutions. A comprehensive working definition has been developed by Von Schomberg (2011). He describes responsible innovation as “a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society).” This means that innovations are not exclusively evaluated by their economic efficiency, but different aspects (e.g., consumer protection or ecological aspects; see Schlaile et al. 2017) also matter and are to be evaluated. Discussions on biofuels (“fuel vs. food”) show that both a pure economic and a one-dimensional ethical perspective are not sufficient. The quality of these discussions depends on the discussants’ mutual understanding which in turn depends on the participants’ level of knowledge. Modern plant breeding and production of seeds are bioeconomy fields of innovation in which issues of responsibility are discussed frequently and controversially. German consumers are skeptical about interference with the genome of food crops, but individual points of criticism remain unclear. New breeding techniques introduced, e.g., genome editing, enable scientists to selectively modify DNA strands of crop plants. These techniques are considered innovative as they may allow breeding of potentially efficient plants in fast and cheap ways. Species developed this way hardly differ from those of conventional breeding. The Central Advisory Committee for Biological Safety does not classify these techniques as genetic engineering, especially because no new combinations of genetic material are made. As the Genetic Engineering Act does not explicitly address these techniques, legal clarification is still necessary as to whether these techniques are classified as genetic engineering at all. Dissemination potential and acceptance are influenced by this result. Here again, the necessity to include education and information policies becomes evident to support the transformation towards a knowledge-based bioeconomy. The concept of social innovation (e.g., Hanusch and Pyka 2013) emphasizes the importance of active citizenship in innovation. Thus, according to the understanding of the European Commission, this term includes innovations that are social, both in relation to their objective and their instruments. In particular, this includes innovations referring to the development and the application of new ideas (for products, services, and models), covering at the same time social demand and creating new social relationships or collaborations. The whole society should benefit and contribute to generate new impetus for improvement. Social innovations can make a major contribution to rural development and promote economic resilience in these regions by strengthening cooperative behavior. Rural cooperatives (e.g., regional producer and marketing associations, winegrowers’ cooperatives, tourism associations, etc.) can help to develop regional competitiveness considering ecological and social aspects. As a consequence, within the framework of a bioeconomy, rural regions that are notably affected by the already imminent demographic change and subsequent depopulation receive new opportunities for economic development. 11.4 The Economics of Change

The sections above illustrate that a transformation of the prevailing economic system towards a bioeconomy is an extremely complex process. Various different actors participating in different roles are contributing different pieces of knowledge. In this process, **innovative adjustments** in already existing industries as well as the **emergence of new** and the **disappearance of mature industries** can be **observed simultaneously**. In addition to the substitutive relations of new bio-based industries to traditional oil-based industries, there are **numerous essential complementary relations giving further momentum** for the transformation process. First and foremost, there are the possibilities and application fields of **digitalization**. Digitalization allows to **replace many oil-based products** and **energy-intensive services** simply by bits and bytes. Simultaneously, digitalization offers a **wide range of opportunities** by coordinating decentralized and very detailed bioeconomic technologies and processes such as energy production and distribution. This **affects the composition of individual sectors** where a coexistence of large diversified companies and small high-specialized technology companies is a likely solution. Finally, digitalization also offers consumer platforms to efficiently organize “**sharing economy**” approaches. Finally, successful knowledge generation and diffusion of relevant bioeconomic knowledge depends on dynamic innovation networks (Pyka 2002) in which different actors jointly share and create new knowledge. The consumers, represented, for example, by consumer associations or politics, will play a key role in these innovation networks and will help to establish networks in early stages of technology development.

In a knowledge-based bioeconomy, **investment** and **economic growth** still represent a **crucial element** for employment, international competitiveness, and income generation. The bioeconomy can make important contributions to accelerate investments by **providing new investment opportunities** generated by **fundamental innovations** and thereby bringing currently available large quantities of liquidity to a productive use. This, in turn, **accelerates the technological paradigm shift** (Pérez 2010).

The time path of the transformation process represents another critical component and has been explored only partially so far. On the one hand, it is **high time to reduce carbon-based production methods**. On the other hand, there will be **frictions in the transformation process being caused**, for example, by a lack of specialists and required competences. In this context, the so-called sailing ship effects (Howells 2002), frequently observed with radical innovations, could be **made of good use**. In the middle of the nineteenth century, when the existence of the established sailing ship technology was threatened by the arrival of new steam ships, shipbuilders—not having changed their technologies for many decades, if not centuries—began to innovate again. Due to the **threat of innovative technologies**, adjustment reactions in predecessor technologies can be observed with the aim to **prevent the ancient technologies to be quickly replaced**. Such adjustment reactions are, for example, **fuel-efficient combustion engines** and **hybrid technologies** as a reaction to the emergence of electric vehicles. These adjustments are **advantageous** since they pursue the **same environmental objectives** (e.g., inner-city fine dust and noise reduction, etc.) and thus **provide more time to develop new technologies**. Accordingly, the transformation process will for longer periods of time feature a coexistence of traditional and bio-based industries. Furthermore, it will be important to concurrently **steer the relevant innovation processes** in traditional technologies. This coexistence further increases complexity. At the same time, innovation policy is given room for maneuver and yet insufficiently developed technologies are prevented from being introduced prematurely which might cause promising approaches to fail.

#### No chance of a transition---degrowth has no political backing and people won’t accept limitations on their lifestyles

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

Political projects do not become hegemonic just because they embody good ideas. For a project to become hegemonic, (organic) intellectuals first need to develop the project and a constellation of social forces with sufficient power and resources to implement it then needs to find it appealing and struggle for it. In this context, it is worth noting that degrowth, as a social movement, has been gaining momentum for some time, not least in Southern Europe. Countless grassroots' initiatives (e.g., D'Alisa et al., 2013) are the most visible manifestations that degrowth is on the rise. Intellectuals – including founders of ecological economics such as Nicholas Georgescu-Roegen and Herman Daly, and more recently degrowth scholars such as Serge Latouche and Giorgos Kallis – have played a major role in developing and disseminating the ideas underpinning the project. A growing interest in degrowth in academia, as well as well-attended biennial international degrowth conferences, also indicate that an increasing number of people embrace such ideas.

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

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

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

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

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

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

6. Consent

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

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

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

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

#### Only continuing growth and clean innovation can avert extinction

Bailey, 18—science correspondent for Reason magazine (Ronald, “Is Degrowth the Only Way to Save the World?,” <https://reason.com/blog/2018/02/16/is-degrowth-the-only-way-to-save-the-wor>, dml)

Unless us folks in rich countries drastically reduce our material living standards and distribute most of what we have to people living in poor countries, the world will come to an end. Or at least that's the stark conclusion of a study published earlier this month in the journal Nature Sustainability. The researchers who wrote it, led by the Leeds University ecological economist Dan O'Neill, think the way to prevent the apocalypse is "degrowth."

Vice, pestilence, war, and "gigantic inevitable famine" were the planetary boundaries set on human population by the 18th-century economist Robert Thomas Malthus. The new study gussies up old-fashioned Malthusianism by devising a set of seven biophysical indicators of national environmental pressure, which they then link to 11 indicators of social outcomes. The aim of the exercise is to concoct a "safe and just space" for humanity. Using data from 2011, the researchers calculate that the annual per capita boundaries for the world's 7 billion people consist of the emission of 1.6 tons of carbon dioxide per year and the annual consumption of 0.9 kilograms of phosphorus, 8.9 kilograms of nitrogen, 574 cubic meters of water, 2.6 tons of biomass (crops and wood), plus the ecological services of 1.7 hectares of land and 7.2 tons of material per person. On the social side, meanwhile, the researchers say that life satisfaction in each country should exceed 6.5 on the 10-point Cantril scale, that healthy life expectancy should average at least 65 years, and that nutrition should be over 2,700 calories per day. At least 95 percent of each country's citizens must have access to good sanitation, earn more than $1.90 per day, and pass through secondary school. Ninety percent of citizens must have friends and family they can depend on. The threshold for democratic quality must exceed 0.8 on an index scale stretching from -1 to +1, while the threshold for equality is set at no higher than 70 on a Gini Index where 0 represents perfect equality and 100 implies perfect inequality. They set the threshold for percent of labor force employed at 94 percent. So how does the U.S. do with regard to their biophysical boundaries and social outcomes measures? We Americans transgress all seven of the biophysical boundaries. Carbon dioxide emissions stand at 21.2 tons per person; we each use an average of 7 kilograms of phosphorus, 59.1 kilograms of nitrogen, 611 cubic meters of water, and 3.7 tons of biomass; we rely on the ecological services of 6.8 hectares of land and 27.2 tons of material. Although the researchers urge us to move "beyond the pursuit of GDP growth to embrace new measures of progress," it is worth noting that U.S. GDP is $59,609 per capita. On the other hand, those transgressions have provided a pretty good life for Americans. For example, life satisfaction is 7.1; healthy life expectancy is 69.7 years; and democratic quality stands at 0.8 points. The only two social indicators we just missed on were employment (91 percent) and secondary education (94.7 percent). On the other hand, our hemisphere is home to one paragon of sustainability—Haiti. Haitians breach none of the researchers' biophysical boundaries. But the Caribbean country performs abysmally on all 11 social indicators. Life satisfaction scores at 4.8; healthy life expectancy is 52.3 years; and Haitians average 2,105 calories per day. The country tallies -0.9 on the democratic quality index. Haiti's GDP is $719 per capita. Other near-sustainability champions include Malawi, Nepal, Myanmar, and Nicaragua. All of them score dismally on the social indicators, and their GDPs per capita are $322, $799, $1,375, and $2,208, respectively. The country that currently comes closest to the researchers' ideal of remaining within its biophysical boundaries while sufficient social indicators is...Vietnam. For the record, Vietnam's per capita GDP is $2,306. "Countries with higher levels of life satisfaction and healthy life expectancy also tend to transgress more biophysical boundaries," the researchers note. A better way to put this relationship is that more wealth and technology tend to make people happier, healthier, and freer.

O'Neill and his unhappy team fail drastically to understand how human ingenuity unleashed in markets is already well on the way toward making their supposed planetary boundaries irrelevant. Take carbon dioxide emissions: Supporters of renewable energy technologies say that their costs are already or will soon be lower than those of fossil fuels. Boosters of advanced nuclear reactors similarly argue that they can supply all of the carbon-free energy the world will need. There's a good chance that fleets of battery-powered self-driving vehicles will largely replace private cars and mass transit later in this century.

Are we about to run out of phosphorous to fertilize our crops? Peak phosphorus is not at hand. The U.S. Geological Survey (USGS) reports that at current rates of mining, the world's known reserves will last 266 years. The estimated total resources of phosphate rock would last over 1,140 years. "There are no imminent shortages of phosphate rock," notes the USGS. With respect to the deleterious effects that using phosphorus to fertilize crops might have outside of farm fields, researchers are working on ways to endow crops with traits that enable them to use less while maintaining yields.

O'Neill and his colleagues are also concerned that farmers are using too much nitrogen fertilizer, which runs off fields into the natural environment and contributes to deoxygenated dead zones in the oceans, among other ill effects. This is a problem, but one that plant breeders are already working to solve. For example, researchers at Arcadia Biosciences have used biotechnology to create nitrogen-efficient varieties of staples like rice and wheat that enable farmers to increase yields while significantly reducing fertilizer use. Meanwhile, other researchers are moving on projects to engineer the nitrogen fixation trait from legumes into cereal crops. In other words, the crops would make their own fertilizer from air.

Water? Most water is devoted to the irrigation of crops; the ongoing development of drought-resistant and saline-tolerant crops will help with that. Hectares per capita? Humanity has probably already reached peak farmland, and nearly 400 million hectares will be restored to nature by 2060—an area almost double the size of the United States east of the Mississippi River. In fact, it is entirely possible that most animal farming will be replaced by resource-sparing lab-grown steaks, chops, and milk. Such developments in food production undermine the researchers' worries about overconsumption of biomass.

And humanity's material footprint is likely to get smaller too as trends toward further dematerialization take hold. The price system is a superb mechanism for encouraging innovators to find ways to wring ever more value out less and less stuff. Rockefeller University researcher Jesse Ausubel has shown that this process of absolute dematerialization has already taken off for many commodities.

After cranking their way through their models of doom, O'Neill and his colleagues lugubriously conclude: "If all people are to lead a good life within planetary boundaries, then the level of resource use associated with meeting basic needs must be dramatically reduced." They are right, but they are entirely backward with regard to how to achieve those goals. Economic growth provides the wealth and technologies needed to lift people from poverty while simultaneously lightening humanity's footprint on the natural world. Rather than degrowth, the planet—and especially its poor people—need more and faster economic growth.

#### Can’t Solve Warming

Pollin 16 - professor of economics at the University of Massachusetts Amherst and founding co-director of its Political Economy Research Institute, (Robert, “Debate: Is “Degrowth” the Way to Reduce Greenhouse Gases?,” Naked Capitalism, June 6 2016, <http://www.nakedcapitalism.com/2016/06/debate-is-degrowth-the-way-to-reduce-greenhouse-gases.html>, jwg)

Okay. Thanks again for having me on. I want to say, first of all, that I certainly share a lot of the concerns that Peter and many other proponents of degrowth, or variations thereof, have with respect, first of all, to using GDP as a measure of welfare, thinking that GDP is the be-all, end-all, that economies have to grow to make living standards better. I share all of those concerns. I want to focus strictly on the issue of reducing greenhouse gas emissions. In particular, CO2 emissions, which constitute about 80 percent of greenhouse gas emissions. And my point is very straightforward. We have to, if we take even the conservative assumptions of the Intergovernmental Panel on Climate Change, the IPCC, we have to reduce emissions somewhere in the range of 40 percent within 20 years, 80 percent by 2050, 35 years, and certainly by the end of this century eliminate CO2 emissions from energy altogether. In order to do that, we simply can’t get close to that goal by reducing GDP alone. GDP reduction, degrowth, is not a solution to climate stabilization. What we have to do instead is invest massively in clean technologies, renewable energy, and in high energy efficiency. That in my view is the only way, even if you’re a proponent of degrowth for other reasons, it is simply not a solution in terms of climate stabilization.

### Solvency – Green Paradox

#### No green paradox – rapid ramp up of production would cost massive amounts of money because a carbon tax would penalize them

#### And physical barriers prove their claims are hot air

Handley 13 (James Handley, chemical engineer and attorney who previously worked for private industry and for U.S. EPA, serves as our senior policy analyst in Washington D.C., October 23, 2013. “Could the “Green Paradox” Thwart a Carbon Tax?” http://www.carbontax.org/blog/2013/10/23/could-the-green-paradox-thwart-a-carbon-tax/)

One of the best attributes of carbon taxes is that they’re [they are] fairly immune to the law of unintended consequences. No gaming or [criminal mischief](http://www.interpol.int/Media/Files/Crime-areas/Environmental-crime/Guide-to-Carbon-Trading-Crime-2013.). No [rebound effects](http://www.newyorker.com/reporting/2010/12/20/101220fa_fact_owen). Just a classic downward-sloping demand curve: the fossil fuel provider pays the tax, the price of the petroleum product or coal-fired kilowatt-hour goes up, dirty energy’s market share goes down. But there’s a lurking concern that surfaces from time to time in the literature of resource economics and “Pigovian” taxes: raising the prices of fossil fuels too rapidly might induce the owners of those resources to extract them faster in the near term, a phenomenon known as the “[green paradox](http://en.wikipedia.org/wiki/Green_paradox).” In this scenario, fossil fuel owners would flood the market to reap higher sales before the carbon tax got big enough to kill off business. This near-term fossil fuel binge would increase CO2 emissions, obviating the fuel-shifting and demand-busting that a carbon tax would otherwise induce. The green paradox is a direct corollary of [Hotelling’s rule](http://en.wikipedia.org/wiki/Hotelling%27s_rule), a bedrock principle of resource economics. It came to mind this week as we digested the new report from the 34-nation Organization for Economic Cooperation and Development, [Climate and Carbon: Aligning Prices and Policies](http://www.keepeek.com/Digital-Asset-Management/oecd/environment-and-sustainable-development/climate-and-carbon_5k3z11hjg6r7-en). The OECD report urges an “explicit price on carbon” as the key mechanism to reduce global CO2 emissions. The report points to the [IPCC’s newly confirmed finding](http://www.ipcc.ch/report/ar5/wg1/) that atmospheric greenhouse gases must not exceed 450 parts per million CO2-equivalent. Adhering to the resulting global “[carbon budget](http://www.climatecentral.org/news/ipcc-climate-change-report-contains-grave-carbon-budget-message-16569)” will necessitate zeroing out net global emissions by the second half of this century, according to OECD. Topping OECD’s list of necessary national policies are: [e]xplicit carbon pricing mechanisms, such as carbon taxes and emissions trading systems, [which] are generally more cost-effective than most alternative policy options in creating the incentive for economies to transition towards zero carbon trajectories. OECD adds: [U]se of these [pricing] mechanisms is expanding in developed, emerging and developing economies, but there is considerable scope for further uptake by governments. Overcoming political opposition to putting an explicit price on carbon will often require close attention to the distributional and competitiveness implications on the domestic economy. OECD also stresses the need for governments to eliminate fossil fuel subsidies and to enact complementary policies such as energy efficiency standards for buildings, homes and automobiles. If, as OECD suggests, explicit carbon pricing is to drive CO2 emissions to zero by mid-century, it will have to be aggressive enough so that fossil fuels become uneconomical and are overtaken by zero-carbon alternatives. The Carbon Tax Center and a number of economists have attempted to [model](http://www.carbontax.org/blogarchives/2013/04/09/presenting-an-even-better-carbon-tax-spreadsheet-model/) the price trajectory needed. While such modeling is highly speculative — it’s almost impossible to explicitly model technological innovation, for example — we estimate that the CO2 price will need to surpass $300/ton by mid-century. That’s a hard sell politically, of course, though we often point out that a carbon tax can [replace other taxes](http://www.carbontax.org/issues/tax-shifts/) so our total tax burden need not increase. But there’s also Hotelling’s rule to consider. In a [seminal paper published in 1931](http://msl1.mit.edu/classes/esd123/2003/bottles/Hotelling.pdf), Harold Hotelling posited that exhaustible resources are a form of capital available for extraction at any time at a known cost. He showed mathematically that in a dynamic, competitive equilibrium (where sellers compete and are free to respond to changes in supply and demand), prices of such resources rise at the rate of interest. Imposing a tax that raised the price of fossil fuels faster than the interest or “discount” rate would therefore make the resource more valuable now than in the future. Thus, the “green paradox”: a carbon tax rising too fast could induce more global warming by triggering a near-term rush to extract and market fossil fuels. (Note that an expectation of rapidly rising [subsidies to renewable energy](http://ideas.repec.org/p/ces/ceswps/_2960.html) could induce a similar rush to extract fossil fuels.) Nevertheless, a new paper by Prof. Robert D. Cairns of McGill University concludes that fears of the “green paradox” are overblown in the context of oil pricing. In [The Green Paradox of the Economics of Exhaustible Resources](http://www.worldenergyoutlook.org/media/weowebsite/2013/iew2013/presentations/parallelsessions/b/6B1Cairns.pdf), Cairns points out that oil and gas production is limited by the drilling activity in the previous period; production from wells tends to diminish along a predictable “decline curve” reflecting diminishing hydraulic pressure in the formation. Because producers can’t cost-effectively increase production very rapidly, the assumptions of Hotelling’s rule don’t apply. Similarly, capacity to drill new wells is limited in the short term by availability of drilling rigs and related equipment; investments in additional capacity don’t pay off immediately, they must be amortized over time by expected future activity. Cairns concludes: Hotelling may reign but he does not rule. Models in his tradition assume free allocation of resources over time. The rule is an arbitrage condition relating the values of net price over the productive life of the reserve. Empirical evidence suggests that allocation is subtler than in the Hotelling model. The operative constraint in oil industry is that allocation over time is capped in one of a number of ways, so that arbitrage among periods is constrained. Calculations and comparisons are not simply of current costs at different time periods but of commitments, especially sunk costs, predicated on the entire future of operations. [Economic theory](http://www.oxcarre.ox.ac.uk/files/OxCarreRP2013116.pdf) and [empirical evidence](http://www.stanford.edu/group/SITE/SITE_2013/2013_segment_6/2013-segment_6_papers/lemoine.pdf) suggest that Cairns’ conclusion isn’t limited to oil. Coal and gas extraction are also constrained by physical and capital factors that limit resource owners’ ability to accelerate production enough to [overwhelm](http://www.stanford.edu/group/SITE/SITE_2013/2013_segment_6/2013-segment_6_papers/lemoine.pdf) the benefits of a predictably-rising carbon price. Like the [vast majority of economists](http://www.carbontax.org/who-supports/scientists-and-economists/), we agree with OECD that a [global](http://www.gmfus.org/archives/changing-climate-for-carbon-taxes-whos-afraid-of-the-wto/) carbon price is key to zeroing out global CO2 emissions. Prof. Cairns and a growing body of literature show that [fears of the “green paradox](http://www.europeanenergyreview.eu/site/pagina.php?id=1182)” shouldn’t deter policy-makers from setting an aggressively-rising carbon tax trajectory that meets the goal of zero emissions by mid-century.

### Solvency – Modeling Incentive

#### Nations are incentivized to model a carbon tax, viewed as independence and they use the revenue to better their society

#### Hsu 11

(Hsu, Shi-Ling, Professor of Law and Associate Dean for Environmental Programs at the Florida State University College of Law, 2011, The Case for a Carbon Tax Getting Past Our Hang-Ups to Effective Climate Policy, <https://link.springer.com/book/10.5822/978-1-61091-178-8#toc>) LHSDB

But if one reads between the lines of the steadfast opposition by China, India, and other developing countries, one sees room for a carbon tax. An international accord based on a carbon tax scheme would avoid the unfortunate appearance of China being allocated some cap amount by an external bureaucracy, and most important, would not represent, at least in their eyes, a binding limit to economic growth. Moreover, China and the developing countries that sign on get to keep the carbon tax proceeds. These proceeds could be redistributed in whatever way they deemed fit, even to industries that emit greenhouse gases. Of course, distributions should be decoupled from consumption, in order to preserve the marginal emissions reduction incentives created by a carbon tax. There is no point in collecting a carbon tax only to have the proceeds given back to emitters in proportion to their payments—that would obviously negate any marginal incentives to reduce emissions. So would distributions be, in fact, decoupled from emissions? There is no reason to believe that, for example, a central government such as that in China would be particularly keen to simply rebate carbon tax proceeds. Carbon tax proceeds represent an opportunity for central governments to use however they wish—redistributing money to poor households, improving health care, or even subsidizing clean energy technologies. With Chinese leadership so concerned about wealth inequalities, it seems unlikely that carbon tax proceeds would be used to undo the marginal incentives to reduce emissions. A carbon tax, if it could be scaled up to an international accord, represents a better chance of engaging China, India, and developing countries and providing their governments with the incentives to put in place and keep in place policies to reduce emissions. Cap-and-trade programs currently have little chance of accomplishing this on either of these objectives.

### Solvency – Trump Rollback

#### Trump can’t circumvent the plan – significant barriers

Bailey and Bookbinder 16 (Bookbinder has litigated cases under all of the major environmental statutes including, as Sierra Club’s Chief Climate Counsel, managing the Massachusetts v. EPA case, Bailey is a graduate of Oxford University and in addition to his consulting work, teaches a course on the global oil and gas industry for the Master’s program at Georgetown University’s Walsh School of Foreign Service. He has served on the boards of the World Affairs Council of America and the National Foreign Trade Council, as well as the State Department’s International Advisory Committee on economic policy. He is also an adjunct scholar at the Niskanen Center in Washington DC., November 14, 2016. “DOES TRUMP SPELL CLIMATE DOOM?” https://niskanencenter.org/blog/trump-spell-climate-doom/)

It was a rough election night for those in favor of aggressive action on climate change. The President-elect is committed to withdrawing from the [Paris agreement](https://niskanencenter.org/blog/from-rio-to-paris/) , cancelling the EPA’s [Clean Power Plan (CPP)](https://www.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants), and making coal great again. To rub salt in the wounds, a carbon tax proposition was also [defeated by a large margin in Washington State](http://www.bizjournals.com/seattle/news/2016/11/08/washington-rejects-the-initiative-732-carbon-tax.html). Even so, doom and gloom from the climate-concerned is overblown. There are significant legal and political obstacles that will prevent the new administration from securing all that may be on its anti-climate wish-list. Moreover, the inertia in the energy system, which has heretofore been an enemy of climate progress, will likely turn out to be an important near-term friend. First, the bad news: the Paris commitment is dead. President-elect Trump has a number of ways of killing it, the most effective of which is simply to submit it to the Senate for ratification, which will vote it down. That lets President Trump shift the blame while also setting the (non-binding) precedent that any future such deals also need Senate approval. The United States repudiation of its Paris commitment will damage the international climate process and prove to be the most destructive climate action that he can take. Second, the good news, beginning with the political fundamentals. Donald Trump lost the popular vote narrowly, and won several key states by very thin margins. There is another Presidential election in 2020. The Republican hold on the Senate is precarious (52-48) and a discontented electorate in 2018 may end it. Even if the Republican House-Senate-Presidency lasts throughout the next four years, this is the exact same situation as under George W. Bush in 2003-2006, when Senate Democrats were able to block various legislative attempts to roll back federal environmental laws. Democrats who decried the gridlock checks and balances caused in the Obama years will come to recognize the reasons the Founders created them. There is the very real danger, however, that Congress will seek to repeal or sharply curtail EPA’s greenhouse gas regulatory authority in order to 1) avoid any court order to regulate, and 2) tie the hands of future Administrations. Such authority was not an issue back in 2003-06 because the Bush EPA took the position that the Clean Air Act did not cover greenhouse gases, and it was not until 2007 that the Supreme Court said otherwise in Massachusetts v. EPA (at which point the Democrats controlled both Houses). Normally, any such ambitious attempt to roll-back regulatory authority would be filibustered, but there are parliamentary mechanisms (such as the dreaded “budget reconciliation” process) that avoid normal procedure and prohibit filibusters. In that case, the Democrats are going to have to ensure that Joe Manchin votes with them (unlikely) and find three Republicans who will join them, each of whom will be under enormous pressure from both sides. Alternatively, the Republicans might simply take a page from the Democrats, who eliminated the filibuster for almost all Presidential nominees, and eliminate it for legislation as well. If the Republicans go that route, we would be faced with far greater threats than elimination of Clean Air Act authority. Assuming EPA authority stays intact, we imagine that the Trump Administration will focus on regulatory rollbacks that can be accomplished by agency rulemaking. And while the Clean Power Plan is a dead letter for reasons explained below, every other such executive action will be litigated and delayed. The environmental NGOs’ law departments are getting back into their 2003-2006 mode even as we write this. Not only were the great majority of similar Bush agency actions overturned by the courts, but the current makeup of both the D.C. Circuit and the other federal appellate courts are significantly more favorable to environmental litigants than they were a decade ago. Moreover, even getting such regulatory actions completed will face two significant hurdles. Voting in D.C. and in the surrounding counties in Maryland and Virginia produced huge (up to 80% or more) Hillary majorities. That tells you that the goodwill in the ranks of federal government employees towards the new administration will be very low. As we saw in the Bush era, that is a recipe for strategic leaks, slow-walking initiatives, and strong internal opposition / debates. These kinds of regulatory rollbacks can perhaps be done over the protests of permanent employees if there is strong interagency leadership from capable political appointees, which will take time to get into place. The multiple fiascos over spending stimulus money effectively under President Obama showed clearly how—even with willing employees—the lack of capable and experienced leadership prevents policy from being implemented. Finding competent political appointees, however, will likely be an issue. While there will be some closing of ranks among Republicans, and there is certainly a pool of capable people—albeit in much smaller jobs—in the states, given the history of the Trump campaign, many of the experienced Republican-leaning environmental or energy experts who have been working on K Street since 2008 may be reluctant to serve in a Trump Administration. All that being said, the Clean Power Plan is dead. Regardless of whether the Trump EPA waits for the D.C. Circuit decision, the easiest thing for it to do is first amend the rule to provide that, once the judicial stay of the CPP is lifted, the states will have an extended period (say, 5-7 years) to submit their implementation plans, which effectively kills the CPP. The timing of the steps in a regulatory process is as close to an unreviewable agency action as there is, and no court would overturn it. Even assuming that the D.C. Circuit then upholds the Rule, EPA could then withdraw the CPP for reconsideration, and thereafter issue a new rule based only on modest inside-the-fence actions. Environmental NGOs and the states supporting the CPP would challenge this, but since there is a legitimate legal argument that EPA’s authority ends at the fence-line (and with 27 states supporting this new interpretation) the D.C. Circuit would, in our view, likely defer to EPA’s new reading. EPA could also decide that it was barred from regulating CO2 emissions from power plants because of the [“Section 112 argument”](http://blogs.edf.org/climate411/2016/09/13/clean-power-plan-opponents-have-already-conceded-that-epa-has-authority-to-regulate/), but that would lead to the revival of the tort cases [seeking to hold the power companies liable for climate change damages](https://niskanencenter.org/blog/the-cold-hard-truth-about-epa-greenhouse-gas-regulation/). It is worth noting that the fact that there is a legitimate argument for why EPA can’t regulate beyond the fence-line is what distinguishes this CPP scenario from, say, any attempt to reverse the endangerment finding, which would be doomed to failure given that such a reversal [must explain how its new analysis is correct](https://supreme.justia.com/cases/federal/us/463/29/case.html). In fact, environmental NGOs might secretly welcome such an attempt. Not only would EPA resources that might otherwise be devoted to wrecking more vulnerable programs be engaged in a pointless exercise, but this would be a tremendous organizing, fundraising, and media opportunity for the green lobby. Regardless, getting rid of the CPP is [not going to have much of an effect](https://niskanencenter.org/blog/getting-real-clean-power-plan/) on steadily-declining power sector emissions. As EPA has indicated, the CPP would have little real impact on emission paths in the early years, as low gas prices and state renewable mandates have done most of the work already. There is no sign either will change soon and technology (e.g. LED streetlights) is driving electricity demand reductions in ways that will probably continue. In addition, the most important renewable tax breaks have been extended through 2020 and 2021, i.e. beyond the first Trump term. We do not think it is likely that Congress would have any appetite for repealing those, as they were the result of a bipartisan deal and there are actually strong renewables supporters (think Chuck Grassley) on the Republican side of the aisle. Even so, environmentalists should not mourn the loss of these or other “green” subsidies, if indeed Congress gets round to doing it, since they are for the most part [ineffective and wasteful](https://niskanencenter.org/blog/conservative-hypocrisy-clean-energy-tax-credits/). Ironically, Trump’s reputed interest in freeing-up permitting of energy infrastructure (e.g., gas pipelines and drilling on public lands, if indeed it can be achieved) may have the paradoxical effect of further reducing emissions. It could make it easier to get currently very cheap Marcellus / Utica gas into the center of the country and perhaps even increase overall natural gas output. This can have only one outcome; reduced national gas prices overall [and less coal consumption](https://niskanencenter.org/wp-content/uploads/2016/01/Coal-Report-Final-January-27.pdf). It also seems unlikely that any rational utility or PUC, knowing the certainty of NGO / grassroots opposition and, more importantly, the likely temperament of the next administration, will risk billions of dollars to build new coal plants. Older coal plants will continue to be hamstrung by the cost of complying with non-climate pollution rules (such as the [ozone air quality standards](https://www.epa.gov/ozone-pollution/2015-national-ambient-air-quality-standards-naaqs-ozone)), plus the perhaps even lower price of natural gas. In other words, the actual reasons for coal’s decline are not going away, even if the “war” is over. Which brings us, finally, to the opportunity side of the equation. Donald Trump’s more positive reputation is as a man who likes to make a deal. He’ll be looking for a way to get his infrastructure ideas and tax reform plans implemented. That requires a lot of money. There aren’t going to be many popular ways to do that. Is it too much to hope that a smart Democratic negotiator might see an opportunity to get a return for things that are already lost, like trading EPA greenhouse gas regulatory authority for a carbon tax to help fund the infrastructure build-out or tax reform? The latter point is posited on rational acting by political figures on both sides of the aisle whose track record gives us little confidence. But assuming that Congress does not eliminate (save as part of a carbon-tax deal) EPA’s greenhouse gas authority under the Clean Air Act -which would severely hinder future Democratic Administrations, as they would need to control both houses to restore it- the ability of a Trump Administration to set back U.S. climate progress is going to be limited.

### AT Author – Ridley

**IPCC’s right and ridley’s wrong**

**Dana 13** (Skeptical Science, “ Lessons From Past Predictions: Ridley vs. IPCC and Hansen,” January 24, 2013, https://www.skepticalscience.com/lessons-ridley-ipcc-hansen.html)

As we have now shown several times, the **IPCC** surface temperature **projections have been exceptionally accurate** (although they have under-predicted many other climate variables, such as Arctic sea ice extent decline and sea level rise). **Ridley** would have been wise to simply argue that a linear 0.1°C warming prediction is not terribly wrong yet, rather than trying to incorrectly claim that his prediction has proven more accurate than those made by the IPCC and James Hansen. In reality, his **is not even close** to the accuracy of the IPCC. Ridley's prediction has fared better than Hansen's 1988 model (but much worse than Hansen's 1981 model); however, Hansen no longer believes his 1988 model was accurate, whereas Ridley continues to stand behind his lowball 1993 prediction. Failing to learn from his past mistakes is a common thread in Ridley's writings, as he still wrongly attacks all environmental concerns as "alarmism", and still **fails to account for any but the best case scenario**, which helped cause his bank to fail and require a government bailout. As noted above, his thought process never seems to evolve beyond its original misconceptions. Ridley claims those made by the IPCC and James Hansen "HAVE failed", but all the IPCC predictions have been much more accurate that Ridley's. The only one that has performed worse was Hansen's 1988 model because of a too-high climate model sensitivity, something that Hansen acknowledges and corrected in later versions of his model. This is a tacit admission by Ridley that his prediction has failed, so perhaps Lambert was not too harsh in his judgment of Ridley after all. A 50+% error is certainly not a performance worth bragging about.

# 1AR Theory

### Agent

#### Alternative Agent counterplans are a voting issue – there are no solvency deficits or weighing in the lit of the counterplan vs. the plan – means they’re one step ahead in engagement and research and clash are impossible.

#### Even if there are minor ones, the disad always outweighs.

#### Fairness controls your evaluation of all arguments.

#### Drop the debater – I’ve already invested time from the time-skewed 1AR.

#### Reasonability is always either arbitrary or devolves to competing brightlines.

### Condo

#### Condo is a voting issue – Strat skew – I’m forced to weigh and answer to 2 advocacies while they answer only one and I can’t go for my best offense and Clash – They skirt engagement by kicking out of arguments that the 2AR can engage in and extend which also KILLS depth-Dispositional solves their offense – they can kick but I get offense.

### Consult Bad

#### Consult counterplans are a voting issue—there’s no offense or lit against consultation which means we lose every time on risk of net benefit crushing fairness, and decks educational engagement because it doesn’t test the aff adv

### Uniqueness Bad

#### Uniqueness counterplans are a voting issue—generate artificial competition for disads not in the topical prep burden—means we lose every time killing fairness, also kills education because we have nothing to clash with a disad that shouldn’t exist.

### Conditions Bad

#### Conditions counterplans are a voting issue—there are infinitely many that can be attached to the plan, crushing predictability meaning we lose every time, also educational because no one writes against their specific conditions so we can’t clash.

### Process Bad

#### Process counterplans are a voting issue--the vague resolution forces us into defending a relatively vague plan which means we have no recourse against infinite process counterplans, crushing fairness. Also educational because we can’t clash on the process of the plan—we prepped based on the consequences of it.

### Multiple T Shells

#### Interpretation: Debaters may not read multiple T shells and deny me the RVI

#### Violation: They do

#### Standards

#### Strat skew – reading offensive theory vs. their shells makes it a functional NIB. They can concede the offense on one shell but it’s not a reason to vote aff. Reading the shells as a multi-planked interp with No RVI solves their offense – I can still get offense if the theory shell is in the 2NR.

### PICs – Short

#### PICs are a voting issue – they moot the entirety of the aff and destroy predictable engagement about the core the aff decking educational clash. Reading it as a disad solves your offense because we still get the discussion

### PICs – Long

#### PICs are a voting issue – 1) Time Skew – moots 6 minutes of the 1AC causing a 1AR restart with a 13-7 skew 2) Breadth over depth – this topic has over 5,000 possible specifications and PICs. It’s better to discuss the overall merits of subsidies 3) Clash – it doesn’t test the core of the aff and instead a minute part that isn’t mentioned once. Clash outweighs – other forms of education can be gained outside of debate 4) Double bind – either reading it as a disad solves your education offense or it’s a bad disad which means there’s no depth of clash.

#### Education is a voter – it’s a portable impact and the reason why schools fund debate

#### Fairness controls your evaluation of all arguments.

#### Drop the debater – I’ve already invested time from the time-skewed 1AR.

#### Reasonability is always either arbitrary or devolves to competing brightlines.

# T

## T – Body Politics/Embodiment

#### I meet – I embody the politics of climate activism and lay out a process of subverting warming. Debate rounds are practice to take down the white structures that poison political discourse.

#### I meet resolve – I decided on a course of action – that’s the plan

#### C/I : “Resolved” means legislation

**Parcher 1** (Jeff, JD @ George Mason School of Law, Director for Communications at Center for Community Change, former debate coach at Georgetown, Feb 2001 <http://www.ndtceda.com/archives/200102/0790.html>)

Pardon me if I turn to a source besides Bill. American Heritage Dictionary: **Resolve**: 1. To make a firm decision about. 2. To decide or express by formal vote. 3. To separate something into constiutent parts See Syns at \*analyze\* (emphasis in orginal) 4. Find a solution to. See Syns at \*Solve\* (emphasis in original) 5. To dispel: resolve a doubt. - n 1. Firmness of purpose; resolution. 2. A determination or decision. (2) The very nature of the word "resolution" makes it a question. American Heritage: A course of action determined or decided on. A formal statement of a decision, **as by a legislature**. (3) The resolution is obviously a question. Any other conclusion is utterly inconceivable. Why? Context. The debate community empowers a topic committee to write a topic for ALTERNATE side debating. The committee is not a random group of people coming together to "reserve" themselves about some issue. There is context - they are empowered by a community to do something. In their deliberations, the topic community attempts to craft a resolution which can be ANSWERED in either direction. They focus on issues like ground and fairness because they know the resolution will serve as the basis for debate which will be resolved by determining the policy desirablility of that resolution. That's not only what they do, but it's what we REQUIRE them to do. We don't just send the topic committee somewhere to adopt their own group resolution. It's not the end point of a resolution adopted by a body - it's the preliminary wording of a resolution sent to others to be answered or decided upon. (4) Further context: the word resolved is used to emphasize the fact that it's policy debate. **Resolved comes from the adoption of resolutions by legislative bodies**. A resolution is either adopted or it is not. It's a question before a legislative body. Should this statement be adopted or not. (5) The very terms 'affirmative' and 'negative' support my view. One affirms a resolution. Affirmative and negative are the equivalents of 'yes' or 'no' - which, of course, are answers to a question.

#### C/I – We Only have to Specify Our Resolutional Burden – Aff predictability is tied to the Rez – key to fairness

#### - It’s infinitely regressive and crowds out substance –

#### -Specifying encourages process PICs – those steal the aff

#### CX and the 1AC ev checks

#### Prefer our interpretation:

#### Debating about the plan is good – it’s stable, predictable and allows a better understanding of institutional politics which are key to either reforming or taking down oppressive structures

#### Neg Ground: Their interpretation shifts debates from “should” questions to “would” questions, which means we have endless debates where the Aff has to be non-inherent in order to meet, which leaves the negative with no ground.

#### Empathy: We should talk about more than just ourselves—this impact turns their disembodiment claim.

#### No presumption ballot—even if fiat is illusory, debating about methods of university engagement is good.

#### Not key to limits or ground: There are no affs because bodies can’t individually change climate policy work and there’s not literature about that.

#### Not pornotroping – we don’t commodify but instead make a prescriptive

## T – Carbon Tax = Subsidy

#### CI: Subsidies can be fisical incentives and failing to collect taxes

Gerasimchuk et al 17, Ivetta, Moscow State Institute for International Relations; Andrea M. Bassi, Ph.D. and M.Phil. in System Dynamics from the University of Bergen; Carlos Dominguez Ordonez, Alexander Doukas, Laura Merrill and Shelagh Whitley. IISD [one of the world’s leading centres of research and innovation. The Institute provides practical solutions to the growing challenges and opportunities of integratingenvironmental and social priorities with economic development. We report on international negotiations and share knowledge gained through collaborative projects, resulting in more rigorous research, stronger global networks, and better engagement among researchers, citizens, businesses and policy-makers] Zombie Energy: Climate benefits of ending subsidies to fossil fuel production. International Institute for Sustainable Development (IISD). February 2017.

1.1 Defining Subsidies Although governments have made high-level commitments in a number of international forums to “phasing out inefficient fossil fuel subsidies that encourage wasteful consumption” (including via the G7, G20,7 Asia-Pacific Economic Cooperation (APEC), United Nations Sustainable Development Goals, and the Addis Ababa Action Agenda [United Nations, 2015]), they have not set a definition for these subsidies. Individual countries and international organizations use different definitions—and include different types of subsidies—in their current estimates (International Institute for Sustainable Development [IISD], n.d.; Whitley & van der Burg, 2015). For example, “The UK defines fossil fuel subsidies as government action that lowers the pre-tax price to consumers to below international market level” (UK Department of Energy and Climate Change, 2015), a definition that at first sight excludes subsidies directed toward fossil fuel production. At the same time, the voluntary peer reviews of fossil fuel subsidies that the United States and China released under China’s G20 presidency in 2016 have focused primarily on production subsidies (G20, 2016a, 2016b). Nonetheless, though not all-encompassing, there is an internationally agreed definition of subsidies. In its Agreement on Subsidies and Countervailing Measures (ASCM), the World Trade Organization (WTO) defines a subsidy as follows (WTO, 1994): “a financial contribution by a government or any public body within the territory of a Member […] where: (i) a government practice involves a direct transfer of funds (e.g., grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g., loan guarantees); (ii) government revenue that is otherwise due is foregone or not collected (e.g., fiscal incentives such as tax credits); (iii) a government provides goods or services other than general infrastructure, or purchases goods; (iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments;” This definition of subsidy has been accepted by the 164 member states of the WTO, and we have used this in our analysis as a basis for identifying subsidies to the production of coal, oil and gas.

#### We Meet – The Lack of a tax is a post-tax subsidy – the plan eliminates the lack of pricing societal and environmental costs into carbon emissions. 1AC Meyer also makes it clear that the ONLY way to eliminate post-tax subsidies is by ADDING taxes, there is nothing we can jettison.

Morris 14 [Adele C. Morris, \* Adele Morris: Ph.D. in Economics, Princeton University∂ M.S. in Mathematics, University of Utah∂ B.A., Rice University∂ a senior fellow and policy director for Climate and Energy Economics at the Brookings Institution. Her research informs critical decisions related to climate change, energy, and tax policy. She is a leading global expert on the design of carbon pricing policies., 9-23-2014, "Target 7. Phase Out Implicit Fossil Fuel Subsidies By Imposing Energy Taxes That Reflect External Costs," Copenhagen Consensus Center, https://www.jstor.org/stable/resrep16341.10?refreqid=excelsior%3Aec2151be49505b32be569814f0c7af38&amp;seq=1#metadata\_info\_tab\_contents, accessed 10-23-2019]LHSBC

**Failing to tax the negative externalities from energy consumption, such as air pollution and greenhouse gas emissions, is a form of subsidy**, arguably **even larger than the pre-tax subsidies** discussed above. The external costs of related to energy consumption can include: damages from climatic disruption; outdoor air pollution, such as sulphur dioxide and particulate matter; and congestion and traffic accidents from vehicle use. IMF(2014) discusses in great detail the myriad potential benefits from corrective energy taxes and offers **extensive examples** and recommendations on how to price energy efficiently.

#### Reasons to Prefer:

#### New definitions tie subsides and prices

Timperley 17 [Jocelyn Timperley, 6-12-2017, "Explainer: The challenge of defining fossil fuel subsidies," Carbon Brief, https://www.carbonbrief.org/explainer-the-challenge-of-defining-fossil-fuel-subsidies, accessed 10-29-2019]LHSBC

* \*William Blyth is an expert in energy security and climate change policy and author of a 2013 [report](http://oxfordenergyassociates.com/uk-energy-subsidies/) on fossil fuel subsidies for the UK’s Environmental Audit Committee (EAC)

According to Blyth, the IMF report was important as it brought together the subsidy debate and carbon pricing debate, which had previously taken place in parallel. He says:∂ “Basically, what they’re saying is that the new normal should be to include, for example, carbon prices and carbon taxes into the price of the fuel, so that you’re paying for the external environmental damages and so on within the price of that fuel. And if that’s not priced in then that’s counted as a subsidy. That’s really changing the game in terms of subsidy definition.”

#### Debateability

#### Pre-tax subsidies are on the decline now making all direct subsidies affs and NC ground non-inherent - That’s 1AC Meyer.

#### Scope – post-tax subsidies are 16 times more which amplifies neg links and 1AC solvency – that’s 1AC meyer

#### Over limiting bad – repeated subsidy affs recycle discussions which means our interp fosters innovation.

#### Use Reasonability—topic is 2 months, competing interps crowds out substance of ed – races to most marginal benefits.

#### And reasonability is less arbitrary—allows judges to adjudicate on a case by case basis instead of broad sweeping norms that ignore the particularities of rounds.

#### Defense on their interp:

#### There’s no ground loss.

#### you get econ, oil prices, gas exports, energy independence, politics, warming counterplans, k’s with market mechanism links, and phil NC’s about taxes

#### No Limits Explosion.

#### Functional limits check – every aff needs a solvency advocate, decent sized impact, and a lit base.

#### Our interp impact turns theirs. Their model of the topic will make debaters a bunch of capitalist neocon pigs since it argues that the only theory of economics has no concern for the environment and humanity beyond their economic output. Our interp argues that economics MUST include negative externalities as they pertain to WELLBEING and ENVIRONMENTAL DESTRUCTION. This devastates education and just makes debaters terrible people. The activity doesn’t need more Ted Cruzes and Karl Roves.

### 1AR – Harker/Impact Debate

#### Timperly concludes literature is intertwined, that was above. No one they quote is qualified and it’s just ranting about being illogical without a warrant.

#### All pricing of negative externalities is the same – fossil fuels are priced and “fossil fuels good” offense always applies.

#### No warrant – They haven’t read a card about proponents of a carbon tax. Independently, all authors are unified about the mechanism of taxation – saying there are differences in the literature is non-uq because there are differences between production or consumption, direct or indirect, tax credits, direct cash, or overseas credits within fossil fuel subsides

#### Extra–T is the 1AC solvency advocate – the alternative is object fiat where we imagine the costs of emissions and pollution out of existence which makes solvency debates impossible and destroys any topic ed.

### 1AR – Skovgaard

#### Skovgard concludes aff: w/m we’re fiscal incentives.

Skovgaard, PhD, 17

(Jokob, EuropeanUniversityInstituteFlorence, AssocProfPoliSci@Lund, The devil lies in the definition: competing approaches to fossil fuel subsidies at the IMF and the OECD, Int Environ Agreements, 17:341–353)

The lead Directorate was the Trade and Agriculture Directorate in close collaboration with the Environment Directorate and the Centre for Tax Policy. The Trade and Agri- culture Directorate’s prominent role is due to their agricultural subsidy expertise. Because of this institutional legacy, the OECD definition of fossil fuel subsidies is derived from the OECD definition of agricultural subsidies, again derived from the World Trade Organi- zation’s definition of subsidies (of all kinds) as direct transfers, fiscal incentives and provision of goods and services (OECD Secretariat 2005). The past experience of working with agricultural subsidies was entrenched in the organizational culture and hence influ- enced the choice of a conferred-benefits approach and the general framing of fossil fuel subsidies. Importantly, the OECD Secretariat placed strong emphasis on environmental (particularly climate) and fiscal consequences of fossil fuel subsidies, but less on macroeconomic and distributive consequences. The fiscal emphasis is evident in that subsidies are measured in terms of budgetary expenditure and tax expenditure, i.e. their impact on public budgets, an emphasis also present in the OECD’s work on agricultural subsidies. The light emphasis on macroeconomic consequences is notable considering the macroeconomic objectives of the OECD.

#### Your def says no agreed definition.

Skovgaard, PhD, 17

(Jokob, EuropeanUniversityInstituteFlorence, AssocProfPoliSci@Lund, The devil lies in the definition: competing approaches to fossil fuel subsidies at the IMF and the OECD, Int Environ Agreements, 17:341–353)

Although fossil fuel subsidies2 are widely recognized as problematic, there is no agreement on their definition (OECD Secretariat 2010). While policies lowering the fuel price paid by consumers below the market price undisputedly constitute a fossil fuel subsidy, several other types of policies may be defined as fossil fuel subsidies, depending on the definition used (van Asselt and Skovgaard 2016).

#### OECD ruling passed the secretariat which doesn’t mean it was ratified by the US.

Skovgaard, PhD, 17

(Jokob, EuropeanUniversityInstituteFlorence, AssocProfPoliSci@Lund, The devil lies in the definition: competing approaches to fossil fuel subsidies at the IMF and the OECD, Int Environ Agreements, 17:341–353)

The OECD’s membership consists of 35 industrialized countries. The term ‘OECD’ refers to the entirety of the OECD, including the OECD Council (consisting of member state representatives, committees, working groups, etc., which report to the Council), as well as the OECD Secretariat, an intergovernmental bureaucracy constituting an independent actor. The Secretariat staff drafts all OECD publications, which are then subject to peer review in OECD committees. Those publications that represent the opinion of the OECD as a whole pass through consensus-based approval by the member states, while those that represent the opinion of the OECD Secretariat need approval only from the Secretary General (Ruffing 2010).

#### IMF is less biased than the OECD

Skovgaard, PhD, 17

(Jokob, EuropeanUniversityInstituteFlorence, AssocProfPoliSci@Lund, The devil lies in the definition: competing approaches to fossil fuel subsidies at the IMF and the OECD, Int Environ Agreements, 17:341–353)

The two organizations differ notably in their definitions of fossil fuel subsidies, with the IMF using a price-gap definition that constitutes a radical break with previous definitions, while the OECD follows a more conventional path. The IMF to a larger degree than the OECD framed fossil fuel subsidies in environmental terms (climate change and local air pollution). This is surprising, since, unlike the OECD, the IMF does not have a strong environmental profile. In terms of the propositions explaining the differences in IO output, institutional interaction (Proposition 1)—more precisely the G20 commitment—lifted OECD involvement in fossil fuel subsidies to a new level, yet without influencing how the IO addressed the subsidies. This was to some degree influenced by interaction with the WTO, and to a lesser degree the World Bank and the IEA. Such interaction did not influence the IMF, which was not requested by the G20 to address fossil fuel subsidies, but did so on the initiative of IMF staff. IMF staff acting as policy entrepreneurs are also the main reason why the IMF to a larger degree than the OECD framed fossil fuel subsidies in environmental terms (thus supporting Proposition 2b): IMF staff linked the macroeconomic and environmental framing of such subsidies on the basis of the neoclassical notion of getting the price right. The differences in how the organizations addressed fossil fuel subsidies were also influenced by their bureaucratic cultures (supporting Proposition 2a): the IMF framed the environmental impact in the above-mentioned neoclassical way, and the OECD framed fossil fuel subsidies in a fashion reflecting how it had addressed other subsidies. The degree of autonomy of the IOs proved to be an important scope condition for the influence of bureaucratic culture and policy entrepreneurs, in this way supporting Proposition 3a. This is evident in that the IMF, to a greater degree than the OECD, adopted positions running against the preferences of its member states, most notably the claim that industrialized countries have significant fossil fuel subsidies. The OECD had less autonomy and only got the mandate to scrutinize its members’ subsidies after the G20 commitment. The differences between the two organizations demonstrate that differences in membership and voting rules did not have an impact, as the IMF contradicted member states that are more influential within the IMF than within the OECD, thus undermining Proposition 3b.

## T – Eliminate

#### Counter Interpretation: Elimination strategies can be full or partial.

Marr et al. ’01 Norman E Marr (Professor of Marketing and Head of Department at the University of Huddersfield Business School) David R Harness (Senior Lecturer in Marketing) and Tina Goy (Lecturer in Marketing). “A COMPARISON OF ELIMINATION STRATEGIES FOR PHYSICAL GOODS AND FINANCIAL SERVICES PRODUCTS.” *Journal of Product & Brand Management* , December 2001, <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.200.5867&rep=rep1&type=pdf>. [Premier]

Previous work in this field (Harness & Mackay, 1993) identified the fact that product elimination in the financial services sector occurs at two different levels. The first level, and akin to the definition of physical goods elimination, defines elimination as: “Full elimination is the removal of a core product and attributes of production so that all liability for the product is eliminated” pp464. The second definition takes account of the practicalities faced by the UK financial services sector in terms of the barriers that exist to elimination. The definition acknowledges that much of the elimination in this sector is partial and involves various levels of de-marketing: “Partial elimination is the removal of the product from some or all new sales of the product, but a liability for servicing existing product holding customers remains”. pp 464

#### Pics – whole res means the neg can pic out of any subsidiy – kills fairness since you can scoop the entirety of the aff AND moots your standards – pics forces massive prep for every single advocacy.

#### Core of the topic lit – authors don’t talk about subsidies in a vague fashion and instead the specific tax credits and industries they support.

#### No limits explosion and the neg can check – it’s disclosed, affs need solvency advocates and advantages areas to beat back K’s, states, and politics which the neg can always collapse on

#### We meet – we eliminate all post-tax subsidies which is a subset of subsidies

#### We meet – post-tax subsidies are the only subsidies

## T – Extra-T

#### Counter Interpretation:

#### Lack of a tax is a subsidy – the plan eliminates the lack of a tax.

Morris 14 [Adele C. Morris, \* Adele Morris: Ph.D. in Economics, Princeton University∂ M.S. in Mathematics, University of Utah∂ B.A., Rice University∂ a senior fellow and policy director for Climate and Energy Economics at the Brookings Institution. Her research informs critical decisions related to climate change, energy, and tax policy. She is a leading global expert on the design of carbon pricing policies., 9-23-2014, "Target 7. Phase Out Implicit Fossil Fuel Subsidies By Imposing Energy Taxes That Reflect External Costs," Copenhagen Consensus Center, https://www.jstor.org/stable/resrep16341.10?refreqid=excelsior%3Aec2151be49505b32be569814f0c7af38&amp;seq=1#metadata\_info\_tab\_contents, accessed 10-23-2019]LHSBC

**Failing to tax the negative externalities from energy consumption, such as air pollution and greenhouse gas emissions, is a form of subsidy**, arguably **even larger than the pre-tax subsidies** discussed above. The external costs of related to energy consumption can include: damages from climatic disruption; outdoor air pollution, such as sulphur dioxide and particulate matter; and congestion and traffic accidents from vehicle use. IMF(2014) discusses in great detail the myriad potential benefits from corrective energy taxes and offers **extensive examples** and recommendations on how to price energy efficiently.

#### The alternative is object fiat like “The USfg should get rid of greenhouse gasses and air pollution” – even if our aff is harder to prep out object fiat outweighs. You can’t generate any solvency deficits and the only neg ground is impact turns.

## T – Nebel

#### Counter interpretation: Ought implies specification. O/w “plurals” because its stable from topic to topic which is more predictable and our article is the context resolution semantics

**Cariani 11**, Fabrizio ‘Ought’ and Resolution Semantics. Northwestern University 2/9/11 URL:https://philarchive.org/archive/CAROAR-2v1//KK

One central consideration in favor of INHERITANCE is that it explains a core fact about how ‘ought’ is used in English. You ought to give food to your pets, but not every way of giving food to the pets is something you are permitted to do. You may be under more specific requirements. For example, you ought to give them non-poisonous food. Presumably this is not the end of it: you ought to give them non-poisonous food in decent quantities, and so on. To put the point in general terms, a semantic theory for ‘ought’ should satisfy the following principle: [COARSENESS] S ought to φ can be true even though there are im- permissible ways of φ-ing.1 INHERITANCE cleanly explains COARSENESS: the connection between a less specific and a more specific ought-sentence is entailment. The proposition that you ought to give to your pets non-poisonous food entails the proposition that you ought to give them food.

#### Stage-level predicates like the verb “eliminate” promote an existential reading.

**Menéndez-Benito 07** [Paula Menéndez-Benito, PhD. Their **areas of expertise are semantics and pragmatics**. Their [Marie Curie project](https://sites.google.com/site/paulamenendezbenito/modal-d)investigated the expression of modality in the determiner domain.  Building on this project, their current research agenda aims to situate modal determiners in a typology of modal expressions, by undertaking a systematic comparison between determiner and verbal modality. , 02-,16-07 " Special Topics in Linguistics: Genericity: Carlson 1977: Reference to Kinds in English: Part 2," MIT, https://ocw.mit.edu/courses/linguistics-and-philosophy/24-921-special-topics-in-linguistics-genericity-spring-2007/lecture-notes/carlson\_part2.pdf, accessed 10-4-2019] LHSBC

* BP means bare plural
* Carlson 1977 is the dude that Nebel always cites in his articles
* If no one understands what the fuck this card even says it just means that semantics is bullshit

Individual/Stage-level predicates • Claim: BPs have a unified denotation (they are names of kinds). • Observation 1: BPs may have two different interpretations. • Observation 2: type of **interpretation depends on the predicate**. Some predicates select for the existential interpretation; some predicates select for the generic interpretation. (1) Firemen are intelligent. (generic) (2) **Firemen are available. (existential**) • Question: How can we characterize these two different kinds of predicates? What is it in their denotation that brings about the interpretation of the BP? • Intuitive characterization: Predicates like intelligent ‘say something’ of individuals Individual-level predicates; (Milsark 1974: ‘properties’: assumed to be permanent) big, boring, intelligent, insane, orange, fat… some PPs (in short supply) predicate nominals. Predicates like available ‘say something of stages’ of individuals. Stage-level predicates; Milsark 1974: ‘states’: in principle, transitory) sick, tired, hungry, drunk, open, naked, alert, awake… most PPs (e.g., on the corner) the progressive, passive participles. • Grammatical differences between the two types of predicates (Milsark 1974) (3) (a) There were several policemen available (b) \*There were several policemen intelligent (4) (a) Sm doctors are available (b) A doctor is available (5) (a) \*Sm doctors are intelligent (b) \*A doctor is intelligent [bad on the ∃ reading] Analysis – take 1 Assumptions: • I am using an indirect translation method. English expressions are translated into expressions of a logical language (which will then be assigned an interpretation by the interpretation function). • Sorted variables: Type indicated by subscript -- k (kinds), o (objects), i (individuals), s (stages). • In some cases, I depart from Carlson’s assumptions (e.g., following Montague, Carlson takes proper names to denote sets of properties. I just assume that they denote individuals.) • To simplify the exposition, I disregard intensionality in what follows. (i) Individual-level predicates T (intelligent) = λx (intelligent’ (x)) i T (be intelligent) = λx (intelligent’ (x)) i Individual-level adjectives and predicate nominals combines with be1, which is semantically null. [note: Carlson would translate intelligent simply as intelligent’ , a constant that denotes a function from individuals to truth-values. My translation below is meant to make the types more transparent, but is obviously equivalent to that.] (6) T (John is intelligent) = intelligent’ (j) (ii) Stage-level predicates T(available) = λxs (available’ (x)) Note: there are no DPs that denote stages. Thus, we can’t combine available directly. Carlson: stage-level adjectives combine with be2, whose denotation maps sets of stages to sets of individuals that have stages that the adjective is true of. Disregarding intensionality: T(be2) = λPλxi (∃ys (R(y,x) & P(y))) T (be available) = λx (∃ys (R(y,x) & available’ (y))) i (7) T (John is available) = ∃ys (R(y, j) & available’(y)) (iii) Additionally, we have predicates that can only apply to kinds: to be widespread, to be rare, to be common, to be extinct, invent (wrt to object position) T(widespread) = λxk (widespread’(x)) [selects for kinds] (8) Lions are widespread widespread’ (d) (9) \*John is widespread • Type mismatch. What this gives us • The different interpretations of BPs are determined by the denotation of the predicate. • (i) BP + individual-level / kind- level predicate: generic interpretation (kind-predication) (14) Dogs are intelligent Intelligent’ (d) (15) Dogs are widespread Widespread’ (d) When we predicate something of a kind, we don’t specify which / how many realizations (if any) satisfy the predicate. Analogy: the battalion (16) The battalion was wiped out (true iff all members were wiped out) [cf. dogs are mammals] (17) The battalion is tired now (can be true if most members are tired) [cf. dogs bark] (18) The first battalion handles ammunition (can be true if a minority of the members handle ammunition) [cf. turtles are long-lived] (19) The battalion shifted its position slightly (doesn’t entail anything about members) (20) The first battalion has served its country for 200 years (the predicate may be true of the battalion even though it is false for any of its members) [cf. Lions come from Asia and Africa] (ii) **BP + stage-level predicate: existential intepretation** (∃ quantifier introduced by the predicate.) (21) Firemen are available. ∃ys (R(y, f) & available’(y))

#### Pics – whole res means the neg can pic out of any subsidiy – kills fairness since you can scoop the entirety of the aff AND moots your standards – pics forces massive prep for every single advocacy.

#### We meet – we eliminate all of a subset of subsidies—post tax

#### Core of the topic lit – authors don’t talk about subsidies in a vague fashion and instead the specific tax credits and industries they support. Independently, decks the negative because specific disads to specific subsidies wouldn’t negate under a generic reading of the topic.

#### Reject Nebel: They’re not a linguist and conflict of interest – he’s a judge and coach that writes on a debate blog which distorts his opinions and sets a terrible precedent for mass amounts

#### Prefer pragmatics over semantics: it’s inevitable – you have to use pragmatics to break ties between two semantic definitions that are arbitrarily chosen. AND semantics beg the question – only pragmatics explain why we have a topic

#### No limits explosion and the neg can check – it’s disclosed, affs need solvency advocates and advantages areas to beat back K’s, states, and politics which the neg can always collapse on

#### No impact to voting neg – this stupid argument has been in debate since 2014 and no one’s actually bought into it

## T – New Affs

#### Counter Interpretation: Affs can read New affirmatives

#### Innovation – New affs are key to actual debates otherwise we read non-T non inherent affs every round

## T – Disclose New Affs

#### Counter Interpretation: Aff debaters don’t need to disclose new affs

#### Innovation – not disclosing new affs gives debaters an incentive to research because of the competitive advantage – impact turns all teir fairness claims.

#### No limits explosion – unless they prove our aff is non-topical we’re in the predictable realm of preparation which means they should have prep.

#### Generics debate is good – forces us to have in-depth discussions with deep literature bases

## Spec – Agent

#### Counter Interpretation: The affirmative does not have to specify the agent of the affirmative

#### Specifying an actor hurts the neg – can spec infinitely small departments like energy or security, congressional committees, and weird permutations of supreme courts.

#### Allows them to PIC out of agents and skirt core resolutional questions—decking clash and fairness

#### CX checks – would’ve specified if you asked me. 30 seconds at most in CX matters less than their 1 minute shell. Terminal defense to the interp – I could’ve met.

#### No resolutional basis: Infinitely regressive – forces the 1AC to spend the entire time speccing.

#### It’s potential abuse – just because I “could’ve” done something doesn’t mean I would do it. We shouldn’t vote someone down because they could’ve read 7 condo process counterplans.

#### You should just assume normal means if we don’t spec – allows us to have a topic debate with definitions

## Spec – General

#### Counter Interpretation: Affirmatives don’t have to spec [X]

#### CX checks – would’ve specified if you asked me. 30 seconds at most in CX matters less than their 1 minute shell. Terminal defense to the interp – I could’ve met. Use reasonability – there’s no topical basis so you should hold the line and not vote on frivolous theory.

#### Infinitely regressive – forces the 1AC to spend the entire time speccing.

#### It’s potential abuse – just because I “could’ve” done something doesn’t mean I would do it. We shouldn’t vote someone down because they could’ve read 7 NIBs.

## Spec – Subsidies

#### I meet: The plan specs post-tax subsidies

#### Counter Interpretation: Affirmatives don’t have to spec subsidies for fossil fuels

#### CX checks – would’ve specified if you asked me. 30 seconds at most in CX matters less than their 1 minute shell. Terminal defense to the interp – I could’ve met. Use reasonability – there’s no topical basis so you should hold the line and not vote on frivolous theory.

#### Infinitely regressive – forces the 1AC to spend the entire time speccing.

#### It’s potential abuse – just because I “could’ve” done something doesn’t mean I would do it. We shouldn’t vote someone down because they could’ve read 7 NIBs.

## Spec – Unobtanium

#### We don’t have to defend unobtanium

#### The only fossil fuels are coal, oil, and natural gas.

Tom Metcalfe, 3-17-2019, "What are fossil fuels?," NBC News, https://www.nbcnews.com/mach/science/what-are-fossil-fuels-ncna983826

There are three main fossil fuels: coal, petroleum and natural gas. Coal is cheap and abundant, but it releases a lot of pollutants when burned. Petroleum, or crude oil, is harder to find and is typically a bit cleaner-burning — and, unlike coal, it can be pumped through pipelines and easily refined into fuels like gasoline or kerosene. Natural gas is also relatively inexpensive and less polluting than coal or crude oil.

Fossil fuels are found underground, trapped in deposits surrounded by layers of rock. Coal beds typically lie 200 to 300 feet below the surface. Oil and natural gas deposits are typically a mile or two down, and the deepest oil and gas wells have reached more than six miles below the surface.

#### Unobtanium doesn’t exist—Avatar is a movie.

## Stupid – Shoes

### CI: Violation

The interp is violent- Debater’s shouldn’t be allowed to tell others what to wear- it justifies sexism, racism, classicism and is also intrinsically ableist; you don’t know about my physicality enough to make a claim about what’s good for my health- independent reason to drop them. Having a norm that would force female debaters to take off their shoes for male competitors is obviously violent- drop them for deterrence

#### Independently, schools would kick debaters off the program for doing ridiculous things like this in round.

### On Health

1) Not theoretically justified- if this were true we wouldn’t spread or have winners and losers since competition is super unhealthy and anxiety inducing

2) Turn- not wearing shoes allows nails, rocks, and other sharp objects to injure you; there’s a reason why hikers don’t hike barefoot

### On Perceptions

1) Turn- If debaters walk into round barefoot, judges would just think we’re weird and be biased against us—turns fairness

2) Nonunique- people judge you based on an infinite amount of physical and nonphysical factors like height, race, and gender- the interp can’t solve anything

3) No impact- it could be a positive or negative judgement and your ev doesn’t specify

#### 4) Norming is denied—they brought shoes to this tournament and will wear them after this round is over

# DA

## DA – Agriculture

### 1AR – Ag – Link

#### Case turns the disad – warming decks agriculture. 1AC Spratt and Dunlop 19 say rising temperatures and mass die off of key insects drives collapse agrigulture.

### 1AR – Ag – ! D

#### No ag impact.

Steven **Pinker 11**, Prof @ Harvard, Steven Pinker: Resource Scarcity Doesn’t Cause Wars, <http://www.globalwarming.org/2011/11/28/steven-pinker-resource-scarcity-doesnt-cause-wars/>

Once again it seems to me that the appropriate response is “maybe, but maybe not.” Though climate change can cause plenty of misery… it will not necessarily **lead to armed conflict**. The **political scientists** who track war and peace, such as Halvard **Buhaug**, Idean **Salehyan**, Ole **Theisen**, and Nils **Gleditsch**, are skeptical of the popular idea that people **fight wars** over **scarce resources**. **Hunger and resource shortages** are tragically common in sub-Saharan countries such as **Malawi**, **Zambia**, and **Tanzania**, **but wars involving them are not. Hurricanes, floods, droughts, and tsunamis** (such as the disastrous one in the Indian Ocean in 2004) do not generally lead to conflict. The American dust bowl in the 1930s, to take another example, caused plenty of deprivation **but no civil war**. And while temperatures have been rising steadily in Africa during **the past fifteen years**, **civil wars and war deaths have been falling.** Pressures on access to land and water can certainly cause local skirmishes, but a genuine war requires that hostile forces be **organized** and **armed**, and that depends more on the influence of **bad governments**, **closed economies**, and **militant ideologies** than on the sheer **availability** of land and water. Certainly any connection to terrorism is in the imagination of the terror warriors: terrorists tend to be underemployed lower-middle-class men, not subsistence farmers. As for genocide, the Sudanese government finds it convenient to blame violence in Darfur on desertification, distracting the world from its own role in tolerating or encouraging the ethnic cleansing. In a regression analysis on armed conflicts from 1980 to 1992, Theisen found that conflict was more likely if a country was **poor**, **populous**, politically unstable, **and abundant in oil**, but not if it had suffered **from droughts**, **water shortages**, or mild **land degradation**. (Severe land degradation did have a small effect.) Reviewing analyses that examined a **large** number (**N**) **of countries rather than cherry-picking** one or toe, he concluded, “Those who foresee doom, because of the relationship between resource scarcity and violent internal conflict, **have very little support from the large-N literature.”**

## DA – AI

### 1AR – AI - ¡ D

#### Genuine machine thought is impossible- law of independence conservation

Eric Holloway 18 {Eric Holloway has a Ph.D. in Electrical & Computer Engineering from Baylor University, and is an Associate Fellow of the Walter Bradley Center for Natural and Artificial Intelligence.}//JM

A quantity that better matches our intuitive notion of information is mutual information. Mutual information measures how much event A reduces our uncertainty about event B. We can see mutual information in action if we picture a sign at a fork in the road. Before event A (reading the sign), we are unsure which branch of the fork will take us home. That is to say, we are uncertain about event B, the outcome of choosing one of the branches. Once event A occurs (we read the sign), we are certain about event B (the outcome of choosing one of the branches) and we can find our way home. An important property of mutual information is that it is conserved. Leonid Levin’s law of independence conservation states that no combination of random and deterministic processing can increase mutual information. A series of coin flips would not have told you the direction you are heading in if you enter one of these lanes. This raises the question: What can create mutual information? A defining aspect of the human mind is its ability to create mutual information. For example, the traffic sign designer in the example above created mutual information. You understood what the sign was meant to convey. This brings us to the debate regarding artificial intelligence. Can artificial intelligence reproduce human intelligence? The answer is no. All forms of artificial intelligence can be reduced to a Turing machine, that is, a system of rules, states, and transitions that can determine a result using a set of rules. All Turing machines operate entirely according to randomness and determinism. Because the law of independence conservation states that no combination of randomness and determinism can create mutual information, then likewise no Turing machine nor artificial intelligence can create mutual information. Thus, the goal of artificial intelligence researchers to reproduce human intelligence with a computer program is impossible to achieve.

#### No superintelligence – tech barriers and diminishing Moore’s law means it’d happen slowly

Edward Moore Geist 8-9-2015; MacArthur Nuclear Security Fellow at Stanford University's Center for International Security and Cooperation (CISAC). Is artificial intelligence really an existential threat to humanity? http://thebulletin.org/artificial-intelligence-really-existential-threat-humanity8577

In the 1950s, the founders of the field of artificial intelligence assumed that the discovery of a few fundamental insights would make machines smarter than people within a few decades. By the 1980s, however, they discovered fundamental limitations that show that there will always be diminishing returns to additional processing power and data. Although these technical hurdles pose no barrier to the creation of human-level AI, they will likely forestall the sudden emergence of an unstoppable “superintelligence.” The risks of self-improving intelligent machines are grossly exaggerated and ought not serve as a distraction from the existential risks we already face, especially given that the limited AI technology we already have is poised to make threats like those posed by nuclear weapons even more pressing than they currently are. Disturbingly, little or no technical progress beyond that demonstrated by self-driving cars is necessary for artificial intelligence to have potentially devastating, cascading economic, strategic, and political effects. While policymakers ought not lose sleep over the technically implausible menace of “superintelligence,” they have every reason to be worried about emerging AI applications such as the Defense Advanced Research Projects Agency’s submarine-hunting drones, which threaten to upend longstanding geostrategic assumptions in the near future. Unfortunately, Superintelligence offers little insight into how to confront these pressing challenges.

## DA – Base

### 1AR – Base – UQ

#### Impeachment has had no effects, plan is used to boost Trump’s support and nearly half of republicans say there’s nothing trump can do to dampen their support.

David **Mark, 10-24**-2019, "Opinion," NBC News, <https://www.nbcnews.com/think/opinion/if-it-s-donald-trump-vs-elizabeth-warren-his-stronger-ncna1071071> LHSLA LH

The eventual Democratic pick will almost certainly run up against a virtual lock on support for Trump among GOP voters. According to Gallup polls taken every two weeks, Trump’s support among Republicans hovers in the high 80s to low 90s. And **those numbers haven’t been affected by** the **impeachment** inquiry by House Democrats against Trump over the Ukraine whistleblower affair. Paradoxically, Trump **campaign officials are using the Capitol Hill proceedings to fire up the president’s bedrock of support** to an even higher degree than when he took office in January 2017. Trump’s base — broadly composed of white evangelicals, the non-college educated and rural residents — is staying loyal to him in the face of impeachment.

In one measure of this loyalty, a Public Religion Research Institute (PRRI) poll in September found that 72 percent of Republicans and Republican-leaning independents prefer Trump to be the party’s 2020 nominee over any other GOP candidate — up from 59 percent in October 2017. Another is that, according to the same poll, **37 percent of Republicans say there’s “almost nothing Trump could do” to lose their approval.**

#### Trump’s base is bulletproof, and they’ll support him regardless

Matt **Shuham 3/21**/18, "Corker: Republican Base's Support for Trump Is 'Tribal In Nature'" https://talkingpointsmemo.com/livewire/bob-corker-gop-base-support-for-trump-tribal-in-nature

Sen. Bob Corker (R-TN) said in an interview published Wednesday that President Donald **Trump’s support among the Republican base is “tribal in nature” and “people don’t ask about issues anymore**.” “The President is, as you know — you’ve seen his numbers among the Republican base — it’s very strong. **It’s more than strong**, it’s tribal in nature,” Corker told the Washington Examiner, as flagged by Taegan Goddard’s Political Wire. ADVERTISING “People who tell me, who are out on trail, say, look, people **don’t ask about issues anymore**. They **don’t care about issues**,” he added. “**They want to know if you’re with Trump or not**.” Corker, who has criticized Trump but voted in sync with the vast majority of the President’s positions, announced in September 2017 that he would not seek re-election in 2018. He briefly reconsidered in February but ultimately stood by his decision to retire.

### 1AR – Base – ! D

#### Diversionary theory is bunk – Trump will never lashout

Håkan **Frisén 17**, Head of Economic Forecasting at SEB, 2-22-17, "Global economy resilient to new political challenges," https://sebgroup.com/press/news/global-economy-resilient-to-new-political-challenges

The interplay between economics and politics was undoubtedly a dominant feature of analyses during 2016. As we know, it was difficult to foresee both election results and their economic consequences. It was certainly not strange that economists were unable to predict the Brexit referendum outcome or Donald Trump’s victory, when public opinion polling organisations and betting firms failed to do so, but lessons might be learned from the economic assessment impacts they made. Economists probably tend to exaggerate the importance of more general political phenomena. While in the midst of elections that appear historically important, it is tempting to present alarmist projections about election outcomes that seem improbable and/or unpleasant. But once the initial shock effect has faded, more ordinary economic data such as corporate reports and macroeconomic figures take the upper hand. Psychological effects often exaggerated One important observation is that it is difficult to find any historical correlation between heightened security policy tensions and economic activity. Households and businesses do not seem to be especially sensitive in their consumption or capital spending behaviour. This is perhaps because uncertainty is offset by investments in a defence build-up, for example. Only when the conditions that directly determine profitability and investments are affected, for example via rising oil prices or poorly functioning financial markets, will the effects become clear. Markets also seem to have a general tendency to assume that the economic policy makers can actually behave rationally in crisis situations, until this has been disproved. Both during the US sub-prime mortgage crisis of 2007-2008 and the euro zone's existential crisis a few years later, for a rather long time the market maintained its faith that a response would come. Not until after a lengthy period of inept actions by decision makers did these crises become genuinely acute, with large secondary effects as a consequence. This market "patience" is presumably based on a long-time pattern of recurring bailout measures by governments and central banks, which usually benefit risk-taking at the expense of caution or speculation that policy responses will not materialise. It is reasonable to assume that this may also underpin the rather cautious reactions to the risks associated with the Trump administration's agenda. Although one cannot complain about the administration's power of initiative, there is a fairly high probability that in important areas it will not go from words to actions. There may be [for] various reasons for this, such as the inertia built into the separation of powers between the White House, Congress and the court system, or expectations that Trump's newly appointed cabinet secretaries and advisors will eventually take their cues from more established US positions.

#### Non-judicial constraints on presidential power like the professional bureaucracy prevent Trump from causing nuclear war

**Schultz 17** [David Schultz, Political Science Professor, Hamline University, “Why Trump’s presidency will be weaker than many have hoped or feared,” January 20, 2017, http://www.huffingtonpost.com/david-schultz/why-trumps-presidency-wil\_b\_14289964.html]

One of the ironies of American politics is that while the U.S. presidency is arguably the most powerful elected position in the world, the office is also surprisingly weak. As Donald Trump prepares to take office he may be surprised that for all that he says he wants to do, he may have less power to accomplish them than he and his supporters hoped, or his detractors feared. The truth is that there are many constraints on U.S. presidential power, dictated by the Constitution and the reality of American politics, international relations, and the precedents set by his predecessors.

Richard Neustadt’s 1960 “Presidential Power” arguably endures as the single best book every written on the American presidency. It opens with a quote from Harry Truman in 1952, offering advice to the incoming president and former general Dwight Eisenhower:

He’ll sit here, and he’ll say, “Do this! Do that!” And nothing will happen. Poor Ike — it won’t be a bit like the Army. He’ll find it very frustrating.

Neustadt’s use of the Truman quote was to underscore a reality of the American president who cannot simply order people about like kings or business CEOs. Instead the power of the presidency is the power to persuade.

Article II of the U.S. Constitution defines the formal constitutional powers of the president that have not changed since George Washington. But as Neustadt and James David Barber in his “President Character” contend, it the personality or character of the person who is president, along with a host of other factors, that define the ability of presidents to persuade Congress, the media, foreign countries, and the American people to follow them. These factors include rhetorical and media skills, margins of political victory, knowledge and experience of government, public support, the strength of political opposition, and perhaps the overall likeability of the persons. Presidential power is to the power to persuade, but that persuasive power is a form of bargaining power. Some presidents such as Franklin Roosevelt, Lyndon Johnson, and Ronald Reagan were powerful because of these factors.

From the New Deal until perhaps recently there was a fear of what Arthur Schlesinger Jr. termed the “imperial presidency.” Born of the New Deal regulatory state and the reality of the Cold War and Vietnam, presidents were viewed as dangerously powerful and prone to abuse their authority, as did Richard Nixon. But we are a long way from days of the imperial presidency — and as Stephen Skowronek points out in “Presidential Leadership in Political Time: Reprise and Reappraisal,” context too demarcates the limits of presidential power. Today, as a result of Supreme Court decisions — many of which clipped Obama’s power when it came to executive orders and Bill Clinton when it came to issues about legal accountability for personal behavior — Trump inherits a far weaker office than it was a generation ago.

Soon if not already Trump is about to confront this reality. He and his supporters and his detractors seem to have forgotten that there is this thing called the Constitution and the Bill of Rights, which define the power of the presidency. Both contain concepts such as separation of powers, checks and balances, federalism, and the basic rights and liberties which presidents cannot violate. There are some things President Trump cannot do alone with executive orders or even with legislation. He cannot order states and cities around; he cannot order citizens to do things that are illegal. And even though Congress is of the same party as he is and he will get to appoint federal judges and a new Supreme Court justice, the logic of the political system that the American constitutional framers designed is one that is resistant to sudden and dramatic change.

Congress and the Supreme Court will have their own institutional identities and interests that will make them resistant to being ordered around by Trump.

Moreover, while the attraction of many to Trump was him being an outsider, his being unskilled in Washington politics will make it hard to govern. President Jimmy Carter was an outsider whose presidency was compromised by his lack of Washington skills even though he was a governor. Trump does not even have that, and many of his senior appointees lack that too. They will soon find themselves out maneuvered by the federal bureaucracy, the senior executive service, and all the others who really run the government and know how to make it work.

So long as Trump continues to fight the reality of American politics he will get nowhere. Conversely, as the confirmation hearings are starting to show, in areas such as foreign affairs and intelligence gathering there is a powerful establishment and bureaucracy that will crush Trump if he does not learn how to work with them. Presidents really have little freedom to change the course of American foreign affairs, with the best predictor of what a new president will do is to look at the previous one. Besides the constraints of domestic politics, international contexts such as real politics and the support or opposition of allies and enemies dictate narrow courses of action for any president.

All of the above suggests that Trump is about confront reality. He will have to operate in a context that would limit any president. But now also consider that he is a minority president who did not win the popular vote and had one of the narrowest Electoral College victories in history. He was never popular as a candidate with nearly 60 percent disapproving of him, and recent polls suggest an approval rating of 37 percent. Presidents normally are sworn in with lots of good will; Trump will not have that. He enters a weakened office as a weakened president, lacking the traits that Neustadt, Barber, and Skowronek describe as key to presidential success. It is not an imperial presidency located in Trump Tower that Trump inherits, but a weak office that can do far less to produce jobs, force Mexico to build a wall and pay for it, and abrogate unilaterally trade agreements without facing political and legal problems.

## DA – Bubble

### 1AR – Bubble – UQ

#### System’s resilient and investors aren’t vulnerable

Crooks, 10-19 – Ed Crooks, FT, 10-19-2016, “Analysts dismiss ‘carbon bubble’ warning”, Financial Times, <https://www.ft.com/content/9954e072-9587-11e6-a80e-bcd69f323a8b>

Oil and gas companies are valued largely on reserves that will be produced over the next 15 years, meaning that their investors are not vulnerable to longer-term changes in energy markets, a leading industry adviser has said. Daniel Yergin of IHS Markit rejected warnings of a “carbon bubble” that could destabilise financial markets as policies to combat climate change hit fossil fuel producers, saying the transition to renewable energy would take decades and investors would have time to adjust their holdings. The dangers for financial assets created by climate change have become an increasingly prominent issue for investors. Last year, ministers from the Group of 20 countries instructed the Financial Stability Board of their regulators and policymakers to start looking at the risks and how to address them. Mark Carney, governor of the Bank of England who chairs the FSB, argued in a speech last year that regulators needed to address the problem now, because “once climate change becomes a defining issue for financial stability, it may already be too late”. The action by regulators could restrict the flow of capital to oil and gas companies by making it harder for banks and other financial institutions to lend to and invest in the industry. In a paper published on Wednesday, Mr Yergin argued that the concerns expressed by Mr Carney and others have been overdone, because investors generally look at relatively short time horizons when valuing oil and gas assets. IHS has calculated that about 80 per cent of the market capitalisation of the large international oil companies reflects their proved reserves, which they expect to produce and sell over the next 10 to 15 years. The shift away from fossil fuels needed to reduce the threat of climate change was likely to take significantly longer than that, Mr Yergin said. “Virtually everyone who looks closely at this agrees that the energy transition is going to unfold over decades,” he said. “It’s highly unlikely that there will be one sudden moment when everything changes overnight.” He added that it was “puzzling that a central bank would choose to identify investment in this sector as a major systemic risk to the global financial system, when there are so many other more obvious and immediate risks”. IHS also suggested that the oil industry has already undergone a demanding “stress test” as a result of the plunge in crude prices that began in 2014. A sample of 82 large international oil and gas companies lost 42 per cent of their combined market capitalisation from June 2014 to December 2015, wiping out $1.4tn of value, without apparently having a significant impact on the wider financial system.

### 1AR – Bubble – Link D

#### The DA is wrong on every level and fast reductions are key to solve warming

- Investor Diversification/Divestment Now and No Spillover

- Paris should have triggered the Link

- No Impact on Econ---1. Divestment 2. Reserves/Liquid Capital 3. Doesn’t Affect Consumers nearly as much as 08’/Retail/Consumer Spending 4. No USFG Support For Fossil Fuels

- Warming Turns Econ

Hayes 16---Breanna Hayes, 12-22-2016, M.S. in Environmental Policy and Policy from the University of Vermont, J.D. in Environmental Law from University of Vermont “Our Money is Safe, but the Planet Is Not: How the Carbon Bubble Will Cause Havoc for the Environment, but Not the Stock Market," Harvard Environmental Law Review, http://harvardelr.com/2016/12/22/our-money-is-safe-but-the-planet-is-not-how-the-carbon-bubble-will-cause-havoc-for-the-environment-but-not-the-stock-market/, Date Accessed: 1-29-2017

V. The Carbon Bubble Mirrors the Dotcom Bubble on a Financial Scale

It is unlikely that the carbon bubble will have the same detrimental effect on the economy that the housing bubble had. This is because the carbon bubble differs from the housing bubble in two significant ways. First, the carbon bubble is not fueled by debt, subprime or otherwise. Second, the carbon bubble is more similar to the dotcom bubble because the people who will most likely feel the shock are wealthy investors who will be able to absorb the loss without halting retail spending.

In the housing crisis, the assets that were overvalued were the mortgage-backed securities. Borrowers could not repay high-risk loans, so there was no capital to fund the mortgage-back securities. On the other hand, there are still high consumption rates of fossil fuels.[66] Whereas the housing bubble was built on unsustainable loans, the carbon bubble is forming around anticipated legislation. The carbon bubble is not forming from industry’s inability to provide reserves, rather anticipatory need for regulation.

Another factor that fueled the housing bubble was government intervention. The government promoted home ownership, leading more people to borrow money.[67] In contrast, governments are not promoting fossil fuel usage. The recent election of Donald Trump to the Presidency may impact how “stranded” the energy company assets really are. During the Obama Administration, the United States made strides toward greener energy, which included signing the Paris Agreement.[68] The President-Elect Donald Trump has pledged to withdraw from the Paris Agreement and has supported the use of fossil fuels.[69] Therefore, the United States may not provide restrictive legislation that would burst the carbon bubble. Nevertheless, while a pro-fossil fuel administration in the United States may delay the shock, it will still come. The United States is only one of the countries that ratified the Paris Agreement. While fossil fuels may have a market in the United States under a Trump Administration, the global market will still decrease.

The carbon bubble will most likely affect the economy similarly to the dotcom bubble. If the shares plummet, those affected will be mostly wealthy or institutional investors. For example, according to the Forbes Global 2000 list of the World’s Biggest Public Companies, ExxonMobil ranked as number 9 and Chevron ranked number 28.[70] The companies also ranked first and third respectively for public companies in oil and gas operations.[71] Of the 4.15 billion outstanding ExxonMobil shares, company insiders own over 500 million and institutions own over 2 billion.[72] Similarly, of the 1.89 billion outstanding Chevron stock, corporate insiders own approximately 75 million and institutional investors own more than 1.18 billion shares.[73] While personal wealth would be lost if energy stock plummeted, it would not have the same detrimental effect on retail spending as the housing bubble did.

Furthermore, stockholders are holding the companies accountable for their practices. Recently, ExxonMobil shareholders agreed to the “prudent use of investor capital in light of the climate change related risks of stranded carbon assets.”[74] Also, some shareholders are bringing a securities class action alleging that ExxonMobil materially misrepresented its assets[75] (although currently, the class is not yet certified[76]). Shareholders can use these avenues to assist legislators in holding these companies to the carbon budget.

VI. The Environment Will Still Suffer

While the carbon bubble is unlikely to wreak havoc on the economy, the threat to the environment is still very real. In fact, the lack of effect on the economy may increase the threat to the environment. If the world is committed to keeping global temperatures below two degrees Celsius, as of 2013, 60-80 percent of fossil fuel reserves must stay under the ground.[77] The use of fossil fuels and the transition to renewables may not lead the world to a financial crisis, but if the transition is not quick, the world may face an environmental crisis. If energy companies are too slow in transitioning from fossil fuel to renewable sources, they will overspend on the carbon budget. If that happens, the likelihood of global temperatures exceeding the agreed on cap of two degrees’ Celsius increases. [78] There are many effects that rising temperatures could have on the environment, including shrinking glaciers, loss of sea ice, accelerated sea level rise, longer and more intense heat waves, shifts in plant and animal ranges, trees flowering sooner, etc.[79] Many of these effects are already documented.[80]

If these changes continue, communities will feel the impact. The effects could be health-based, social, or cultural due to a change in the availability of natural resources.[81] According to the Environmental Protection Agency,

Climate change may especially impact people who live in areas that are vulnerable to coastal storms, drought, and sea level rise or people who live in poverty, older adults, and immigrant communities. Similarly, some types of professions and industries may face considerable challenges from climate change. Professions that are closely linked to weather and climate, such as outdoor tourism, commerce, and agriculture, will likely be especially affected.[82]

While energy companies are inflating the carbon bubble by burning carbon and contributing to these environmental effects, it is unlikely that courts will hold companies liable.[83] This is because, without a federal cause of action, it is challenging to prove causation.[84] Since climate change is a global problem, it is challenging to prove that individual companies caused certain environmental issues.

VII. Conclusion

There is reason to be concerned about the carbon bubble, but that reason is not the stock market. Most likely, the carbon bubble will not have the effect on the economy that the housing market did. This is because, on the financial side, either the companies will divest from fossil fuels or the people who will be affected by the carbon bubble burst will be wealthy enough to absorb the shock.

On the other hand, if companies continue to burn carbon and inflate the carbon bubble, people will feel the environmental effects on a societal level. Natural resources may become scarcer, cultural ways of life may fade due to lack of resources and communities may be destroyed due to harsh storms. The impact on communities will not come from a stock market crash; it will come from environmental catastrophes.

### 1AR – Bubble – Link Turn

#### Climate policies are key to prevent the bubble

Weyzig 14 – Francis Wyzig, Policy Advisor on Tax Justice and Economic Inequality at Oxfam Novib (Netherlands) and Former Policy Advisor Financial Stability at the Dutch Central Bank, et al., February, “The Price of Doing Too Little Too Late: The Impact of the Carbon Bubble on the EU Financial System,” <http://reinhardbuetikofer.eu/wp-content/uploads/2014/03/GND-Carbon-Bubble-web1.pdf>

To reduce uncertainty for financial institutions, it is crucial to adopt clear and effective long-term climate and energy policies. A credible EU policy will discourage investments in firms holding stranded assets and other high-carbon business and at the same time boost investments in cleaner technology and energy saving businesses. Adequate climate and energy policies are also the most effective way to prevent wasteful capital expenditures by fossil fuel firms that would eventually increase losses for financial institutions.

#### Case turns the DA---warming causes bigger effect than stranded assets

Weyzig 14 – Francis Wyzig, Policy Advisor on Tax Justice and Economic Inequality at Oxfam Novib (Netherlands) and Former Policy Advisor Financial Stability at the Dutch Central Bank, et al., February, “The Price of Doing Too Little Too Late: The Impact of the Carbon Bubble on the EU Financial System,” http://reinhardbuetikofer.eu/wp-content/uploads/2014/03/GND-Carbon-Bubble-web1.pdf

It can be concluded that the financial losses caused by climate change will likely be severe and far outweigh the gains. It is very difficult to estimate the size and distribution of these losses. Nonetheless, existing studies indicate that unmitigated climate change, which would on balance have a negative effect on the economy at large, poses larger risks to the EU financial system than stranded assets, which would negatively affect high-carbon businesses only.

### 1AR – Bubble – Thumper

#### Black swans thump---resource availability, reduced technology costs, and extreme weather

Hjort 16 – Ingrid Hjort, Department of Economics, University of Oslo, Citing a host of experts, Potential Climate Risks in Financial Markets: A Literature Overview, February 1, 2016, http://www.sv.uio.no/econ/english/research/unpublished-works/working-papers/pdf-files/2016/memo-01-2016.pdf

Other elements that increase the likelihood of stranded assets include changes in resource availability and reduced technology costs. Financial markets may be affected by unforeseen challenges to extract fossil fuel further, leading to increased costs and stranded assets (Caldecott and McDaniels, 2014). Extreme weather conditions may distort the extraction process and the supply of fossil fuels, followed by shifts in output prices. Possible scenarios could be that increased frequency of storms challenge extraction in the North Sea and the Arctic, and heat stress may challenge extraction in the Arabic Gulf.

## DA – China Leadership

### 1AR – China Leadership – UQ

#### **Chinese global gov is high and increasing now – solves the DA**

Cheng Li and Zhang Niansheng 16 (Cheng Li and Zhang Niansheng, John L. Thornton China CenterSenior Fellow - Foreign Policy, April 1, 2016. “China plays increasing role in global governance.” https://www.brookings.edu/on-the-record/china-plays-increasing-role-in-global-governance/)

Chinese President Xi Jinping is paying a US visit to attend the 4th Nuclear Security Summit. A US-based scholar noted that the trip not only shows China’s will to beef up cooperation with the rest of the world, but also signals that China, which has kept a low-profile, is ready to play a bigger role in global governance. During the two-day summit starting from Thursday, President Xi will also meet with his US counterpart Barack Obama. Bottom of Form Li Cheng, director of the John L. Thornton China Center of the Brookings Institute, said that Xi’s second visit to Washington DC in six months highlights that the two major powers are seeking cooperation rather than confrontation. The new type of major-power ties between the two nations, with win-win cooperation and mutual respect at its core, advocates collaboration rather than conflict, saidLi, explaining that such a relationship emphasizes a desire for cooperation. He also pointed out that Xi’s attendance at the summit shows China’s willingness to further collaborate with the international community. “His attendance will be greatly welcomed,” Li stressed, adding that China now plays a crucial role in climate change, cyber security, nuclear security and global economic governance. “As a major power, China’s voice should be heard, and views should be delivered,” said Li. He also noted that the international community will continue to respect China’s growing role in international affairs. Though China has previously maintained a low-profile in global governance, its role has since increased, the scholar commented. Along with its rising international status, China also shoulders more responsibilities and obligations in narrowing the rich-poor gap, promoting South-South Cooperation and other global affairs, he added. Li also applauded the momentum of Sino-US ties, saying that the leaders of both nations are making far-sighted choices based on an expandedworld view and their fundamental interests. Though some disputes emerged, they are far outweighed by bilateral cooperation, he noted, especially praising their collaboration in global issues.

### 1AR – China Leadership – Link D

#### The plan doesn’t prevent China from solving any of these impacts—their ev doesn’t say that China has to be ahead of the US to solve things and doesn’t say that being number 2 in leadership causes CCP collapse – DECADES of China being the climate Pariah prove the CCP won’t implode

#### Leadership isn’t zero-sum – US climate leadership is key to Chinese leadership

Busby and Shidore, 15

(Joshua, Associate Professor of Public Affairs at the Robert S. Strauss Center for International Security and Law at the LBJ School of the University of Texas at Austin (UT). In addition to his authorship of two books, Busby is the author of several studies on climate change, national security, and energy policy from the Council on Foreign Relations, the Brookings Institution, the German Marshall Fund, and the Center for a New American Security (CNAS). Busby, one of the lead researchers in the Strauss Center project on Climate Change and African Political Stability (CCAPS) and is the principal investigator for the project Complex Emergencies and Political Stability in Asia (CEPSA). He has also written on US-China relations on climate change for CNAS and Resources for the Future. His articles have appeared in International Security, International Studies Quarterly, Perspectives on Politics, and Security Studies, among other publications; Sarang, an independent researcher and consultant based in Austin and currently Visiting Scholar at the Lyndon B. Johnson School of Public Affairs at the University of Texas at Austin. His areas of research focus are strategic futures and energy/climate policy, with several publications in these areas. Most recently, he coled a comprehensive scenario planning study on Indian and Asian security in the years 2030 and 2050 at the Institute for Defense Studies and Analyses in New Delhi in partial collaboration with the Development, Concepts, and Doctrine Center (DCDC) of the UK Ministry of Defense and also authored the energy security portion of the study. He holds three Master’s degrees—in International Studies, Mechanical Engineering, and Aerospace Engineering, with a prior 15-year career in thermal engineering and product management. “How The United States Can Reinforce Chinese Action on Climate Change,” <http://www.paulsoninstitute.org/wp-content/uploads/2015/07/PPEE_Climate-Cooperation_English.pdf> RMW)

When Obama came to office in 2009, there was considerable optimism about the scope for bilateral cooperation on climate change. Leading up to the Copenhagen negotiations in 2009, Obama traveled to China and left Beijing with a series of technical exchange agreements on carbon capture and sequestration, clean energy vehicles, and collaborative clean energy research, among other areas. The expectation was that these preliminary moves would lay the groundwork for deeper cooperation at Copenhagen and a more ambitious set of domestic goals from China.20 Instead, as is now widely known, the Copenhagen negotiations yielded considerable acrimony between the United States and China for a variety of reasons. Indeed, despite the adoption of a new approach to climate diplomacy based on bottom-up pledges of national intent, China was cast by many other countries in the role of a spoiler that apparently frustrated the realization of a more ambitious agreement. In subsequent meetings, China actively sought to avoid such opprobrium by taking a lower profile, adopting softer rhetoric, and making greater use of the media and civil society organizations to showcase China’s climate-related efforts and actions.21 US-China relations have since entered into a period of tensions over numerous security and economic issues. But while disagreement and friction exist and will persist, the two countries have continued to find mutual interest and seek collaboration in the realm of climate change and energy, the latest manifestation of which was the long list of outcomes from the seventh round of the Strategic and Economic Dialogue.22 An important challenge for Washington, then, is to leverage measures in its policy toolkit that would incentivize stronger Chinese action on climate change while following through on its own commitments. Several areas, in the authors’ view, are most ripe for US attention: Sustaining Momentum At Home The most important way to encourage China’s sustained implementation of its own climate commitments is through US leadership at home and to follow through on its international commitments of finance to developing countries. Most important, the United States needs to make good on its pledge to reduce its emissions by 26-28 percent below 2005 levels by 2025, a pledge reaffirmed in Washington’s March 2015 submission to the UN climate secretariat in its INDC.23 If the United States suffers significant setbacks in implementation, whether legal or political, China’s leadership will likely have less incentive and political cover to stay the course on their own costly measures that will yield GHG reduction benefits.

### 1AR – China Leadership – I/L

#### Leadership doesn’t solve anything—zero positive effect on internal politics

Hill 14 (Christopher R. Hill, former US Assistant Secretary of State for East Asia, was US Ambassador to Iraq, South Korea, Macedonia, and Poland, a US special envoy for Kosovo, currently Dean of the Korbel School of International Studies, University of Denver, Project Syndicate, February 21, 2014, "China’s Fear Strategy", http://www.project-syndicate.org/commentary/christopher-r--hill-explains-why-china-has-gone-from-soft-power-juggernaut-to-neighborhood-bully)

DENVER – Not long ago, China was a soft-power juggernaut. Media accounts highlighted Chinese leaders’ thoughtful forays abroad, depicting policymakers that were respectful of others’ opinions, willing to listen, humble to a fault, and reluctant to dispense unsolicited advice. Here was a country that was content to allow its own example of success to speak for itself. Those days are over. Today, China, like many large countries, is allowing its internal political battles to shape how it interacts with the world, especially with neighbors whose sensitivities it seems entirely willing to ignore. (Indeed, with alarm bells sounding throughout the region, the United States’ “pivot to Asia,” widely derided for its clumsy rollout and unintended consequences, now seems wise and prudent.) A country’s historical experience exerts a powerful force on its contemporary behavior, and China is no exception. Since the 1648 Peace of Westphalia, European states, with some notable exceptions, have understood the basic rules of the diplomatic game; moreover, they have had considerable success exporting Westphalian concepts – particularly that of sovereign equality under international law – to many other parts of the globe. China’s legacy is different. Neighbors have not been equals so much as tributary states. Alliances have often been conceived as representing little more than a calculation that “the enemy of my enemy is my friend.” Today, China is widely described in Southeast Asia as a bully, disrespectful of others’ opinions, let alone their interests. Nowhere is this more evident than with the countries surrounding the South China Sea, the lifeblood of maritime Southeast Asia and of China’s northeastern neighbors, Korea and Japan. China seeks to turn the South China Sea into a southern Chinese lake, and has included sovereignty over a disputed group of rocks in the East China Sea among its so-called core interests. Scores of countries around the world have conflicting territorial claims, especially in maritime matters. But most observe a rule that is deeply embedded in international law and custom: claims should be pursued peacefully and by mutual consent. Unilateral assertion of such claims creates tension and increases the threat of violent conflict – often the result of miscalculation or accident. In November, China unilaterally established an Air Defense Identification Zone in the East China Sea. In the South China Sea, it has recently introduced a notification system for fishing. Given China’s assertions of territorial claims, no one is buying its portrayal of these moves as safety procedures; rather, they are seen as part of a cynical exercise in “salami tactics” – gaining de facto sovereignty over disputed territory one slice at a time. It is highly unlikely that China’s leaders are concerned that longstanding claims by Southeast Asian countries like Brunei could soon be realized, or that Chinese claims could be lost to history. Given the extent to which China’s foreign policy is shaped by the pursuit of long-term raw-material supplies – including the South China Sea’s hydrocarbon reserves – could the claims be economic in nature? Perhaps. But another explanation seems at least equally compelling: China’s domestic political tensions. Chinese leaders and strategic thinkers (groups that do not always overlap) often talk of China’s aversion to the disorderliness of democracy. China’s political system, they assure us, is more disciplined and decisive. But all political systems must address conflicting interests, and when the process is carried out in informal channels, infighting can soon devolve into a brawl. And China’s institutions are pitted against one another as never before. The internal security services compete against the military for resources and influence, and both compete against civilian institutions. Moreover, one government agency often has no idea what another is doing. Adjudication of institutional competition sometimes must go all the way to the top, where Chinese leaders struggle to maintain control and balance. Indeed, despite appearances, President Xi Jinping’s reform agenda involves not so much a grand vision of the future – what Xi calls the “Chinese Dream” – as a capacity to navigate the complex political calculations that need to be made to ensure that everyone will be satisfied enough not to rebel. One can only imagine the inbox of problems that he confronts every morning. Above all, Xi must maintain a strong relationship with the security and military bureaucracy. Without their support, he will not succeed in implementing the reforms that China needs in order to avoid the so-called middle-income trap. So he could be doing what leaders everywhere must do: picking his battles and setting his priorities. Moreover, given that nationalism in China often serves as a proxy for popular frustration with the authorities, one can see why the government, not wishing to be outflanked, has not placed Japanese, Filipino, South Korean, or Vietnamese sensitivities among its top priorities. And yet, unless China improves its relations with its neighbors, its international image will continue to take a beating. It could start with a more respectful attitude toward the Association of Southeast Asian Nations. Chinese leaders’ insistence on bilateral negotiations with ASEAN’s members, rather than with the bloc as a whole, has done nothing but fuel anxiety and resentment in the region.

### 1AR – China Leadership – China Soft Power D

#### Chinese soft power fails –tons of alt causes – AND not zero-sum

Nye 12 -- founder of theory of 'soft power,' foundational IR theorist (Joseph, 5/8/2012, "China's Soft Power Deficit," http://online.wsj.com/news/articles/SB10001424052702304451104577389923098678842)

But for all its efforts, China has had a limited return on its investment. A recent BBC poll shows that opinions of China's influence are positive in much of Africa and Latin America, but predominantly negative in the United States, everywhere in Europe, as well as in India, Japan and South Korea. Great powers try to use culture and narrative to create soft power that promotes their national interests, but it's not an easy sell when the message is inconsistent with their domestic realities. As I told the university students, in an Information Age in which credibility is the scarcest resource, the best propaganda is not propaganda. The 2008 Olympics was a success abroad, but shortly afterward China's domestic crackdown on human rights activists undercut its soft-power gains. The Shanghai Expo was also a great success, but it was followed by the jailing of Nobel Peace Laureate Liu Xiaobo. His empty chair at the Oslo ceremony was a powerful symbol. And for all the efforts to turn Xinhua and China Central Television into competitors for CNN and the BBC, there is little international audience for brittle propaganda. Now, in the aftermath of the Middle East revolutions, China is clamping down on the Internet and jailing human rights lawyers, once again torpedoing its soft-power campaign. No amount of propaganda can hide the fact that blind human rights attorney Chen Guangcheng recently sought refuge in the U.S. Embassy in Beijing. Rather than celebrate the heroes of today in civil society, the arts and the private sector, the Communist Party has taken to promoting the greatness of Chinese culture in general and the historical significance of the Middle Kingdom. Pang Zhongying, a former Chinese diplomat who teaches at Renmin University, says this reflects "a poverty of thought" in China today. When Zhang Yimou, the acclaimed director, was asked why his films were always set in the past, he replied that films about contemporary China would be "neutered by the censors." I read the students a recent statement by Ai Weiwei, the acclaimed Chinese artist who's suffered from state harassment. He warned that censorship is undermining creativity. "It's putting this nation behind in the world's competition in the coming decades. You can't create generations just to labor at [electronics manufacturer] Foxconn. Everyone wants an iPhone but it would be impossible to design an iPhone in China because it's not a product; it's an understanding of human nature." Slight waves of nervous laughter swept through the audience when I mentioned Ai Weiwei's name. But from their questions, it seemed that some students agreed with his view that it's not possible for Chinese leaders "to control the Internet unless they shut it off—and they can't live with the consequences of that." After I finished speaking, a party official told the students that the Chinese approach to soft power should focus on culture, not politics. I hope this changes. The development of soft power need not be a zero-sum game. If Chinese soft power increases in the U.S. and vice versa, it will help make conflict less likely. All countries can gain from finding attraction in each others' cultures. But for China to succeed in this, its politics must unleash the talents of its civil society.

#### Impact is about CPP collapse – won’t happen

Heath, Senior Defense and International Analyst – RAND Corporation, 15

(Timothy, “No, China’s Not About to Collapse”, <http://thediplomat.com/2015/03/no-chinas-not-about-to-collapse/>)

The party’s advantages are less often discussed, but these bear reviewing if one is to evaluate the viability of CCP rule. One of the most overlooked, but important, assets is a lack of any credible alternative. The party’s repressive politics prevent the formation of potential candidates, so the alternative to CCP rule for now is anarchy. For a country still traumatized by its historic experience with national breakdown, this grants the party **no small advantage**. To truly imperil its authority, the CCP would need to behave in so damaging a manner as to make the **certainty** of political chaos and economic collapse **preferable** to the continuation of CCP rule. A party that attempted to return to extreme Mao-era policies such as the catastrophic Great Leap Forward could perhaps meet that threshold. But despite the numerous superficial comparisons in Western media, **little** about the current administration policy agenda resembles classic Maoism. The second major political advantage lies in improvements to the party’s effectiveness in recent years. In a major paradigm shift, the CCP redefined itself as a “governing party” whose primary responsibility rests in addressing the myriad economic, political, cultural, ecological, and social welfare demands of the people. It has carried out ideological and political reforms to improve its competence and effectiveness accordingly. The Xi administration has refined, but upheld, the focus on increasing the nation’s standard of living and realizing national revitalization, objectives embodied in the vision of the “Chinese dream.” Although the party has rightly come in for criticism for moving slowly and inadequately on these issues, the policy agenda nevertheless appears to resonate with the majority of Chinese citizens. Independent polls consistently show that the party has in recent years enjoyed surprisingly strong **public support**. When weighing the party’s political liabilities against its assets, therefore, the **evidence** suggests that the CCP faces little danger of imminent collapse. Improvements to its cohesion, competence, and responsiveness, combined with a policy agenda that resonates with most Chinese and the lack of a compelling alternative outweigh the persistent political liabilities. The party’s overall political stability **throughout the 2000s**, despite **massive political unrest** generated by breakneck economic growth, underscores this point. The Insecure CCP If the party does indeed a measure of political support and security, why does it behave in so insecure a manner? This is perhaps the most puzzling aspect of CCP behavior today and a major driver of speculation about the possibilities of political exhaustion and collapse. There is no question that China is experiencing tumult of a degree unusual even for a country habituated to pervasive discontent. Amid the unrelenting anti-corruption drive, officials throughout the country appear to be operating in an atmosphere of pervasive fear and distrust. The intensifying political crackdown against critics, liberal thinkers, and supposedly pernicious, malignant Western influences evoke the paranoid witch-hunts of the Mao era. The oppressive atmosphere and political insecurity (not to mention choking pollution and problems such as toxic water and food) have motivated an astonishing number of China’s elite to seek a way out of the country. While it is tempting to read such behavior as symptomatic of a desperate regime fending off the inevitable, there are reasons to doubt such an interpretation. For one, **signs of systemic breakdown are** hard to find. There is little evidence of the open political warfare that has typified previous periods of political weakness and disarray. For now, at least, the central leadership appears united behind Xi’s policy agenda. The economy continues to grow, with PRC officials anticipating an annual rate at a slowing, but still healthy, 7 percent. Government policy and operations continue without the kinds of abnormal interruptions or breakdowns that one would expect of a nation in serious crisis. A more plausible reading is that China’s leadership is determined to do whatever it takes to achieve national development and establish the conditions for long-term rule. The CCP aims to do this primarily by undertaking political reforms to improve the effectiveness and competence of government administration and by overseeing the sustained growth that can enable a steady increase in the standard of living. These objectives are so important to the party’s long-term survival that the Xi administration has shown a willingness to crush whomever gets in the way, regardless of political party affiliation. The severity of the myriad challenges impeding the realization of these policy objectives deserves emphasis. The old export- and investment-driven model of growth that powered China’s rise for three decades has exhausted itself. Rebalancing the economy to accommodate a greater role for consumer-driven growth remains a politically contentious process that has historically proven extremely difficult and destabilizing for any country. China also continues to face persistent problems of pollution, injustice, corruption, adverse demographics, and other difficulties. Party leaders increasingly recognize that progress on any single issue depends on progress on all issues. A more stable model of economic growth depends on a greater reliance on markets, law-abiding government, and the spending power of educated consumers who will expect more of government. Improvements to the quality of government services, meanwhile, depend in part on access to resources that can only come from sustained growth. Nor can China’s leaders focus exclusively on domestic policy to address these issues. Deep integration with the global economy means domestic growth and stability depends in part on the safeguarding of distant developmental interests and a restructuring of the Asia-Pacific region’s political economy. The centralization of power and focus on **structural, top-down reforms** that have defined the policy agenda of the Xi administration reflect a realistic recognition of the complexity and magnitude of the problems confronting the nation. The Central Leading Group for the Deepening of Comprehensive Reform, National Security Commission, and similar central leading groups design and oversee the systemic policies needed to maintain long-term growth and improve the government’s operations. Many officials and powerful interests stand to lose from these reforms. The anti-corruption campaign, political crackdown on potential critics, and destruction of the careers of thousands of party officials reflects a ruthlessly pragmatic calculation that the sacrifice many party members is a worthwhile price to pay for the greater gains of long term political stability that would come from successful reform. Perhaps it is not coincidental that predictions of the party’s impending collapse have traditionally surged at major inflection points in the history of the PRC. The last major wave of pessimism occurred at the turn of the century, when China also faced economic slowdown, political demoralization, widespread unrest, and bitter factional infighting. The symptoms may have been correctly perceived, but **the prognosis proved** faulty. The party’s adaptation and resilience surprised observers and disproved the gloomy predictions. China has similarly reached a key inflection point, one in which the policy challenges possibly surpass those of the turn of the century.

## DA – Econ

### 1AR – Econ – Link

#### The plan’s impact is negligible; deficits need to be offset; and warming terminally link turns the impact.

**Williams and Wichman 15** – Professor of environmental econ at Maryland, fellow at the NBER; PhD candidate at Maryland in environmental econ

(Roberton and Casey, “Implementing a US Carbon Tax: Challenges and Debates”, pp83-97, Routledge)

\*bracketed for ableist language

In this section, we look at the long-term effects—with "long term" defined based on an economic (not climate) perspective. More specifically, we focus on effects that show up over a sufficiently long timeframe that business-cycle fluctuations — economic expansions and recessions — become relatively unimportant. In more normal eco-nomic times, the longer term would be any time more than a few years into the future, though under current conditions — with an unusually persistent global eco-nomic slump — the longer term may be further off, but it seems safe to say that any time more than a decade into the future could be considered longer term. Over this timeframe, the overall economic effects of a carbon tax are driven primarily by its supply-side impacts: policy-induced changes in the longer-run pro-ductive capacity of the economy resulting from advances in technology or changes in the supply of inputs into production (capital, labor, raw materials, etc.). This point is not unique to a carbon tax. During an economic downturn, productive capacity may be underused (workers may be unemployed, machines may sit idle, etc.), and thus demand-side effects can be highly important in the short run. But over the longer term, the ups and downs of the business cycle **even out**, and the level of economic activity is driven primarily by the productive capacity of the economy. There is a wide variety of metrics used to assess the long-run level of economic activity. Here, we focus on the two most widely used of those metrics: gross domes-ic product (GDP) and economic welfare. GDP measures the total value of goods and services produced within a country. It is directly measured, widely reported, and relatively easy to understand. However, GDP fails to measure the value of most on-market goods and services (that is, goods and services that are not bought and aid), even though they have substantial value) This means that GDP can sometimes be misleading.2 Economic welfare is a much broader measure of how well-off households are, such includes (at least in theory) everything that individuals value — including the market goods and services measured by GDP and all of the non-market goods that GDP omits. This makes it a more complete and more accurate measure of whether a policy truly makes households better or worse off. But it cannot be directly measured (there is no obvious price for non-market goods and services), and it is somewhat more complex, and thus more difficult to explain and to under-stand. In this chapter, we will consider both of these measures, though we focus more on GDP, primarily because it is more familiar for a policy-oriented audience. But one should bear in mind that GDP can be misleading - and in this context, looking at GDP will tend to slightly **overstate the cost of a carbon tax**.) In reviewing these longer-term economic effects, we look first at the effects of the carbon tax itself, then at the effects of potential uses of revenue from the carbon tax, and finally at how the environmental effects of the tax - primarily mitigating potential damage from climate change - could affect the economy. Fossil fuels, and electricity produced from them, are used pervasively throughout the economy, and thus a carbon tax would have widespread effects. Even industries that directly emit little or no carbon dioxide (CO2), such as auto manufacturing, are still affected, because they use as inputs goods produced by other industries that do emit CO2 (e.g., steel). Industries that are formally subject to a carbon tax (e.g., fuel suppliers) can be expected to pass along at least part (and perhaps all) of that tax to consumers of their products. This is part of why a carbon tax is an economically efficient way to reduce carbon emissions: not only do the direct users of fossil fuels have an incentive to reduce emissions, but the pass-through of the tax means that industries and consumers who buy goods that are carbon-intensive in production also have an incentive to shift to less carbon-intensive alternatives (e.g., buying more energy-efficient appliances in order to use less electricity). However, this also means that a carbon tax implicitly acts as a tax on factors of production (primarily labor and capital). Some portion of the tax is "passed backward," lowering wages for labor, returns on capital, and the prices of other inputs in production. Another portion is "passed forward," raising the prices of both consumer and capital goods. Either way, the effect is to lower the real return to those factors of production, thus reducing the incentive to work, save, and invest. This leads to somewhat lower levels of GDP, employment, and other measures of economic activity. For example, Goulder and Halstead (2013) suggest that imposing a carbon tax with an initial rate of 310/tons and rising at 5 percent/year would cause the level of GDP 20 years later to be roughly **0.6 percent** lower than it would have been in the absence of the tax.6 That may sound **bigger than it really is**: keep in mind that it is a difference in GDP levels, whereas we are used to hearing about GDP growth rates. A 0.6 percent difference in GDP levels over 20 years translates to less than a **0.03 percent difference** in average annual GDP growth rates over that time — an effect small enough that it would **be impossible to notice** (though still large enough to significantly influence the overall cost of the policy). Put differently, real GDP in 20 years will be roughly 55 percent higher than today without a carbon tax, versus 54 percent higher than today with a carbon tax. Estimates from other studies (see the end of section 11.13.1) suggest a broadly similar result: a small (though not insignificant) drag on economic growth. It is not surprising that the macroeconomic effects are relatively small, because the energy price impacts of the level of carbon tax considered here are also relatively small: smaller than (sometimes much smaller than) changes in annual energy prices from **market volatility** over the last 10 years. For example, a $20 per ton carbon tax would increase gasoline prices by 18 cents per gallon, but pump prices have varied between $1.60 and $3.60 per gallon; the tax would add about 1.0 cent per kWh to the average price of electricity, but prices have varied between 7.4 and 9.9 cents per kWh; and it would add $0.9 per thousand cubic feet to the price of natural gas, though wellhead prices varied from $2.70 to $8.00 per thousand cubic feet. Moreover, this economic effect could be largely (if not **completely**) **offset** if the revenue from the carbon tax is used in a way that boosts economic activity, as we discuss next. Figure 5.1 shows estimates from seven different studies of the amount of revenue that a carbon tax would raise. The amount of revenue varies, depending on the initial carbon tax rate and how rapidly it rises, but in every case the revenue is sub-stantial and rising over time. And except for the very lowest rate on the graph, the revenue starts at more than $100 billion/year.9 There are many potential uses for this revenue, including some that could significantly boost economic growth. The idea that revenue from an environmental tax could be used to boost eco-nomic activity or economic efficiency has been a key focus of the "double divi-dend" literature in environmental economics. The name comes from the idea that imposing an environmental tax could produce two "dividends": first, a reduction in pollution emissions; and second, a boost in GDP and/or economic efficiency from the use of the environmental tax revenue. We consider three general categories of uses of carbon tax revenue that could potentially boost economic activity: cuts in other taxes (such as payroll taxes or corporate or personal income taxes), reducing the government budget deficit, or financing valuable public spending. 2.8.1. Cuts in other taxes We first look at the effects of using carbon tax revenue to finance cuts in marginal tax rates on capital or labor, with the most obvious candidates being the largest taxes: payroll taxes and corporate and personal income taxes. This option has been studied the most, because it is the easiest pro-growth option to model. The argument for why using carbon tax revenue to pay for cuts in other taxes boosts the economy is straightforward. Cutting corporate income taxes and personal income taxes on capital pins, dividends, and interest increases the incentive to save and invest, thus promoting capital accumulation. Cutting taxes on labor income has a similar effect by boosting incentives to work and to invest in human capital, thus increasing labor supply and labor force productivity. In either case, the result is an increase in the productive capacity of the economy,and thus a long-run boost in the level of economic activity This also corresponds to a boost in economic efficiency, as those tax cuts reduce the tax distortions in labor and capital markets. The general finding in recent studies is that the economic boost from cutting other taxes is enough to offset most — but not quite all — of the economic drag from the carbon tax.' The reason is that shifting taxes off labor and capital and onto carbon reduces the overall efficiency of the tax system a bit (if one ignores environmental benefits), and thus slightly reduces economic activity. From a pure revenue-raising standpoint, broad-based taxes such as income or payroll taxes are more efficient than taxes with narrower bases: the broader the tax base, the harder it is for individuals and firms to alter their behavior in ways that lower their tax payments, and hence the less the tax distorts behavior. A carbon tax is easier to avoid (by shifting to cleaner fuels, improving energy efficiency, driving less, and so on) and thus is less efficient at raising revenue.11 Economic models suggest, therefore, that the net effect of a carbon tax (with revenues used to cut labor/capital taxes) on the overall economy would be slightly negative, though much smaller than the effect of the carbon tax by itself. For exam-ple, Carbone et al. (2013) fords that imposing a carbon tax and using the revenue to fund cuts in taxes on labor still leads to a net reduction in GDP, but that the economic boost from the labor tax cuts offsets more than 80 percent of the effect of the carboh tax itself — so the net reduction in GDP is tiny. Going one step further, there are reasons for believing the tax cut could more than offset the effect of the carbon tax, and thus actually have a slight positive overall effect on GDP. For example, Parry and Williams (2010) take into account the effects of tax preferences — exemptions and deductions (like those for employer medical insurance and owner-occupied housing) that are large and pervasive across the US tax system. These deductions and exclusions narrow the base of income and other taxes, making them less efficient — and thus boosting the economic gain from cut-ting them. As a result, the net effect of the carbon tax shift can be to increase GDP." The prospects for a net gain also depend on what other tax is cut. Most studies find that the biggest economic gains come from cutting taxes on capital, particularly from cutting the corporate income tax rate." The less efficient the tax that gets cut, the bigger the economic gain from cutting it. And the corporate income tax is a particularly inefficient tax. As a result, some models find that imposing a carbon tax and using the revenues to cut taxes on capital can yield a small net gain for the economy. For example, Car-bone et al. (2013) fords that the net effect of a 530/ton carbon tax with the revenues used to cut taxes on capital is to increase GDP by about 1 percent in 20 years. Figure 5.2 displays the estimated effects on the level of GDP resulting from the imposition of a carbon tax, for a total of seven different model runs taken from four different studies. For the most part, these studies show quite similar results, even though they use different models, different modeling assumptions, and somewhat different carbon tax policies. In five cases shown in the graph, the long-term effect on GDP in 2050 is a drop of roughly 0.7 percent relative to a case without a carbon tax (though not accounting for the role of tax preferences which could lower the costs). One oudier is Carbone et al.'s (2013) estimate, just discussed, for the effect of a carbon tax with the revenue recycled to finance cuts in taxes on capital. The other outlier, in the opposite direction, is the NERA (2013) study (per-formed for the National Association of Manufacturers), which estimates that a carbon tax sufficient to reduce carbon emissions by 80 percent would cause GDP to be 3.4 percent lower in 2050 than it would have been without the carbon tax — quite substantial drop. The reason this case is so different is that it represents a much higher carbon tax rate than any of the other studies: the carbon tax rate in that case is approximately $1,000 per ton by 2050 (which might be impractically high). whereas none of the other studies have a rate over $60/ton by 2050.15 The higher the carbon tax rate, the more substantial the effect on the economy, so it is not sur-' prising that such an extremely high rate would have major effects on the economy. 2.8.2. Reduce the federal budget deficit The United States faces substantial fiscal deficits in short-, medium-, and long-term scenarios. While short-run deficits may be desirable and/or necessary because the economy still has a long way to go in recovering from the Great Recession, the outlook for medium- and long-run deficits are **cause for concern** (Gale and Harris, 2011). While the most recent projections from the Congressional Budget Office indicate that the deficit will shrink slightly over the next few years, those projections also indicate that the deficit and the debt-to-GDP ratio are set to rise substantially over the longer term (see Chapter 1). Large government budget deficits can ~~retard [~~hinder] economic growth in a variety of ways."' Government borrowing creates additional demand in capital markets, thus potentially driving up interest rates and crowding out private investment. The need to eventually pay off the debt — or just to pay the interest on it — means that **tax rates will need to rise** in the future, cutting economic growth then (and perhaps also affecting the economy today, as workers and investors anticipate future tax increases). And a larger debt-to-GDP ratio **increases the risk of a debt crisis** — a risk that seems tiny for the United States, though nonetheless worth considering because the potential consequences would be dramatic. Of course, if the government is optimally choosing tax and deficit policy, then the gain from using a dollar to cut the budget deficit will be the same as the gain from using that dollar to cut taxes. But very few observers seem to think that the longer-run path that the deficit is currently on is optimal. If the deficit is larger than optimal, then the benefits of using carbon tax revenue to cut the deficit will exceed those of using that revenue to cut other taxes. Evidence on the effects of using carbon tax revenue to cut the deficit is far sparser than on the effects of using it to cut other taxes, though there are a few recent studies on this." For example, results in Carbone et al. (2013) suggest that over the long term, the economic gain from using carbon tax revenues to reduce the deficit is generally substantially larger than the gain from using those revenues to cut taxes now 18 This result is driven primarily by the effects of higher future taxes because the deficit is currently higher than a long-run sustainable level, future taxes will need to be higher than taxes today. The higher the tax rate, the more harmful a tax increase will be, so it is more efficient to raise additional revenue now (at today's lower rates) than it will be later. The study doesn't fully capture the other effects of deficits (mentioned above), and thus likely understates the gains from deficit reduction.I9 Carbone et al. (2013) also indicate one reason why addressing the budget deficit is so difficult: even though using carbon tax revenues to fund cuts in the deficit leads to substantially larger gains over the long term than using those revenues to fund tax cuts today, today's voters tend to be better off with tax cuts today, whereas those who benefit more from deficit reductions are too young to vote (or not yet born). A third potential pro-growth use for carbon tax revenue would be to fund particu-larly valuable government spending. If the government has set the mix of taxes and spending efficiently, then the gains from funding an additional dollar of spending will equal the gains from a dollar of tax cuts. But again, it is unlikely that the right balance is struck due to lack of information on the benefits of extra spending pro-grams, let alone the influence of constituencies in the determination of spending levels. Relatively few studies model the effects of using environmental tax revenues to fund additional public spending, and vie are not aware of any that go beyond purely theoretical models.20 Moreover, the broader literature on the effects of public spending is also relatively thin. Nonetheless, that literature does give some indica-tions of what types of spending could give a particular boost to longer-term eco-nomic activity. Areas of public spending that stem particularly promising are research, edu-cation, and infrastructure (see Chapter 12 for discussion of the apparently high return from transportation infrastructure). The common thread among these is that they all represent investments that can boost the future productive capacity of the economy. In effect, increasing spending in these areas represents a boost to the stock of capital — but in the form of knowledge, human capital, and public infrastructure, rather than private physical capita1.21 However, because we are going beyond the existing literature on environmen-tal taxes — and because the benefits of public spending are inherently difficult to measure — this section is necessarily quite speculative. Further research in this area could be quite valuable (though also quite difficult). 2.0 Environmental effects on economic growth A third channel through which carbon taxes may affect the economy is via their environmental effects (primarily in mitigating potential damage from climate change, but also reducing emissions of other pollutants). Climate change is pre-dicted to have a wide range of effects that might influence the economy. Climate can directly affect economic productivity, particularly for agriculture. Sea level rise can damage coastal property and/or require defenses to protect it. To the extent that imposing a carbon tax can mitigate those and other effects, it can influence the economy.22 While the impact of environmental quality on economic growth is difficult to model, there is a small body of research addressing this issue. Williams (2002) out-lines the theory behind the relationship between environmental improvements and economic growth. Pollution can reduce productivity, and hence economic activity, for two reasons. The first and more obvious reason is that the lower productivity leads directly to lower economic output. In addition, that lower productivity implies lower returns to labor and capital, and thus reduces incentives to work and to save. In effect, **reduced productivity caused by pollution acts like a tax** (but with the "revenue" simply being lost, rather than going to the government). This change in incentives **magnifies the effect** of pollution on economic activity. Effects on human health can also change incentives to save and invest. Thus, to the extent that a carbon tax reduces future damages from climate change, that could affect the economy. Practical magnitudes of the macroeconomic effects of pollution are difficult to estimate. The leading work in this area is Bar-rage (2013), which uses a simple model of the world economy linked together with a simple model of the climate. The paper considers four different ways in which climate change potentially affects economic growth — via effects on mortality, mor-bidity, labor productivity, and health care expenditures. Its results suggest that cli-mate change could have a significant negative effect on the economy — and thus that mitigating climate change could be beneficial for the economy. Again, future research in this area could be very valuable.

#### The link is a tiny in the big picture – studies with diverse methodologies

Heal 16 (Geoffrey, “WHAT WOULD IT TAKE TO REDUCE US GREENHOUSE GAS EMISSIONS 80% BY 2050?,” National Bureau of Economic Research, Working Paper 22525, August 2016)

There are few other studies with which the results of this paper can be compared. One interesting comparator is Williams et al 2014, which studies the cost and feasibility of attaining the 80% reduction target by 2050. Their methodology is radically different: their study is based on a detailed engineering model of the energy system (PATHWAYS) coupled with an integrated assessment model (GCAM). They study four different scenarios for reaching an 80% emissions reduction: these are based on renewables, nuclear, carbon capture and storage and a mix of all of these. The scenario considered here corresponds roughly to their renewables scenario. Although the methods differ sharply, the conclusions of their study are very similar to those reached here. Decarbonization is feasible, and will cost in their median estimates about 0.8% of GDP, currently about $136 bn. My estimates are from $42.6 to $176 bn, on average slightly less than 1% of current GDP. They also The results of the Deep Decarbonization Pathways Project sponsored by two environmental groups and conducted by Energy and Environmental Economics, Lawrence Berkeley National Laboratory and Pacific Northwest National Laboratory. find that the nuclear route to decarbonization may be less expensive than the renewable root.

#### Low energy prices now shield the impact of a tax on consumers and businesses

Summers 15 (Lawrence H. Summers, Charles W. Eliot University Professor and President Emeritus, Harvard University, Summers has served in a series of senior policy positions in Washington, DC, including the 71st Secretary of the Treasury for President Clinton, Director of the National Economic Council for President Obama and Vice President of Development Economics and Chief Economist of the World Bank, January 2015. “WHY NOW IS THE RIGHT TIME FOR A U.S. CARBON TAX.” http://www.scholarsstrategynetwork.org/brief/why-now-right-time-us-carbon-tax)

Understandably, many people see the recent sharp decline in energy prices as a good thing. With people paying less to heat homes or drive cars, the incomes of many Americans have gone up. They can spend the savings on other things. But here is the problem: lower prices for energy make the problem of overuse of carbon fuels even worse. That means that the benefits of starting a carbon tax now are greater than they would have been even a few months ago – and the arguments usually rolled out in opposition are weaker. Some critics, for example, have maintained that carbon taxes place an unfair burden on some middle-income and low-income consumers – people who have to drive long distances to work, say, or people who live in places with severe winters and have homes that are expensive to heat. True, such people would be hit harder than others by carbon taxes. But right now, these groups have also received a windfall from the drop in energy prices, so it would be possible to impose substantial taxes without making them worse off than they were when paying higher energy prices six months ago. As an example, the price of gasoline has fallen by over $1 per gallon. A $25 a ton tax on carbon that would raise over $1 trillion during the next decade would lift gas prices by only about 25 cents. Drivers would still be well ahead of where they recently were by 75 cents a gallon. Another worry of critics is that taxing fossil fuels might hurt the competitiveness of U.S. industry and encourage offshoring. But in fact a well-designed tax would be levied on the carbon content of all imports coming from countries that did not impose their own carbon levies. U.S. authorities could insist that such a tax is compatible with the rules of the World Trade Organization. That kind of measure would have the virtue of encouraging countries that wished to avoid the American tax to impose carbon taxes of their own, speeding along the international response to climate change. Now is the right time internationally as well as domestically. Leading into the global climate summit scheduled to be held in Paris later this year, a U.S. carbon tax would be a hugely important symbolic step. It would shift the international debate towards ideas for harmonizing the various measures countries can use to raise the price of carbon – and push discussion away from complex cap-and-trade systems. Those systems were in vogue a decade ago, but in Europe and beyond they have proved much more difficult to operate than their proponents expected.

### 1AR – Econ – ! D

#### Peace is always the response to econ decline – 5 warrants

**Clary 15**—PhD in Political Science from MIT and a Postdoctoral Fellow at the Watson Institute for International and Public Affairs at Brown [Christopher, “Economic Stress and International Cooperation: Evidence from International Rivalries,” *MIT Political Science Department*, Research Paper No. 2015-8, p. 4]

Economic crises lead to conciliatory behavior through five primary channels. (1) Economic crises lead to austerity pressures, which in turn incent leaders to search for ways to cut defense expenditures. (2) Economic crises also encourage strategic reassessment, so that leaders can argue to their peers and their publics that defense spending can be arrested without endangering the state. This can lead to threat deflation,

where elites attempt to downplay the seriousness of the threat posed by a former rival. (3) If a state faces multiple threats, economic crises provoke elites to consider threat prioritization, a process that is postponed during periods of economic normalcy. (4) Economic crises increase the political and economic benefit from international economic cooperation. Leaders seek foreign aid, enhanced trade, and increased investment from abroad during periods of economic trouble. This search is made easier if tensions are reduced with historic rivals. (5) Finally, during crises, elites are more prone to select leaders who are perceived as capable of resolving economic difficulties, permitting the emergence of leaders who hold heterodox foreign policy views. Collectively, these mechanisms make it much more likely that a leader will prefer conciliatory policies compared to during periods of economic normalcy. This section reviews this causal logic in greater detail, while also providing historical examples that these mechanisms recur in practice.

#### Robust empirical and theoretical analysis backs up peace theory

Clary 15 – PhD in political science from MIT, MA in national security affairs, postdoctoral fellow, Watson Institute for International Studies, Brown University

(Christopher, “Economic Stress and International Cooperation: Evidence from International Rivalries”, 4/25/15, <http://poseidon01.ssrn.com/delivery.php?ID=719105092024097121124100018083011118038069081083039091121092126090087109098065027066123029119022059121027020065094083094082064017078060077029075100073095001126072113085042032004073009085104092002020027086072104017023079122098123108013079003000082124078&EXT=pdf>, MIT political science department)

Do economic downturns generate pressure for diversionary conflict? Or might downturns encourage austerity and economizing behavior in foreign policy? This paper provides new evidence that economic stress is associated with conciliatory policies between strategic rivals. For states that view each other as military threats, the biggest step possible toward bilateral cooperation is to terminate the rivalry by taking political steps to manage the competition. Drawing on data from 109 distinct rival dyads since 1950, 67 of which terminated, the evidence suggests rivalries were approximately twice as likely to terminate during economic downturns than they were during periods of economic normalcy. This is true controlling for all of the main alternative explanations for peaceful relations between foes (democratic status, nuclear weapons possession, capability imbalance, common enemies, and international systemic changes), as well as many other possible confounding variables. This research questions existing theories claiming that economic downturns are associated with diversionary war, and instead argues that in certain circumstances peace may result from economic troubles.

#### Foster concludes uncertain models and moderation check trump

Foster 16 [Dennis M. Foster, 12-19-2016, "Analysis," Washington Post, https://www.washingtonpost.com/news/monkey-cage/wp/2016/12/19/yes-trump-might-well-go-to-war-to-divert-attention-from-problems-at-home/, accessed 11-3-2019]LHSBC

Of course, predictions from such a model come with a lot of uncertainty. By necessity, any measures of a president’s traits are imperfect. And we do not know whether there will be an economic downturn. Moreover, campaigning is not governing, and the responsibilities of the Oval Office might moderate Donald Trump. The psychologist Philip Tetlock [has found](http://psycnet.apa.org/psycinfo/1982-07667-001) that presidents often become more conceptually complex once they enter office.

## DA – Elections

### 1AR – Elections – UQ

#### Economic models prove the orange will stay in office

Dmitrieva 11/3 [Katia Dmitrieva, 11-3-2019, "Trump’s Re-Election Likely If Economy Stays on Course," Bloomberg, https://www.bloomberg.com/news/articles/2019-11-03/trump-on-course-to-win-2020-re-election-if-economic-models-right, accessed 11-3-2019]LHSBC

An enduring U.S. expansion puts President Donald Trump on course to win re-election in 2020, according to economic models with a track record of predicting who wins the White House.∂ The forecasts from Yale University professor Ray Fair, Oxford Economics Ltd. and Moody’s Analytics Inc. are based on Trump being boosted at the ballot box by steady economic growth, an historically tight labor market and limited inflation.

#### Trump wins 2020. Impeachment energizes Trump’s base – not the opposite because it feeds into right-wing narratives of Trump “being under attack”

Isenstadt 10/1/2019 (Alex Isenstadt. Politico Reporter who writes about politics in Washington. Trump cranks up grievance machine. https://www.politico.com/news/2019/10/01/trump-impeachment-campaign-014183. Accessed 10/6/2019.)//ew

Donald Trump’s campaign aides expected months ago that Democrats would try to impeach the president — and he needed a way to exploit it. So this summer, Trump 2020 officials spliced news clips of Democrats discussing impeachment into a 90-second video montage, punctuated by the president imploring supporters to help him “stop this nonsense.” Aides quietly filed the spot away until last week, when it was released as part of an online counteroffensive to the impeachment push that brought in 50,000-plus new donors and raked in $8.5 million in two days — the campaign’s biggest digital haul since its June launch. The push demonstrates how Trump, in less than three years in office, has perfected a grievance machine that converts deep-seated outrage on the right into fundraising dollars and new support. As Trump confronts the gravest threat to his presidency yet, his campaign is stoking — and monetizing — the anger of a Republican base that has long seen the president as under siege. With damaging revelations about the president’s dealings with Ukraine emerging on a near-daily basis and polls showing increasing support for impeachment, the president is facing serious political peril. But even Democrats acknowledge concern that Trump’s unique ability to rally his supporters and marshal resources could have a profound impact on the 2020 election. Tara McGowan, a Democratic digital strategist who worked for a pro-Hillary Clinton super PAC in 2016, said that Trump’s “ability to very quickly define any event or issue on his terms and energize his base” through online advertising “provides him with a huge competitive advantage over Democrats.” “This approach enables Trump to set the narrative on his terms and paint himself as the iconoclast that is always under attack from the ‘fake news media’ and Democratic ‘witch hunt,’ and it clearly works as they continue to perpetuate it every chance they get,” McGowan added. The Trump team has orchestrated a massive digital campaign aimed at pushing his supporters’ emotional buttons by conveying a singular message: The president is under assault. The campaign spent $1 million on Facebook ads in the span of 72 hours last week, asking for supporters to donate and become leaders “in defending the president against these baseless and disgusting attacks.” Trump 2020 also sent out 65 million emails and 12 million text messages asking small-dollar donors to help combat “hateful and baseless attacks.” The approach has been heavily shaped by Trump campaign manager Brad Parscale. With 24-hour cable news stations airing near-constant coverage of impeachment, Parscale has privately compared the campaign to a marketing machine that is setting its own narrative. Trump has spent years priming his supporters to see him as under attack, and aides say their fundraising is typically at its highest when he’s perceived as in danger. The campaign, for example, raised $1 million in the 24 hours following the release of former special counsel Robert Mueller’s investigation into Russian interference in the 2016 election. But the threat of impeachment, Trump allies say, has turbocharged giving. “When you’re under attack, your supporters are more engaged and that’s the general position [of the campaign’s messaging] — that ‘We’re under siege,’ and ‘We need your help,' and ‘This is ridiculous,’ and ‘Let’s fight back,’” said Gerrit Lansing, who serves as president of WinRed, the online donation processor used by the Trump campaign. “And that’s a powerful message.”

### 1AR – Elections – Alt Causes

#### 11 other key issues thump the adv

Prri Staff 10/20 [Prri Staff, 10-20-2019, "Fractured Nation: Widening Partisan Polarization and Key Issues in 2020 Presidential Elections," PRRI, https://www.prri.org/research/fractured-nation-widening-partisan-polarization-and-key-issues-in-2020-presidential-elections/, accessed 10-31-2019]LHSBC

Among 12 major political issues, Americans are most likely to rate health care (65%) as a critical issue. A majority (54%) of Americans also say terrorism is a critical issue. Just under half feel similarly about climate change (49%), immigration (49%), and the fairness of presidential elections (48%). More than four in ten Americans consider foreign interference in presidential elections (46%), crime (45%), jobs and employment (45%), and race relations (44%) to be critical issues as well. Americans are less likely to regard the federal deficit (40%), the gap between the rich and the poor (38%), and trade agreements with other countries (35%) as critical.

### 1AR – Elections – Prolif ! D

#### Proliferation deters war

DeGarmo ’11 (Denise DeGarmo, professor of international relations at Southern Illinois University, “Nuclear Proliferation Leads to Peace,” August, http://www.policymic.com/articles/nuclear-proliferation-leads-to-peace)//SQR

Obama’s declaration appeared momentous and it re-sparked debate on the issue of non-proliferation, but evidence suggests that rather than eliminating all nuclear weaponood genric two K one with IR and one with s, nuclear proliferation brings about more peace. After Obama's speech, non-proliferation organizations, such as The Nuclear Age Peace Foundation, immediately launched a series of campaigns promoting nuclear disarmament. These groups played upon the irrational fears of the public to gain support for their goals and objectives. As a result of their rhetoric, segments of the American population are convinced that more nuclear weapons across the globe will certainly lead to nuclear annihilation. Nuclear proliferation will lead to the acquisition of this deadly technology by irrational and irresponsible states or worse yet, terrorists, who are less capable of self-control. Therefore, nuclear proliferation is not an option for a secure world. Unfortunately, while the fear of proliferation is pervasive, it is unfounded and lacks an understanding of the evidence. Nuclear proliferation has been slow. From 1945 to 1970, only six countries acquired nuclear weapons: United States, Russia, United Kingdom, France, China, and Israel. Since the Nuclear Non-Proliferation Treaty came into effect in 1970, only three countries have joined the nuclear club: India, Pakistan, and North Korea. In total, only .05% of the world’s states have nuclear weapons in their possession. Supporters of non-proliferation seem to overlook the fact that there are states currently capable of making nuclear weapons and have chosen not to construct them, which illustrates the seriousness with which states consider their entrance into the nuclear club. Included on this list are such actors as: Japan, Argentina, Brazil, Egypt, Iran, South Korea, Taiwan, and South Africa. The attraction of nuclear weapons is multifold. Nuclear weapons enhance the international status of states that possess them and help insecure states feel more secure. States also seek nuclear capabilities for offensive purposes. It is important to point out that while nuclear weapons have spread very slowly, conventional weapons have proliferated exponentially across the globe. The wars of the 21st century are being fought in the peripheral regions of the globe that are undergoing conventional weapons proliferation. What the pundits of non-proliferation forget to mention are the many lessons that are learned from the nuclear world. Nuclear weapons provide stability just as they did during the Cold War era. The fear of Mutual Assured Destruction (MAD) loomed heavily on the minds of nuclear powers through out the Cold War and continues to be an important consideration for nuclear states today. States do not strike first unless they are assured of a military victory, and the probability of a military victory is diminished by fear that their actions would prompt a swift retaliation by other states. In other words, states with nuclear weapons are deterred by another state’s second-strike capabilities. During the Cold War, the United States and Soviet Union could not destroy enough of the other’s massive arsenal of nuclear weapons to make a retaliatory strike bearable. Even the prospect of a small number of nuclear weapons being placed in Cuba by the Soviets had a great deterrent effect on the United States. Nothing can be done with nuclear weapons other than to use them for deterrent purposes. If deterrence works reliably, as it has done over the past 60 plus years, then there is less to be feared from nuclear proliferation than there is from convention warfare. Despite Obama’s commitment to a nuclear free world, he seems to understand the importance of possessing nuclear weapons. His recommended budget for nuclear weapons spending in 2011 calls for a full 10% increase in nuclear weapons spending.

### 1AR – Elections – Trump Heg

#### Trump’s unique hegemony and foreign policy deters all war – sets great powers off balance and emboldens regional allies

Twining 4/18 (Daniel, Counselor and Asia Director at the German Marshall Fund of the United States. As director of the Asia Program, he leads a 15-member team working on the rise of Asia and its implications for the West through a program of convening and research spanning East, South, and Southeast Asia. Dr. Twining previously served as a Member of the U.S. Secretary of State’s Policy Planning Staff, as the Foreign Policy Advisor to U.S. Senator John McCain, and as a staff member of the U.S. Trade Representative. He is an Associate of the U.S. National Intelligence Council, has taught at Georgetown University, and served as a military instructor associated with the Naval Postgraduate School. He holds a BA with Highest Distinction from the University of Virginia and MPhil & DPhil degrees from Oxford University, where he was the Fulbright/Oxford Scholar from 2004-07. He writes regular columns for Nikkei and Foreign Policy and has served as an advisor to six presidential campaigns. foreignpolicy.com/2017/04/18/trump-might-be-a-traditional-president-after-all/)LH

Trump may seem an odd champion of some of these causes. But his national security Cabinet, which now seems to be finding its feet, is in keeping with American foreign-policy traditions. In international affairs, Trump relies on two of the leading general officers of their generation, James Mattis and H.R. McMaster; a pillar of America’s globalist-corporate establishment, former ExxonMobil CEO Rex Tillerson; and the former president of Goldman Sachs, Gary Cohn, who has led a so-far-successful effort to check the mercantilist instincts of White House advisers Steve Bannon and Peter Navarro. The internationalists have an ally in Jared Kushner, Trump’s son-in-law and key adviser, who takes a pragmatic view of U.S. policy priorities. For all the focus on Trump’s personality, his unorthodox presidency may yield a more traditional focus on deploying American power for broader ends. Obama decried American exceptionalism, emphasized “nation-building at home,” and pursued a dedicated policy of retracting American power from pivotal theaters like the Middle East, enabling revisionist regional powers to go on the offensive. He did not do enough as the humanitarian tragedy of Syria played out in slow motion, destabilizing not only the Middle East but also Europe, dividing and weakening Washington’s closest ally in world affairs. His rhetorical “pivot” to Asia left U.S. allies wanting more American presence and leadership than they got. Trump remains at odds with much of Washington’s bipartisan foreign-policy establishment. He has yet to embrace the trade leadership that makes the world’s biggest economy more competitive and dynamic, and Americans more prosperous. But his willingness to employ limited military force — including ramping up military action against the Islamic State in Syria and Afghanistan — and to stand up to the regional power plays of revisionist states, creates opportunities to more effectively manage complex conflicts, from the Levant to the Korean Peninsula. It is telling that a modest set of missile strikes against a remote Syrian airbase represents the boldest use of American military power against the murderous regime of Syrian President Bashar al-Assad. It is also telling that the tangible threat of U.S. military action against North Korea is on the table after eight years of a policy the Obama administration termed “strategic patience,” which created a window of opportunity that Pyongyang used to continue to perfect its intercontinental ballistic missiles and nuclear weapons programs while America looked away. Even China and Russia look off-balance after early fears in Washington that an inexperienced president would appease the leaders of these countries. Chinese President Xi Jinping came to Trump’s Mar-a-Lago estate bearing concessions designed to fend off an American trade war. At their inaugural summit, Trump was clear with Xi that the quality of U.S.-China relations would be tied to Beijing’s cooperation in tightening economic pressure on North Korea. Having secured strategic gains during the Obama presidency, and given the five-year leadership plenum approaching this fall, Xi would be wise to exercise strategic restraint during Trump’s first term, and demonstrate China’s utility by tightening the pressure on its ally North Korea to deter further nuclear tests. Given that Trump wants to manage trade with what he sees as a mercantilist superpower that does not play by the rules, China would also be prudent to pursue the kind of voluntary export restraint agreements that Japan struck with the Ronald Reagan administration in the 1980s, when trade frictions with Tokyo peaked. Trump’s threat to use trade barriers as leverage to move China to assume a tougher posture with its client in Pyongyang clearly has gotten Beijing’s attention and may even yield dividends. Ironically, Trump is likely to be the first American president since the end of the Cold War not to pursue a “reset” in relations with Russia. The ongoing investigations into the Trump campaign’s dealings with Russian agents of influence severely restrict the ability of this administration to pursue any kind of improvement in relations with a regime that invades democratic neighbors, threatens NATO allies with nuclear attack, attempts as a matter of state policy to subvert Western elections, and murders political opponents. Indeed, the mounting domestic opposition to Russian President Vladimir Putin’s autocratic rule — as manifested in popular protests in cities across Russia — creates a new pressure point that the United States could leverage through a heightened force posture in Europe and more robust campaign for Russia to conform to international law by severing dealings with the outlaw Syrian regime. As Tillerson pointed out on his way to Moscow to meet Putin, Assad has become a liability rather than an asset to Russia’s geopolitical ambitions. The Trump administration is still in its first 100 days. It has not been subjected to the kind of international crisis that tests every administration, and which will call into question not only its statecraft but the judgment of the commander-in-chief. There remain reasons to be concerned, particularly about the administration’s trade agenda. But anxious allies are breathing a sigh of relief that American power is back as a force to be reckoned with in a dangerous world, after what many see as Obama’s abdication of the U.S. role as global guarantor and following a political campaign in which America was presented as a victim of globalization rather than as its engine. In Asia in particular, friends of the United States seek a robust commitment to U.S. military and diplomatic leadership as well as skill in stewarding the pivotal U.S.-China relationship in ways that preclude both condominium and conflict. North Korea poses a harder test than Syria: Asian allies will want to see that the Trump administration is as adept at diplomacy on the Korean Peninsula as it is at projecting military power in the Middle East. The White House will also need to be willing to risk an increase in tensions with Beijing by imposing secondary sanctions on Chinese banks and businesses that are the lifeline of the North Korean economy.

## DA – Energy Independence

### 1AR –

### 1AR – Energy Independence – ! D

## DA – Energy Poverty

### 1AR – Energy Poverty – UQ

#### Global energy poverty inevitable – population growth

Marianne **Lavelle**, 5/29/**2013**, National Geographic, "Five surprising facts about energy poverty," <http://news.nationalgeographic.com/news/energy/2013/05/130529-surprising-facts-about-energy-poverty/>

**Huge Progress Undercut by Population Growth**. **The effort to tackle energy poverty may look as if it has been at a standstill because estimates of the number of people without electricity have barely changed for years**. In fact, electricity has been extended to 1.7 billion more people between 1990 and 2010, and 1.6 billion people gained access to cleaner cooking fuels. But world population grew 1.6 billion over that same period, with high growth in regions with poor energy access—a problem concentrated in about 20 countries in Asia and Africa. **The World Bank report said the pace of expansion would have to double to meet the 100 percent energy access target by 2030**.

### 1AR – Energy Poverty – Link

#### Energy poverty is high now – energy infrastructure like the plan is key to solve

**Bradbrook and Graham 2006** (“Placing Access to Energy Services within a Human Rights Framework,” Human Rights Quarterly, 28.2, Muse,SD)

While **energy** is a multifaceted issue and needs a coordinated international response on many fronts, **the issue that has attracted most the attention recently has been the need to provide universal access to modern energy services**. **This is** something that **is taken for granted in developed countries**, which perhaps explains the tardiness of the world community in coming to grips with the issue. Somewhat belatedly, **the link between poverty and the lack of access to modern energy services has been recognized**, because **without access to energy services, people are destined to live in povert**y.3 The provision of such services many decades ago was the major factor lifting the standard of development in developed countries and is a key ingredient to providing a sustainable way of living for all the world’s population. **The magnitude of the challenge is apparent from the fact that approximately two billion people, one-third of the world’s population, lack access to electricity supplies**. **Traditional energy sources principally include locally collected and unprocessed biofuels, such as animal dung, wood, and crop residues.**4 Between 1970 and 1990, rural electrification programs in some countries, particularly in China, connected 800 million people to the electricity grid and provided 500 million with better cooking facilities. But the number without access to modern energy services remains at two billion as a result of increases in population.5 Consequently, **the majority of the population of developing countries does not have electric lighting**; **clean cooking facilities**; **modern, efficient, and nonpolluting fuel supplies; or** adequate **clean water and sanitation systems**6 that those in the developed countries take for granted. The former must rely on traditional energy sources for their basic needs, such as cooking.7 **The lack of access to modern energy services constrains the ability of the population of developing countries to benefit from opportunities for economic development and increased living standard**s.8 Ironically, but importantly in terms of future planning, **the amount of energy required to lift people out of poverty is extremely small by the standards of developed countrie**s. It has been estimated that each person needs the energy equivalent of only 100 watts of electricity to meet their most basic energy needs.9 While there may be some scope to develop new and to extend existing electricity grid systems in developing countries, it is anticipated that in most cases access to electricity services would be provided by stand-alone systems based on renewable energy resources.10

### 1AR – Energy Poverty – Renewables

#### Cooperation on renewable energy solves “energy poverty” and promotes sustainable development – action spills over to other countries by scaling up successful initiatives and reducing the cost of technology

**U.N.I.D.O.**, 10/7/**2009**, (United Nations Industrial Development Organization), "Mexico Forum: renewable energies key to solving developing world's energy poverty, sustainable development," <http://www.unido.org/index.php?id=7881&tx_ttnews%5btt_news%5d=410&cHash=77956b5b5e>

**Swift global action is needed to address energy poverty in the developing world, and renewable energies should be part of the planet’s sustainable future** and sustainable industrial development, said participants at an international Forum in León which was opened today by President Felipe Calderón.¶ The three-day Global Renewable Energy Forum was organized by the Mexican Ministry of Energy (SENER) and the United Nations Industrial Development Organization (UNIDO). It brought together over 1000 participants from different parts of the world, including representatives of governments, international organizations, academia, civil society, and the private sector.¶ “The level of energy poverty in the developing world is unacceptable and requires focused global action. Renewable energies are an inescapable part of our planet’s sustainable future and sustainable industrial development,” said UNIDO Director-General, Kandeh K. Yumkella.¶ “The technology to change the situation exists, the money exists, the needs of the people are clear. **Attacking this issue needs a focused approach with myriad benefits to development, equity, peace and security**. **Renewable energy should be the foundation and driving force of these efforts.**”¶ The world's 20 largest cities with a population over 10 million each use up 75 per cent of the planet's energy**. By 2030, worldwide energy consumption is projected to grow 44 per cent. Yet some 1.6 billion people in the developing world still have no access to electricity**, and one-fifth of the world population lacks access to electricity, thermal energy for heat and cooking, and mechanical power for productive uses.¶ The UNIDO Director-General commended President Calderón’s role in promoting green economic activities in the Latin American and Caribbean region, saying that environmental initiatives will help “seal the deal” at the Copenhagen Summit in December. “A deal in Copenhagen would provide a framework for refining and redirecting energy markets towards low-carbon solutions. The world is moving to an energy-efficient and low-carbon growth path. This is a fact,” he added.¶ **Participants called for coordinated action on energy** and related issues – climate change and poverty **- and pointed to the need to scale up successful small-size renewable energy projects and programmes**. **They also said it was important to increase the competitiveness of industries by reducing industrial energy intensity, to slash the impact on the climate system by reducing the carbon emissions of industries and by promoting renewable energy technologies, and to increase the viability of enterprises, particularly in rural areas, by augmenting the availability of renewable energy for productive uses**.¶ “**It is possible to have sustainable development without slowing down economic growth or reducing the quality of life**. This would need to be underpinned by smart energy policies and practices and substantively changed production and consumption patterns. We must produce more with less material and energy intensities and consume less of our non-renewable resources,” said Yumkella.

## DA – EPA

### 1AR – EPA – NQ

#### Tons of other regs – takes out DA

Epstein 16 (Alex Epstein is the director of the Center for Industrial Progress, Center for Industrial Progress, 4/6/2016, “How Republicans Can Make Energy a Winning Issue in 2016”, http://industrialprogress.com/how-to-make-energy-a-winning-issue-for-republicans-in-2016/)

The 2016 elections will have an enormous impact the future of energy in this country and around the world. The Obama administration has set in motion a combination of executive orders and international agreements aiming to drastically restrict national and global use of fossil fuels–a policy I believe would be highly damaging to our economy and catastrophic for billions of people who need fossil fuels to rise out of poverty. The Congress and above all the President we elect this year can turn that around–or they can entrench it. While I rarely think along party lines, on the issue of energy freedom and energy progress most Republicans are dramatically better than most Democrats. Thus, I would like to share with Republicans–and any pro-fossil fuel Democrats–some thoughts on energy messaging in the 2016 election. Proactive and overwhelming—the Democrats’ winning position on energy issues The essential dynamic of the debate over energy policy is that Democrats proactively promote an overwhelming number of policy initiatives and the Republicans reactively wage a defensive battle on each one, usually unsuccessfully. Consider the following ongoing policy battles: the Clean Power Plan, methane regulations, fracking bans, ozone regulations, pipeline blocking, new pipeline regulations, new train regulations, renewable fuel standards, wind production tax credit, solar subsidies, CAFE standards, green building standards, energy efficiency mandates, “green jobs” schemes. All of these policy initiatives were initiated by Democrats, and Democrats are winning on most of them. Even when they “lose,” it doesn’t change the trajectory; Democrats have an unlimited supply of new anti-development, anti-freedom initiatives to propose if the old ones fail. Witness the short-lived “victory” of blocking a particular anti-fossil fuel proposal (cap-and-trade) being followed by a host of Executive Orders and international agreements to accomplish the same goal. Since the Democrats make all the proposals and the Republicans react, Democrats control the direction of energy policy—against development and freedom, particularly the development of our most important form of energy, fossil fuels.

### 1AR – EPA – Chemical ! D

#### Alt cause to chemical- laundry list

Swift 12 -- American Chemistry Council chief economist and managing director

(Thomas, "What Will 2012 Bring?" 1-13-12, www.chemicalprocessing.com/articles/2012/what-will-2012-bring/?show=all, accessed 9-22-12)

A two-speed manufacturing sector, with about one-half of industries soft and others doing well, has emerged. The boom in oil and **gas** is creating opportunities both on the demand side (e.g., for pipe and oilfield machinery) and the supply side (e.g., for chemicals, fertilizers and direct iron reduction). There's strength in light vehicles and aircraft as well as in industries involved with business investment (iron and steel, foundries, computers, etc.), and a recovery in construction materials. Elsewhere, structural issues are **sapping dynamism** in a number of industries (textiles, paper, printing, etc.). Forward momentum **depends** up**on** demand for consumer goods, which ultimately drives factory output. However, weakening foreign demand (chemicals are early on in supply chain and exports to Europe have evaporated) presents challenges for the manufacturing sectors. Balance sheets are strong and lower raw material costs have benefited manufacturers. **Nonetheless**, an uncertain business and regulatory environment is constraining business optimism — and hiring. Light vehicles represent an important market for chemicals (nearly $3,000 per vehicle), and production has experienced temporary disruptions from the disaster in Japan. US light vehicle sales should rise to 13.5 million units in 2012 as pent-up demand fosters growth. Sales will improve even further during 2013, exceeding 14.5 million units then. However, housing, the other large consumer of chemicals (over $15,000 per start), faces ongoing challenges. New homebuilding remains depressed as foreclosures continue to flood inventories. Only a minor gain in housing starts should occur in 2012 and the recovery in this sector will be quite slow. Housing activity should begin to stir in 2013. It remains well below the previous peak of 2.07 million units in 2005 and below the long-term underlying demand of 1.5 million units per year as suggested by demographics and replacement needs. Unfortunately, today's massive housing inventory will delay a full recovery until later this decade.

#### Chemical industry resilient

KPMG 12 ("Commercialization Of Shale Gas Points To Unprecedentedly Bright Outlook For U.S. Chemical Industry: KPMG Report," 6-27-12, www.kpmg.com/us/en/issuesandinsights/articlespublications/press-releases/pages/commercialization-of-shale-gas-points-to-unprecedentedly-bright-outlook-for-u-s-chemical-industry-kpmg-report.aspx, accessed 9-22-12)

Efficient, Cash-strong companies eyeing Mergers & Acquisitions for Growth

Chemical companies have spent much of the past four years examining a range of other cost cutting measures within the organization. This cost cutting and operating efficiency combined with the impact of cheap gas feedstock has driven profitability and cash generation across the industry. The environment of economic uncertainty and a strong desire to achieve financial flexibility in the face of continued market turbulence has led many of the top U.S. chemical companies to **build** up **significant war chests and financial reserves** that are now being cracked open to enhance shareholder value and take advantage of synergies in the market.

## DA – Fracking Good

### 1AR – Fracking – I/L D

#### Aff doesn’t kill energy dependence—shift to renewables is able to solve better long term and in the interim, nuclear fills the gap---that’s Kaufman.

### 1AR – Fracking – A/O

#### Fracking is singlehandedly responsible for the demise of the renewable movement – ending fracking forces a shift to renewables

MDN citing Nestlerode 11 [(Daniel, Previous Director of Research and Portfolio Management at Nestlerode & Loy Investment Advisors in State College) “Has Fracking Killed the Renewable Energy Movement?” Marcellus Drilling News December 6, 2011] TDI

It is no surprise that those who rabidly oppose shale gas drilling in general, and hydraulic fracturing in particular, do so for one primary reason: it threatens renewable energy. In fact, MDN would go so far as to say hydraulic fracturing has single-handedly destroyed the renewable energy movement, and the greenies have brought out the long knives in response.

A column by Dan Nestlerode on StateCollege.com calls attention to just how fundamental, and dramatic, a shift has taken place in the last few years, a shift that spells the end of the green/renewable energy movement.

Very quietly and without any political fanfare, the United States became a net energy exporter in the last calendar quarter.

In historical context, this event essentially ends the calls for a national energy policy, the green alternatives and the potential for shortages derived from price controls. Those of you who remember the lines at your local filling station in the mid-1970s will recall what I am talking about.

This event came about not as the result of a coherent political energy policy or the rise of renewables of all kinds – wind, solar, biomass and ethanol, for example. It is the direct result of the application of technology devised, inspired and developed by America’s energy companies, namely Mitchell Energy, among others. This development was not seeded by the Department of Energy (Think of bankrupt Solyndra, for example), nor politically assisted. It came about because of the vision of one individual who doggedly persisted in finding the methods and ways to develop the naturally occurring oil and gas shale formations in Texas.

The success in the Barnett Shale in Texas led to the application of the technology to the Bakken formation in the Dakotas (oil shale) and the Marcellus Shale (natural gas) in the eastern United States, as well, and a number of other energy shale formations. The development was spurred by the high prices of energy over the past few years and the notion that we have reached peak fossil-fuel-energy output.

High prices and potential shortages of fuels — as well as disruptions caused by hurricanes, equipment and process failures in the Gulf, and terrorist activities — pushed development into high gear. Now we have more oil in the United States (indeed North America) and natural gas coming to market than anyone believed was possible just a few years ago.

What does all this mean? The push for green energy is on its last legs again, just like in the Carter administration 40-some years ago. We are already seeing the demise of a number of solar companies bitten by price-cutting from subsidized Chinese energy companies and the coming end of financial support from various states and the federal government.\*

## DA – Federalism

### 1AR – Federalism – Link

#### They have no spillover evidence about a carbon tax – yes the plan might deck environmental federalism but it doesn’t deck other ares of federalism. The disad is missing a crucial internal link that they haven’t justified

#### Federalism’s resilient

**Rodriguez 14 –** Professor of Law @ Yale Law School [Christina M. Rodriguez, “Negotiating Conflict Through Federalism: Institutional and Popular Perspectives,” Yale Law Journal, Vol. 124, (2014) p. 2094

Though pursuit of their interests by each player may often lead to conflict, particularly over which institutions should control any given policy domain, I argue that the value of the system common to all of its participants is the framework it creates for the **ongoing negotiation** of disagreements large and small—a value that requires regular attention by all participants to the integrity of federalism’s institutions. It is in this sense that I think federalism constitutes a framework for national integration, in the spirit of this Feature. It creates a multiplicity of institutions with lawmaking power through which to develop national consensus, while establishing a system of government that allows for meaningful expressions of disagreement when consensus fractures or proves¶ elusive—a value that transcends perspective. In what follows, I attempt to establish these conclusions by considering how the negotiations required by federalism have structured our national debates over a number of pressing social welfare issues, including immigration, marriage equality, drug policy, education and health care reform, and law enforcement. I focus on how these debates play out in what I call the **discretionary spaces of federalism**, which consist of the policy conversations¶ and bureaucratic negotiations that actors within the system must have to figure¶ out how to interact with one another both vertically and horizontally. Indeed, within existing legal constraints, state and local actors will have considerable room to maneuver, and the federal government considerable discretion to¶ refrain from taking preemptive action. 2 I highlight questions of administration and enforcement, because it is in these domains that the system’s actors construct one another’s powers and interests on an ongoing basis, based on the value they seek to derive from the system. In these discretionary spaces, “**winners” must sometimes emerge** from discrete conflicts, whether through judicial resolution or political concession, and the parameters set by courts and Congress obviously define the terrain of negotiation. But the intergovernmental relationships and overlapping political communities the system creates are **neither locked in zero-sum competition nor bound by fixed rules of engagement**, precisely what makes federalism productive regardless of perspective. pg. 2097-2098

#### Trump’s vehicle emissions override thumps the link – he already stepped over state authority.

Eilperin And Dennis 9/17 [Juliet Eilperin And Brady Dennis, 9-17-2019, "Trump administration to revoke California’s power to set stricter auto emissions standards," Washington Post, https://www.washingtonpost.com/climate-environment/trump-administration-to-revoke-californias-power-to-set-stricter-auto-emissions-standards/2019/09/17/79af2ee0-d97b-11e9-a688-303693fb4b0b\_story.html, accessed 10-31-2019]LHSBC

The Trump administration plans this week to revoke California’s long-standing right to set stricter air pollution standards for cars and light trucks, the latest step in a broad campaign to undermine Obama-era policies aimed at cutting greenhouse gas emissions to combat climate change, two senior administration officials said.∂ The move threatens to set in motion a massive legal battle between California and the federal government, plunge automakers into a prolonged period of uncertainty and create turmoil in the nation’s auto market.∂ The Environmental Protection Agency declined to comment on the matter. But in a speech Tuesday to the National Automobile Dealers Association, EPA Administrator Andrew Wheeler made his intentions clear.∂ “We embrace federalism and the role of the states, but federalism does not mean that one state can dictate standards for the nation,” he said.∂ Scientists say that as global warming nears an irreversible level, the president has been promoting business growth, not climate fixes. (Jenny Starrs/The Washington Post)∂ Already, 13 states and the District of Columbia have vowed to adopt California’s standards if they diverge from the federal government’s, as have several major automakers. California leaders on Tuesday said they will fight any challenge to their autonomy.∂ “While the White House has abdicated its responsibility to the rest of the world on cutting emissions and fighting global warming, California has stepped up,” Gov. Gavin Newsom (D) said. “It’s a move that could have devastating consequences for our kids’ health and the air we breathe, if California were to roll over. But we will not.”∂ Echoing the governor, state Attorney General Xavier Becerra, who has sued the Trump administration on a range of issues, vowed to head back to court, saying California’s clean car standards are “achievable, science-based, and a boon for hard-working American families and public health.”∂ The official announcement had been scheduled for Wednesday, during President Trump’s trip to California, but after the news broke Tuesday, the administration postponed the policy rollout by at least a day.∂ Trump’s move is likely to be unpopular nationwide and in California, with Americans widely supportive of stricter fuel efficiency standards. A Washington Post-Kaiser Family Foundation poll released Friday found 66 percent of Americans oppose Trump’s plan to freeze fuel efficiency standards rather than enforce the Obama administration’s targets for 2025.∂ A nearly identical 67 percent majority says they support state governments setting stricter fuel efficiency targets than the federal government.∂ Among Californians, the survey found 68 percent oppose Trump’s relaxation of mileage standards, while 61 percent support California’s stricter standards.∂ Emissions from transportation, including cars and trucks, are the largest single source of greenhouse gases in the United States. The standoff began last year, when the EPA and Transportation Department proposed taking away California’s waiver as part of a rule that would freeze mileage standards for these vehicles at roughly 37 miles per gallon from 2020 to 2026. The Obama-era standards had required these fleets to average nearly 51 mpg by model year 2025.∂ In July, California forged an agreement with four companies — Ford, Honda, Volkswagen and BMW of North America — under which they pledged to produce fleets averaging nearly 50 mpg by model year 2026. The Justice Department has opened an inquiry into whether the accord violated antitrust law.∂ One of the central arguments in the White House’s proposal is that the 1975 Energy Policy and Conservation Act gives only the federal government the right to set fuel standards, said the two senior administration officials, who spoke on the condition of anonymity because the announcement was not yet public.∂ By seeking to strip California of its autonomy, Trump officials are forcing auto companies to choose whether they will side with the state or with the federal government. As part of July’s deal with the California Air Resources Board, the four carmakers agreed to support the state’s right to set its own tailpipe standards.∂ Environmentalists promised to join California in its legal opposition.∂ “There’s nothing in the Clean Air Act or EPA regulations providing for this unprecedented action,” Martha Roberts, a senior attorney at the Environmental Defense Fund, said in an interview. “The legislative history is explicit about broad authority for California. This is very well established legal authority that’s firmly anchored in the Clean Air Act.”∂ Marlo Lewis, a senior fellow at the conservative Competitive Enterprise Institute, predicted in an interview that the move actually could make it easier for automakers to embrace the White House’s proposed rollback of gas mileage standards.∂ “The only reason the automakers are not on board with Trump is because they’re afraid of the retaliation from California if Trump loses,” Lewis said.∂ It is unclear who would prevail in a legal fight over California’s waiver. The state’s air regulators have consistently argued that they are limiting carbon dioxide emissions from vehicles, rather than overtly setting mileage standards.∂ Margo Oge, who directed the EPA’s Office of Transportation and Air Quality from 1994 to 2012, said in an interview that California can make a strong case that it needs to curb these pollutants because climate change worsens ozone, which helps create smog.∂ “California has demonstrated that by getting a greenhouse gas emissions waiver, it can also reduce ozone pollution, because the data is very strong,” she said.∂ But even Obama administration officials acknowledged that efforts to curb CO2 emissions from autos are inextricably linked to stricter mileage standards. The [2010 rule](https://www.govinfo.gov/content/pkg/FR-2010-05-07/pdf/2010-8159.pdf) published by EPA and the National Highway Traffic Safety Administration noted that nearly 95 percent of emissions from cars and light trucks stem from motor fuel combustion.∂ Auto industry officials said they continue to hope that federal and state officials can compromise on a single national standard, despite no evidence of a deal in sight.∂ “Automakers have said many times that we support year-over-year increases in fuel economy standards that align with marketplace realities,” said Gloria Bergquist, a spokeswoman for the Alliance of Automobile Manufacturers, “and we support one national program as the best path to preserve good auto jobs and keep new vehicles affordable for more Americans.”∂ In an interview with The Post last week, Wheeler said the Trump administration plans to separately finalize scaled-back mileage standards for the nation’s autos by the end of the year. He said he remained optimistic that the industry would embrace the latest version of the rollback. “I’m still hopeful that people will see that the changes we made from the proposal to the final [rule], that everyone would get on board and be supportive of what we’re doing,” Wheeler said.∂ California’s long-standing ability to write its own emissions standards has seldom been questioned in Washington. In part, that’s because of the history that led to the state’s unique authority.

## DA – Grid Energy

### 1AR – Grid – Link Turn

**Grids will collapse---coming sea level rise and stronger storms---green tech is key to resiliency**

**McNamara et al 15** - Julie McNamara is an energy research associate in the UCS Climate and Energy Program. Steven Clemmer is director of energy and analysis for the program. Kristina Dahl is a climate scientist and consultant to UCS. Erika Spanger-Siegfried is a senior analyst with the program.

(Julie, “Lights Out? Storm Surge, Blackouts, and How Clean Energy Can Help”, October 2015, <http://www.ucsusa.org/sites/default/files/attach/2015/10/lights-out-full-report.pdf>, Union of Concerned Scientists)

Despite our increasing reliance on electricity, our electric infrastructure has deteriorated and the rate of outages from severe weather has been **steadily increasing** over the past few decades. As we look to a future of **rising seas** and more **severe storms**, we face an even greater challenge to ensure stable, reliable access to electricity. The situation is also highly ironic: the electric power sector remains the single largest contributor to the U.S. emissions of carbon dioxide and other heat-trapping gases driving the growing threats to the electric infrastructure itself, representing nearly one-third of total global warming emissions in 2013 (EPA 2015a). This report focuses particularly on the vulnerability of our electricity infrastructure to coastal flooding from sea level rise and storm surge along the East and Gulf Coasts. Sea level rise **intensifies the threat of inundation** not only from higher sea level itself, but also from higher tides and major storm surge. By 2050, many coastal towns and cities are projected to see daily high tides more than a foot above present, and storm surges overtopping current flood levels (Spanger-Siegfried, Fitzpatrick, and Dahl 2014). But despite the long lifetime and high cost of electricity infrastructure, and the tremendous impacts felt by society when the power goes out, the majority of electricity planning decisions and flood protection policies continue to be informed by historical data that **greatly underestimate** the risk of future flooding exposures. To protect our electricity infrastructure from these growing risks, and to develop a more resilient and dependable electricity system, we must prepare for rising seas and increasingly severe storms, among other climate impacts. Preparation includes adapting our energy infrastructure to manage evolving coastal flooding threats, as well as dramatically reducing carbon emissions to limit the degree to which these climate impacts will continue to grow over time. Cutting electric sector carbon emissions by deploying clean energy solutions can promote the development of a more resilient power system today, and help limit the worst of future climate threats. Building upon two recent Union of Concerned Scientists reports Power Failure (Davis and Clemmer 2014) and Encroaching Tides (Spanger-Siegfried, Fitzpatrick, and Dahl 2014), we analyzed the **growing vulnerability** of our electric infrastructure to coastal flooding from storm surge and sea level rise over the next 55 years (to 2070). To better understand these risks, we modeled the projected inundation of power-generating plants and major substations in five metropolitan regions: the Delaware Valley, southeastern Virginia, South Carolina Lowcountry, southeastern Florida, and the central Gulf Coast. Our findings indicate a societally unacceptable risk of **major**, **widespread electric outages** from storm surge along the East and Gulf coasts of the United States today. Storm surge is a **major coastal-region hazard**; it can accompany not just hurricanes but also other types of coastal storms such as nor’easters, and can be severe even if the storm itself is not categorized as a “major” hurricane. We document the faltering state of the electric grid, the current limitations of flood protection policies, and the immediate need for proactive investment in infrastructure to address those threats. Finally, we offer recommendations on how to reduce global warming emissions from the electricity sector by proliferating resilient, clean energy systems that not only improve our prospects for tomorrow, but also **bolster community electricity resilience today**. Faltering Electricity Infrastructure U.S. electricity infrastructure is old and outdated. The deteriorating state of the electric grid leaves it highly susceptible to outages when faced with additional stressors like that of extreme weather. We detail here the current state of the electric grid, and the costs and impacts caused by these increasingly frequent power outage events. We also detail the growing threats near- and long-term coastal flooding present to our electricity system. If we must upgrade our electricity infrastructure just to attain the reliability on which our society’s critical infrastructure—and livelihoods—have come to depend, we should do so in a way that comprehensively considers future threats facing the electric grid. Power outages can occur because of damage to any part of the electrical grid, from the thousands of power plants generating electricity around the country, to the millions of miles of transmission and distribution lines delivering it to homes, businesses, schools, and hospitals. These many points of vulnerability are **increasingly susceptible** to failure due to their old age and poor condition; although there has been an uptick in investment in recent years, maintenance has been **insufficient** when compared to need (DOE 2015a). In 2013, the American Society of Civil Engineers (ASCE) issued the American energy sector a grade of D+, or “poor”, in their Report Card for America’s Infrastructure (ASCE 2013). The Department of Energy’s 2015 Quadrennial Energy Review highlighted the serious need for investment in modernizing the electric grid, and noted the urgency required to address the vulnerabilities of energy transmission, storage, and distribution in the face of an increasingly electricitydependent world (DOE 2015a). Given the escalating vulnerability of the electric grid, and mounting stresses from extreme weather events, power outages have increased. According to government records tracking major outages at the transmission level (transmission means moving electricity long distances from power plants to communities, as opposed to distribution, which refers to moving electricity shorter distances to end users), from 1992 to 2011, there were 1,333 reported disturbances to the transmission grid. The disturbances ranged from physical attacks such as vandalism to extreme weather events such as tornados or thunderstorms (Mills 2012). Over those two decades, weather-related events caused an increasing share of total disturbances: from approximately one-quarter of tracked outages in 1992, to approximately three-quarters in 2011 (Mills 2012; OE n.d.; see Figure 1 for more recent 2000 through 2014 numbers). Notably, when extreme weather hits the electric grid, the impacts are relatively **long-lasting** compared to other types of disturbances as storms can **cover large areas** and cause many points of damage across the grid. From January 2011 through August 2014, for example, while weather-related events made up fewer than half of all reported disturbances, they were the underlying cause of well more than 90 percent of customer interruption hours (DOE 2015a). Growing Outage Costs Electricity plays an essential role in supporting the critical facilities that form the backbone of our society, from hospitals to water treatment plants and communications systems to emergency response teams (PPD-21 2013). Among other things, such critical facilities and services support disaster response operations during emergencies, and enable efficient recovery by our communities following disasters. Managing disaster response is a tall order by itself; when compounded with the loss of electricity during and after a severe storm, the entire recovery process is hindered, and lives are placed at increased risk. Beyond enabling our most vital support systems, reliable electricity access is a widespread assumption of modern day life. Society depends on electricity to power lifesaving medical devices, pump drinking water from wells and throughout high-rise buildings, operate refueling pumps at service stations, move elevators up and down in apartment buildings, run air conditioners and furnace blowers, and enable communications via broadcasting, cellular telephone, and internet. Less visible but no less essential is our dependence on electricity for refrigeration to keep food fresh, traffic signals and street lighting to keep transportation safe, and the hosts of servers and electronic payment processes that keep businesses running. And with ever more daily activities becoming entirely dependent upon portable electronic devices, the **scale** and **scope** of outage impacts continue to increase dramatically. In short, very few commercial or social interactions are now untouched by electricity-based transactions. Critically, several populations—including the elderly, those with disabilities, and the low-income— are particularly challenged by power outages, and often struggle to cope with the aftermath of severe weather events. These communities tend to shelter-in-place due to obstacles associated with managing and affording evacuations, alternative housing arrangements, and other post-disaster contingencies (CEG 2014; Kelly and Ross 2014). It is critical to recognize that when the power does go out, these populations are particularly affected, and in great need of support. Moreover, **cascading** system dependencies can **rapidly amplify** the cost of power outages. A 2015 analysis estimated that a 30-minute service interruption could cost a medium or large commercial or industrial customer more than $15,000, while an outage over two-thirds of a day could cost those same customers more than $165,000 (Sullivan, Schellenberg, and Blundell 2015). Lost output is estimated to account for 20 to 25 percent of all weather-related outage costs, and estimates of the total cost of weather-driven outages vary between $18 and $70 billion per year (ranging in part because of the fluctuating number of major storms striking the nation each year) (Executive Office of the President 2013; Campbell 2012; see Figure 2). When the power goes out, utilities face many costs that, typically, result in higher electricity bills for consumers. The most direct is that of repairing or replacing damaged electric infrastructure, including the labor hours required to complete the job. After a big storm such labor expenses can be significant, as overwhelmed utilities often draw upon workers from outside the region to help in completing repairs as fast as possible. Following Hurricane Sandy in 2012, for example, Consolidated Edison Company of New York (“Con Edison”) estimated the total storm damage costs for its electric operations at $310 million, nearly three-quarters of which was attributed to labor (Con Edison 2014). The remainder of costs is typically allocated to equipment repair and replacement, although lost revenue from disrupted grid services can also present losses to utilities. How much utilities are able to recover of expenses incurred before and after storms, including how much electricity consumers are forced to pay in additional monthly bill charges, varies widely across states (EEI 2014). Rising Seas and Coastal Electricity Infrastructure Approximately one-third of the U.S. population lives in ocean-shoreline counties (NOAA 2013). As a result, a large amount of energy infrastructure is built in coastal regions to support the commercial, industrial, and residential development in the area. When seas are calm, this proximity to the ocean provides a host of benefits to the energy sector, such as sources of water for power plant cooling, and ready access to ports for routing fuel supply chains. When storms strike, however, coastal locations face the risk of coastal flooding. As seas climb higher, coastal flooding hazards will increase. Inundation, or flooding of normally dry ground, is the most direct hazard to electric grid components— including power generators, transformers, and substations— in coastal areas. Flooding is typically associated with storm surge, wherein seawater presses far inland—sometimes at heights of 10 to 20 feet or more above a typical high tide— due to strong winds. Resulting submersion can trigger **catastrophic failure** of equipment. When one major, transmission-level substation fails, utilities are typically able to work around the unit and maintain electricity across the lines. However, once more than two or three major substations go down, the resulting outages can be widespread. Major substations are **central nodes** within the electric grid, through which nearly all electricity must travel before it is distributed to customers. Thus, when a few major transmission substations go out, that can cut off electricity to everybody down the line, too; downstream power can come back on only once the critical substations have been restored (see Figure 3). Repairs of electric equipment following submersion are lengthy, requiring the disassembly, cleaning, drying, and reassembly of all components within a device. While such repairs are time-consuming, the alternative can be even worse: lead times for replacement transformers or substations, for example, can range from one to two years, and cost millions of dollars (Kumagai 2012; PG&E 2010). See Textbox 2 for examples of recent coastal flooding events impacting the electric grid. In addition to inundation, flooding presents multiple indirect threats to the power grid. For example, noninundated power plants may have to reduce generation or even shut down if floodwaters in surrounding areas disrupt access to the plant’s fuel supply. If trains hauling coal are stopped because tracks are flooded or damaged, or if natural gas pipelines are harmed in the storm, then generators could run out of fuel to burn to generate electricity. Transmission towers and other electricity infrastructure can also be damaged from storm erosion if land and support structures are undermined or washed away. Corrosion from saltwater can cause components to fail. Further, if electric grid operators predict that equipment is at risk of flooding from a storm, they may **pre-emptively cut power** to minimize damage, as submersion while equipment is running can be far more damaging than that which occurs if the component has been de-energized. Finally, because of overlapping infrastructure dependencies, when the electricity does go out, other elements of the **broader energy system** may be affected, such as oil and gas refineries, natural gas delivery to homes and businesses, and pumps for refueling cars and trucks at gasoline stations. As our oceans rise, flooding will reach progressively farther inland, putting more coastal infrastructure at risk. All along the East and Gulf Coasts, cities and towns are increasingly confronting early indicators of a changing climate, wherein high tides themselves overtopping seawalls or backing up storm drains and triggering nuisance flooding. A recent Union of Concerned Scientists (UCS) analysis examined 52 sites along the East and Gulf Coasts from Portland, ME, to Freeport, TX, and found that by 2030, tidal flooding is projected to occur at least two dozen times per year in many coastal communities, and more than 150 to 200 times per year in a few particular locations (Spanger-Siegfried, Fitzpatrick, and Dahl 2014; see Figure 4). Furthermore, tidal flooding will increasingly cause extensive flooding, which now typically results only during high winds and storms. Flooding events precipitated by tides alone are a harbinger of **more disruptive change to come**. Storm surges rolling in atop these higher seas present **ever-graver** concerns for coastal infrastructure policies and planning. As sea levels rise, storm surge can reach farther inland, and inundated areas may be flooded at greater depths.

### 1AR – Grid – Link D

#### The grid can handle a transition

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A succession of rigorous studies — including [a widely cited two-year study](http://www.nrel.gov/analysis/re_futures/) conducted by the DOE itself in 2012 — has found that **renewables can provide as much as 80 percent of the nation’s energy supply without disrupting a properly managed grid**. And that **doesn’t mean that 80 percent is the upper limit** of renewables — it indicates only that levels beyond 80 percent **weren’t thoroughly investigated**. A range of measures should enable the grid to maintain stability as renewables spread. These include broadening each regional grid’s reach to take in a greater variety of energy sources, installing more transmission lines, and increasing electricity storage, mostly in the form of batteries. The 2012 DOE study foresees a **five-fold growth in the use of batteries** by 2050, a realistic goal given batteries’ **increasing efficiency and plummeting cost**. In contrast to the earlier studies, Perry’s is cursory — he wanted it completed in 60 days — and appears to address political concerns, not technological ones. David Pomerantz, executive director of the Washington D.C.-based utility watchdog [Energy and Policy Institute](http://www.energyandpolicy.org/), calls the study “a politically motivated effort by the Trump administration to create some kind of justification for pro-coal policies when, in reality, no such justification exists.” President Trump has vowed to revive the reeling coal industry, and administration officials blame regulations that facilitate renewables — including former President Barack Obama’s Clean Power Plan — for coal’s rapid decline. But contrary to Perry’s memo, the success of renewables is not what has rendered coal plants uneconomic — the extremely low cost of natural gas, which sets prices in the energy market, [has done that](http://www.utilitydive.com/news/the-state-of-us-wholesale-power-markets-is-reliability-at-risk-from-low-pr/443273/). Perry’s line of thinking is far from unanimous even among Republicans. Iowa Senator Charles Grassley, whose state [generates a third of its electricity from wind](http://e360.yale.edu/features/iowa_bipartisan_push_leader_in_wind_energy), the highest percentage of any state in the nation, dismissed the study in a letter to Perry as “anti-wind.” Six other Republican senators wrote Trump to object to his proposed cuts in DOE research and development funding, including a 70 percent cut in renewables research. Not coincidentally, the renewables-are-destroying-the-grid argument has arisen while their production is soaring. In fact, renewables are triggering a transformation in the power sector, as **lethargic utilities awaken** to the **widespread opportunities of a decarbonized, electrified energy system.** In some areas, new **unsubsidized wind and solar energy is already cheaper than natural gas and promises to get cheaper** still, as a slew of innovations and economies of scale are rolled out, including new materials for photovoltaic cells and more sophisticated ways to shift electricity use from high-cost to low-cost times of the day. Renewables have accounted for a majority of the nation’s new electricity-generating capacity [since 2015](https://s3.amazonaws.com/dive_assets/rlpsys/utility_dive_trends_2017.pdf?utm_campaign=UD-Trends-2017&utm_medium=email&utm_source=Sailthru), and that proportion is expected to grow. Leading industrial and commercial corporations are loading up on renewable energy. One example is [Berkshire Hathaway](https://www.berkshirehathawayenergyco.com/), Warren Buffett’s behemoth holding company, which has invested more than $6 billion in five solar farms, two of which will be the nation’s largest solar installations. The grid operates under certain inescapable realities. The amount of electricity delivered to the grid must equal the amount that consumers take from it, or else power stations and transmission lines can break down, causing blackouts. And wind and solar are variable sources of energy: wind turbines don’t turn without wind, and solar panels don’t work without sunlight. Fossil fuel and nuclear advocates like to contrast this set of attributes with their favored energy sources, which, they claim, provide an unvarying flow of energy — a dependable “baseload” supply. The modern grid, it turns out, prizes not baseload power but flexible power. When electricity supply suddenly outstrips demand, solar farms can be quickly turned off, as happens occasionally at midday in California. And if a grid covers a wide enough geographical area, **variations in supply are evened out** — if there’s no sun in southern California, there may be plenty in Arizona. A grid that reaches into two time zones further flattens electricity demand, since, for example, people in one time zone get home from work and turn on their air conditioners at different times from those in the other. That enables existing infrastructure to be used more efficiently, and obviates the need to build more. For the last century, utilities have considered the amount of electricity demand as a given and have adjusted supply to equal it. Now, however, it’s increasingly possible to shift demand as well as supply. With time-of-use pricing, utilities can alter consumer behavior by dropping prices at midday, when renewable electricity is bountiful, and increasing prices during the late-afternoon demand peak. In addition, the electricity storage industry is growing at a rate of more than 200 percent a year and is making the grid even more efficient. Batteries can store midday renewable energy, then provide it a few hours later when demand is higher.

### 1AR – Grid – ! D

#### No impact to blackouts --- empirics.

**Lawson 11**—Department of Communication at the University of Utah, Associate National Security Analyst with DynCorp Systems & Solutions, PhD in Science and Technology Studies [WORKING PAPER BEYOND CYBER-DOOM: Cyberattack Scenarios and the Evidence of History January, No. 11-01, Mercatus Center George Mason University]

In August 2003, many initially worried that the two-day blackout that affected 50 million people in the United States and Canada was the result of a terrorist attack. Even after it was determined that it was not, some wondered what might happen if such a blackout were to be the result of intentional attack. One commentator hypothesized that an intentional “outage would surely thwart emergency responders and health-care providers. It’s a scenario with disastrous implications” (McCafferty, 2004). But the actual evidence from the actual blackout does not indicate that there was panic, chaos, or “disastrous implications.” While the economic costs of the blackout were estimated between four and ten billion dollars (Minkel, 2008; Council, 2004), the human and social consequences were quite **minor**. Few if any deaths are attributed to the blackout.3 A sociologist who conducted impromptu field research of New York City residents’ responses to the incident reported that there was no panic or paralysis, no spike in crime or antisocial behavior, but instead, a sense of solidarity, a concern to help others and keep things running as normally as possible, and even a sense of excitement and playfulness at times (Yuill, 2004). For example, though the sudden loss of traffic lights did lead to congestion, he notes that the situation was mitigated by “people spontaneously taking on traffic control responsibilities. Within minutes, most crossing points and junctions were staffed by local citizens directing and controlling traffic . . . All of this happened without the assistance of the normal control culture; the police were notably absent for long periods of the blackout” (Yuill, 2004). James Lewis (2006) of the **C**enter for **S**trategic and **I**nternational **S**tudies has observed that “The widespread **blackout did not degrade U.S. military capabilities, did not damage the economy, and caused neither casualties nor terror.”**

## DA – Grid Security

### 1AR – Grid Security – Link

#### A shift to renewables decentralizes the power grid increasing grid security – Germany and Denmark prove

**Guevara-Stone 14 –** [(Guervara-Stone Laura - Laurie Guevara-Stone is the Writer/Editor for Rocky Mountain Institute (RMI), where she writes blogs and articles on all the issues that RMI addresses.Laurie has over 20 years of experience in renewable energy technologies. Prior to joining RMI, Laurie was the International Program Manager for Solar Energy International (SEI), where she organized renewable energy trainings around the world. She also wrote articles for environmental magazines including Home Power, Solar Today and Mother Earth News, and published SEI's monthly e-newsletter. Laurie has extensive experience working on and documenting renewable energy projects throughout Latin America) "Can decentralised energy make America’s power grid blackout-proof? : RenewEconomy.31 Jul, 2014 <https://reneweconomy.com.au/can-make-americas-power-grid-blackout-proof-14292/> ] SJDI

Fourteen months after the California “incident,” however, **the United States’ electric grid remains vulnerable to terrorism, severe weather events, and other threats**. That’s because the grid’s architecture remains largely centralized, with a relatively small number of major points of potential failure: large power plants, major substations, high-voltage transmission lines. This vulnerability is not without cost—**outages cost the U.S. economy an estimated** [**$100 billion per year.**](http://www.savivaresearch.com/wp-content/uploads/2013/05/April-2013-DERMS.pdf)But while many approaches to improving the grid’s reliability and resilience have focused on hardening—fortifying important but weak nodes in the system—there is a better way: decentralizing the grid through distributed energy resources. BUILDING RESILIENCY The less centralized a system is, the less prone it is to large-scale failure, a fact that many countries are now acting on. But, as Lena Hansen, a principal with RMI’s electricity practice says, “it’s very important to not conflate decentralized with clean. You could actually have a very dirty, very expensive decentralized system, and that’s not what we’re going for. A decentralized system is just part of the solution.” Which is why there is a need to incorporate more renewables into the system. Two examples from Europe—**Denmark and Germany—show that shifting power supply heavily toward decentralized renewables** does not compromise grid performance. In fact, **compared to their** European **peers** and globally, **those two countries boast some of the very best grid reliability.** Denmark made a large-scale shift to decentralized energy beginning in the 1980s; its [“cellular” grid](http://energinet.dk/EN/FORSKNING/Energinet-dks-forskning-og-udvikling/Smart-Grid/Sider/default.aspx)—at over 50 percent—now leads the world for a country’s portion of electricity from decentralized energy resources. **The main push for decentralization was to make the system more resilient to external shocks such as those that came about in the 1970s with the oil crisis.** Although many government officials pushed for nuclear energy, there was strong opposition. By 1979 there had been a decisive [shift in Danish society](http://www.unrisd.org/80256B3C005BE6B5/search/FFACF446C9CEE717C1257B2800527248?OpenDocument) against the nuclear option and in favor of wind power, which grew dramatically over the next two decades. In 2013 almost a [third of the country’s electricity consumption](http://www.windpower.org/en/) was covered by wind, and the majority of the turbines are [owned by local cooperatives](http://www.ewea.org/blog/2012/10/local-communities-invest-in-danish-wind-energy/) and individual farmers. It also has one of the [highest rates of grid reliability](http://www.renewablesinternational.net/overview-of-grid-reliability-in-eu/150/537/75716/) in Europe. Likewise, the German grid is one of the most reliable in Europe. In 2011, Germany set a record with a downtime of only [15.31 minutes](http://www.renewablesinternational.net/german-grid-reaches-record-reliability-in-2011/150/537/56183/) (as measured by SAIDI—System Average Interruption Duration Index—a common measure of reliability used in both the U.S. and Europe). After Germany shut down over half of its 17 nuclear plants after the Fukushima accident, pronuclear activists claimed the grid would become unreliable. They couldn’t have been further from the truth. “**The country** not only avoided major blackouts during the winter,” according to [CleanTechnica](http://cleantechnica.com/2012/09/12/german-grid-reaches-record-reliability-in-2011-thanks-to-renewables/), “but it**s availability actually increased over the average going back to 2006,** when reporting began thanks in part to the recent increases in small-scale renewable energy.” As a comparison, the United States had a downtime—not including planned interruptions or extreme weather events—of [240 minutes](http://www.galvinpower.org/sites/default/files/Electricity_Reliability_031611.pdf) in 2007 (the most recent year for which national data is publicly available). In fact, many European countries are now conducting research programs and pilot projects to encourage the use of distributed energy resources. In February 2013, reports Barbara Vergetis Lundin, editor of [FierceSmartGrid](http://www.fiercesmartgrid.com/story/distributed-generation-transforming-europes-electric-system/2013-10-09#ixzz34w1MRQxP), “the Spanish utility Iberdrola, along with 11 utilities and research institutions in Europe, developed the European [iGREENGrid](http://www.igreengrid-fp7.eu/overview) project to enhance the reliability, stability, and quality of power supply in the distribution network through the integration of distributed renewable energy systems into the grid.” EMBRACING A DECENTRALIZED ENERGY FUTURE “One of the inherent advantages of decentralized renewables is that they generally don’t require long transmission lines. The energy is not all in the same form, at the same time and in the same place, but in a very desirable diversity,” RMI cofounder and chief Scientist Amory Lovins said in a [2012 interview](http://www.patagonjournal.com/index.php?option=com_content&view=article&id=2546%3Ainterview-with-amory-lovins-building-a-sustainable-energy-future&catid=47%3Ain-the-magazine&Itemid=340&lang=en)with Patagonia. “That also greatly increases national energy security by eliminating the serious risks inherent in long transmission lines, such as earthquakes, solar storms, volcanic eruptions, disgruntled landowners, and terrorists.” Some forward-thinking utility companies are increasingly embracing distributed energy resources as one important tool to improve grid reliability and resilience. New York’s Con Edison is taking a[proactive approach](http://www.fortnightly.com/fortnightly/2012/08/capturing-distributed-benefits) to incorporating distributed generation into its planning and the company hosts distributed generation stakeholder seminars, provides technical interconnection training for developers, and publishes non-technical handbooks for customers on distributed generation. Some progressive utilities see the benefits distributed renewables can bring to the grid and are encouraging customers to install more distributed solar. The Los Angeles Department of Water and Power has a [100-megawatt feed-in tariff program](http://www.ladwpnews.com/go/doc/1475/1681111/LADWP-Lights-Up-New-Solar-Program-for-L-A-) in which it pays developers 17 cents for every kWh of electricity generated off-peak, and 2.25 cents more per kWh during the middle of the day and during hot summer months. Austin Energy in Texas is boosting financial incentives to get more people to adopt distributed solar by paying customers a “value of solar” tariff per kWh of electricity produced as well as upfront rebates of $1.25 per watt. And the [Long Island Power Authority](http://insideclimatenews.org/news/20130912/why-are-some-big-utilities-embracing-small-scale-solar-power) in New York is paying developers to install PV systems in small towns that are experiencing population growth to save money on building new transmission and grid equipment. Yet we still need more utilities to jump on board. **Doing that sooner rather than later can only help the U.S. grid improve its rank.** We need not wait for another sniper attack or superstorm to motivate us. **The time to make that power system transition is now.**

### 1AR – Grid Security – ! D

#### Their Impact ev is old – new physical barriers prevent hacking

**O'Flaherty 7/3** [Kate O'Flaherty, freelance cybersecurity journalist with over a decade’s experience reporting on the issues impacting users, businesses and the public sector., 7-3-2019, "U.S. Government Makes Surprise Move To Secure Power Grid From Cyberattacks," Forbes, https://www.forbes.com/sites/kateoflahertyuk/2019/07/03/u-s-government-makes-surprise-move-to-secure-power-grid-from-cyber-attacks/#37c51b203191, accessed 10-27-2019]LHSBC

The U.S. Government has announced a surprising move to secure power grids by using “retro” technologies. It comes after numerous attempts by foreign actors to launch cyberattacks on so-called critical national infrastructure (CNI).∂ Nations have been trying to secure the industrial control systems that power CNI for years. The challenge lies in the fact that these systems were not built with security in mind, because they were not originally meant to be connected to the internet.∂ It is with this in mind that the U.S. has responded with a new strategy: rather than bringing in new technology and skills, it will use analog and manual technology to isolate the grid's most important control systems. This, the government says, will limit the reach of a catastrophic outage.∂ "This approach seeks to thwart even the most sophisticated cyber-adversaries who, if they are intent on accessing the grid, would have to actually physically touch the equipment, thereby making cyberattacks much more difficult," [said a press release](https://u7061146.ct.sendgrid.net/wf/click?upn=G62jSYfZdO-2F12d8lSllQByxK71KooKEXY3Xp-2BmF4IOUH9vwTcsnutz29N5ITEV5kcLQOQ7ZEnaDMAFWKOppHI7407i55GNqcFIXV-2Fi-2BvwJgJlHcfkVbSvHJojcvzEZxF8km9XYOf8UcrnkCUIzrGdqeZscFNb-2BsrWPeplMs1xjo-3D_sTdRrWlTW1BFvXWtlFtaK6CoSkfqbohdd-2BNM9Ghf2Jg9u1VVePwkaeas1C4ZAyBGxtaDY9WyGEaELhwfyhIUvI1vozYbJ5IVcl6fQZJP-2FV4z5Gitagkbi5bpaL6M99KeAL7WeUNJz6MRaZ-2Fz6VtX1JEOEgFcaoHqWb2BltKZo1FjGWO1kpaSrzNNoPHlwiE38S3YB3lqQhXkL-2Bkst8PTLtT9I1tVPZoMKkhPV1qxYOLcDRudlj9B2S8gusd7THEvtowc5xpd-2BcsbbeQJsnRwh5sRNiBm5bOGvfr-2FsW-2BAXcLlstGDHiFnA4veEv7JaHqODsnDzqWBzfiV4Y6ytxzxJ3zT8uWnMudnJyR8jHGNS63rdxse-2F08I3Ti0CFIh01zm) as the Securing Energy Infrastructure Act (SEIA), passed the Senate floor.

#### No impact to blackouts --- empirics.

**Lawson 11**—Department of Communication at the University of Utah, Associate National Security Analyst with DynCorp Systems & Solutions, PhD in Science and Technology Studies [WORKING PAPER BEYOND CYBER-DOOM: Cyberattack Scenarios and the Evidence of History January, No. 11-01, Mercatus Center George Mason University]

In August 2003, many initially worried that the two-day blackout that affected 50 million people in the United States and Canada was the result of a terrorist attack. Even after it was determined that it was not, some wondered what might happen if such a blackout were to be the result of intentional attack. One commentator hypothesized that an intentional “outage would surely thwart emergency responders and health-care providers. It’s a scenario with disastrous implications” (McCafferty, 2004). But the actual evidence from the actual blackout does not indicate that there was panic, chaos, or “disastrous implications.” While the economic costs of the blackout were estimated between four and ten billion dollars (Minkel, 2008; Council, 2004), the human and social consequences were quite **minor**. Few if any deaths are attributed to the blackout.3 A sociologist who conducted impromptu field research of New York City residents’ responses to the incident reported that there was no panic or paralysis, no spike in crime or antisocial behavior, but instead, a sense of solidarity, a concern to help others and keep things running as normally as possible, and even a sense of excitement and playfulness at times (Yuill, 2004). For example, though the sudden loss of traffic lights did lead to congestion, he notes that the situation was mitigated by “people spontaneously taking on traffic control responsibilities. Within minutes, most crossing points and junctions were staffed by local citizens directing and controlling traffic . . . All of this happened without the assistance of the normal control culture; the police were notably absent for long periods of the blackout” (Yuill, 2004). James Lewis (2006) of the **C**enter for **S**trategic and **I**nternational **S**tudies has observed that “The widespread **blackout did not degrade U.S. military capabilities, did not damage the economy, and caused neither casualties nor terror.”**

## DA – Impeachment

### 1AR – Impeachment – UQ

#### Zero chance impeachment passes the senate

Natalie **Andrews and** Andrew **Duehren, 9-25**-2019, "Pelosi Announces Impeachment Inquiry of President Trump," WSJ, https://www.wsj.com/articles/democrats-face-critical-day-on-pursuing-impeachment-11569336620?ns=prod/accounts-wsj

The Democratic-controlled House needs a simple majority to impeach the president. If Mr. Trump is impeached in the House, the matter would move to the Republican-controlled Senate, where it would face long odds of conviction by the necessary two-thirds supermajority. **No Republican senators support removing the president from office**, and many have shrugged off the president’s actions concerning Ukraine. At his regular Tuesday afternoon news conference, a reporter asked Senate Majority Leader Mitch McConnell what he would do if there were to be articles of impeachment regarding the president sent over from the House. “Wait a minute. What we have here is an allegation related to the Ukrainian aid by whistleblower that’s about all we know now,” Mr. McConnell said, later adding: “I’m not going to address all these various hypotheticals that have been aired out about what may or may not happen in the House. And I think **all of that is quite premature**.”

#### No way the GOP splits—the past 3 years disprove their link.

**Iglesias 10-7** ([Matthew Yglesias] “9 scenarios for how the Trump-Ukraine impeachment process could end,” *VOX*. 10-7-19, <https://www.vox.com/2019/10/7/20898619/trump-impeachment-scenarios-pence-pelosi>) LHSLA LH

6) The GOP splits, and Trump is removed from office This is a scenario where, in essence, the revelations around Ukraine (or perhaps new revelations about Trump’s discussions with the leaders of other foreign countries) send the political system back to where it was in the winter of 2015-2016. Trump was popular with GOP primary voters back then but not overwhelmingly so. A wide range of GOP figures (including people like Lindsey Graham and Rick Perry who are now loyal Trumpers) were vocally critical of him. Most GOP donors and the leaders of Republican-aligned institutions were certain his nomination would lead to political distastes, and conservative media was much less solidly pro-Trump than today’s Fox News and Sinclair Broadcasting. Under this scenario, Trump still holds on to his true base (the roughly half of GOP primary voters who backed him in 2016) but becomes so unpopular with the public that he suffers mass defections from GOP senators leading to his removal from office. For obvious reasons, **it’s difficult to imagine this happening**. The Republican establishment didn’t like Trump and doesn’t like everything he does, but **he’s fundamentally delivered for them on all their key priorities**. As long as that continues to be the case, it’s hard to see why they would turn on him — even though all things considered they, on some level, would prefer Mike Pence. In the event of an establishment coup, **one possibility is that in theory Trump could turn back around and run for president again.**

### 1AR ­– Impeachment – Pence UQ

#### Pence refused to cooperate with subpoena.

**Caldwell 10/15** ([Leigh Ann Caldwell is an NBC News correspondent.] “Pence refuses House request to provide documents related to Ukraine call.” NBC, 10/15/19. <https://www.nbcnews.com/politics/trump-impeachment-inquiry/pence-refuses-house-request-provide-documents-related-ukraine-call-n1066651>.) LHSLA LH

WASHINGTON — Vice President Mike Pence’s office said Tuesday it will not comply with a request from the House to turn over documents related to President Donald Trump's July 25 phone call with Ukrainian President Volodymyr Zelenskiy. In a letter to the chairmen of the House Intelligence, Foreign Affairs and Oversight committees, Pence counsel Matthew Morgan called the request part of a “self-proclaimed impeachment inquiry,” noting that the House of Representatives has not yet taken a vote to open the inquiry and asserting that the request was part of a process that “calls into question your commitment to fundamental fairness and due process rights.” Those chairmen sent Pence a request on Oct. 4 asking for documents and communications pertaining to the phone call and the withholding of military and security aid to Ukraine. Pence dodges whether he knew Ukraine aid was tied to Biden investigation “Never before in history has the Speaker of the House attempted to launch an ‘impeachment inquiry’ against a president without the majority of the House of Representatives voting to authorize a constitutionally acceptable process,” the letter says, echoing the same argument used by White House counsel Pat Cipollone in the White House’s reason for not cooperating with Congress. The letter continues: “Please know that if the Committees wish to return to the regular order of legitimate legislative oversight requests, and the Committees have appropriate requests for information solely in the custody of the Office of the Vice President, we are prepared to work with you in a manner consistent with well-established bipartisan constitutional protections and a respect for separation of powers.” Until then, Morgan writes, the office of the vice president will protect attorney-client communications and communications involving the president, vice president and their advisers. Pence’s refusal to turn over documents comes as Trump’s personal attorney, Rudy Giuliani, and Office of Management and Budget Director Russell Vought refused to comply with subpoenas for documents.

#### Means he can be impeached for obstruction of justice.

**Levinson 10/9** ((in an article written by Sean Illing [Sean Illing is a journalist, author, philosopher, and public speaker. He is currently the Interviews Writer for Vox.com.]) [Jessica Levinson, law professor, Loyola Law School] “Are we in a constitutional crisis yet?” *Vox*. 9 Oct. 2019, <https://www.vox.com/policy-and-politics/2019/10/9/20905503/trump-white-house-letter-democrats-impeachment>) LHSLA LH

Jessica Levinson, law professor, Loyola Law School

What do you get when you mix a valid congressional impeachment inquiry with a recalcitrant president? A constitutional crisis. We have bandied about the term “constitutional crisis” for almost three years now. But **here we are, watching a president flout Congress’ constitutional authority to initiate and proceed with an impeachment inquiry**. **An impeachment inquiry is not a dinner invitation**. It is not something one can decide whether or not to accept. The president, like other American citizens, is subject to Congress’ subpoena power. **Let’s not confuse the president’s refusal to comply with a right to refusal.** The president’s recalcitrance will likely leave Congress **adding one more thing to the impeachment inquiry**: **obstruction of justice.**

#### Pence is impeached too.

**London 10/4** ([Martin London is a retired partner for the law firm Paul, Weiss, Rifkind, Wharton & Garrison and the author of The Client Decides; he was a principal lawyer for Vice President Spiro Agnew.] 10-4-19. “Spiro Agnew's Lawyer: Mike Pence Should Be Worried About Impeachment Too.” TIME. <https://time.com/5692947/mike-pence-impeachment/>.) LHSLA LH

The Constitution provides for impeachment of “The President, Vice President and all Civil Officers…” The current House impeachment inquiry is focused on President Trump’s apparent effort to persuade a foreign government to interfere in the 2020 presidential election–specifically, to press Ukraine’s President Volodymy Zelensky to investigate the leading Democratic contender, Joe Biden. Trump is still the central U.S. civil officer in the spotlight, but now it seems **Vice President Pence may be implicated as well.** While the President claims his July call with Zelensky was “perfect,” the House Intelligence Committee Chairman Adam Schiff describes it as a “shakedown,” and a majority of the House of Representatives now support an impeachment inquiry. Pence, meanwhile, has defended the President, saying, “I think the American people have the right to know if the Vice President of the United States or his family profited from his position as vice president during the last administration.” While we do not know precisely what Pence knew about Trump’s conversation with Biden or what he said to Zelensky when they met last month, there’s a lot we do know – and it doesn’t look good. Pence was not on the call in which Trump asked Zelensky for a “favor” — a Ukrainian investigation of Joe Biden and his son Hunter — at a time when the U.S. was withholding hundreds of millions of dollars of aid, **but one of his top advisers was**, and according to the Washington Post, “the vice president should have had access to the transcript within hours.” It was in this context that he flew to Poland in September and reinforced to Zelensky the Trump message that U.S. aid was still being withheld because of concerns about “corruption.” In the nations’ history, two Presidents have thus far been impeached, but not convicted. No Vice Presidents have ever been impeached. But not for trying. In 1973, I was a member of Vice President Spiro Agnew’s legal team defending him against bribery charges being considered by the U.S. Attorney in Maryland. We posited a Constitutional objection to that criminal investigation. We urged that impeachment was the only remedy available against a sitting Vice President — a legal argument that to this day has never been addressed by any court. Accordingly, we urged Carl Albert, the Speaker of the House of Representatives, to commence an impeachment inquiry into the Agnew bribery charges, and offered to cooperate fully with the Congress. In doing so, we ignored the advice President Nixon’s legal advisor Chuck Colson, who told us he feared that given the state of the ongoing Watergate inquiry, once the House had started up the impeachment machinery, they might decide to impeach both Nixon and Agnew. A Senate conviction of both would have sent Albert to the White House. Agnew ended up resigning and Nixon replaced him with Gerald Ford as his vice president, but as an article in the Washington Post points out, it was far from impossible that the charges against Vice President Agnew that led to his resignation, taken together President Nixon’s subsequent resignation under threat of impeachment, could have led to the Speaker’s succeeding the pair. Subsequent to Agnew’s resignation, Albert actually considered the possibility and asked my law partner Theodore Sorensen to advise on first steps on assuming the mantle of Presidency. Sorensen obliged with an historic secret 19-page response. Today, with information quickly emerging that suggests both the President and Vice President may have abused their Constitutional powers, it becomes reasonable to consider that it could be President Pelosi who will deliver the next State of the Union address.

## DA – LNG

### 1AR – LNG – Warming Turn

**LNG increases warming**

**Corbett 15** – PhD, U of Delaware (James, “Methane Emissions from Natural Gas Bunkering Operations in the Marine Sector: A Total Fuel Cycle Approach,” *U.S. Department of Transportation Maritime Administration*, http://www.green4sea.com/wp-content/uploads/2016/03/US-MARAD-Methane-emissions-from-LNG-bunkering-2015\_11.pdf)

However, increased use of natural gas in the marine sector **may negatively affect** a third important factor: **climate change**. Complementing the IMO's concerns about criteria pollutants such as SOx, NOx, and PM10, new research regarding GHG emissions from vessel operations has stimulated efforts to reduce GHG emissions from international shipping. Currently, international shipping is responsible for ~2–3% of total CO2 emissions globally, and the IMO adopted mandatory measures to reduce GHGs in 2011 (Bazari and Longva, 2011; Smith et al., 2014). Whether increased natural gas use in the marine sector will increase GHG emissions globally is an open question that this study helps answer. Answering this question requires consideration of methane leakage and emissions along the entire fuel production, delivery, and use pathway (Brynolf et al., 2014b; Lowell et al., 2013; Meyer et al., 2011) . When upstream emissions are considered, advantages from a GHG emissions perspective remain uncertain, because natural gas fuel production pathways involve methane leakage during natural gas extraction and distribution, which has important GHG impacts (AEsoy et al., 2011; Arteconi et al., 2010; Bengtsson et al., 2011; Bengtsson et al., 2014; Brinkman et al., 2005; Brynolf et al., 2014a; Choi and Song, 2014; Elgowainy et al., 2009; Huo et al., 2008; Jayaram et al., 2010; Korakianitis et al., 2011; Lowell et al., 2013; Shen et al., 2012; TIAX et al., 2007; Yazdanie et al., 2014) . 2.3 LNG Bunkering Methane Leakage LNG bunkering of a marine vessel may take place in a variety of ways, but four approaches stand out: (1) Truck to Ship – fuel is pumped from a tanker truck into the ship, for small volumes in the range of 50-100 m3 ; (2) Ship to Ship – fuel is pumped from a bunker vessel or barge into the ship, for volumes in the range of 200-10,000 m3 ; (3) Terminal to Ship – fuel is pumped from land production or storage facilities into the ship, for volumes in the range of 100-10,000 m3 ; and, (4) Portable Tanks – modular (full) tanks are swapped for empty ones1 (American Bureau of Shipping, 2015; DNV GL, 2014). Each of these transfer processes can occur using either a hose or a loading arm (Arnet, 2014), and some may involve refrigerated piping/hoses using liquid nitrogen to minimize evaporated methane during transfer (Arnet, 2014). Technical details and the pros/cons on each of these approaches can be found in a 2014 MARAD report on this topic (DNV GL, 2014). In all these bunkering scenarios, there is the opportunity for CH4 to leak through various components of the bunkering system. The most comprehensive study to date on LNG leakage from maritime bunkering operations emerges from Lowell, et al. (2013) based on work for the International Coalition for Clean Transportation (ICCT). That study identifies a range of leakage rates due to bunkering (measured in gCO2e/MJ)2 as shown in Table 1 and supplemented with additional information from Marintek (Lowell et al., 2013; Nielsen and Stenersen, 2010). These leakage rates vary widely and can occur from “(1) losses due to heat absorption and venting from storage tanks over time; (2) venting of displaced vapor when filling a storage tank; (3) LNG liquid and vapor purged from hoses and lines after fueling a vessel; and (4) flash losses created from precooling lines and storage tanks or from transferring LNG from a highpressure to a low-pressure tank” (Lowell et al., 2013). Flash losses were not measured in the ICCT report due to the difficulty in quantifying these losses; however, these flash losses are expected to be insignificant in the pathways described.

### 1AR – LNG – Link

#### No immediate collapse because between oil and renewables LNG would be the short-term transition energy – it’s low in CO2 and can take over for lost generation capacity. Means the impact is gradual and spread over years

#### Tons of other countries solve EU Dependence

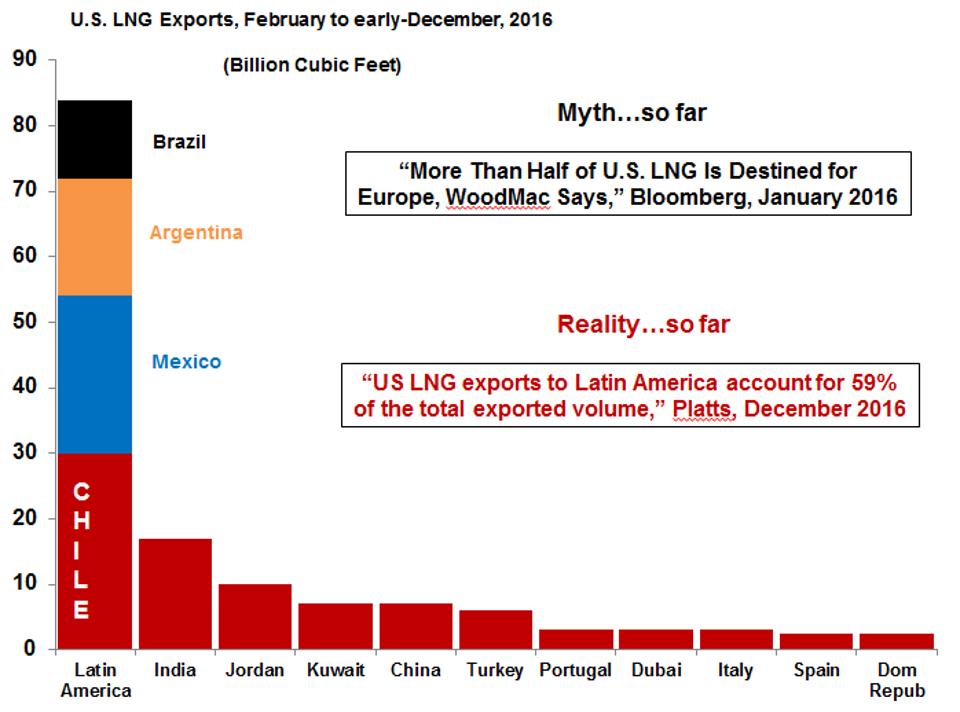
Oil Price 14

2-24, Can U.S. LNG Break Russia’s Gas Grip on Europe?, http://www.fool.com/investing/general/2014/02/24/can-us-lng-break-russias-gas-grip-on-europe.aspx

Moreover, it is not as if there won't be more gas alternatives to Europe in the coming years. Other LNG capacity expansions in the Middle East and Africa will also compete against the U.S., not to mention the Trans-Adriatic Pipeline that will carry Caspian gas to Western Europe. Taking all of this into account, I think U.S. LNG exports to Europe will move forward, but in a limited fashion.

#### No LNG goes to Europe

Clemente 1/1/17 – Jude Clemente, Forbes (“Five Natural Gas Charts For The New Year,” http://www.forbes.com/sites/judeclemente/2017/01/01/five-natural-gas-charts-for-the-new-year/#2d7c0bf577c4)



**The whole EU scenario is trash**

**Johnson 16** – Keith Johnson, senior reporter covering energy for Foreign Policy (“America’s Natural Gas Exports Won’t Be Enough to Blunt Putin’s Energy Weapon,” *Foreign Policy*, February 29th, http://foreignpolicy.com/2016/02/29/americas-natural-gas-exports-wont-be-enough-to-blunt-putins-energy-weapon/)

It also marks the culmination of years of discussion about how America’s energy boom could potentially give Washington a new arrow for its geopolitical quiver by allowing it to ship cheap energy to allies in Europe and Asia — and freeing them from being dependent on Russian strongman Vladimir Putin’s vast gas holdings.∂ The only catch is that the first cargo loaded onto the 100,000-ton “Asia Vision” tanker is headed for Brazil, **not to European countries trying to wriggle out of Russia’s thumb**. That underscores that America’s arrival as an energy exporter, while important for reshaping global energy markets, will not automatically translate into the kind of geopolitical tool that countries like Russia use to advance their national interests.∂ The gas loaded last week at Cheniere Energy’s export terminal in Sabine Pass, Louisiana, is just the first of a coming flood of U.S. natural gas unleashed by the boom in hydraulic fracturing in recent years. Cheniere itself has another export facility under construction in Texas, and there are four others that will be operational by 2018. A decade ago, the United States was poised to become a big natural gas importer; today, the country is set to become one of the world’s biggest exporters of liquefied natural gas, or LNG, alongside only Qatar and Australia.∂ That has many in Washington and allied capitals rubbing their hands with glee. Secretary of State John Kerry, like many lawmakers on the Hill and think tanks in Washington, has in recent years talked up the possibility of using U.S. gas to undercut Russian energy leverage in Europe. And European leaders themselves have for years been asking the United States to expedite energy exports and recently opened the door to increased gas exports from countries other than Russia as a way to break Moscow’s hold. In Lithuania, a small country overwhelmingly reliant on Russian gas, officials are waiting for the first arrivals of American gas at their newly built import terminal.∂ To be sure, the sheer re-emergence of the United States as a big producer of oil and gas has had huge knock-on effects around the world, including some that dovetail with U.S. interests. The glut of natural gas, fueled by the U.S. fracking boom, means that more gas was in the global system even before the Asia Vision loaded its cargo. That alone has forced Russia’s Gazprom to renegotiate a spate of contracts with its European customers. And the flood of oil, caused in no small part by the breakneck production from U.S. shale fields, has made it easier to do some things, like slap oil-export sanctions on Iran over its nuclear program, without severely damaging the global economy.∂ “It’s not that we have an energy weapon now. But we have something that blunts our opponents’ weapon,” said Andrew Holland of the American Security Project, a think tank.∂ Indeed, just because firms in the United States are producing — and are now ready and able to export — huge amounts of energy doesn’t mean that it will automatically become part of the arsenal for policymakers in Washington.∂ Other big energy-producing countries can use energy production and exports as a way of advancing their national goals, whether that means strangling neighbors that don’t toe the line (as Russia does), underwriting the very existence of friendly neighboring regimes (as Venezuela has done for Cuba), or cutting off supplies of the world’s most important commodity (as OPEC did during the embargo of 1973 and 1974.) Even would-be energy exporters, like Israel, hope to use their newfound riches to advance their own goals, such as rebuilding ties with Turkey and mending fences with Arab neighbors like Egypt and Jordan.∂ But for the United States, the energy boom — and now, the export bonanza — is above all a **private-sector phenomenon**, not something directed by Washington. U.S. diplomats overseas say they are besieged by requests to send cheap energy to a variety of countries — and that they wear themselves out explaining that **the energy business is run by companies**, not the departments of state or energy.∂ For the companies pumping, freezing, and exporting gas, the key consideration is economics, not politics. American firms will sell gas to the buyers willing to pay the most money — not where they will necessarily do the most to advance the U.S. strategic agenda. Sabine Pass’s first shipment, for instance, is headed to Brazil — because the country needs to use gas to run power plants idled by the drought that has curtailed hydroelectric generation.∂ **That alone makes it harder to envision America’s energy exports being used strategically** to meet, for example, a sudden supply shortfall somewhere in Europe. And there’s even more reason to question the geopolitical impact of the U.S. sales: About 90 percent of Sabine Pass’s export capacity has already been gobbled up by private companies in Britain, Spain, India, and South Korea. Companies like Britain’s BG Group will likely resell the gas to customers in other countries, but most purchasers will probably use the American gas to run power plants and heat homes within their own borders.∂ The fact that U.S. exports are finally hitting the market right when the world is awash in natural gas makes it even harder to envision big geopolitical dividends. **Countries such as Qatar and Australia are already adding huge amounts of LNG** to the global supply, and new entrants in Canada, East Africa, the eastern Mediterranean, and Iran are scrambling to put even more gas into the system. Faced with that glut, many developers of U.S. **export projects are now hitting the brakes**.∂ **There are some practical problems, too**, with the idea that U.S. gas can save Europe from Moscow. Europe does have a lot of terminals to import LNG, and most are very underutilized. But they’re also overwhelmingly in Western Europe, especially in Spain — **not in countries** like Lithuania, Ukraine, Hungary, or Bulgaria that are squeezed by reliance on Russia for energy.

### 1AR – LNG – L/T

#### Carbon tax spurs US natural gas exports

Hartung 12 (Jim Hartung, President, GlobalEnergySolutions.org, an internet-based company he formed in 2012 to provide information about energy, retired from Pratt & Whitney Rocketdyne after a 35-year career in energy and aerospace. He was Director, Energy Systems, where he led development of several innovative energy technologies and business strategies. Prior to that he was Direct, System Engineering, for the International Space Station electric power system. He has worked with a wide variety of energy companies, electric utilities, independent power producers, power plant equipment supplies, oilfield service companies, government organizations, and advanced technologies, BS in Physics from the University of Minnesota and an MS in Engineering Management from the University of California, Los Angeles, September 13, 2012. “A Carbon Tax Can Reinvigorate the U.S. Economy.” http://www.energycentral.com/community/energy-biz/carbon-tax-can-reinvigorate-us-economy)

Energy Security -- From 2005 to 2011, U.S. oil imports decreased by one-third, from 12.5 to 8.4 million barrels per day. The carbon tax will continue this trend, enabling the U.S. to become energy independent in about 10 years. It does this primarily by improving energy efficiency and encouraging alternative fuels, but also by increasing domestic oil production. How can a carbon tax increase domestic oil production? By making carbon dioxide enhanced oil recovery economically feasible. The Department of Energy estimates that the U.S. can produce up to 137 billion barrels of additional oil by injecting and sequestering 45 billion tons of carbon dioxide into depleted oil fields. This is enough oil to replace current imports from the Persian Gulf for 200 years. The carbon tax enables the U.S. to achieve energy independence by increasing oil production while simultaneously decreasing oil consumption. Energy independence improves national security and saves more than $250 billion annually in oil import costs. Energy Exports -- The carbon tax will make the U.S. an energy exporter. When the U.S. achieves energy independence, it will no longer need Canadian crude oil for domestic consumption, but U.S. refineries will ideally continue processing Canadian crude to produce high-value products for sale in world markets. The U.S. will also produce more natural gas and coal than it needs for domestic consumption. With the carbon tax, the U.S. and Canada could be exporting energy and energy products worth $100 to $200 billion annually in 10 years. This will stimulate economic growth and profoundly affect global business and political relationships as companies and countries worldwide scramble to sign long-term contracts for reliable energy supplies from North America. Because the U.S. and Canadian energy industries and economies are closely linked, the benefit accrues to both countries.

### 1AR – LNG – Russia I/L

#### Russia beats out US gas, exports don’t go to Europe, domestic consumption wrecks exports, and Australia LNG solves

Stratfor 14 (Stratfor, well qualified think tank, March 7, 2014. “U.S. Natural Gas Will Not Curb Russian Influence.” https://www.stratfor.com/analysis/us-natural-gas-will-not-curb-russian-influence)

Expediting environmental approvals for the terminals would accelerate natural gas exports to Europe only minimally, since plant construction is still a laborious process lasting several years. To leverage natural gas for geopolitical impact, Washington would need to compel energy firms to direct exports to or invest in specific countries. LNG export terminals are expensive, so attracting investment in them requires a promise of high returns. Natural gas companies can thus be expected to resist diverting LNG away from the most profitable destinations. For example, the [Asian market for LNG](https://www.stratfor.com/analysis/natural-gas-competition-part-2-shift-asian-markets) is more lucrative for exports than Eastern Europe, where Russia can undercut U.S. prices. Already much of the industry's export capacity has been sold in long-term contracts to Asian buyers. Congress is pushing to expand the expedited approval process to include free trade partners and key allies such as NATO members and Japan. However, with 100 billion cubic meters of export capacity already approved to go to countries without U.S. free trade agreements, this expansion would be irrelevant, since the upper limit of U.S. natural gas exports is likely around 100 billion cubic meters. The United States is also increasing domestic consumption of natural gas, and Washington must balance its domestic needs with its foreign policy objectives. Cheap natural gas is helping to revitalize the U.S. manufacturing sector, and U.S. environmental policy includes replacing coal power plants with more efficient natural gas power plants. These domestic constraints are especially strong because of a lackluster recovery from the 2008-2009 financial crisis and a [public that is typically more concerned with domestic issues](https://www.stratfor.com/weekly/american-publics-indifference-foreign-affairs). Building up the infrastructure for more U.S. exports cannot happen in a period of several months or even two or three years; the Ukraine crisis must be addressed more quickly. After Sabine Pass LNG comes online next year, the other approved projects will not begin exporting until 2017 or later. Over the long term, increased U.S. exports to world markets could affect Russian exports to the countries on the Russian periphery, provided those states have the necessary import terminals. However, the United States is not unique in this regard. [Australian LNG exports](https://www.stratfor.com/analysis/australias-lng-sector-comes-under-strain) are set to provide much-needed relief to global natural gas markets over the next two years. With LNG import terminals, Russia's neighbors can import natural gas from anyone.

### 1AR – LNG – Russia ! D

#### No US-Russian war or adventurism

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Richard, Diplomacy Still Trumps Confrontation for Russia and the West, World Politics Review, http://www.worldpoliticsreview.com/articles/17575/diplomacy-still-trumps-confrontation-for-russia-and-the-west

But the biggest diplomatic achievement of the past 12 months may have been the simple fact that Russia and the West avoided a return to a Cold War-style confrontation. Having set a collision course with the U.S. and Europe over Ukraine in 2014, Moscow repeatedly courted a further deterioration in relations. In January, it unleashed a brutal offensive by its proxies and covert forces in eastern Ukraine, ripping up previous cease-fire agreements in the process. In September, it launched its intervention in Syria, whipping up confusion in Western capitals over its intentions and, if independent reports are right, adopting a cavalier attitude to civilian deaths. Both of these military gambles could have sparked a hard-line response from Western policymakers. In response to the January offensive in Ukraine, U.S. officials considered plans to arm Kiev, potentially precipitating a further escalation of the conflict. The Russian air campaign over Syria inevitably risked an unintentional clash with the parallel U.S.-led coalition bombing the self-declared Islamic State, a danger that proved real when Turkey shot down a Russian jet over its border in November. Despite these provocations, the U.S. and its allies have found ways to de-escalate tensions with Moscow. It even seems possible that the two sides will settle on a compromise over Syria that diplomats hope could lead to broader rapprochement, although the plunge in relations between Iran and Saudi Arabia may now upset this. Why did Russia’s adventurism not lead to a more serious confrontation? Three factors have been crucial: European leaders’ caution, the Obama administration’s fierce focus on the Iran deal, and the threat from the Islamic State and its imitators. The Europeans’ fear of an uncontrolled escalation over Ukraine proved decisive in the first quarter of the year, as German Chancellor Angela Merkel and French President Francois Hollande hastily cobbled together a new cease-fire, the so-called Minsk II accords, to ease the violence in Ukraine. Washington’s urge to settle the nuclear standoff with Iran shaped diplomatic calculations through the middle of 2015, as Russian officials made a point of being conspicuously helpful in the final negotiations with Tehran. While Moscow’s Syrian campaign threatened to torpedo relations in the last months of the year, the November terrorist attacks in Paris transformed Western leaders’ thinking anew. Their priority is now maintaining stable relations with Russia as a basis for extending operations in Syria against the Islamic State, while all sides seem willing to accept a slow freezing of the conflict in eastern Ukraine. As a recent survey by the European Council on Foreign Relations (ECFR) shows, Russia and its proxies still partially or wholly ignore many key aspects of the Minsk II bargain. Moscow has, for example, skillfully modulated its military presence in eastern Ukraine, deploying multiple armored brigades during the worst of the fighting while “switching to a smaller force of trainers, special forces and logistic personnel during calm phases.” But such cosmetic variations help keep the crisis under control, and although the U.S. and the European Union maintain sanctions on Moscow, everyone is more focused on Syria. Critics of Western policy believe that Russia is simply reaping undeserved rewards for its chronic adventurism. As I noted in February, Merkel and Hollande’s drive for a compromise with Russian President Vladimir Putin over Ukraine “rehabilitated Putin as a serious interlocutor, a status he seemed close to losing after the breakdown of previous cease-fires.” Similarly, as I argued last month in the American Interest, the Russian president has been the beneficiary of a “vicious cycle” over Syria: “Russia’s tactics have repeatedly caused the war to worsen; each time the situation deteriorates, Moscow steps up to suggest that it can ease matters through the U.N., a ruse that President Putin perfected in 2013 with his offer to defuse the chemical weapons crisis.” Moscow has, in short, learned that it can behave like the proverbial bull in a china shop so long as it promises to help clean up afterward. Yet it is also possible to claim that the West has succeeded in neutering Putin, or at least containing him, by drawing him back into complex diplomatic negotiations each time that he goes on the offensive. Despite its apparent bellicosity, Moscow still seems to crave the status and security that it garners from diplomatic bargains such as Minsk II and the current U.N.-backed negotiations on a Syrian cease-fire. It is arguable, too, that Moscow’s overall military strategy would make little sense if it could not fall back on these mechanisms: Russia lacks the military means to run a full-scale war in Syria indefinitely and could not sustain complete economic isolation from the West over Ukraine. It suits all parties to stay at the negotiating table rather than ratchet up tensions further, even if the level of mutual mistrust remains very high. Some observers believe that European and U.S. diplomats are still too easily beguiled by the idea of “positive conversations” with Putin, while ignoring his ultimate aims. As ECFR’s Kadri Liik points out, Russia wants to be seen as an “equal,” and that means “having geopolitical veto rights and uncritical acceptance of the nature and practices of its domestic regime.” Yet, if continued diplomacy delivers a Syrian cease-fire and, at least, relative calm in eastern Ukraine through 2016, the West’s strategy of tolerating Russian adventurism within certain limits will ultimately look justifiable. Washington and its allies have already gone some way to granting Moscow extra leverage in the international system, but will not easily accede to Russia’s ambitions for even greater powers. Relations will remain profoundly difficult. But if Putin and his Western counterparts can find just enough common ground to work together more than they fight in 2016, they could still make the world a marginally safer place.

### 1AR – LNG First Strike Russia

#### If conventional war with Russia started or was imminent, the US would use nukes first

Tong Zhao et al 18, fellow @ Carnegie, PhD in Science, Technology, and International Affairs @ Georgia Institute of Technology, MA in International Relations @ Tsinghua University, “Reducing the Risks of Nuclear Entanglement”, https://carnegieendowment.org/2018/09/12/reducing-risks-of-nuclear-entanglement-pub-77236

Chinese or Russian non-nuclear strikes against the United States could also spark escalation—a risk that has been overlooked since the Cold War—for reasons other than crisis instability. The risk would be most acute if China or Russia launched non-nuclear attacks against dual-use U.S. C3I assets (including early-warning and communication satellites, as well as ground-based radars and transmitters). Even if conducted exclusively for the purpose of winning (or at least not losing) a conventional war, such non-nuclear attacks could be misinterpreted by Washington as preparations for nuclear use. As a result, Washington might come to believe (wrongly) that it was about to become the victim of a nuclear attack—an effect termed misinterpreted warning. For example, China or Russia might attack U.S. early-warning satellites to enable their regional non-nuclear ballistic missiles (or, perhaps, non-nuclear ICBMs or boost-glide weapons in the future) to penetrate U.S. missile defenses. However, such an attack might be misinterpreted by the United States as an attempt to disable missile defenses designed to protect the homeland against limited nuclear strikes. Even if the United States did not believe that nuclear use by an adversary was imminent, it might still worry that non-nuclear strikes against its dual-use C3I assets could compromise its ability to limit the damage it would suffer if the war turned nuclear at some later point. Such damage-limitation operations, which are an acknowledged part of U.S. nuclear strategy, would probably involve nuclear or non-nuclear attacks on the adversary’s nuclear forces backed up by missile defenses. To have any chance of success, these operations would require very sophisticated C3I capabilities (to target mobile missiles, for example). Attacks on—or even perceived threats to—these C3I assets (many of which are dual use) could lead to concerns in Washington that, unless it took action now, effective damage limitation might be impossible—that is, the damage-limitation window might already have closed—if the war turned nuclear. The United States might respond to either of these concerns in ways that could further escalate the crisis. Washington would probably take steps to protect surviving C3I capabilities. It might, for example, attack anti-satellite weapons that were seen as particularly threatening. Such strikes could prove especially escalatory if they were conducted deeper inside the adversary’s borders than the United States had previously struck. Alternatively, or additionally, Washington might issue explicit or implicit nuclear threats against nuclear use or further attacks on C3I assets. In fact, the 2018 U.S. Nuclear Posture Review even goes so far as to threaten to use nuclear weapons in response to attacks on C3I assets. Risk mitigation will likely prove challenging. China may not want to disentangle its nuclear and non-nuclear forces because doing so might weaken its ability to deter U.S. attacks against the latter and because such disentanglement might prove challenging organizationally for the People’s Liberation Army Rocket Force (which operates China’s land-based nuclear forces). For Russia, the financial costs associated with disentanglement are likely to be a significant barrier. Moreover, inadvertent escalation is not generally regarded as a serious risk in China or Russia. Unfortunately, the belief that inadvertent escalation is unlikely actually makes it more probable because it leaves political and military leaders less inclined, in peacetime, to take steps that could mitigate the risks and more inclined, in wartime, to interpret ambiguous events in the worst possible light. Although there is more acceptance of the possibility of inadvertent escalation in the United States, there is little evidence that the U.S. government and military have fully factored the risks of entanglement into procurement policies and war planning. There is also little evidence that the administration of President Donald Trump is willing to invest significant political capital in reducing the risk of inadvertent escalation.

#### That initial strike will completely destroy their nuclear arsenal – solves the impact

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The US nuclear forces modernization program has been portrayed to the public as an effort to ensure the reliability and safety of warheads in the US nuclear arsenal, rather than to enhance their military capabilities. In reality, however, that program has implemented revolutionary new technologies that will vastly increase the targeting capability of the US ballistic missile arsenal. This increase in capability is astonishing—boosting the overall killing power of existing US ballistic missile forces by a factor of roughly three—and it creates exactly what one would expect to see, if a nuclear-armed state were planning to have the capacity to fight and win a nuclear war by disarming enemies with a surprise first strike. Because of improvements in the killing power of US submarine-launched ballistic missiles, those submarines now patrol with more than three times the number of warheads needed to destroy the entire fleet of Russian land-based missiles in their silos. US submarine-based missiles can carry multiple warheads, so hundreds of others, now in storage, could be added to the submarine-based missile force, making it all the more lethal. The revolutionary increase in the lethality of submarine-borne US nuclear forces comes from a “super-fuze” device that since 2009 has been incorporated into the Navy’s W76-1/Mk4A warhead as part of a decade-long life-extension program. We estimate that all warheads deployed on US ballistic missile submarines now have this fuzing capability. Because the innovations in the super-fuze appear, to the non-technical eye, to be minor, policymakers outside of the US government (and probably inside the government as well) have completely missed its revolutionary impact on military capabilities and its important implications for global security. Before the invention of this new fuzing mechanism, even the most accurate ballistic missile warheads might not detonate close enough to targets hardened against nuclear attack to destroy them. But the new super-fuze is designed to destroy fixed targets by detonating above and around a target in a much more effective way. Warheads that would otherwise overfly a target and land too far away will now, because of the new fuzing system, detonate above the target. FIGURE 1. The deployment of the new MC4700 arming, fuzing, and firing system on the W76-1/Mk4A significantly increases the number of hard target kill-capable warheads on US ballistic missile submarines. The result of this fuzing scheme is a significant increase in the probability that a warhead will explode close enough to destroy the target even though the accuracy of the missile-warhead system has itself not improved. As a consequence, the US submarine force today is much more capable than it was previously against hardened targets such as Russian ICBM silos. A decade ago, only about 20 percent of US submarine warheads had hard-target kill capability; today they all do. (See Figure 1.) This vast increase in US nuclear targeting capability, which has largely been concealed from the general public, has serious implications for strategic stability and perceptions of US nuclear strategy and intentions. Russian planners will almost surely see the advance in fuzing capability as empowering an increasingly feasible US preemptive nuclear strike capability—a capability that would require Russia to undertake countermeasures that would further increase the already dangerously high readiness of Russian nuclear forces. Tense nuclear postures based on worst-case planning assumptions already pose the possibility of a nuclear response to false warning of attack. The new kill capability created by super-fuzing increases the tension and the risk that US or Russian nuclear forces will be used in response to early warning of an attack—even when an attack has not occurred. The increased capability of the US submarine force will likely be seen as even more threatening because Russia does not have a functioning space-based infrared early warning system but relies primarily on ground-based early warning radars to detect a US missile attack. Since these radars cannot see over the horizon, Russia has less than half as much early-warning time as the United States. (The United States has about 30 minutes, Russia 15 minutes or less.) The inability of Russia to globally monitor missile launches from space means that Russian military and political leaders would have no “situational awareness” to help them assess whether an early-warning radar indication of a surprise attack is real or the result of a technical error. The combination of this lack of Russian situational awareness, dangerously short warning times, high-readiness alert postures, and the increasing US strike capacity has created a deeply destabilizing and dangerous strategic nuclear situation. When viewed in the alarming context of deteriorating political relations between Russia and the West, and the threats and counter-threats that are now becoming the norm for both sides in this evolving standoff, it may well be that the danger of an accident leading to nuclear war is as high now as it was in periods of peak crisis during the Cold War. How the new accuracy-enhancing fuze works. The significant increase in the ability of the W76-1/Mk4A warhead to destroy hardened targets—including Russian silo-based ICBMs—derives from a simple physical fact: Explosions that occur near and above the ground over a target can be lethal to it. This above-target area is known as a “lethal volume”; the detonation of a warhead of appropriate yield in this volume will result in the destruction of the target. The recognition that the killing power of the W76 warhead could be vastly increased by equipping it with a new fuze was discussed in a 1994 alternate warhead study conducted by the Defense and Energy departments. The study calculated the number of warheads that would be needed for the W76 to attack the Russian target base, if START II were implemented. At the time, W76/Mk4 warheads had a fixed height-of-burst fuze (meaning the fuze could not adjust its detonation at an optimal location if it were falling short or long of a target). With those fixed-height fuzes, submarine-launched nuclear missiles were mainly aimed at softer targets such as military bases. But the study found that an enhanced Mk4A reentry-body with a new fuze that provided for an adjustable height-of-burst as it arrives would have significant capabilities against harder targets, compared to warheads with the earlier fuzes. The study assumed that a smaller number of Mk4 nuclear warheads with higher killing power per warhead could cover the Russian target base and be more effective than multiple attacks on targets with less destructive warheads. In other words, an enhanced fuze would allow the United States to reduce the number of warheads on its ballistic missile submarines, but increase the targeting effectiveness of the fleet. Figure 2 illustrates the kill distribution of US submarine-launched nuclear missiles equipped with the earlier, fixed height-of-burst fuzes. The dome-shaped volume outlined in gray shows the lethal volume within which a 100-kiloton nuclear explosion will generate 10,000 pounds per square inch or more of blast pressure on the ground. In other words, if a target on the ground cannot survive a blast of 10,000 pounds per square inch or more, it will be destroyed if a 100-kt nuclear weapon detonates anywhere within that dome-shaped volume. To show the physical relationship of the lethal volume for a particular ground target of interest—in this case a Russian SS-18 ICBM silo—Figure 2 was drawn to scale. Also shown to scale is the approximate spread of warhead trajectories that correspond to a missile that is accurate to 100 meters, a miss distance roughly the same as what is achieved by the Trident II sea-launched ballistic missile. Miss distances are typically characterized in terms of a quantity called the “circular error probable,” or CEP, which is defined as the radius of a circle around the aim point within which half of the warheads aimed at a target are expected to impact. In the case of a Trident II 100-kt W76-1 ballistic missile warhead, the lethal distance on the ground and the CEP are roughly equal. As a result, roughly half of the warheads equipped with the old, fixed-height fuze system could be expected to fall close enough to detonate on the ground within the lethal range. The new super-fuze for W76-1/Mk4A has a flexible height-of-burst capability that enables it to detonate at any height within the lethal volume over a target. Figure 3 shows how the new fuze vastly increases the chances that the target will be destroyed, even though the arriving warheads have essentially the same ballistic accuracy. The super-fuze is designed to measure its altitude well before it arrives near the target and while it is still outside the atmosphere. This measurement would typically be taken at an altitude of 60 to 80 kilometers, where the effects of atmospheric drag are very small. At this point, the intended trajectory is known to very high precision before the warhead begins to substantially slow from atmospheric drag. If the warhead altitude measured by the super-fuze at that time were exactly equal to the altitude expected for the intended trajectory, the warhead would be exactly on target. But if the altitude were higher than expected, the warhead could be expected to hit beyond the intended aim point. Likewise, if the altitude is lower than that expected, the warhead would likely hit short of the intended aim point. Testing has established the statistical shape and orientation of the expected spread of warhead locations as they fly towards the target. In the case of Trident II, the spread of trajectories around the intended trajectory is so small that the best way to increase the chances of detonating inside the lethal volume is to intentionally shift the aim point slightly beyond the location of the target. (Note that the intended trajectory in Figure 3 is shifted slightly down range.) By shifting the aim point down range by a distance roughly equal to a CEP, warheads that would otherwise fall short or long of the target using the conventional Mk4 fuze instead will detonate—at different heights dictated by the super fuze—within the lethal volume above a target. This shift in the down-range aim point will result in a very high percentage of warheads that overfly the target detonating in the lethal volume. The end result is that with the new Mk4A super-fuze, a substantially higher percentage of launched warheads detonate inside the lethal volume, resulting in a considerable increase in the likelihood that the target is destroyed. The ultimate effect of the super fuze’s flexible burst-height capability is a significantly increased target kill probability of the new W76-1/Mk4A warhead compared with the conventional warhead of the same type. Figure 4 shows the probability that warheads will detonate close enough to destroy the ground-target for both the conventional fuze and the super-fuze. As can be seen from figure 4, the probability of kill using a submarine-launched warhead with the new super-fuze (W76-1/Mk4A) is about 0.86. This 86 percent probability is very close to what could be achieved using three warheads with conventional fuzes to attack the same target. To put it differently: In the case of the 100-kt Trident II warhead, the super fuze triples the killing power of the nuclear force it has been applied to. Many Russian targets are not hardened to 10,000 pounds per square inch blast overpressure. Figure 5 shows the same probability of kill curves for the case of a target that is only hard to 2,000 pounds per square inch or more of blast overpressure, which is the actual case for almost all targets hardened to nuclear attack—ICBMs and supporting command posts, hardened structures at strategic airbases, submarines at pierside or in protected tunnels, hardened command posts at road mobile missile bases and elsewhere, etc. In this case, the super-fuze achieves a probability of kill of about 0.99—or very near certainty. This case also is equivalent to achieving a probability of kill associated with using three warheads with a 0.83 probability to achieve a 0.99 probability of kill. The probability of kills revealed by figures 4 and 5 have enormous security ramifications. The US military assumes that Russian SS-18 and TOPOL missile silos are hardened to withstand a pressure of 10,000 pounds per square inch or more. Since with the new super-fuze, the probability of kill against these silos is near 0.9

, the entire force of 100-kt W76-1/Mk4A Trident II warheads now “qualifies” for use against the hardest of Russian silos. This, in turn, means that essentially all of the higher-yield nuclear weapons (such as the W88/Mk5) that were formerly assigned to these Russian hard targets can now be focused on other, more demanding missions, including attacks against deeply-buried underground command facilities. In effect, the significant increase in the killing power of the W76 warhead allows the United States to use its submarine-based weapons more decisively in a wider range of missions than was the case before the introduction of this fuze. The history of the US super-fuze program. The super-fuze is officially known as the arming, fuzing and firing (AF&F) system. It consists of a fuze, an arming subsystem (which includes the radar), a firing subsystem, and a thermal battery that powers the system. The AF&F is located in the tip of the cone-shaped reentry body above the nuclear explosive package itself. The AF&F developed for the new W76-1/Mk4A is known as MC4700 and forms part of the W76 life-extension program intended to extend the service life of the W76—the most numerous warhead in the US stockpile—out to the time period 2040-2050. The new super-fuze uses a technology first deployed on the high-yield W88/Mk5 Trident II warhead. The Navy’s Strategic Systems Program contracted with the Lockheed Missile and Space Corporation in the early 1980s to develop a new fuze that included “a radar-updated, path-length compensating fuze … that could adjust for trajectory errors and significantly improve the ability to destroy a target. This was an early and sophisticated use of artificial intelligence in a weapon.” It was the radar-updated, path-length compensating fuze—combined with the increased accuracy of the Trident II missile—that gave an SLBM the ability to hold a hardened target at risk. Efforts to incorporate the W88/Mk5 fuze capability into the W76/Mk4 was part of the Energy Department’s Warhead Protection Program in the mid-1990s to permit “Mk5 fuzing functionality (including radar-updated path length fuzing, and radar proximity fuzing) as an option to replacement of the much smaller Mk4 AF&F,” according to the partially declassified 1996 Stockpile Stewardship and Management Plan (emphasis added). Apart from the inherent drive to improve military capabilities whenever possible, the motivation for increasing the target kill capability of the submarine-borne W76 was that the Air Force’s hard-target killer, the MX Peacekeeper ICBM, was scheduled to be retired under the START II treaty. The Navy only had 400 W88 hard-target kill warheads, so a decision was made to add the capability to the W76. In an article in April 1997, Strategic Systems Program director Rear Adm. George P. Nanos publicly explained that “just by changing the fuze in the Mk4 reentry body, you get a significant improvement. The Mk4, with a modified fuze and Trident II accuracy, can meet the original D5 [submarine-borne missile] hard target requirement,” [Nanos stated](https://fas.org/wp-content/uploads/sites/4/W76nanos.pdf). Later that same year, the Energy Department’s Stockpile Stewardship and Management Plan formally described the objective of the fuze modernization program “to enable W76 to take advantage of [the] higher accuracy of [the] D5 missile.” By 1998, the fuze modernization effort became a formal project, with five SLBM flight tests planned for 2001-2008. Full-scale production of the super-fuze equipped W76-1/Mk4A began in September 2008, with the first warhead delivered to the Navy in February 2009. By the end of 2016, roughly 1,200 of an estimated 1,600 planned W76-1/Mk4As had been produced, of which about 506 are currently deployed on ballistic missile submarines. The implications. The newly created capability to destroy Russian silo-based nuclear forces with 100-kt W76-1/Mk4A warheads—the most numerous in the US stockpile—vastly expands the nuclear warfighting capabilities of US nuclear forces. Since only part of the W76 force would be needed to eliminate Russia’s silo-based ICBMs, the United States will be left with an enormous number of higher-yield warheads that would then be available to be reprogrammed for other missions. Approximately 890 warheads are deployed on US ballistic missile submarines (506 W76-1/Mk4A and 384 W88/Mk5). Assuming that the 506 deployed W76-1s equipped with the super-fuze were used against Russian silo-based ICBMs, essentially all 136 Russian silo-based ICBMs could be potentially eliminated by attacking each silo with two W76-1 warheads—a total of 272 warheads. This would consume only 54 percent of the deployed W76-1 warheads, leaving roughly 234 of the 500 warheads free to be targeted on yet other installations. And hundreds of additional submarine warheads are in storage for increasing the missile warhead loading if so ordered. The Trident II missiles that are deployed today carry an average of four to five W76-1 warheads each. However, each missile could carry eight such warheads if the US were to suddenly decide to carry a maximum load of W76 warheads on its deployed Trident II ballistic missiles. And the missile was tested with up to 12 warheads. Essentially all the 384 W88 “heavy” Trident II warheads, with yields of 455 kt, would also be available for use against deeply-buried targets. In addition, about 400 Minuteman III warheads, with yields of about 300 kt, could be used to target hardened Russian targets. In all, the entire Russian silo-based forces could potentially be destroyed while leaving the US with 79 percent of its ballistic missile warheads unused. Even after Russia’s silo-based missiles were attacked, the US nuclear firepower remaining would be staggering—and certainly of concern to Russia or any other country worried about a US first strike. Because of the new kill capabilities of US submarine-launched ballistic missiles (SLBMs), the United States would be able to target huge portions of its nuclear force against non-hardened targets, the destruction of which would be crucial to a “successful” first strike. One such mission would likely involve the destruction of road-mobile ICBMs that had left their garrisons to hide in Russia’s vast forests in anticipation of attack. The garrisons and their support facilities would probably be destroyed quickly, and some of the dispersed road-mobile launchers would also be quickly destroyed as they were in the process of dispersing. To destroy or expose the remaining launchers, United States planners would have the nuclear forces needed to undertake truly scorched-earth tactics: Just 125 US Minuteman III warheads could set fire to some 8,000 square miles of forest area where the road-mobile missiles are most likely to be deployed. This would be the equivalent of a circular area with a diameter of 100 miles. Such an attack would be potentially aimed at destroying all road-mobile launchers either as they disperse or after they have taken up position some short distance from roads that give them access to forested areas. Many of the nearly 300 remaining deployed W76 warheads could be used to attack all command posts associated with Russian ICBMs. A very small number of Russia’s major leadership command posts are deeply buried, to protect them from direct destruction by nuclear attack. The US military would likely reserve the highest-yield warheads for those targets. Figure 7 below shows an example of a structure that is roughly the size of the US Capitol building that is postulated to have rooms and tunnels as deep as 800 feet or more. Shelters that have rooms and tunnels at even greater depths could be sealed by using multiple nuclear warheads to crater every location where an entrance or exit might conceivably have been built.

#### Otherwise, Russia will broadly scale up military AI – extinction

Mike Rogers 17, former US Representative from Michigan, chairman of the House Permanent Select Committee on Intelligence, "Artificial intelligence — the arms race we may not be able to control", TheHill, https://thehill.com/opinion/technology/351725-artificial-intelligence-is-the-new-arms-race-we-may-not-be-able-to-control

“Whoever becomes the leader in this sphere will become ruler of the world,” [said](https://www.theverge.com/2017/9/4/16251226/russia-ai-putin-rule-the-world) Vladimir Putin. The sphere the President of Russia is referring to is artificial intelligence (AI) and his comments should give you a moment of pause. Addressing students at the beginning of our Labor Day weekend, Putin remarked “Artificial intelligence is the future, not only for Russia, but for all humankind,” adding, “It comes with colossal opportunities, but also threats that are difficult to predict.” For once, I find myself in agreement with the President of Russia, but just this once. Artificial Intelligence offers incredible promise and peril. Nowhere is this clearer than in the realm of national security. Today un-crewed systems are a fact of modern warfare. Nearly every country is adopting systems where personnel are far removed from the conflict and wage war by remote control. AI [stands](https://www.nytimes.com/2016/10/26/us/pentagon-artificial-intelligence-terminator.html) to sever that ground connection. Imagine a fully autonomous Predator or Reaper drone. Managed by an AI system, the drone could identify targets, determine their legitimacy, and conduct a strike all without human intervention. Indeed, the Ministry of Defence of the United Kingdom issued a press [statement](https://www.theverge.com/2017/9/12/16286580/uk-government-killer-robots-drones-weapons) in September that the country “does not possess fully autonomous weapon systems and has no intention of developing them,” and that its weapons systems “will always be under control as an absolute guarantee of human oversight and authority and accountability.” Let’s think smaller. Imagine a tiny insect-sized drone loaded with explosive. Guided by a [pre-programmed AI](https://www.amazon.com/Life-3-0-Being-Artificial-Intelligence/dp/1101946598), it could hunt down a specific target — a politician, a general, or an opposition figure — determine when to strike, how to strike, and if to strike based on its own learning. Howard Hughes Medical Center [recently](https://qz.com/1000011/scientists-attached-an-electronic-backpack-to-a-genetically-modified-dragonfly-and-turned-it-into-a-drone/) attached a backpack to a genetically modified dragonfly and flew it remotely. These examples are, however, where humans are involved and largely control the left and right limits of AI. Yet, there are examples of AI purposely and independently going beyond programed parameters. Rogue algorithms led to a [flash crash](http://gizmodo.com/rogue-algorithm-blamed-for-historic-crash-of-the-britis-1787523587) of the British Pound. In 2016, in-game AIs created super AIs weapons and [hunted down](http://www.kotaku.co.uk/2016/06/03/elites-ai-created-super-weapons-and-started-hunting-players-skynet-is-here) human players, and AIs have [created](https://www.forbes.com/sites/tonybradley/2017/07/31/facebook-ai-creates-its-own-language-in-creepy-preview-of-our-potential-future/#1cf69787292c) their own languages that were indecipherable to humans. AIs proved more effective than their human counterparts in producing and catching users in spear phishing programs. Not only did the AIs create more content, they successfully [captured](https://www.blackhat.com/docs/us-16/materials/us-16-Seymour-Tully-Weaponizing-Data-Science-For-Social-Engineering-Automated-E2E-Spear-Phishing-On-Twitter.pdf) more users with their deception. While seemingly simple and low stakes in nature, extrapolate these scenarios into more significant and risky areas

and the consequences become much greater. Cybersecurity is no different. Today we are focused on the hackers, trolls, and cyber criminals (officially sanctioned and otherwise) who seek to penetrate our networks, steal our intellectual property, and leave behind malicious code for activation in the event of a conflict. Replace the individual with an AI and imagine how fast hacking takes place; networks against networks, at machine speed all without a human in the loop. Sound far-fetched? It’s not. In 2016, the Defense Advanced Research Projects Agency held an AI on AI capture the flag contest called the [Cyber Grand Challenge](https://www.youtube.com/watch?v=qSgYu3w3DMM) at the DEF CON event. AI networks against AI networks. In August of this year the founders of 116 AI and robotics companies signed a letter petitioning the United Nations [to ban](https://www.theverge.com/2017/8/21/16177828/killer-robots-ban-elon-musk-un-petition) lethal autonomous systems. Signatories to this letter included Google DeepMind’s co-founder Mustafa Suleyman and Elon Musk who, in response to Putin’s quote [tweeted](https://twitter.com/elonmusk/status/904638455761612800), “Competition for AI superiority at national level most likely cause of WW3 imo (sic)”. AI is not some far off future challenge. It is a challenge today and one with which we must grapple. I am in favor of fielding any system that enhances our national security, but we must have an open and honest conversation about the implications of AI, the consequences of which we do not, and may not, fully understand. This is not a new type of bullet or missile. This is a potentially fully autonomous system that even with human oversight and guidance will make its own decisions on the battlefield and in cyberspace. How can we ensure that the system does not escape our control? How can we prevent such systems from falling into the hands of terrorists or insurgents? Who controls the source code? How and can we build in so-called impenetrable kill switches? AI and AI-like systems are slowly being introduced into our arsenal. Our adversaries, China, Russia, and others are also introducing AI systems into their arsenals as well. Implementation is happening faster than our ability to fully comprehend the consequences. Putin’s new call spells out a new arms race. Rushing to AI weapon systems without guiding principles is a dangerous. It risks an escalation that we do not fully understand and may not be able to control. The cost of limiting AI intelligence being weaponized [could vastly exceed](https://www.belfercenter.org/sites/default/files/files/publication/AI%20NatSec%20-%20final.pdf) all of our nuclear proliferation efforts to date. More troubling, the consequences of failure are equally existential.

## DA – Oil High

### 1AR – Oil – Link

#### Plan shields the link – a carbon tax would decrease the impact because less people are reliant on oil.

#### We raise prices by at most 1%.

Eduardo **Porter**, Aug. 5, 20**16**. “Do Oil Companies Really Need $4 Billion Per Year of Taxpayers’ Money?” *NY Times*. <https://www.nytimes.com/2016/08/06/upshot/do-oil-companies-really-need-4-billion-per-year-of-taxpayers-money.html> LHSLA LH

In a new report for the Council on Foreign Relations, Gilbert Metcalf, a professor of economics at Tufts University, concluded that eliminating the three major federal subsidies for the production of oil and gas would have a very limited impact on the production and consumption of these fossil fuels. Mr. **Metcalf’s analysis is the most sophisticated yet on the impact of government supports**, worth roughly $4 billion a year. Extrapolating from the observed reaction of energy companies to fluctuations in the price of oil and gas, he models how a loss of subsidies might curtail drilling and thus affect production, prices and consumer demand. Cutting oil drilling subsidies might **reduce domestic oil production by 5 percent** in the year 2030. As a result, he thinks, **the worldwide price of oil would inch up by only 1 percent**. He assumes it will hardly be affected because other countries would increase production as the flow of American crude slowed. Demand would hardly budge, as the price of gasoline at the pump would rise by at most **2 cents a gallon.**

#### Carbon tax has negligible effects on oil profits in the short-term, and producers benefit from a shift to gas

David Roberts 15, energy and climate change writer @ Vox, “Big oil wants a price on carbon. That's not as weird as it sounds.” June 5, http://www.vox.com/2015/6/5/8733601/big-oil-carbon-price

Oil and gas companies will benefit from carbon pricing, at least at first European oil and gas companies seem to have figured out a simple fact about the math of a carbon price: at least in the early stages, it is likely to benefit gas at coal's expense, while oil will remain comparatively unaffected. That's why AP's story on this is headlined "Oil and gas turn their backs on coal as climate deal nears." Coal is low-hanging fruit, extremely carbon-intensive and beset by abundant, cheaper, cleaner alternatives. So it is likely that any carbon price will hit coal first and hardest. The immediate effect will be to accelerate the ongoing shift from coal to gas, which can only benefit oil and gas companies sitting on enormous natural gas reserves. That's why they're all (even Exxon) touting natural gas as a climate solution. (The question of whether natural gas is actually better for the atmosphere than coal is quite complicated; read Brad Plumer's explainer.) Oil is not like coal. There are few cheap or readily available alternatives in many key petroleum applications like freight and shipping, airplanes, heavy industry, plastics, and chemicals. Oil has a lower "elasticity of substitution" than coal, which means it is less vulnerable to a price on carbon. (A $20-per-ton carbon price only raises the cost of a gallon of gasoline by 20 cents, less than typical year-to-year swings in prices.) Coal is already on the knife's edge; a small carbon price can push it over. Oil is far more entrenched. So oil companies can live with a modest price on carbon for a long time, especially if the price stays as low as it is now in Europe, at around $7.80 per ton. It's a smaller cost, and a smaller risk, than the fluctuations in oil prices they already deal with every day. And it's much less of a threat than more targeted policies like, say, California's low-carbon fuel standard (LCFS), which the industry hates with the fire of a thousand suns.

### 1AR – Oil – Saudi L/T

#### Plan sparks successful Saudi economic reforms – solves inevitable collapse

Darby 15 (Megna Darby, writer for Climate Home, citing Wael Hmaidan, international director at the Climate Action Network, a global network of NGOs, oil minister and climate negotiator Ali Al Naimi, October 8, 2015. “As low oil prices fail to bankrupt US oil, could climate action help Middle Eastern petropower rebalance its economy?” http://www.climatechangenews.com/2015/08/10/saudi-arabias-failed-oil-gamble-and-the-climate/)

When Saudi Arabia refused to cut – and even increased – its oil output on tumbling prices last November, it was taking a gamble. The hope in the petro-state was that low prices would drive more expensive US producers out of business, eliminating competition in the medium term. It’s [it is] not paying off: US hydrocarbon businesses have turned out to be more resilient than expected. As a result, [analysts warn](http://www.telegraph.co.uk/finance/oilprices/11768136/Saudi-Arabia-may-go-broke-before-the-US-oil-industry-buckles.html) the Middle Eastern Kingdom – which relies on oil for 90% of its revenues – is in serious trouble. And [the Telegraph reports](http://www.telegraph.co.uk/finance/oilprices/11768136/Saudi-Arabia-may-go-broke-before-the-US-oil-industry-buckles.html) the OPEC group of oil producers it leads, which includes Venezuela and Iran, is falling apart. Saudis have historically been [hostile to the climate agenda](http://www.climatechangenews.com/2014/05/23/saudi-blocking-of-un-climate-science-report-exposed/), seeing curbs on greenhouse gas emissions as a threat to its long term prosperity. But could stronger action on climate change worldwide help them rebalance their economy? That is the case made by Wael Hmaidan, international director at the Climate Action Network, a global network of NGOs pushing for a tough UN climate deal in Paris later this year. “Climate action will limit short-term competition, which will allow them to make enough profit to change their economy for a post-fossil fuel era,” he tells RTCC. The logic goes like this. Scientists calculate around two thirds of known fossil fuel reserves need to stay in the ground to limit global warming to 2C – the international target. This leaves a “carbon budget” for some continued use of coal, oil and gas. But which sources? From a climate perspective, it makes sense to drive out coal first, as the most polluting of the three. So strong action gives a boost to gas producers in the medium term, as a cleaner source of power generation. When it comes to oil, the economically rational approach is to use the lowest cost, lowest carbon sources. Saudi Arabia, with its well-established infrastructure, can pump far cheaper crude than Canadian tar sands projects, for example. Oil majors have shelved more than US$200 billion worth of major projects this year, a [recent analysis](http://www.climatechangenews.com/2015/07/28/canada-tar-sand-exploration-on-hold-until-2017/) found, in a sign they’re increasingly sensitive to cost. A global carbon tax, [as advocated by big businesses including oil and gas majors](http://www.climatechangenews.com/2015/05/20/hollande-backs-business-with-demand-for-global-carbon-price/), would reinforce the signal for climate-friendly investment. Ultimately, to stabilise the climate at 2C fossil fuel use [needs to phase out](http://www.climatechangenews.com/2015/06/08/g7-buoys-climate-talks-with-support-for-zero-carbon-goal/) to near zero in the second half of the century. A proposed Paris climate deal could see this inscribed into a UN agreement, [perhaps based around the G7 pledge](http://www.climatechangenews.com/2015/06/08/g7-buoys-climate-talks-with-support-for-zero-carbon-goal/) to slash emissions 40-70% on 2010 levels by 2050. Sooner or later, Saudi Arabia will have to shift away from oil – a fact acknowledged by oil minister and climate negotiator Ali Al Naimi. At a business and climate summit in May, [he talked up](http://www.climatechangenews.com/2015/05/21/fossil-fuel-giants-reject-calls-to-keep-oil-gas-and-coal-in-ground/) the country’s solar power prospects: “Instead of exporting fossil fuels, we will be exporting gigawatts of electric power,” he said. But while he was bullish on solar, he equivocated over how long the oil era would last, saying it was unlikely to end before 2050. Khalid Al-Falih, chief of national oil company Saudi Aramco, showed up in New York last September [to voice his support](http://www.climatechangenews.com/2014/09/29/oil-majors-target-king-coal-in-fight-for-climate-high-ground/) for climate action – an “era-defining objective,” he said. In a sign the industry is getting wise to the implications of “keep it in the ground”, oil executives at that meeting attacked the coal sector, touting gas as a green alternative. And Saudi Aramco has joined a coalition of energy majors [promising to announce their own climate strategy](http://www.climatechangenews.com/2015/07/20/oil-majors-to-reveal-climate-strategy-in-october/) ahead of this December’s UN summit. Financial stability You don’t need to be an eco-warrior to recognise the perils of basing 90% of your economy on one volatile sector. Saudi Arabia is [one of a number of G20 countries participating in an assessment](http://www.climatechangenews.com/2015/04/29/g20-to-assess-carbon-bubble-threat-media-reports/) of the financial risks it could face if its oil assets were deemed unusable. The findings are due later this year. Khalid Alsweilem, Harvard fellow and former investment director at the Saudi Arabia Monetary Agency, has produced a [report](http://belfercenter.ksg.harvard.edu/files/Saudi.pdf) on the topic that doesn’t mention climate change once. “The uncertain outlook for global oil prices has underlined the challenges Saudi Arabia faces in maintaining long-term fiscal stability and ensuring its ability to meet future obligations,” he writes. He recommends a Norwegian-style sovereign wealth fund to safeguard the economy for future generations. Alsweilem does not specify how that fund should be invested – and those bold solar plans have yet to materialise. A Saudi clean energy programme has run into delays, with [Bloomberg reporting in January](http://www.bloomberg.com/news/articles/2015-01-20/saudi-arabia-delays-109-billion-solar-plant-by-8-years) it would be completed in 2040, not 2032 as planned. The package aimed to meet a third of the Kingdom’s electricity needs from solar, in a US$109 billion push, plus promote other low carbon sources. Far from the solar power exports Al Naimi said could be achieved within five years, the policy signalled a more modest attempt to conserve oil for export. Safa’ Al Jayoussi, Arab regional expert at Greenpeace, says climate change “is not a priority” for the Saudis right now. At a high level, they are more concerned about the Iran-USA nuclear deal, Syria and Yemen conflicts, she adds. That leaves it to the country’s climate diplomats to figure out their own position for the upcoming Paris climate summit. “The negotiating team is more or less deciding on the negotiation strategy, with little input from higher powers,” says CAN’s Hmaidan. With oil dependence looking an increasingly poor bet, this could be time for Saudi Arabia to embrace the climate agenda.

### 1AR – Oil – ! Turn

#### High oil prices good – key to Russia’s economy

Jacob L. **Shapiro, 2018**, Professor of Politics and International Affairs at Princeton University, "An Oil Price Increase Is Not Enough for Russia", Geopolitical Futures, https://geopoliticalfutures.com/oil-price-increase-not-enough-russia/

Brent crude oil prices have reached their highest level since May 2015, hovering around $69.90 per barrel as of this writing. On Jan. 9, when prices surpassed $68 a barrel, **the number held a special significance for Russia** because $**68 is the price around which Russia can balance its budget**. The questions now become **whether these prices can hold,** and **whether the economic problems that have plagued Russia since 2014 will abate as a result. The answer to both questions is: probably not. First, oil markets**, like all markets, **are fickle**. Daily price movements are only loosely based on price fundamentals, which is why they are so notoriously difficult to predict. They are based as much on human psychology and speculation as on **supply and demand**. Though there has been a string of incidents that have buoyed oil prices, there is little reason to think prices will remain at the current level or much exceed it. Oil prices have risen about 11 percent since the beginning of December 2017 because of a combination of factors. A larger-than-expected decline in U.S. crude stocks appears to be the main reason, but it is hardly the only one. The OPEC-Russia agreement at the beginning of December 2016 to cut production has not **been honored by all the parties**, but Saudi Arabia and other Gulf countries continue to maintain significant cuts to their individual production**. Supply disruptions** in Venezuela and uncertainty in Iraq and Iran **put upward pressure on prices**. Cold weather led to an increase in demand worldwide for petroleum products. U.S. production fell slightly the past two weeks, ending a run of nine consecutive weeks of production increases. There is, however, little reason to think prices will remain this high ($68-$69 per barrel) in 2018. On Jan. 9, the U.S. Energy Information Administration published its Short-Term Energy Outlook, forecasting Brent crude to average around $60 a barrel in 2018 and $61 in 2019. The EIA expects that total global crude oil production will be greater than total consumption in 2018 and 2019. More notable, however, is EIA’s prediction that crude oil production in the U.S. will increase by roughly 11 percent to 10.3 million barrels per day, which would mark the highest level of production by the U.S. in history and would also represent a larger increase in production than in any other country for the year ahead. (In the past, the EIA’s forecasts about U.S. production have been conservative. Last year, the EIA predicted that U.S. production would average 8.7 million bpd. Instead, the U.S. averaged 9.3 million bpd.) The reason U.S. oil production has steadily increased, even as prices dipped as low as $28 a barrel in 2015, is because of technological innovation. U.S. shale oil producers have reduced their per-barrel costs significantly, enabling them to compete in global markets at price points that before were unimaginable. In the early 2010s, oil prices had to be between $60 and $80 a barrel for U.S. shale companies to maintain viability. That range is now estimated to be between $40 and $60 a barrel, or even lower for some new oil wells. In practical terms, this means that, absent a crisis that would take production completely offline in a major oil-producing country like Saudi Arabia or Russia (which we don’t see happening), there is a ceiling on how high oil prices can rise. This leads us to the second question: what this means for Russia. The current price levels are unlikely to hold, and most forecasts see oil prices averaging around $60 a barrel in 2018 and 2019. When we initially calculated that Russia needed prices around $68 a barrel to balance its budget, the situation was far more dire. Oil prices in December 2016 were around $43 a barrel, which meant that without spending cuts, Russia was looking at a budget deficit in 2017 of almost $50 billion. Perhaps, then, if Russia tightened its belt, it could get by at $60 a barrel. Unfortunately for Russia, however, **balancing the budget can’t help the country recover what it has already lost.** Depleted Reserves In February 2008, Russia’s Reserve Fund had $125.2 billion, or 7.4 percent of Russia’s gross domestic product. At its peak, the Reserve Fund had $137.3 billion – 12.5 percent of Russia’s GDP. The Finance Ministry announced Jan. 10 that **the fund was depleted**. The last $17 billion or so that had been there in December 2017 was spent, as planned, to cover budget shortfalls. **Russia is now tapping into its National Wealth Fund, the** value of which dropped 9 percent in the past year and 2.7 percent in the past month. The original purpose of this fund was to support Russia’s pension system, not to cover budget deficits. But it will be more difficult to pull money from the National Wealth Fund than from the Reserve Fund, making it a less reliable fallback. Further, Russia has already been forced to make cuts to pensions and benefits in recent years, creating a certain degree **of domestic dissatisfaction**. Russia has managed this dissatisfaction by **a combination of adventurism abroad (the war in Syria)** and consolidation of central government power at home via arrests, forced resignations and political reshufflings. But managing is not the same as eliminating, **and the threat to the regime remains.**

#### Russia econ decline causes global nuclear war

**Thompson**, Chief Operating Officer @ Lexington Institute, **15**

(Loren, Former Deputy Director of the Security Studies Program @ Georgetown University, Why Putin's Russia Is The Biggest Threat To America In 2015, <https://www.forbes.com/sites/lorenthompson/2015/01/02/why-putins-russia-is-the-biggest-threat-to-america-in-2015/#711522f74636>)

**A collapsing economy**. Much of Putin's popularity within Russia is traceable to **the impressive recovery** of the post-Soviet economy on his watch. Since he came to power in 2001, the country's gross domestic product has grown sixfold, greatly increasing the size and affluence of the Russian middle class. But that growth has been based in large part on the export of oil and gas to neighboring countries at a time when energy prices reached record highs. Now the price of oil has fallen at the same time that economic sanctions are beginning to bite. The ruble lost nearly half its value against the dollar last year, and the economy has begun to shrink. Putin blames sanctions for 25-30% of current economic hardships. Many Westerns believe a prolonged recession would weaken Putin's support, but because he **can blame outsiders**, economic troubles might actually strengthen his hand and **accelerate the trend** toward **authoritarian rule**. A deep sense of grievance. Blaming outsiders for domestic troubles has a long pedigree in Russian political tradition, and it feeds into a deep-seated sense that Russia has been deprived of its rightful role in the world by the U.S. and other Western powers. Russia may have little past experience with democracy, but it was a major power for centuries prior to the collapse of communism. Like authoritarian rulers in other nations, Putin has built his political base by **appealing to nationalism**, fashioning a revisionist view of recent events in which Russia is the victim rather that the author of its own misfortunes. He has called the break-up of the Soviet Union a tragedy of epic proportions, and apparently really believes it. By tapping into a deep vein of resentment in Russian political culture, Putin has created a broad constituency for **standing up to outsiders** even if it means prolonged economic hardship and the danger of **war**. A vulnerable antagonist. Federal Reserve chair Janet Yellen says America faces little danger from Russia's current troubles, but that's because she thinks in economic terms. In a broader sense, America potentially is in great danger because Putin and his advisors really **believe** they are the target of **a Western plot** to weaken their country. The biggest concern is that **some new move** by Russia along its borders **degenerates into a crisis** where Moscow thinks it **can improve** its tactical situation by **threatening** local **use of nuclear weapons**, and then **the crisis escalates**. At that point U.S. policymakers would have to face the reality that (1) they are unwilling to fight Russia to protect places like Ukraine, and (2) they have no real defenses of the American homeland against a sizable nuclear attack. In other words, the only reason Washington seems to have the upper hand right now is because it assumes leaders in Moscow will act "rationally." The unspoken wisdom in Washington today is that if nobody gives voice to such fears, then they don't need to be addressed. **That's how a peaceful world stumbled into the First World W**ar a century ago -- by not acknowledging the worst-case potential of a crisis in Eastern Europe -- and the blindness of leaders back then explains most of what went wrong later in the 20th Century. If we want to avoid the risk of reliving that multi-generation lesson, then U.S. policymakers need to do something more than simply wait for Putin to crack. That day will never come. In the near term, Washington needs to work harder to defuse tensions, including taking a more serious look at the history that led to Moscow's move on Crimea. Over the longer term, Washington needs to get beyond its dangerous aversion to building real defenses against long-range nuclear weapons, because it is just a matter of time before some dictator calls America's bluff.

### 1AR – Oil – Saudi ! D

#### No Saudi regional aggression from low oil – they’ll turn inward

Cienski 16 (Jan, Energy and security editor at Politico, “Judy Asks: Will Cheap Oil Kill Global Stability?”, January 20, 2016, carnegieeurope.eu/strategiceurope/?fa=62516)

No, cheap oil won’t kill global stability—in fact, it will bolster it. That doesn’t mean low oil prices aren’t terrible news for a host of countries like Russia, Saudi Arabia, Venezuela, Angola, and other emerging markets that have built their budgets on oil exports. But as their revenues shrink, their largely autocratic rulers will have to focus more on keeping their people from rebelling over budget cuts and less on causing trouble abroad.¶ Russia will be one of the first to feel the pinch, but the Saudis will also find it hard to sustain a defense budget that eats up more than 10 percent of GDP. Venezuela is already in the middle of a transition to a more sensible and fiscally austere government, and the Saudis and Russians are rapidly heading in the same direction.¶ For the rest of the world, cheap energy has been a boost to growth in the past, and there’s no reason to think that link has been broken. Faster growth in energy-importing Africa and Asia, as well as the EU, United States, and Japan, means a broadly more stable world.

## DA – Oil Low

### 1AR – Oil – L/T – Generic

#### OPEC slashes production in response to the plan – causes a spike in global oil prices

Böhringer 13 (Christoph Böhringer, University of Oldenburg, Knut Einar Rosendahl, Norwegian University of Life Science; Statistics Norway, Jan Schneider, University of Oldenburg, April 1, 2013. “UNILATERAL CLIMATE POLICY:

CAN OPEC RESOLVE THE LEAKAGE PROBLEM?” https://www.iaee.org/ej/ejexec/EJ%2035-04\_04%20%20BohringerRosendahlSchneider%20ExecSummary%2013-041%20Templated.pdf)

Our numerical analysis suggests that OPEC’s behaviour has substantial implications for the effects triggered by EU’s climate policies. If OPEC maximizes joint profits of its members, we find that leakage through the oil market may turn negative, as OPEC finds it profitable to cut back on its supply to such a large degree that the oil price increases rather than decreases. Why does OPEC reduce its supply more in this case compared to the case where OPEC acts competitively? OPEC sees that, given the EU’s climate target, a big cutback in oil supply will reduce the CO2 price that is needed for the EU to reach its target. With higher oil prices, OPEC is keeping a larger share of the oil rents, that is, the differences between the end-user prices and the costs of production and delivery. As OPEC exerts market power and responds with higher oil prices to unilateral EU climate policy, the overall emission leakage is drastically reduced compared to a setting where the oil market is perceived competitive. The leakage rate, measured as the increase in foreign emissions divided by emission reductions in the EU, drops from 18 to 9 percent. If the EU in addition implements carbon tariffs on EITE goods (i.e., emissions embodied in EITE imports are taxed at the EU CO2 emission price), the leakage rate drops to 4 percent (for the case of competitive OPEC behaviour, tariffs lead to a decline in the leakage rate from 18 to 14 percent).

### 1AR – Oil – L/T – EV’s

#### A tax PREVENTS short term electrification of vehicles – EV’s deck the global oil market

Stoner 16 (Thomas Stoner Jr., CEO of Entelligent, a provider of data on carbon-intensive industries, and companies’ readiness for a new energy economy, May 31, 2016. “Opinion: Why Big Oil might secretly wish for a carbon tax.” http://www.marketwatch.com/story/why-big-oil-might-secretly-wish-for-a-carbon-tax-2016-05-26)

A deep analysis of Exxon Mobil’s financial outlook reveals two things: The energy giant is planning for a stringent carbon tax on the oil it extracts, and that this might be just about the best thing to happen to Big Oil. Those sound like contradictory statements. After all, a carbon tax of $80 per ton — implicit from Exxon’s [XOM, +0.94%](http://www.marketwatch.com/investing/stock/xom?mod=MW_story_quote) “proxy price” in its company disclosures — could add about 70 cents to the price of a gallon of gasoline. Presumably, this would hurt oil consumption, and therefore hurt Exxon and other oil majors. But our analysis of the outcome of such a levy shows that a carbon tax will hit the coal industry harder, increasing electricity prices that would, in turn, discourage the electrification of cars. And, really, the biggest threat to the world’s largest oil extractor by market value is not a carbon tax, but rather the electrification of cars. Globally, transportation accounts for 62.3% of petroleum consumption. Thus, the biggest threat to Exxon is not a carbon tax; it’s Tesla [TSLA, +0.33%](http://www.marketwatch.com/investing/stock/tsla?mod=MW_story_quote) The $80 carbon price assumption, disclosed in Exxon’s most recent [Energy Outlook Report](http://corporate.exxonmobil.com/en/energy/energy-outlook/download-the-report/download-the-outlook-for-energy-reports), is a more stringent scenario than is typically assumed. Under that scenario, the company also sees no material decline in its production levels through 2040, confirming its claim that none of its oil will become too uneconomical to exploit because of such a carbon tax, according to a new Entelligent analysis of Exxon’s environmental performance. The takeaway for policy makers: Given still-low oil prices, perhaps now is the time to push for a carbon tax or levy. This is the craziest election year in history so who knows whether such a feat could be accomplished. Donald Trump’s support would certainly get headlines! Given the precipitous fall of gasoline prices from 2014 highs, such a levy would be unlikely to crater consumer demand for gasoline-powered cars, especially given improving fuel efficiency. Indeed, lower oil prices have weakened electric cars’ sales expectations despite disruptors like Tesla. The average consumer still chooses the improving fuel efficiency of gasoline engines over paying the CO2 abatement premium associated with electric cars. Policies may therefore need to evolve beyond a carbon tax to include measures more directly stimulating the electrification of transportation. That would dampen oil demand and production, possibly leading to an increase in the amount of oil that becomes too uneconomical to extract, called “stranded assets.” The takeaway for investors is to remain acutely alert for policy changes, which will likely drive market reaction. Investors who have a clear idea of which companies can make the transition to a lower-carbon economy will be most likely to come out ahead. A carbon tax or levy would make renewable energy more competitive and speed new investment, and help the U.S. and other countries meet their obligations under the Paris climate change accord reached in December. Under the scenario where the industry moves to an $80 CO2 tax, Exxon forecasts oil demand will increase from 2010 levels of 178 quadrillion British Thermal Units (Quad BTUs) to 228 quad BTUs in 2040. However, Exxon also sees higher sustainable energy production — energy from biomass/waste will increase from 49 to 56 quad BTUs over the same time period, hydro energy will rise from 12 to 20 and other renewables will rise from 7 to 29 over the same time. That would still be a modest share of the total global energy mix, but represents the largest percentage growth. The Paris climate agreement signed by nearly 200 governments is intended to slow the use of fossil fuels and promote clean energy use. When analysts at Entelligent sought to [measure the impact of the Paris deal](https://www.thestreet.com/story/13409478/1/what-the-paris-climate-accord-means-for-energy-markets-in-2016.html), we used a carbon tax of $50 per ton of CO2. Placing a high price on carbon of $80 per ton is in keeping with the earlier assertion from Exxon Chief Executive Rex Tillerson, who said that climate change is a priority because it is a “[risk-management problem](http://www.naturalgasintel.com/articles/98513-climate-change-a-top-priority-says-exxonmobil-ceo).” Publicly, Exxon may acknowledge regulatory pressures to reduce emissions but privately they may realize the risk of policies designed to more directly incentivize the electrification of transportation, perhaps explaining why oil executives voice support for the Paris accord and a universal price on carbon.

### 1AR – Oil – L/T – Saudi Rebalancing

#### Plan sparks successful Saudi economic reforms – solves inevitable collapse

Darby 15 (Megna Darby, writer for Climate Home, citing Wael Hmaidan, international director at the Climate Action Network, a global network of NGOs, oil minister and climate negotiator Ali Al Naimi, October 8, 2015. “As low oil prices fail to bankrupt US oil, could climate action help Middle Eastern petropower rebalance its economy?” http://www.climatechangenews.com/2015/08/10/saudi-arabias-failed-oil-gamble-and-the-climate/)

When Saudi Arabia refused to cut – and even increased – its oil output on tumbling prices last November, it was taking a gamble. The hope in the petro-state was that low prices would drive more expensive US producers out of business, eliminating competition in the medium term. It’s [it is] not paying off: US hydrocarbon businesses have turned out to be more resilient than expected. As a result, [analysts warn](http://www.telegraph.co.uk/finance/oilprices/11768136/Saudi-Arabia-may-go-broke-before-the-US-oil-industry-buckles.html) the Middle Eastern Kingdom – which relies on oil for 90% of its revenues – is in serious trouble. And [the Telegraph reports](http://www.telegraph.co.uk/finance/oilprices/11768136/Saudi-Arabia-may-go-broke-before-the-US-oil-industry-buckles.html) the OPEC group of oil producers it leads, which includes Venezuela and Iran, is falling apart. Saudis have historically been [hostile to the climate agenda](http://www.climatechangenews.com/2014/05/23/saudi-blocking-of-un-climate-science-report-exposed/), seeing curbs on greenhouse gas emissions as a threat to its long term prosperity. But could stronger action on climate change worldwide help them rebalance their economy? That is the case made by Wael Hmaidan, international director at the Climate Action Network, a global network of NGOs pushing for a tough UN climate deal in Paris later this year. “Climate action will limit short-term competition, which will allow them to make enough profit to change their economy for a post-fossil fuel era,” he tells RTCC. The logic goes like this. Scientists calculate around two thirds of known fossil fuel reserves need to stay in the ground to limit global warming to 2C – the international target. This leaves a “carbon budget” for some continued use of coal, oil and gas. But which sources? From a climate perspective, it makes sense to drive out coal first, as the most polluting of the three. So strong action gives a boost to gas producers in the medium term, as a cleaner source of power generation. When it comes to oil, the economically rational approach is to use the lowest cost, lowest carbon sources. Saudi Arabia, with its well-established infrastructure, can pump far cheaper crude than Canadian tar sands projects, for example. Oil majors have shelved more than US$200 billion worth of major projects this year, a [recent analysis](http://www.climatechangenews.com/2015/07/28/canada-tar-sand-exploration-on-hold-until-2017/) found, in a sign they’re increasingly sensitive to cost. A global carbon tax, [as advocated by big businesses including oil and gas majors](http://www.climatechangenews.com/2015/05/20/hollande-backs-business-with-demand-for-global-carbon-price/), would reinforce the signal for climate-friendly investment. Ultimately, to stabilise the climate at 2C fossil fuel use [needs to phase out](http://www.climatechangenews.com/2015/06/08/g7-buoys-climate-talks-with-support-for-zero-carbon-goal/) to near zero in the second half of the century. A proposed Paris climate deal could see this inscribed into a UN agreement, [perhaps based around the G7 pledge](http://www.climatechangenews.com/2015/06/08/g7-buoys-climate-talks-with-support-for-zero-carbon-goal/) to slash emissions 40-70% on 2010 levels by 2050. Sooner or later, Saudi Arabia will have to shift away from oil – a fact acknowledged by oil minister and climate negotiator Ali Al Naimi. At a business and climate summit in May, [he talked up](http://www.climatechangenews.com/2015/05/21/fossil-fuel-giants-reject-calls-to-keep-oil-gas-and-coal-in-ground/) the country’s solar power prospects: “Instead of exporting fossil fuels, we will be exporting gigawatts of electric power,” he said. But while he was bullish on solar, he equivocated over how long the oil era would last, saying it was unlikely to end before 2050. Khalid Al-Falih, chief of national oil company Saudi Aramco, showed up in New York last September [to voice his support](http://www.climatechangenews.com/2014/09/29/oil-majors-target-king-coal-in-fight-for-climate-high-ground/) for climate action – an “era-defining objective,” he said. In a sign the industry is getting wise to the implications of “keep it in the ground”, oil executives at that meeting attacked the coal sector, touting gas as a green alternative. And Saudi Aramco has joined a coalition of energy majors [promising to announce their own climate strategy](http://www.climatechangenews.com/2015/07/20/oil-majors-to-reveal-climate-strategy-in-october/) ahead of this December’s UN summit. Financial stability You don’t need to be an eco-warrior to recognise the perils of basing 90% of your economy on one volatile sector. Saudi Arabia is [one of a number of G20 countries participating in an assessment](http://www.climatechangenews.com/2015/04/29/g20-to-assess-carbon-bubble-threat-media-reports/) of the financial risks it could face if its oil assets were deemed unusable. The findings are due later this year. Khalid Alsweilem, Harvard fellow and former investment director at the Saudi Arabia Monetary Agency, has produced a [report](http://belfercenter.ksg.harvard.edu/files/Saudi.pdf) on the topic that doesn’t mention climate change once. “The uncertain outlook for global oil prices has underlined the challenges Saudi Arabia faces in maintaining long-term fiscal stability and ensuring its ability to meet future obligations,” he writes. He recommends a Norwegian-style sovereign wealth fund to safeguard the economy for future generations. Alsweilem does not specify how that fund should be invested – and those bold solar plans have yet to materialise. A Saudi clean energy programme has run into delays, with [Bloomberg reporting in January](http://www.bloomberg.com/news/articles/2015-01-20/saudi-arabia-delays-109-billion-solar-plant-by-8-years) it would be completed in 2040, not 2032 as planned. The package aimed to meet a third of the Kingdom’s electricity needs from solar, in a US$109 billion push, plus promote other low carbon sources. Far from the solar power exports Al Naimi said could be achieved within five years, the policy signalled a more modest attempt to conserve oil for export. Safa’ Al Jayoussi, Arab regional expert at Greenpeace, says climate change “is not a priority” for the Saudis right now. At a high level, they are more concerned about the Iran-USA nuclear deal, Syria and Yemen conflicts, she adds. That leaves it to the country’s climate diplomats to figure out their own position for the upcoming Paris climate summit. “The negotiating team is more or less deciding on the negotiation strategy, with little input from higher powers,” says CAN’s Hmaidan. With oil dependence looking an increasingly poor bet, this could be time for Saudi Arabia to embrace the climate agenda.

### 1AR – Oil – Russia ! D

#### No US Russia conflict – proxy wars get deescalated

Gowan 16 (Richard, associate fellow at the European Council on Foreign Relations and nonresident fellow at NYU’s Center on International Cooperation, where he was previously research director, “Diplomacy Still Trumps Confrontation for Russia and the West” – World Politics Review. January 4, 2016 http://www.worldpoliticsreview.com/articles/17575/diplomacy-still-trumps-confrontation-for-russia-and-the-west)

But **the biggest diplomatic achievement of the past 12 months may have been the simple fact that Russia and the West avoided a return to a Cold War-style confrontation**. **Having set a collision course with the U.S.** and Europe **over Ukraine in 2014**, **Moscow repeatedly courted a further deterioration in relations**. In January, **it unleashed a brutal offensive** by its proxies and covert forces **in eastern Ukraine**, ripping up previous cease-fire agreements in the process. In September, **it launched its intervention in Syria**, whipping up confusion in Western capitals over its intentions and, if independent reports are right, adopting a cavalier attitude to civilian deaths. **Both of these military gambles could have sparked a hard-line response from Western policymakers**. In response to the January offensive in Ukraine, U.S. officials considered plans to arm Kiev, potentially precipitating a further escalation of the conflict. The Russian air campaign over Syria inevitably risked an unintentional clash with the parallel U.S.-led coalition bombing the self-declared Islamic State, a danger that proved real when Turkey shot down a Russian jet over its border in November. **Despite these provocations, the U.S. and its allies have found ways to de-escalate tensions with Moscow**. It even seems possible that **the two sides will settle on a compromise over Syria that** diplomats hope **could lead to broader rapprochement**, although the plunge in relations between Iran and Saudi Arabia may now upset this. **Why did Russia’s adventurism not lead to a more serious confrontation? Three factors have been crucial: European leaders’ caution, the** Obama **administration’s fierce focus on the Iran deal, and the threat from the Islamic State and its imitators. The Europeans’ fear of** an uncontrolled **escalation** over Ukraine **proved decisive** in the first quarter of the year, as German Chancellor Angela Merkel and French President Francois Hollande hastily cobbled together a new cease-fire, the so-called Minsk II accords, to ease the violence in Ukraine. Washington’s urge to settle the nuclear standoff with Iran shaped diplomatic calculations through the middle of 2015, as **Russian officials made a point of being conspicuously helpful in the final negotiations with Tehran.** While Moscow’s Syrian campaign threatened to torpedo relations in the last months of the year, **the November terrorist attacks in Paris transformed Western leaders’ thinking** **anew**. **Their priority is now maintaining stable relations with Russia as a basis for extending operations in Syria against** the **I**slamic **S**tate, **while all sides seem willing to accept a slow freezing of the conflict in eastern Ukraine**. As a recent survey by the European Council on Foreign Relations (ECFR) shows, Russia and its proxies still partially or wholly ignore many key aspects of the Minsk II bargain. Moscow has, for example, skillfully modulated its military presence in eastern Ukraine, deploying multiple armored brigades during the worst of the fighting while “switching to a smaller force of trainers, special forces and logistic personnel during calm phases.” But **such cosmetic variations help keep the crisis under control, and although the U.S. and the European Union maintain sanctions on Moscow, everyone is more focused on Syria.** Critics of Western policy believe that Russia is simply reaping undeserved rewards for its chronic adventurism. As I noted in February, Merkel and Hollande’s drive for a compromise with Russian President Vladimir Putin over Ukraine “rehabilitated Putin as a serious interlocutor, a status he seemed close to losing after the breakdown of previous cease-fires.” Similarly, as I argued last month in the American Interest, the Russian president has been the beneficiary of a “vicious cycle” over Syria: “Russia’s tactics have repeatedly caused the war to worsen; each time the situation deteriorates, Moscow steps up to suggest that it can ease matters through the U.N., a ruse that President Putin perfected in 2013 with his offer to defuse the chemical weapons crisis.” Moscow has, in short, learned that it can behave like the proverbial bull in a china shop so long as it promises to help clean up afterward. Yet it is also possible to claim that **the West has succeeded in neutering Putin, or at least containing him, by drawing him back into complex diplomatic negotiations each time that he goes on the offensive**. **Despite its apparent bellicosity, Moscow still seems to crave the status and security that it garners from diplomatic bargains** such as Minsk II and the current U.N.-backed negotiations on aSyrian cease-fire. It is arguable, too, **that Moscow’s overall military strategy would make little sense if it could not fall back on these mechanisms: Russia lacks the military means to run a full-scale war** in Syria indefinitely **and could not sustain complete economic isolation from the West** over Ukraine. **It suits all parties to stay at the negotiating table rather than ratchet up tensions further, even if the level of mutual mistrust remains very high**. Some observers believe that European and U.S. diplomats are still too easily beguiled by the idea of “positive conversations” with Putin, while ignoring his ultimate aims. As ECFR’s Kadri Liik points out, Russia wants to be seen as an “equal,” and that means “having geopolitical veto rights and uncritical acceptance of the nature and practices of its domestic regime.” Yet, if continued diplomacy delivers a Syrian cease-fire and, at least, relative calm in eastern Ukraine through 2016, **the West’s strategy of tolerating Russian adventurism within certain limits will ultimately look justifiable.** Washington and its allies have already gone some way to granting Moscow extra leverage in the international system, but will not easily accede to Russia’s ambitions for even greater powers. **Relations will remain profoundly difficult. But if Putin and his Western counterparts can find just enough common ground** to work together more than they fight in 2016, **they could still make the world a marginally safer place**.

### 1AR – Oil – Saudi ! D

#### No Saudi regional aggression from low oil – they’ll turn inward

Cienski 16 (Jan, Energy and security editor at Politico, “Judy Asks: Will Cheap Oil Kill Global Stability?”, January 20, 2016, carnegieeurope.eu/strategiceurope/?fa=62516)

No, cheap oil won’t kill global stability—in fact, it will bolster it. That doesn’t mean low oil prices aren’t terrible news for a host of countries like Russia, Saudi Arabia, Venezuela, Angola, and other emerging markets that have built their budgets on oil exports. But as their revenues shrink, their largely autocratic rulers will have to focus more on keeping their people from rebelling over budget cuts and less on causing trouble abroad.¶ Russia will be one of the first to feel the pinch, but the Saudis will also find it hard to sustain a defense budget that eats up more than 10 percent of GDP. Venezuela is already in the middle of a transition to a more sensible and fiscally austere government, and the Saudis and Russians are rapidly heading in the same direction.¶ For the rest of the world, cheap energy has been a boost to growth in the past, and there’s no reason to think that link has been broken. Faster growth in energy-importing Africa and Asia, as well as the EU, United States, and Japan, means a broadly more stable world.

### 1AR – Oil – Russia ! Turn

#### Low oil prices are good – prevents Russian aggression

**Gros 15** – PhD in Economics from the University of Chicago, Director of CEPS (Daniel, “The price of oil and Soviet/Russian aggressiveness,” Centre for European Policy Studies)

There has been much speculation about the reasons that prompted President Putin’s increasingly hostile reaction in 2012-13 to the negotiations on an EU-Ukraine association agreement. The chain of events is well known. Russian pressure led the then President of Ukraine, Viktor Yanukovich, to decline to sign an Association Agreement with the EU, which sparked the Euro Maidan in Kyiv. These protests were then used a pretext for the annexation of Crimea and the support for anti-Maidan rebels in the Donbass region, which was then followed by an outright, even if covert, invasion. It is often argued that Russia is reacting to a perceived encroachment of the EU/NATO on an area that it considers its own neighbourhood (and President Putin said as much during his annual end-of-the-year press conference in December). However, history suggests that the underlying reason for Russian aggressiveness is simpler: A decade-long period of a steadily rising oil prices (and that of other raw materials) created a feeling of strength, bordering on invulnerability, which made Russia more assertive, and ready to use any opportunity to deploy its military power. The abrupt reversal of this trend since the summer of 2014 will thus be the harbinger of a much less aggressive Russian stance **as long as oil remains at present levels**. One needs to go back only 40 years to find a similar development. The 1970s had seen a similar increase in Soviet assertiveness which culminated in the invasion of Afghanistan at the very end of the decade. This came also at the tail of a decade of sharply increasing oil prices (and Soviet oil production). Between 1965 and 1980, the value of Soviet oil production went up by a factor of almost 20 (from about $20 billion annually in 1965 to almost $400 billion in today’s purchasing power in 1980). This was due in large part to the oil price increases following the first oil embargo. But there was also a large increase in Soviet oil production. In the 1960s, Soviet oil production had been lower than that of the US, but thanks to the discovery of some large fields it became much larger by 1980. This combination provided the main growth elements of the Soviet economy, making its regime much more credible, and not only in the eyes of its own population. The resulting increase in the real resources available to the Soviet elites was spent to a large extent on the military budget, allowing the Soviet Union to become a much more credible threat. The increase in relative, and absolute, economic and military strength emboldened an ageing (and therefore naturally not adventurous leadership) to become more assertive abroad. The invasion of Afghanistan appeared also at first sight to be an improvised reaction to a local development (a putsch in Kabul). The parallel to Putin’s reaction to the Euro Maidan is instructive. In both cases, a seemingly low-cost opportunity was seen as yielding a large strategic gain, at least in the short run. The figures in the Annex shows the value of Soviet and Russian oil production in constant dollars over the last half century. It is apparent that high values are associated with **foreign** **adventure**, whereas Russia was **much more cooperative** when the value of its oil exports was low. At the time of the Soviet take-over of Afghanistan, it was often argued that this was a defensive reaction to the perceived encirclement of the Soviet Union. This motive might have been latently present for a long time; but without the economic and military strength coming from higher oil prices the Soviet Union would most probably not have acted on it. The end of the Afghan adventure is now known, but this was not clear at the time, when it was interpreted as a major defeat of the West. It is often forgotten that a major element of the Soviet defeat in Afghanistan was the weakening of the economic base of the Soviet Union as oil prices fell throughout the 1980s, cutting the value of Soviet oil production to one-third of its peak level. This led to a period of extreme economic weakness in the entire Soviet space and was a key factor (but of course not the only one) in the dissolution of the Soviet empire. The 1990s then saw a protracted period of low oil prices and production during which time Russia was absorbed by its own internal problems given that the value of its oil production had plummeted to less than $60 billion and did not object to EU (or even NATO) enlargement to the East. This changed gradually during the early 2000s as the oil price (and production) recovered in Russia, again strengthening the economic base of an increasingly autocratic leadership. The complaint that the US and its European allies had somehow given a pledge not to expand NATO eastward came mostly after the fact as oil prices recovered from their low of $10/barrel in 1999-2000. The steady upwards trend in oil prices during the early 2000s culminated in a first peak of the value of Russian oil production in 2008 and the invasion of Georgia. The oil price collapsed briefly during the Great Recession of 2009, but it recovered quickly, and the value of Russian oil production reached another peak in 2012-13 when the value of its oil production topped $500 billion. These were also the years during which the Russian position on the EU-Ukraine Association Agreement hardened. The negotiations on this agreement had been going on since 2010 without eliciting any particular reaction from Russia. And so, the objections suddenly voiced by Russia when the agreement was close to being concluded appeared to come out of nowhere for the EU side. The swings in the oil price provide a telling background to the swings in Russia’s attitude towards its ‘near abroad’. A **latent resentment** is expressed in a more aggressive form, including military means, **when the resources are available**. Moreover, a high oil price crowds out other export sectors that would be interested in open markets.

#### Russian Aggression leads to world war 3

---entangling alliances

---russian nuclear policy

**Fisher 15** (Max, “How World War III became possible,” Vox, June 29, 2015, https://www.vox.com/2015/6/29/8845913/russia-war?utm\_campaign=vox&utm\_content=chorus&utm\_medium=social&utm\_source=twitter)

If you take a walk around Washington or a Western European capital today, there is no feeling of looming catastrophe. The threats are too complex, with many moving pieces and overlapping layers of risk adding up to a larger danger that is less obvious. People can be forgiven for not seeing the cloud hanging over them, for feeling that all is well — even as in Eastern Europe they are digging in for war. But this complacency is itself part of the problem, making the threat **more difficult to foresee, to manage, or**, potentially, to **avert.** There is a growing chorus of political analysts, arms control experts, and government officials who are sounding the alarm, trying to call the world's attention to its drift toward disaster. The prospect of a major war, even a **nuclear war**, in Europe has become thinkable, they warn, even **plausible**. What they describe is a threat that combines many of the hair-trigger dangers and **world-ending** stakes of the Cold War with the volatility and false calm that preceded World War I — a comparison I heard with disturbing frequency. They described a number of ways that an unwanted but nonetheless major war, like that of 1914, could break out in the Eastern European borderlands. The stakes, they say, could not be higher: the post–World War II peace in Europe, the lives of thousands or millions of Eastern Europeans, or even, in a worst-case scenario that is remote but real, the **nuclear devastation of the planet**. I. The warnings: "**War is not something that's impossible anymore"** Everyone in Moscow tells you that if you want to understand Russia's foreign policy and its view of its place the world, the person you need to talk to is Fyodor Lukyanov. Sober and bespectacled, with an academic's short brown beard, Lukyanov speaks with the precision of a political scientist but the occasional guardedness of someone with far greater access than your average analyst. Widely considered both an influential leader and an unofficial interpreter of Russia's foreign policy establishment, Lukyanov is chief of Russia's most important foreign policy think tank and its most important foreign policy journal, both of which reflect the state and its worldview. He is known to be close to Russian Foreign Minister Sergei Lavrov. I met Lukyanov around the corner from the looming Foreign Ministry compound (his office is nearby), at a small, bohemian cafe in Moscow that serves French and Israeli food to a room packed with gray suits. He was candid and relaxed. When the discussion turned to the risks of war, he grew dire. "The atmosphere is a feeling that war is not something that’s impossible anymore," Lukyanov told me, describing a growing concern within Moscow's foreign policy elite. "A question that was absolutely impossible a couple of years ago, whether there might be a war, a real war, is back," he said. "People ask it." I asked how this had happened. He said that regular Russian people don't desire war, but rather feared it would become necessary to defend against the implacably hostile United States. "The perception is that somebody would try to undermine Russia as a country that opposes the United States, and then we will need to defend ourselves by military means," he explained. Such fears, vague but existential, are everywhere in Moscow. Even liberal opposition leaders I met with, pro-Western types who oppose Putin, expressed fears that the US posed an imminent threat to Russia's security. I had booked my trip to Moscow in December, hoping to get the Russian perspective on what were, at the time, murmurings among a handful of political and arms control analysts that conflict could come to Europe. By the time I arrived in the city, in late April, concerns of an unintended and potentially catastrophic war had grown unsettlingly common. Lukyanov, pointing to the US and Russian military buildups along Eastern Europe, also worried that an accident or provocation could be misconstrued as a deliberate attack and lead to war. In the Cold War, he pointed out, both sides had understood this risk and installed political and physical infrastructure — think of the "emergency red phone" — to manage tensions and prevent them from spiraling out of control. **That infrastructure is now gone**. "All those mechanisms were disrupted or eroded," he said. "That [infrastructure] has been degraded since the end of the Cold War because the common perception is that we don’t need it anymore." That the world does not see the risk of war hanging over it, in other words, makes that risk all the likelier. For most Americans, such predictions sound improbable, even silly. But the dangers are growing every week, as are the warnings. "One can hear eerie echoes of the events a century ago that produced the catastrophe known as World War I," Harvard professor and longtime Pentagon adviser Graham Allison — one of the graybeards of American foreign policy — wrote in a May cover story for the National Interest, co-authored with Russia analyst Dimitri Simes. Their article, "Russia and America: Stumbling to War," warned that an unwanted, full-scale conflict between the US and Russia was increasingly plausible. In Washington, the threat feels remote. It does not in Eastern Europe. Baltic nations, fearing war, have already begun preparing for it. So has Sweden: "We see Russian intelligence operations in Sweden — we can't interpret this in any other way — as preparation for military operations against Sweden," a Swedish security official announced in March. In May, Finland's defense ministry sent letters to 900,000 citizens — one-sixth of the population — telling them to prepare for conscription in case of a "crisis situation." Lithuania has reinstituted military conscription. Poland, in June, appointed a general who would take over as military commander in case of war. Though Western publics remain blissfully unaware, and Western leaders divided, many of the people tasked with securing Europe are treating conflict as more likely. In late April, NATO and other Western officials gathered in Estonia, a former Soviet republic and NATO member on Russia's border that Western analysts most worry could become **ground zero for a major war** with Russia. At the conference, Deputy Secretary General Alexander Vershbow spoke so openly about NATO's efforts to prepare for the possibility of Russia launching a limited nuclear strike in Europe that, according to the journalist Ahmed Rashid, who was in attendance, he had to be repeatedly reminded he was speaking on the record. One of the scenarios Vershbow said NATO was outlining, according to Rashid's paraphrase, was that Russia could "choose to use a tactical weapon with a small blast range on a European city or a Western tank division." A few weeks later, the Guardian reported that NATO is considering plans to "upgrade" its nuclear posture in Europe in response to Russia's own nuclear saber-rattling. One proposal: for NATO's military exercises to include more nuclear weapons use, something Russia already does frequently. II. The gamble: Putin's plan to make Russia great again Should the warnings prove right, and a major war break out in Europe between Russia and the West, then the story of that war, if anyone is still around to tell it, will begin with Russian President Vladimir Putin trying to solve a problem. That problem is this: Putin's Russia is weak. It can no longer stand toe to toe with the US. It no longer has Europe divided in a stalemate; rather, it sees the continent as dominated by an ever-encroaching anti-Russian alliance. In the Russian view, the country's weakness leaves it at imminent risk, vulnerable to a hostile West bent on subjugating or outright destroying Russia as it did to Iraq and Libya. This is made more urgent for Putin by his political problems at home. In 2012, during his reelection, popular protests and accusations of fraud weakened his sense of political legitimacy. The problem worsened with Russia's 2014 economic collapse; Putin's implicit bargain with the Russian people had been that he would deliver economic growth and they would let him erode basic rights. Without the economy, what did he have to offer them? Putin's answer has been to assert Russian power beyond its actual strength — and, in the process, to recast himself as a national hero guarding against foreign enemies. Without a world-power-class military or economy at his disposal, he is instead wielding confusion and uncertainty — which Soviet leaders rightly avoided as existential dangers — as weapons against the West. Unable to overtly control Eastern Europe, he has fomented risks and crises in there, sponsoring separatists in Ukraine and conducting dangerous military activity along NATO airspace and coastal borders, giving Russia more leverage there. Reasserting a Russian sphere of influence over Eastern Europe, he apparently believes, will finally give Russia security from the hostile West — and make Russia a great power once more. Knowing his military is outmatched against the Americans, he is blurring the distinction between war and peace, deploying tactics that exist in, and thus widen, the gray between: militia violence, propaganda, cyberattacks, under a new rubric the Russian military sometimes calls "hybrid war." Unable to cross America's red lines, Putin is doing his best to muddy them — and, to deter the Americans, muddying his own. Turning otherwise routine diplomatic and military incidents into games of high-stakes chicken favors Russia, he believes, as the West will ultimately yield to his superior will. To solve the problem of Russia's conventional military weakness, he has dramatically lowered the threshold for when he would use nuclear weapons, hoping to terrify the West such that it will bend to avoid conflict. In public speeches, over and over, he references those weapons and his willingness to use them. He has enshrined, in Russia's official nuclear doctrine, a dangerous idea no Soviet leader ever adopted: that a nuclear war could be winnable. Putin, having recast himself at home as a national hero standing up to foreign enemies, is more popular than ever. Russia has once more become a shadow hanging over Eastern Europe, feared and only rarely bowed to, but always taken seriously. Many Western Europeans, asked in a poll whether they would defend their own Eastern European allies from a Russian invasion, said no. Russia's aggression, born of both a desire to reengineer a European order that it views as hostile and a sense of existential weakness that justifies drastic measures, makes it far more willing to accept the dangers of war. As RAND's F. Stephen Larrabee wrote in one of the increasingly urgent warnings that some analysts are issuing, "The Russia that the United States faces today is more assertive and more unpredictable — and thus, in many ways, more dangerous — than the Russia that the United States confronted during the latter part of the Cold War." Joseph Nye, the dean of Harvard University's school of government and one of America's most respected international relations scholars, pointed out that Russia's weakness-masking aggression was yet another disturbing parallel to the buildup to World War I. "Russia seems doomed to continue its decline — an outcome that should be no cause for celebration in the West," Nye wrote in a recent column. "States in decline — think of the Austro-Hungarian Empire in 1914 — tend to become **less risk-averse** and thus **much more dangerous**." III. The drift: How the unthinkable became possible The Cold War was a dangerous game, but it was a game in which everyone knew and agreed upon the stakes and the rules. That is not the case today. The Western side believes it is playing a game where the rules are clear enough, the stakes relatively modest, and the competition easily winnable. The Russian side, however, sees a game where the rules can be rewritten on the fly, even the definition of war itself altered. For Russia, fearing a threat from the West it sees as imminent and existential, the stakes are unimaginably high, justifying virtually any action or gamble if it could deter defeat and, perhaps, lead to victory. Separately, the ever-paranoid Kremlin believes that the West is playing the same game in Ukraine. Western support for Ukraine's government and efforts to broker a ceasefire to the war there, Moscow believes, are really a plot to encircle Russia with hostile puppet states and to rob Russia of its rightful sphere of influence. Repeated Russian warnings that it would go to war to defend its perceived interests in Ukraine, potentially even nuclear war, are dismissed in most Western capitals as bluffing, mere rhetoric. Western leaders view these threats through Western eyes, in which impoverished Ukraine would never be worth risking a major war. In Russian eyes, Ukraine looks much more important: an extension of Russian heritage that is sacrosanct and, as the final remaining component of the empire, a strategic loss that would unacceptably weaken Russian strength and thus Russian security. Both side are gambling and guessing in the absence of a clear understanding of what the other side truly intends, how it will act, what will and will not trigger the invisible triplines that would send us careening into war. During the Cold War, the comparably matched Western and Soviet blocs prepared for war but also made sure that war never came. They locked Europe in a tense but stable balance of power; that balance is gone. They set clear red lines and vowed to defend them at all costs. Today, those red lines are murky and ill-defined. Neither side is sure where they lie or what really happens if they are crossed. No one can say for sure what would trigger war. That is why, analysts will tell you, today's tensions bear far more similarity to the period before World War I: an unstable power balance, belligerence over peripheral conflicts, entangling military commitments, disputes over the future of the European order, and dangerous uncertainty about what actions will and will not force the other party into conflict. Today's Russia, once more the strongest nation in Europe and yet weaker than its collective enemies, calls to mind the turn-of-the-century German Empire, which Henry Kissinger described as "too big for Europe, but too small for the world." Now, as then, a rising power, propelled by nationalism, is seeking to revise the European order. Now, as then, it believes that through superior cunning, and perhaps even by proving its might, it can force a larger role for itself. Now, as then, the drift toward war is gradual and easy to miss — which is exactly what makes it so dangerous. But there is one way in which today's dangers are less like those before World War I, and more similar to those of the Cold War: the apocalyptic logic of nuclear weapons. Mutual suspicion, fear of an existential threat, armies parked across borders from one another, and hair-trigger nuclear weapons all make any small skirmish a potential **armageddon**. In some ways, that logic has grown even more dangerous. Russia, hoping to compensate for its conventional military forces' relative weakness, has dramatically relaxed its rules for using nuclear weapons. Whereas Soviet leaders saw their nuclear weapons as pure deterrents, something that existed precisely so they would never be used, Putin's view appears to be radically different. Russia's official nuclear doctrine calls on the country to launch a battlefield nuclear strike in case of a conventional war that could pose an existential threat. These are more than just words: Moscow has repeatedly signaled its willingness and preparations to use nuclear weapons even in a more limited war. This is a terrifyingly low bar for nuclear weapons use, particularly given that any war would likely occur along Russia's borders and thus not far from Moscow. And it suggests Putin has adopted an idea that Cold War leaders considered unthinkable: that a "limited" nuclear war, of small warheads dropped on the battlefield, could be not only survivable but winnable. "It’s not just a difference in rhetoric. It’s a whole different world," Bruce G. Blair, a nuclear weapons scholar at Princeton, told the Wall Street Journal. He called Putin's decisions more dangerous than those of any Soviet leader since 1962. "There’s a low nuclear threshold now that didn’t exist during the Cold War." Nuclear theory is complex and disputable; maybe Putin is right. But many theorists would say he is wrong, that the logic of nuclear warfare means a "limited" nuclear strike is in fact likely to trigger a larger nuclear war — a **doomsday scenario** in which major American, Russian, and European cities would be targets for attacks many times more powerful than the bombs that leveled Hiroshima and Nagasaki. Even if a nuclear war did somehow remain limited and contained, **recent studies suggest** that environmental and atmospheric damage would cause a "**decade of winter**" and mass crop die-outs that could kill up to 1 billion people in a global famine. IV. **How it would happen**: The Baltics scenario In September of last year, President Obama traveled to Estonia, a nation of 1.3 million people that most Americans have never heard of, and pledged that the United States would if necessary go to war with Russia to defend it. Estonia, along with Latvia and Lithuania — together known as the Baltic states — are at the far edge of Eastern Europe, along Russia's border. They were formerly part of the Soviet Union. And they are where many Western analysts fear **World War III is likeliest to start**. These small countries are "the most likely front line of any future crisis," according to Stephen Saideman, an international relations professor at Carleton University. Allison and Simes, in their essay warning of war, called the Baltics "the Achilles’ heel of the NATO alliance." A full quarter of Estonia's population is ethnically Russian. Clustered on the border with Russia, this minority is served by the same Russian state media that helped stir up separatist violence among Russian speakers in eastern Ukraine. But unlike Ukraine, the Baltic states are all members of NATO, whose charter states that an attack on one member is an attack on them all. Whereas a Russian invasion of Ukraine prompted Western sanctions, a Russian invasion of Estonia would **legally obligate** the US and most of Europe to declare war on Moscow.

## DA – Rare Earth Metals

### 1AR – REM – Link

#### Recycling and incentives for continuing innovation solve the impact

Teske et al 16 - PhD in the Integration of solar photovoltaic and wind into power systems from the University of Flensburg in Germany, professor of engineering and econ at University of Technology Sydney; Nick Florin Elsa Dominish Damien Giurco are all members of The Institute for Sustainable Futures (ISF) and researchers and professors at University of Technology Sydney (Sven, “RENEWABLE ENERGY AND DEEP-SEA MINING: SUPPLY, DEMAND AND SCENARIOS”, July 2016, <http://www.savethehighseas.org/publicdocs/DSM-RE-Resource-Report_UTS_July2016.pdf>, UTS ISF)

Based on metal intensity data reported Chapter 3 the predicted demand under the different global energy scenarios was estimated. This comparison serves to show the wide variability in estimated future demand that is dependent on the different assumptions for future energy scenarios as well as the assumed metal intensity data. Figure 9 and Figure 10 show projected annual demands for copper, cobalt, nickel and silver in 2030 and 2050 relative to current production volumes (in 2014). The annual demand is an average volume based on projected outputs for the previous 5-year period without recycling. The major difference between these demand projections for 2030 and 2050 is a reduction in the demand for cobalt and nickel associated with assumed changes in the dominant battery chemistries, discussed in detail in Chapter 3. The annual average demand is often lower in 2050 as by this time it is modelled that fewer new renewable technologies will need to be installed. For clarity of presentation the projections for lithium, tellurium, neodymium and dysprosium are shown separately owing to their relatively large production expansion requirements (see below). The most unprecedented increases in demand under the modelled scenarios are for lithium, tellurium, neodymium and dysprosium. Figure 11 and Figure 12 show projected annual demands for lithium, tellurium, neodymium and dysprosium in 2030 and 2050 relative to current production volumes (in 2014). The annual demand is an average volume based on projected outputs for the previous 5-year period without recycling. Tellurium production will have to increase significantly for CdTe solar cells under the assumption that this technology retains a significant market share. This is also the case for neodymium and dysprosium, used for permanent magnets by some manufacturers of wind turbine generators and electric vehicles. The major difference between the demand projections for 2030 and 2050 is a significant increase in the demand for lithium, neodymium and dysprosium that is largely associated with an assumed increase in size of the electric vehicle fleet (discussed in detail in Chapter 2 and below). Under the ADV ER scenario, production volumes of lithium, neodymium and dysprosium in 2050 would need to increase by factors of about 46, 20 and 185, respectively. It is important to note that the projected overall cumulative demand for neodymium and dysprosium represents 11 % and 7.5 % of the known reserves (Figure 2), respectively; and thus, it is the mining production output per year that is the limiting factor, not the overall resource. An increase in total output is reasonably expected to come from secondary recourses given that current recycling rates are < 1 %. Furthermore, these supply constraints are well known and provide a very strong driver for sustaining strong research and development into alternative technologies that reduce, or eliminate, the use of these metals. In order to show the importance of recycling for selected metals Figure 13 shows the projected cumulative demand relative to current reserves under the most ambitious scenario (ADV ER) with and without recycling. For this comparison we assumed that the recycling rates are static throughout the modelled period based on the current average global recycling rates. However, based on the literature and expert opinion, higher recycling rates were assumed for lithium (20 %) and tellurium (95 %). The figure clearly shows the importance of recycling, particularly in the case of lithium (batteries), silver (solar PV and CSP) and tellurium for (CdTe solar cells). Owing to the potential to mitigate supply risks through the prioritisation of different technology development pathways, this section provides an overview of key projections by energy technology. Data is also provided in Tables 19–23 in the Appendix. Copper for solar PV, CSP, wind and hydro Copper is a very metal important for the power sector and the renewable technologies solar PV, CSP, wind and hydro use about four times more than conventional power generation due to increased wiring demand. However, even the most ambitious scenario would increase global production capacity by only 11.5 % (Figure 10) while the cumulative copper demand between 2014 and 2050 would consume 2.4% (Figure 1) of global resources under current average recycling rates. Li-battery technologies are still at an early stage of commercialisation and major technology developments are expected and difficult to anticipate. Thus, the resources assessment depends significantly on the assumptions around which technologies will dominate specific market segments. For this analyse a survey of Simon et al49F 50 published in 2015 that developed a technology pathway for five different Li-battery technologies has been used. According to their trajectory Li-batteries that use nickel and cobalt will drop out of the market and Li/S8 and Li/O2 chemistries will dominate post-2035. This corresponds with an assumed decrease in the demand for cobalt and nickel, but an increase in the demand for lithium (owing to the material intensity and the greater size of the electric vehicle fleet). The recycling rates for lithium are currently very low at < 1 %. However for the modeling we have used an assumption roughly based on Mohr et al 201250F 51 who estimate that lithium recycling could reach 10-20 % until 2030 and up to 40 % by 2050. To account for this estimated increase we have used an assumption of 20 % over the entire period. Silver pastes are required for the mainstream photovoltaic cell technology manufacturing (crystalline Si-cells) for contact formation using a screen-printing technique. Silver is also used for coating of mirrors for CSP. While there is no scarcity of silver in terms of the known resources compared to the significant increased demand (Figure 1), the production capacity will have to increase significantly. High recycling rates especially in the solar PV industry, as silver is used within a specific production process, are highly important. The solar market is assumed to remain dominated by silicon solar cells throughout the modelled period. It is assumed that CdTe cells have a 5 % share of the PV market in 2015–2020, which decreases to 2.5 % by 2050. These scenarios do not assume the uptake of other thin film technologies. As the CdTe cells are currently almost exclusively manufactured by the US American company FirstSolar, which successfully implemented a comprehensive recycling program for their technology, the assumed tellurium recycling rates (95 %) higher than the global average that includes all applications. We note that around 40 % of tellurium is used for solar and the recycling rates for other applications are not well known. A transition towards a 100% renewable energy supply can take place without deep-sea mining. Metal demand associated with the dominant renewable technologies evaluated in this report, even assuming very aggressive growth rates under the most ambitious future energy scenarios, do not require deep-sea mining activity. This is combined with the potential to increase recycling rates and sustained research and development into alternative technologies that reduce, or eliminate, the use of supply-constrained metals. The significant increase in production demands for neodymium and dysprosium, and the projected volumes of lithium and silver relative to current reserves suggests these metals require special attention. Increasing recycling rates is a very important part of the solution to securing the supply of metals for renewable power generation technologies and electric vehicle components. That said, estimating how recycling rates may change within the timeframe considered is not straightforward. Future recycling efficiencies will ultimately be impacted by technology design, including ‘design for recycling’, and future investment in efficient collection and sorting systems. Furthermore, the metals and materials used in today’s technologies may be very different to those used even in the next 10-15 years. Owing to these complexities further work is recommended to better understand the potential for recycling to offset primary production. To achieve a truly sustainable energy system, both in terms of emission mitigation and responsible supply of resources, we need to focus on improving material productivity in parallel to the renewable energy market expansion.

### 1AR – REM – Link

#### Link turn – fossil fuel extraction destroys ocean biodiversity from the oil spills and fracking leaks

### 1AR – REM – ¡ D BioD

#### BioD isn’t existential - redundancy, intervening actors, boundaries will never be crossed

Kareiva & Carranza 18 (Peter Kareiva & Valerie Carranza. Institute of the Environment and Sustainability,. “Existential Risk Due to Ecosystem Collapse: Nature Strikes Back.” Volume 102, September 2018, Pages 39-50)

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

### 1AR – REM – ¡ D War

#### It is empirically denied by the Japan disputes China will go to war when they stop exports

Sternberg 14- Joseph, editor at the WSJ (1/8/14, Wall Street Journal, “How the Great Rare-Earth Metals Crisis Vanished,” <http://online.wsj.com/news/articles/SB10001424052702303848104579308252845415022>) patel

There was a time, not so long ago, when the world feared China was going to use its dominance of the global rare-earth-element industry to crush Western economies and militaries in a strategic vise. Those were the days. Recent developments highlight how wrong those alarmist predictions were. Rare earths are the metals at the bottom of the periodic table that are exceptionally useful in many high-tech applications, from lasers to solar panels to electric car batteries to smartphones. China is the world's major extractor and only processor of rare-earth ores. Beijing aroused worries in late 2010 when it apparently limited exports of the minerals to Japan amid a territorial dispute. The episode stoked fears that China would use its sole-supplier status for nefarious ends. Except that it turns out Beijing doesn't have the wherewithal to execute such a dastardly plan. Consider the new plan Beijing unveiled last week to consolidate its rare-earth industry into six large extraction and processing companies. As a start, Inner Mongolia Baotou Steel Rare-Earth Hi-Tech Company (yes, that's its name) is buying nine of its smaller competitors in the north, with more mergers and acquisitions to come. This is at least the second time in roughly a decade that Beijing has attempted rare-earth rationalization. The first foundered when faced by opposition that included the local officials who so often sponsor projects away from Beijing's watchful gaze. The consolidation drive is a sign of weakness, not strength. The impetus is Beijing's need to resolve the problems its past interventions in the market have created. Export restrictions kicked in three years ago, officially justified by the need to reduce the pollution caused by mining and processing. Global prices rose dramatically, creating an incentive for new miners to start production, and an opportunity for them to profit from circumventing export blocks via endemic smuggling. Meanwhile, Beijing's economic stimulus policies lowered the cost of credit, making it easier to fund this investment. But once the global panic subsided and demand slackened, rare-earth prices fell by as much as 60% from their 2011 peaks. Oversupply is the new worry. On a related note, the export restrictions also have not helped Beijing mitigate the environmental damage caused by the rare-earth industry. Processing the ores is messy work, and Beijing seems to have hoped that whatever other mercantilist objective it might achieve, limiting export quantities would also lead to a cleanup of the industry at home. Not so, because the restrictions stimulated new mining by small, illegal operators with even worse environmental practices than the big companies. Now lower global prices and the resulting thinner profit margins make costly environmental compliance that much harder. Don't suppose for a minute that centrally arranged consolidation will solve any of this, since consolidation doesn't fix the underlying problem with China's approach to rare earths: Beijing still steadfastly refuses to allow the market to operate. Just ask yourself, when is the last time that politically allocated capital; administrative controls on price, production, export or other disposition of an output; and centrally determined corporate structures resulted in a rational industry, in China or anywhere else? For guidance on better options, Beijing could look abroad. The other big rare earths story of the moment highlights the extent to which Beijing's non-market machinations have triggered helpful market responses elsewhere. A Pentagon report leaked last month noted that reliance on Chinese rare-earth metals, while still high, is declining. New supplies for most rare-earths are coming online, as uncertainty over China's reliability and a period of higher prices stimulated investment in new mining projects elsewhere. Greenland and Russia both have opened new tracts to rare-earths exploration in the past year. China's share of global production now is down to as low as 80% from 95% in 2010.

## DA – Petrodollar

### 1AR – PD – I/L

#### No internal link - The Petrodollar is a myth – the dollar is popular due to US free markets, prefer our historical analysis Bulloch ’18

Douglas Bulloch, PhD in International Relations, BA in Economics, Worked for Enterprise Oil PLC so he has experience on oil stuff. “Why The Petro-Dollar IS A Myth And The Petro-Yuan Mere Fantasy,” Apr 26, 2018, <https://www.forbes.com/sites/douglasbulloch/2018/04/26/the-petro-dollar-is-a-myth-the-petro-yuan-mere-fantasy/#7e76e1366a14> accessed 2/17/19] yovering

China's recent introduction of yuan-denominated oil futures has attracted some fairly extensive press commentary. Partly this is down to a habit of over-interpreting everything happening in China as just more evidence of their unstoppable rise to global superpower status, but it is also due to some profound misconceptions about the importance of oil as a commodity. It is widely thought, for example, that oil somehow underwrites the global financial system and guarantees the U.S. dollar's hegemonic status. Inevitably, stories about the toppling of the "Petro-dollar" and the long yearned for rise of an alternative reserve currency, one not dependent on the whims of a capricious political elite in Washington, have proliferated across the alter-net and on the state-backed media platforms of Russia and China. But we should be clear: the Petro-dollar does not exist, and really hasn't done in any meaningful way since the 1970s, therefore the "Petro-yuan" has no future. This is not to say that oil will never be traded in yuan, that is likely, but it is to say that trading oil in yuan will not suddenly transform the currency into the global reserve many claim is inevitable. Origins Of The Petro-Dollar The myth of the Petro-dollar comes from efforts in the 1970s to prevent the U.S. suffering severe negative effects in its balance of payments from rising oil prices. Until the late 1960s the U.S. had been an oil-exporter, but by also being an oil consumer they had never sought to maximize the rent from oil production by driving prices upwards. OPEC countries, however, never had such qualms and when the opportunity arose as the U.S. became an importer, happily restrained supply to drive prices, and their own national incomes, higher. The U.S. was worried about the resultant trade deficit caused by suddenly having to pay vast amounts for necessary imports, and so secured the agreement of Saudi Arabia to only trade oil in U.S. dollars, meaning the U.S. could pay for oil in their own currency. Saudi Arabia, for their part, accumulated huge reserves of U.S. dollars, investing some of them back into the U.S. economy. The enormous lake of U.S. dollars this created augmented the role of the dollar as the global reserve currency, being a highly liquid, easily-exchanged claim on the products, services and investment potential generated by the U.S. economy. But this was merely one step in the rise of the greenback as the global reserve. The next step came when other economies–East Asia in particular–followed the lead of the oil producers and also built up huge reserves of U.S. dollars, all of which was made possible by the abandonment of the Bretton Woods fixed exchange rate system in the early 1970s. This practice helped to keep exchange rates for exporters low, and kept a lid on inflation in the U.S., which suited everyone up to a point. Future Petro-Yuan? Bringing this up to date, it was a long time ago when the link between oil and the dollar mattered much at all beyond the financial returns of non-dollar based oil companies. Since the 1980s, the dollar has been consolidated as the global reserve currency because of the strength and dynamism of the U.S. economy, and oil exporters have demanded to be paid in U.S. dollars because that's the currency they prefer to hold on to. To do otherwise is to take on exchange risk. Exporters can, and routinely do, accept payment in whatever exchange medium they wish -- tanks, planes and construction services -- but their central banks demand dollars for reasons entirely unconnected to oil. Because the U.S. dollar is a hard currency, easily exchangeable, underwritten by the U.S. taxpayer, and founded upon decades of broadly consistent macro-economic policy management. Those who believe that oil being traded in U.S. dollars gives the U.S. economy a unique advantage in the global economy have it exactly the wrong way around. The U.S. economy is the central economy in the global system because it is the most open, innovative, and productive economy in the world, and because of this, the U.S. dollar is the most convenient, liquid and reliable medium of exchange. One can imagine another currency challenging it at some point in the future, but only on the basis of the openness of its underlying economy, and the depth of the capital markets denominated in it. And if the euro can't do it yet, why does anyone imagine the yuan is up to the job? Furthermore, the U.S. dollar's position as the global reserve currency has been underwritten by Chinese economic policy. China has deliberately built up a huge pile of U.S. dollar-denominated reserves which, contrary to much press coverage and occasional threats of a big selloff from China, confirms rather than undermines the dollar's status. Yuan-Denominated Oil Futures? When China, like any other economy, allows the trading of oil futures in yuan, the contract merely promises dated delivery of oil in exchange for yuan. The contract does not supply the oil, it does not forward the yuan to an oil producer, it is merely a transaction that allows a buyer guaranteed delivery of oil by paying for it in yuan. The counter-party has to supply the oil in exchange for the yuan. Somewhere along the supply-chain someone will be paying in U.S. dollars, unless the ultimate supplier wishes to hold yuan. And despite the fanfare over the last few years, the yuan still comprises a tiny share of foreign exchange reserves held globally. Indeed, at 1.1% of the total, the yuan is significantly behind both the Australian and Canadian dollars, meaning that–with pound sterling–Queen Elizabeth II's head appears on 7.5 times more foreign currency reserves than Mao's. If China wants to change that, it will need to open up its economy, liberate its capital account and start living up to, rather than repudiating, its reform promises. Shanghai-traded oil futures in themselves have nothing to do with it.

## DA – Secure Act Rider

#### Didn’t get attached as a rider and has no floor time

Croce 10/16 [Brian Croce, 10-16-2019, "7 Republican senators urge passage of SECURE Act," Pensions &amp; Investments, https://www.pionline.com/legislation/7-republican-senators-urge-passage-secure-act, accessed 10-31-2019]LHSBC

The bill has remained in limbo ever since — it has not been given floor time in the Senate to be debated, and was not attached to any must-pass legislation in September. Retirement industry groups, which widely support the SECURE Act's passage, are hoping legislators will attach it to a must-pass spending bill in November, the next time Congress needs to act to prevent a government shutdown.

## DA – Trade

### 1AR – UQ – Trade

#### China – US trade war thumps – billions in tariffs between great powers should definitely trigger their impact

### 1AR – Link – Trade

**Long timeframe and no major retaliation**

**Trachtman 16** – Professor of International Law @ Tuffs

(Joel, “WTO Law Constraints on Border Tax Adjustment and Tax Credit Mechanisms to Reduce the Competitive Effects of Carbon Taxes”, Resources for the Future, January 2016, http://www.rff.org/files/document/file/RFF-DP-16-03.pdf)

The discussion above suggests substantial uncertainties regarding the possibility to defend any import BTA, export BTA, or trade-exposure targeted subsidy. Thus a period of **several years** would pass after national legislation of these mechanisms before the United States would experience authorized prospective retaliation, and the country would have **ample time** to come into compliance **before** any retaliation occurs.108 Even if a national **carbon tax** regime with import **BTAs** and/or export BTAs, or a subsidy to support exports, were to violate WTO law, the formal response by other states would generally be imposed prospectively after a three-year litigation period and would be in the form of suspension of concessions or other obligations in an amount equivalent to the nullification or impairment of WTO rights resulting from the measure found to violate WTO law (except possibly in the case of export subsidies, where the retaliation may be greater). Therefore, as a practical matter, a state may decide to engage in civil disobedience or to operate in what might be understood as “efficient breach” in response to this level and type of retaliation. The specific industries targeted for the retaliation could even be supported through subsidies. In light of this aspect of WTO dispute settlement, combined with the fact that an evenhanded carbon tax structure would be **unlikely to result in reputational costs** to the **U**nited **S**tates, the uncertainty of WTO law **may not be a significant deterrent** to implementation of these measures.

### 1AR – Trade – ! D

#### Trade will never collapse

Ikenson 9

[Daniel, associate director of the Center for Trade Policy Studies at the Cato Institute, “ A Protectionism Fling: Why Tariff Hikes and Other Trade Barriers Will Be Short-Lived,” March 12, 2009, http://www.cato.org/pub\_display.php?pub\_id=10651]

Although some governments will dabble in some degree of protectionism, the combination of a sturdy rules-based system of trade and the economic self interest in being open to participation in the global economy will limit the risk of a protectionist pandemic. According to recent estimates from the International Food Policy Research Institute, if all WTO members were to raise all of their applied tariffs to the maximum bound rates, the average global rate of duty would double and the value of global trade would decline by 7.7 percent over five years.8 That would be a substantial decline relative to the 5.5 percent annual rate of trade growth experienced this decade.9¶ But, to put that 7.7 percent decline in historical perspective, the value of global trade declined by 66 percent between 1929 and 1934, a period mostly in the wake of Smoot Hawley's passage in 1930.10 So the potential downside today from what Bergsten calls "legal protectionism" is actually not that "massive," even if all WTO members raised all of their tariffs to the highest permissible rates.¶ If most developing countries raised their tariffs to their bound rates, there would be an adverse impact on the countries that raise barriers and on their most important trade partners. But most developing countries that have room to backslide (i.e., not China) are not major importers, and thus the impact on global trade flows would not be that significant. OECD countries and China account for the top twothirds of global import value.11 Backsliding from India, Indonesia, and Argentina (who collectively account for 2.4 percent of global imports) is not going to be the spark that ignites a global trade war. Nevertheless, governments are keenly aware of the events that transpired in the 1930s, and have made various pledges to avoid protectionist measures in combating the current economic situation.¶ In the United States, after President Obama publicly registered his concern that the "Buy American" provision in the American Recovery and Reinvestment Act might be perceived as protectionist or could incite a trade war, Congress agreed to revise the legislation to stipulate that the Buy American provision "be applied in a manner consistent with United States obligations under international agreements." In early February, China's vice commerce minister, Jiang Zengwei, announced that China would not include "Buy China" provisions in its own $586 billion stimulus bill.12¶ But even more promising than pledges to avoid trade provocations are actions taken to reduce existing trade barriers. In an effort to "reduce business operating costs, attract and retain foreign investment, raise business productivity, and provide consumers a greater variety and better quality of goods and services at competitive prices," the Mexican government initiated a plan in January to unilaterally reduce tariffs on about 70 percent of the items on its tariff schedule. Those 8,000 items, comprising 20 different industrial sectors, accounted for about half of all Mexican import value in 2007. When the final phase of the plan is implemented on January 1, 2013, the average industrial tariff rate in Mexico will have fallen from 10.4 percent to 4.3 percent.13¶ And Mexico is not alone. In February, the Brazilian government suspended tariffs entirely on some capital goods imports and reduced to 2 percent duties on a wide variety of machinery and other capital equipment, and on communications and information technology products.14 That decision came on the heels of late-January decision in Brazil to scrap plans for an import licensing program that would have affected 60 percent of the county's imports.15¶ Meanwhile, on February 27, a new free trade agreement was signed between Australia, New Zealand, and the 10 member countries of the Association of Southeast Asian Nations to reduce and ultimately eliminate tariffs on 96 percent of all goods by 2020.¶ While the media and members of the trade policy community fixate on how various protectionist measures around the world might foreshadow a plunge into the abyss, there is plenty of evidence that governments remain interested in removing barriers to trade. Despite the occasional temptation to indulge discredited policies, there is a growing body of institutional knowledge that when people are free to engage in commerce with one another as they choose, regardless of the nationality or location of the other parties, they can leverage that freedom to accomplish economic outcomes far more impressive than when governments attempt to limit choices through policy constraints.

## DA – USMCA

### 1AR – USMCA – UQ

#### USMCA won’t pass – limited time, impeachment and Turkey sanctions crowd out the agenda, and labor issues

Greer et. al 10-31 [Camron Greer and Turner Kim, assistant Trade Analysts at Husch Blackwell LLP, Nithya Nagarajan, partner at Husch Blackwell LLP, October 31, 2019. “The Current And Future Status Of The U.S.-Mexico-Canada Agreement.” https://www.jdsupra.com/legalnews/the-current-and-future-status-of-the-u-48593/]

U.S. Trade Representative (USTR) Robert Lighthizer and certain officials in the administration have expressed optimism about the future of the U.S.-Mexico-Canada Agreement (USMCA). [Concerns are growing](https://www.ft.com/content/e116a4e0-f5e2-11e9-9ef3-eca8fc8f2d65/), however, about whether the intended overhaul of NAFTA will be ratified by the United States Congress. On October 23, 2019, Senator Grassley, chairman of the Senate Finance Committee, stated that he had a “growing worry” about the current progress of USMCA and claimed that the Democrats are stalling in the hopes of stopping the deal. House Speaker Nancy Pelosi has repeatedly expressed that negotiations between Democrats and the administration on USMCA have been genuine and with the intention of moving the legislation forward. Ratifying the USMCA is contingent on support from Democrats, who possess a majority in the House of Representatives. The Democrats are ostensibly concerned about the labor enforcement provision, specifically focusing on Mexico’s recent labor reforms that were passed in May. Enforcement of the new labor laws as well as the [labor provisions](https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/23_Labor.pdf) in USMCA requires the renegotiation of countless employment contracts across Mexico. Additionally, Mexico’s labor unions must properly organize themselves to abide by the new labor provisions. Democrats are also concerned about the deal’s environmental provisions. Republicans have repeatedly stated that the trade agreement should be an easy bipartisan win, as Senate Majority Leader Mitch McConnell and Rep. Kevin McCarthy argue in their Wall Street Journal [opinion article](https://www.wsj.com/articles/house-democrats-resist-a-win-for-american-workers-11569786329?mod=searchresults&page=1&pos=6), citing job creation and wage growth estimates. The alleged benefits of USMCA are not quite as simple as they appear. While a [report](https://www.usitc.gov/publications/332/pub4889.pdf) from the U.S. International Trade Commission (USITC) concluded that USMCA would increase U.S. gross domestic product (GDP) by 0.35% and employment by 0.12%, the report also predicted that the tariffs, due to changes to the rules of origin, would detrimentally affect American consumers for each job created. The USITC also predicted that automobiles would become more expensive under USMCA and that variety would decrease, causing Americans to purchase fewer of them. The USITC’s report suggests that the agreement essentially props up manufacturing and mining at the expense of other sectors of the economy. According to The Economist, this should have ordinarily led the USITC to conclude that USMCA would have a [net negative impact](https://www.economist.com/finance-and-economics/2019/04/27/the-official-impact-assessment-of-naftas-replacement-is-out), however, the USITC factored in business confidence in a stable trade policy that was significant enough to swing the overall conclusion as positive. As the USITC explains within the report, “of the eight USMCA components included in the economy-wide model, provisions that reduce policy uncertainty…have the most significant impact on the estimated results.” However, the outcome of ratification will likely be decided by political factors, not economic ones. Passing the USMCA is of importance to the administration since its China and E.U. trade policy has yet to yield any concessions amidst an ever escalating trade war with both sets of trading partners. Supporters of the trade agreement want to see a vote on USMCA before the end of 2019, as the chances of ratification are likely to dwindle as the election gets closer. There is a limited amount of time left in the current legislative session, however, and the agenda is [currently preoccupied](https://www.wsj.com/articles/congress-returns-to-work-with-impeachment-turkey-crowding-legislative-agenda-11571071612?mod=searchresults&page=1&pos=1) with sanctions on Turkey and the recently initiated impeachment inquiry. Republican opposition to the impeachment inquiry is likely to further reduce the chances of progress being made on the ratification of the USMCA. Speaker Pelosi could request for lawmakers in the House to vote on USMCA during an off-week, but there is a strong possibility for the USMCA ratification process to get pushed to the 2020 session. If that happens, there is a decent chance that legislators could continue to stall the trade agreement.

#### Won’t pass – dem stalling, enviro provisions

Fatka 11/2 [Jacqui Fatka, 11-2-2019, "Clock ticking on USMCA passage," Feedstuffs, https://www.feedstuffs.com/news/clock-ticking-usmca-passage-0]

It has been nearly a year since President Donald Trump signed the U.S.-Mexico-Canada Agreement (USMCA), and its fate remains unknown, with fewer than 20 legislatives days left for Congress to bring it up this calendar year.∂ Last week, farm-state senators took to the floor to call for passage of USMCA.∂ “I come to the Senate floor today to express a growing worry: The Democratically controlled House of Representatives looks increasingly less likely to act this year on USMCA. That threatens passage of the trilateral trade deal this Congress, as next year is a presidential election year,” said Senate Finance Committee chairman Sen. Chuck Grassley (R., Iowa).∂ “For months now, House Democrats have said they are working on it, that they’re making progress, that they’re optimistic they can get to ‘yes.’ But conspicuously absent from their pronouncements are any mention of a date or timeline. With every passing month, these seem less like good-faith assurances and more like stalling tactics,” Grassley stated.∂ After meeting with U.S. Trade Ambassador Robert Lighthizer on Oct. 23, the leader of the Democratic USMCA Working Group and House Ways & Means chairman Richard Neal (D., Mass.) told reporters, "I actually feel pretty good about this." Although specifics on the ongoing negotiations between the two parties are unknown, Neal said, "we have really narrowed our differences considerably.” ∂ Yet, Senate Finance Committee ranking member Ron Wyden (D., Wyo.) stated that there is still work to be done on the agreement. “While the new NAFTA [North American Free Trade Agreement] includes some important improvements to the existing agreement, there is still work to be done to get the best deal for American workers and consumers,” he said in a floor speech.∂ Wyden said he has real concerns about the trade enforcement provisions. He also challenged the notion that USMCA passage offers certainty.∂ “During this overhaul, the original NAFTA remains in place," he said. "Workers, farmers, ranchers and businesses should not have to go to bed at night fearing that economic uncertainty will rob them of their livelihoods. The uncertainty only arises when the President acts out and makes impulsive threats regarding our trade relationships. When the President threatened new tariffs on Mexico this June over immigration policy, that creates far more uncertainty than taking the time necessary to get this deal right.

#### **Won’t pass – labor and impeachment –**

Elis 10/31 (Niv, “Trade deal talks manage to weather Trump impeachment storm,” 10/31/19, <https://thehill.com/policy/finance/468238-trade-deal-talks-manage-to-weather-impeachment-storm>, AS)

If things fall through, DeLauro said, it would be over failure to reach a substantive middle ground, particularly on labor issues.∂ “What happens in this trade agreement will be a template for future trade agreements, and we cannot get it wrong,” she said Wednesday at an AFL-CIO event on the agreement.∂ One of the central issues under negotiation is Mexico’s labor laws. U.S. unions worry the Mexican statutes are too lax and put American workers at a disadvantage.∂ Rep. [Bill Pascrell](https://thehill.com/people/bill-pascrell) (D-N.J.), who recently led a delegation to Mexico to discuss the trade deal, said he was not encouraged by progress on the Mexican side of the border or by the latest offer from the White House.∂ Dart Stops∂ “I have not seen the reforms we talked about two years ago in what I have seen of NAFTA 2,” he said. The trade deal is often referred to as the second version of the North American Free Trade Agreement (NAFTA). “I’m not decided how I’m going to vote, but I’m leaning ‘no,’ ” Pascrell added. The intersection of impeachment and trade has also hit the White House. Even though Trump has fumed about the impeachment inquiry, he has little incentive to impede progress on the USMCA as he heads into his 2020 reelection campaign. Trump made trade one of the central pillars of his 2016 campaign but has little to show for it in terms of comprehensive deals. While the White House has reached a tentative partial trade deal with China, the details are incomplete and a large portion of it focuses on scaling back the massive trade war between the world’s two largest economies that dates back to July 2018. Delivering the USMCA, with congressional approval, would allow Trump to tout the successful, bipartisan renegotiation of NAFTA as he seeks reelection. Handing the president a campaign victory, however, has made some Democrats hesitant to embrace a new NAFTA.∂ But not everyone agrees the USMCA can withstand an impeachment firestorm.∂ “The impeachment gets in the way of everything this important,” said Rep. Mark Meadows (R-N.C.), while adding that Democrats would benefit from striking a deal on trade to disprove their critics.

### 1AR – USCMA – Link

#### Republicans love carbon tax.

Ken Silverstein, 1 – 9 - 19, "Calls For A Carbon Tax Are Coming After Dour 2018 Report. Republicans Are Leading The Charge," Forbes, https://www.forbes.com/sites/kensilverstein/2019/01/09/calls-for-a-carbon-tax-are-coming-after-dour-2018-report-republicans-are-leading-the-charge/#5aba39712d31

When news hit on Tuesday that CO2 emissions in the United States rose by 3.4% in 2018, it sucker punched the environmental community. But it also jolted the Trump administration, which said that its coal-friendly energy policies had not prompted any rise in domestic carbon levels Now the data indicate that this country is unlikely to meet the climate targets set by the Paris agreement — a 26% cut in CO2 releases by 2025, from 2005. As a result, there are clarion calls for new solutions and one subset is stepping up: moderate Republicans, who are presenting a carbon tax proposal. Indeed, former Republican members of Congress such as Ryan Costello from Pennsylvania and Bob Inglis of South Carolina are among two of the champions of a carbon tax. They have joined former Secretaries of State James Baker and George Schultz, whose Climate Leadership Council has said that energy producers don’t bear the environmental price; rather, it is the broader society. Today In: Industry “It is also vital that Congress exert leadership on climate due to the Trump administration’s roll backs to critical federal programs that encourage growth in the clean energy and transportation sectors, clean our air and water and reduce carbon emissions,” says a letter from 500 business leaders across the United States representing E2. “By the end of the century, climate change could cost the U.S. economy $500 billion per year. This sum is much larger than the current GDPs of most states.” That group is preceded by BP, Chevron Corp., ExxonMobil, Royal Dutch Shell and StatOil that have said that a carbon tax is superior to an international patchwork of laws. Moreover, those oil giants have major investments in natural gas, which has become the leading fuel to replace to coal — and, which also accounts for 1.9% of the overall 3.4% increase in CO2 releases.

### 1AR – USMCA – Econ ! D

#### Peace is always the response to econ decline – 5 warrants

**Clary 15**—PhD in Political Science from MIT and a Postdoctoral Fellow at the Watson Institute for International and Public Affairs at Brown [Christopher, “Economic Stress and International Cooperation: Evidence from International Rivalries,” *MIT Political Science Department*, Research Paper No. 2015-8, p. 4]

Economic crises lead to conciliatory behavior through five primary channels. (1) Economic crises lead to austerity pressures, which in turn incent leaders to search for ways to cut defense expenditures. (2) Economic crises also encourage strategic reassessment, so that leaders can argue to their peers and their publics that defense spending can be arrested without endangering the state. This can lead to threat deflation,

where elites attempt to downplay the seriousness of the threat posed by a former rival. (3) If a state faces multiple threats, economic crises provoke elites to consider threat prioritization, a process that is postponed during periods of economic normalcy. (4) Economic crises increase the political and economic benefit from international economic cooperation. Leaders seek foreign aid, enhanced trade, and increased investment from abroad during periods of economic trouble. This search is made easier if tensions are reduced with historic rivals. (5) Finally, during crises, elites are more prone to select leaders who are perceived as capable of resolving economic difficulties, permitting the emergence of leaders who hold heterodox foreign policy views. Collectively, these mechanisms make it much more likely that a leader will prefer conciliatory policies compared to during periods of economic normalcy. This section reviews this causal logic in greater detail, while also providing historical examples that these mechanisms recur in practice.

#### Robust empirical and theoretical analysis backs up peace theory

Clary 15 – PhD in political science from MIT, MA in national security affairs, postdoctoral fellow, Watson Institute for International Studies, Brown University

(Christopher, “Economic Stress and International Cooperation: Evidence from International Rivalries”, 4/25/15, <http://poseidon01.ssrn.com/delivery.php?ID=719105092024097121124100018083011118038069081083039091121092126090087109098065027066123029119022059121027020065094083094082064017078060077029075100073095001126072113085042032004073009085104092002020027086072104017023079122098123108013079003000082124078&EXT=pdf>, MIT political science department)

Do economic downturns generate pressure for diversionary conflict? Or might downturns encourage austerity and economizing behavior in foreign policy? This paper provides new evidence that economic stress is associated with conciliatory policies between strategic rivals. For states that view each other as military threats, the biggest step possible toward bilateral cooperation is to terminate the rivalry by taking political steps to manage the competition. Drawing on data from 109 distinct rival dyads since 1950, 67 of which terminated, the evidence suggests rivalries were approximately twice as likely to terminate during economic downturns than they were during periods of economic normalcy. This is true controlling for all of the main alternative explanations for peaceful relations between foes (democratic status, nuclear weapons possession, capability imbalance, common enemies, and international systemic changes), as well as many other possible confounding variables. This research questions existing theories claiming that economic downturns are associated with diversionary war, and instead argues that in certain circumstances peace may result from economic troubles.

### 1AR – USMCA – Energy ! D

#### USMCA doesn’t solve energy security

David L. Goldwyn 18, president of Goldwyn Global Strategies, an international energy advisory consultancy and serves as chairman of the Atlantic Council Global Energy Center Energy Advisory Group, 10/29/18, “Unfinished business: Putting the final touches on the USMCA,” https://thehill.com/opinion/energy-environment/413473-unfinished-business-putting-the-final-touches-on-the-usmca

The proposed US Mexico Canada Agreement (USMCA) makes important, but incomplete, progress in securing an integrated North American energy market.

In terms of progress, the agreement preserves zero tariffs for trade in oil, gas and petroleum products across North America. It effectively locks in Mexico’s historic energy reforms by ensuring that Mexico cannot reinstate restrictions on US investment in the oil and gas sector. A “ratchet” clause ensures that if Mexico decides to further liberalize the sector, then that higher floor becomes the new USMCA commitment.

While Investor-state dispute settlement (ISDS) mechanisms are weaker, they remain in force for certain “covered sectors,” including oil and gas investments in Mexico and power generation and pipeline investments where the investor has a contract with the government.

These are all positive steps for North American energy security. Mexico and Canada provide the United States with the heavy grades of oil not produced domestically, helping US refineries produce gasoline at the lowest possible cost. Thanks to this relationship, the United States is an efficient net exporter of petroleum products.

However, while this progress is laudable, it remains incomplete.

In the rush to conclude the agreement, effective protection for power generation investments like new wind and solar plants, refining and natural gas infrastructure, and power transmission lines were left out, perhaps inadvertently. Contracts for these investments are with state owned enterprises (SOEs) like Mexico’s CFE and PEMEX, which do not now fall within the definition of “federal government” because they are not disposing of assets but signing a contract for service. These essential investments, in the gas and refined product infrastructure which carry US products to and through Mexico, transmission lines which carry US electricity south, and investments in power generation are not permitted to bring ISDS claims to enforce their rights.

This is an oversight, and a protection these investments should enjoy. Rather, the proposed agreement creates an uneven playing field as investors who do have a contract with the Federal government, say for exploration, are entitled to bring an ISDS claim for any of their businesses, while those who do not have such contract do not. The problem can be easily fixed by expanding the definition of federal government to include these wholly owned SOEs.

These (for now) unprotected investments are critical to North American energy security. They secure US exports of electricity and natural gas and assure the continued reliability of the North American electricity system. They are the lifelines which carry US exports to Mexico – currently our number one customer for natural gas and petroleum products.

Protecting investments in Mexico’s electricity sector improves US national security by supporting Mexico’s prosperity through a more resilient power system.

Finally, if US power sector investments in Mexico are not protected and thus potentially hindered or lost, China is certain to fill the gap.

Chinese investment in all forms of power generation, transmission, and distribution is rapidly accelerating throughout Latin America. According to a recent Atlantic Council report, cumulative flows of Chinese foreign direct investment in Latin America have reached $110 billion, with $25 billion in oil and gas investment, and $13 billion in electricity, utilities and alternative energy. China’s State Grid has invested $7 billion in Brazil, through a combination of greenfield investments and acquisitions.

### 1AR – USMCA – Food ! D

#### No ag impact.

Steven **Pinker 11**, Prof @ Harvard, Steven Pinker: Resource Scarcity Doesn’t Cause Wars, <http://www.globalwarming.org/2011/11/28/steven-pinker-resource-scarcity-doesnt-cause-wars/>

Once again it seems to me that the appropriate response is “maybe, but maybe not.” Though climate change can cause plenty of misery… it will not necessarily lead to armed conflict. The political scientists who track war and peace, such as Halvard Buhaug, Idean Salehyan, Ole Theisen, and Nils Gleditsch, are skeptical of the popular idea that people fight wars over scarce resources. Hunger and resource shortages are tragically common in sub-Saharan countries such as Malawi, Zambia, and Tanzania, but wars involving them are not. Hurricanes, floods, droughts, and tsunamis (such as the disastrous one in the Indian Ocean in 2004) do not generally lead to conflict. The American dust bowl in the 1930s, to take another example, caused plenty of deprivation but no civil war. And while temperatures have been rising steadily in Africa during the past fifteen years, civil wars and war deaths have been falling. Pressures on access to land and water can certainly cause local skirmishes, but a genuine war requires that hostile forces be organized and armed, and that depends more on the influence of bad governments, closed economies, and militant ideologies than on the sheer availability of land and water. Certainly any connection to terrorism is in the imagination of the terror warriors: terrorists tend to be underemployed lower-middle-class men, not subsistence farmers. As for genocide, the Sudanese government finds it convenient to blame violence in Darfur on desertification, distracting the world from its own role in tolerating or encouraging the ethnic cleansing. In a regression analysis on armed conflicts from 1980 to 1992, Theisen found that conflict was more likely if a country was poor, populous, politically unstable, and abundant in oil, but not if it had suffered from droughts, water shortages, or mild land degradation. (Severe land degradation did have a small effect.) Reviewing analyses that examined a large number (N) of countries rather than cherry-picking one or toe, he concluded, “Those who foresee doom, because of the relationship between resource scarcity and violent internal conflict, have very little support from the large-N literature.”

# CP

## PIC – 2 degrees

#### Perm Do Both – we can acknowledge both the existential threats of warming and the people that are under threat from the constant effects of warming.

#### Perm Do the counterplan – the counterplan functionally does the plan and the aff doesn’t identify the 2 degree brink as solving warming.

#### Functional competition good – preserves clash around the effects plan which is best to ensure negative ground is predictable and engagement occurs

#### Reps focus bad – instead of addressing the material harms that are happening to people we focus on the inevitable one bad word in a policy

## PIC – Agriculture

### 1AR – Ag – Link

#### Can’t solve warming – Agriculture is responsible for a large percent of emissions

Russell 14 [(http://www.wri.org/profile/stephen-russell Stephen leads the Corporate GHG Accounting Project at WRI, which seeks to develop (inter)nationally recognized best practices for greenhouse gas (GHG) emissions management for organizations. He is currently managing projects in Brazil and elsewhere to create GHG measurement tools for agribusiness. He has led the development of a GHG accounting protocol for the US public sector (subsequently adopted by US federal agencies under EO 13514) and various accounting protocols and tools for specific industrial sectors, including the Chinese coal-fired power sector and metals production. Stephen has also assisted the creation of the GHG Protocol Brazil Program, a voluntary, corporate GHG reporting program in Brazil. Stephen previously conducted academic research on ecology and population genetics. His research fields encompassed the spread of invasive species in the Caribbean and southern Africa, population demographic analysis, and speciation. Stephen spent two years as a post-doctoral researcher with the Max-Planck Research Society in Germany. He holds a Ph.D. in Biology from the University of St. Andrews (Scotland) and a BSc. (Hons.) in Biology from the University of York (England).), “Everything You Need To Know About Agricultural Emissions”, 5/29/2014, <http://www.wri.org/blog/2014/05/everything-you-need-know-about-agricultural-emissions>] SJDI

1) What share of global greenhouse gas emissions comes from agriculture? Farms emitted 6 billion tonnes of GHGs in 2011, or about 13 percent of total global emissions. That makes the agricultural sector the world’s second-largest emitter, after the energy sector (which includes emissions from power generation and transport). 2) Where do a farm’s emissions come from? Most farm-related emissions come in the form of methane (CH4) and nitrous oxide (N2O). Cattle belching (CH4) and the addition of natural or synthetic fertilizers and wastes to soils (N2O) represent the largest sources, making up 65 percent of agricultural emissions globally. Smaller sources include manure management, rice cultivation, field burning of crop residues, and fuel use on farms. At the farm level, the relative size of different sources will vary widely depending on the type of products grown, farming practices employed, and natural factors such as weather, topography, and hydrology.  Farming emissions come from a variety of sources that differ depending on the type of farm. Image credit: IPCC 3) Which countries produce the most agricultural emissions? The 10 countries with the largest agricultural emissions in 2011 were (in descending order): China, Brazil, United States, India, Indonesia, Russian Federation, Democratic Republic of Congo, Argentina, Myanmar, and Pakistan. Together, these countries contributed 51 percent of global agricultural emissions. 4) Are global agricultural emissions changing? From 1990 to 2010, global agricultural emissions increased 8 percent. They are projected to increase 15 percent above 2010 levels by 2030, when they will amount to nearly 7 billion tonnes per year. These increases are mainly driven by population growth and changes in dietary preferences in developing economies. Agricultural emissions growth will be greatest in Asia and sub-Saharan Africa, which will account for two-thirds of the increase in overall food demand over first half of the 21st Century. The production of vegetable oils and animal products – products with a high GHG intensity – are expected to grow the most amongst agricultural outputs.

### 1AR – Ag – Impact Turn

## PIC – “Fee”

#### Perm Do Both – we can pass it as a tax but then change it to fee in press release

#### Do the counterplan – It functionally does the same thing as the aff

#### Functional competition good – preserves clash around the effects plan which is best to ensure negative ground is predictable and engagement occurs

#### Reps focus bad – instead of addressing the material harms that are happening to people we focus on the inevitable one bad word in a policy

## PIC – Generic

#### Exemptions mean no modeling

Flannery 16 - Center Fellow, RFF Center for Energy and Climate Economics, PhD in Astrophysics, University of California, Santa Cruz, professor at Harvard University

(Brian, “Carbon Taxes, Trade, and Border Tax Adjustments”, April 2016, <http://www.rff.org/files/document/file/RFF-PB-16-02.pdf>, RFF Policy Brief No 16)

Trachtman (2016) provides a detailed discussion of WTO rules that should be considered in designing BTAs. He notes that many aspects remain speculative, because existing case law provides little clarity on how WTO rules might be interpreted regarding BTAs. Approaches that would limit risks of noncompliance need to avoid features that constitute direct violations, and (or) they would need to include features that qualify for exceptions and avoid those that rule against exceptions. Features that would qualify for exceptions from applicable rules include measures necessary to protect human, animal, or plant life; or health and measures relating to conservation of exhaustible natural resources. These exceptions appear well suited to address GHG concerns. However, Trachtman notes that BTA provisions designed to exempt exports from domestic taxes would seem to undermine any claim to apply BTAs to imports.

#### Permutation do the aff and divert revenue to the pic’d sector – exemptions are inefficient

Rivers and Schaufele 15 - Graduate School of Public and International Affairs and Institute of the Environment, University of Ottawa; Department of Economics and Institute of the Environment, University of Ottawa

(Nicholas and Brandon, “The Effect of Carbon Taxes on Agricultural Trade”, Canadian Journal of Agricultural Economics 63)

When implemented elsewhere (notably in Europe), carbon taxes have often been accompanied with exemptions for certain sectors to shield them from the full impact of the carbon tax. Such exemptions have taken various forms, including complete exemptions such as Norway’s exemption on coal use in the cement industry (Ekins and Speck 1999), conditional exemptions such as the UK’s Climate Change Agreements and Levy (Martin et al 2011), and reduced tax rates which exist for most manufacturers subject to European carbon taxes (Ekins and Speck 1999). While such exemptions are politically popular, most economists consider them to be economically inefficient because they entail forgoing cost effective opportunities to reduce carbon emissions. To achieve the same level of emission reductions, more costly activities need to be pursued. Bohringer and Rutherford (1997), as an example, estimate that sector exemptions are an extremely costly way to preserve employment in the exempted sector and Hoel (1996) shows that sector exemptions are inferior to other support mechanisms that governments can use. Conventional economic wisdom suggests that the number of policy instruments should be equal to the number of policy goals. In the context of BC’s carbon tax, there appear to be at least three goals facing policy makers—(1) improving environmental performance, (2) maintaining international competitiveness, and (3) maintaining employment or firm profitability when the carbon tax is implemented. Trying to address all three of these goals with a single policy (carbon tax with exemptions) is suboptimal and compromises efficiency across all goals. Instead, individual policies should be used to address each policy goal.

#### Pay over exempt

Taylor 15 – president of the Niaskanen Center

(Jerry, “The Conservative Case for a Carbon Tax”, 3/23/15, http://niskanencenter.org/wp-content/uploads/2015/03/The-Conservative-Case-for-a-Carbon-Tax1.pdf)

While this is to some extent true, the “emissions leakage” rationale for doing nothing is overstated. Adoption of the Kyoto Protocol in Europe has likely failed to capture 5-20 percent of the emissions from 1995-2005,69 a finding that adds weight to a recent analysis finding that a $50 carbon tax applied to select sectors of the U.S. economy would fail to capture about 14 percent of emissions due to leakage.70 That same study found that a broad-based carbon tax imposed on all sectors of the U.S. economy would produce a leakage rate of only about 9 percent.71 Even so, leakage caused by a global carbon tax can be addressed. Some of the revenue from a domestic carbon tax could be rebated to domestic industries most heavily impacted by leakage. Charges could be imposed on imported goods the equivalent of what they would have had to pay had the imported goods been produced in the United States.72

## PIC – HWL Adjustable Rates

#### Perm do the counterplan – Normal means is an adjustable rate but solid short term rates allow for stable business investment

Pasfeld 13 [(Bruce Pasfield is the lead partner for Alston & Bird LLP’s Environment and Land Use practice group in Washington, D.C. His practice focuses on environmental law and corporate governance issues. He regularly provides compliance advice to clients on the phase out of ozone depleting substances and greenhouse gases. He holds a J.D. from Vermont Law School and a B.A. from Gettysburg College) “HOW TO ENFORCE A CARBON TAX: LESSONS FROM THE MONTREAL PROTOCOL AND THE U.S. EXPERIENCE WITH THE OZONE DEPLETING CHEMICALS TAX” VERMONT JOURNAL OF ENVIRONMENTAL LAW Vol. 14 (2013)] SJDI

The Pigovian economic model assumes perfect knowledge, a nearly impossible feat. To set a tax rate at the optimal rate, the government must estimate the marginal cost and the marginal benefit of abatement curve.103 In the long term, uncertainty in these areas is virtually limitless: the government must know the science and related effects of climate change, be able to predict future economic and technical developments, and must discount all values to the present.104 In the short term, however, economists can make reasonable estimates about an initial carbon tax rate that will maximize investment in energy efficiency and renewable energy at the least cost to the economy. This fixed rate for a finite period will allow businesses to properly plan for future investment and will provide predictability for future growth. As the country gains experience with a carbon tax, adjustments will undoubtedly be needed to equate the marginal cost of abatement with the marginal benefit. Depending on the circumstances, these adjustments could require lowering the rate to alleviate unforeseen economic burdens or increasing the rate to stimulate greater efficiencies needed to avoid the 409 more catastrophic consequences of climate change. Therefore, the tax rate should be reevaluated and adjusted at regular intervals to ensure economic and environmental targets are being achieved. Finally, it must be remembered that while a carbon tax rate may be based on a desired emissions target (such as an eighty percent reduction of 2005 levels by 2050), it is merely a target, not a mandatory limit. If the target is not reached, other means—such as renewable portfolio standards (RPS) and command-and-control regulations—must still be considered. F. Other Incentives Needed to Cause a Switch to Alternatives As the Pigovian tax discussion demonstrates, the carbon tax is unlikely to reduce CO2 emissions to the exact optimal level, particularly as it pertains to stimulating investment in alternative energy sources. Congress should be careful to understand the alternative energy market and RPS, and to anticipate events other than price points that might affect consumer choices. For example, solar panels are not widely in use. There are problems with grid compatibility, and consumers may be uninformed about potential tax credits or unwilling or unable to pay upfront capital costs. These barriers could prevent their widespread use even as the cost of their installation declines. In short, a carbon tax cannot be all things to all people, and while it may prove helpful in switching to alternative fuel sources**,** stimulating energy efficiency may prove to be a more realistic goal. CONCLUSION Today a carbon tax is a simple, easy to implement, market-based means of reducing GHG emissions. Although smuggling can be problematic, the lessons learned from the ODS tax can be our guide to implement an effective enforcement system. Carbon tax legislation with strong enforcement provisions could be the most equitable way to reduce carbon emissions. Congress should be careful to understand the tax’s limitations in that it will be more successful in stimulating energy efficiency than in changing consumer preferences or making alternative energy sources on par with fossil fuels. If these limitations are properly understood and factored into any ensuing legislation, a carbon tax can be the United States’ first best step at solving the greatest environmental challenge of our time.

#### Fluctuating rates creates investment uncertainty and decks the econ

Note: endogenous = internal and exogenous = external

**Candelon at al 18**

(Bertrand Candelon, Honorary Economics Professor University Maastricht and Visiting Professor of Economics Université Catholique de Louvain; and Laurent Ferrara, Head of International Macro Division at Banque de France and Adjunct Professor of Economics at University Paris Nanterre; and Marc Joets, Macroeconomics Researcher for the Bank of France and Economics Professor at French Institute of Petroleum and New Energies, “Global financial interconnectedness: A Non-Linear Assessment of the Uncertainty Channel,” EconomiX Working Papers, University of Paris Nanterre, EconomiX, Number 2018-2, Snider)

While **previous research assumes static network overtime**, it turns out that the **topology** of **financial markets** **interconnections** may **evolve** **dynamically**. It means that interconnections among assets at a given date are **not** **necessarily** **the same** at **another one**. Against this background, Billio et al. (2016) have recently proposed a statistical approach based on Granger causality and MS-GARCH to deal with such dynamic networks. Treating network as information diffusion, they show that some structures inherent to the system, such as the number of connections among stock exchanges and their associated strengths, are regime-dependent. The dynamic of financial markets networks is however assumed to be endogenous in the sense that instability of the system emerges **without** any external shocks. This assumption **leaves aside the question of the diffusion** of **exogenous shocks** on the network **stability**, while external forces may shape the **resilience** of the **network structure**. As regards exogenous factors, evidence recently blossomed as regards the role of **uncertainty** **about the future** **state** of the economy as a **driver** of **macroeconomic** and **financial** **fluctuations**. At a macroeconomic level, the effect of uncertainty has been **widely documented** in the **economics** **literature**, **especially** with **respect to the mechanism** whereby it **affects** growth and **investment**, which has been extensively discussed both theoretically and empirically (see Bloom 2014, and Ferrara et al. 2017, for a review). Overall, studies generally agree that high uncertainty gives firms an incentive to delay investment and hiring under the irreversibility condition or fixed costs through an option value to wait (see Bernanke 1983, Bloom et al. 2007, and Bloom 2009, 2014).

## PIC – LPG

#### Permutation do the counterplan – the plan only gets rid of post-tax subsidies, not any of the direct or indirect government subsidies of the counterplan.

#### Exemptions mean no modeling – warming outweighs

Flannery 16 - Center Fellow, RFF Center for Energy and Climate Economics, PhD in Astrophysics, University of California, Santa Cruz, professor at Harvard University

(Brian, “Carbon Taxes, Trade, and Border Tax Adjustments”, April 2016, <http://www.rff.org/files/document/file/RFF-PB-16-02.pdf>, RFF Policy Brief No 16)

Trachtman (2016) provides a detailed discussion of WTO rules that should be considered in designing BTAs. He notes that many aspects remain speculative, because existing case law provides little clarity on how WTO rules might be interpreted regarding BTAs. Approaches that would limit risks of noncompliance need to avoid features that constitute direct violations, and (or) they would need to include features that qualify for exceptions and avoid those that rule against exceptions. Features that would qualify for exceptions from applicable rules include measures necessary to protect human, animal, or plant life; or health and measures relating to conservation of exhaustible natural resources. These exceptions appear well suited to address GHG concerns. However, Trachtman notes that BTA provisions designed to exempt exports from domestic taxes would seem to undermine any claim to apply BTAs to imports.

#### LPG still emits massive amounts of CO2 – people can still shift to cheaper cookware that results from the plan creating an economic incentive to boost technological innovation.

#### Renewable cooking is better – it can scale up in the status quo and is cheaper than LPG

**Bhave 17** [Mahesh Bhave, Mahesh P. Bhave is Professor, NTPC School of Business (NSB), New Delhi area, He is also Founder, BHAVE Power Systems, San Diego, CA.  He teaches “Corporate Strategy – Energy-centric” and “Business Strategies for Microgrids” for MBA and executive MBA students. He works on projects to replace LPG (liquified petroleum gas) for cooking with solar and battery based solutions. Mahesh is an engineer from IIT Delhi with a Ph.D. from Syracuse University’s Maxwell School., 3-22-2017, "Clean Cooking, Rural and Urban, the Next Frontier for Renewables," Renewable Energy World, https://www.renewableenergyworld.com/2017/03/22/clean-cooking-rural-and-urban-the-next-frontier-for-renewables/, accessed 11-8-2019]LHSBC

* **This guy’s life work is researching on replacing LPG with renewable energy. You should def believe him.**

Historically, lighting was the driver for electricity systems. [Edison](http://behindthescenes.nyhistory.org/edison-lit-manhattan/) lit up [Manhattan](https://www.youtube.com/watch?v=Gtp51eZkwoI), New York. But now, with solar panels and a variety of LED fixtures, from nightlights to lawn lights, street lamps to traffic lights to ceilings bulbs (if we may call them that), illumination at night, even for the poor, [is largely a solved problem](http://spectrum.ieee.org/green-tech/solar/lights-for-the-enlightened-an-engineering-trek-in-the-himalayas). And the grid is optional; local electricity networks will do. For example, Nancy Wimmer’s book, Green Energy for a Billion Poor, describes how [Grameen Shakti](https://www.internationalrivers.org/resources/grameen-shakti-a-vanguard-model-for-rural-clean-energy-7888), using Solar Home Systems (SHS) addressed Bangladesh’s illumination problem. Light for everyone at will — this is an accomplishment of the order of eradicating smallpox.∂ In the inaccessible parts of the campus of the Indian Institute of Management Kozhikode (IIM K), where I was faculty, we lit up steep walkways on hills with roughly 8-watt LED lights, solar panels, and batteries. The walkways, hitherto seen as unsafe due to sightings of snakes and scorpions on them, are usable at night now.∂ For increasing the world’s welfare to the next level, two solar-powered electricity applications appear critical, a) clean cooking, b) charging e-bikes, e-motorcycles, and EVs. Why? Done right, solar systems designed for cooking, as well as for transport, will drive the virtuous cycle of more numerous and more powerful solar deployments, which will bring in its wake more access to lighting, fans, phone and tablet charging, laptop use, Internet access, refrigerators, and more. With solar electric cooking, to extend the disease eradication analogy, we address tuberculosis.∂ Fatal Flaw — Under-designed Systems∂ For those on the renewable energy path, one fatal flaw is under-designed systems. This was amply illustrated by the case of Greenpeace’s [Dharnai village microgrid](https://www.scientificamerican.com/article/coal-trumps-solar-in-india/) in Bihar, India. It focused on providing lighting, and implemented it successfully. But, instead of being grateful the villagers complained that it did not give them all the services of the regular grid. As it relates to electricity access, something is not always better than nothing. Rather, all villagers wanted a fully functional system that can handle refrigeration and fans, TVs and air-conditioners, over time, and at their pace. After all, that is the benchmark set by the regular grid. Or nothing; the status quo. Solar power was perceived as an inferior solution, foisted on the villagers, who thought they were treated as second-class citizens.∂ From this perspective, the Dharnai grid failed. The lessons are momentous. The design of next generation electricity systems should be: support more and more applications over time, that is, intensive use; and also extensive use, that is, all electricity services to more and more people. An important point to note regarding Electricity 2.0: Not all services need be from the same provider, as is the case with today’s grid.∂ My hypothesis is that such full solutions are feasible with today’s renewable technologies. When we add up the monthly or usage fees an operator can charge for these services, the overall system is likely to be economical, not only for the rural un-electrified households of today, but even in urban areas, such as multi-apartment residential housing societies of the kind I grew up in. The doctors called electricity services providers should treat all illnesses.∂ Open issues remain but are not insurmountable. For instance, should the electricity system be a part of a village microgrid? Should the panels be installed on individual homes, or in a central location? Are people likely to use cookstoves at about the same time, and therefore, create demand peaks and shortages? Can usage be scheduled at staggered intervals to avoid that? Would time-of-use based pricing help demand management? Can we over-design the systems, using batteries and some gas-based generators, so that shortages are manageable?∂ Village Microgrids for Rural Clean Cooking∂ Having experienced the miracle induction cookstoves represent, in an [article on February 27](http://www.renewableenergyworld.com/articles/2017/02/microgrids-for-clean-cooking-and-internet.html), I argued for microgrids for powering them. I assumed solar power would be converted to AC at 110 V or 220 V using inverters, and thus rendered suitable for induction cooking.∂ After writing that article, on March 3, I witnessed the use of solar generated [DC power](http://spectrum.ieee.org/energy/renewables/innovative-direct-current-microgrids-to-solve-indias-power-woes) fed into a (slightly modified) classic resistance coil cookstove. The water boiled in fifteen minutes at the home of Dr. Barry Butler, in Solana Beach, Calif. This was my first experience of direct solar-powered [DC](http://spectrum.ieee.org/green-tech/buildings/dc-microgrids-and-the-virtues-of-local-electricity) for cooking. Walmart sells a resistive hotplate for $10 compared to induction versions for $65. These could herald the age of solar-powered microgrids for cooking.∂ Clean Cooking for Urban High Rises∂ Consider the housing society where I grew up — two buildings facing each other with 16 apartments each, four to each floor. There is no space for regular solar panels large enough for anything beyond minimal use, for instance, lighting. But on the terrace on top of each building, there is sufficient space for CPV — Concentrated Photovoltaics — installations. Can CPV-based solar electricity be used for urban cooking, and at a price point lower than the cost of LPG, and traditional grid electricity-based cooking? I think so, but no one has yet done the modeling to prove it.∂ CPV has practically died as a technology and a product. I have misgivings about it. My disquiet stems from the sense that this should not be. The core idea of concentrating solar power to reduce land use and for more efficient sunlight to power conversion makes sense. But crystalline PV has won the solar deployment battle, mainly because the Chinese manufactured it to such a scale that prices dropped dramatically. Moreover, governments, including India, have political reasons to brag about “GW of solar” deployed. Unfortunately, acres and acres of PV deployment for grid-tied power have crowded out CPV for urban use.∂ With CPV, there are still close-tolerance moving parts; the technology is not mature and standardized yet. Nevertheless, just as China did with PV, China or someone else could manufacture CPV at scale, reduce costs, and deploy massively. CPV and urban use are perfect complements, and urban cooking, and eventually e-bike or EV charging, can be the “killer” apps. My conclusion: clean cooking, urban and rural, is the next frontier for renewable energy systems.

#### Permutation do the aff and divert revenue to the pic’d sector – exemptions are inefficient

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(Nicholas and Brandon, “The Effect of Carbon Taxes on Agricultural Trade”, Canadian Journal of Agricultural Economics 63)

When implemented elsewhere (notably in Europe), carbon taxes have often been accompanied with exemptions for certain sectors to shield them from the full impact of the carbon tax. Such exemptions have taken various forms, including complete exemptions such as Norway’s exemption on coal use in the cement industry (Ekins and Speck 1999), conditional exemptions such as the UK’s Climate Change Agreements and Levy (Martin et al 2011), and reduced tax rates which exist for most manufacturers subject to European carbon taxes (Ekins and Speck 1999). While such exemptions are politically popular, most economists consider them to be economically inefficient because they entail forgoing cost effective opportunities to reduce carbon emissions. To achieve the same level of emission reductions, more costly activities need to be pursued. Bohringer and Rutherford (1997), as an example, estimate that sector exemptions are an extremely costly way to preserve employment in the exempted sector and Hoel (1996) shows that sector exemptions are inferior to other support mechanisms that governments can use. Conventional economic wisdom suggests that the number of policy instruments should be equal to the number of policy goals. In the context of BC’s carbon tax, there appear to be at least three goals facing policy makers—(1) improving environmental performance, (2) maintaining international competitiveness, and (3) maintaining employment or firm profitability when the carbon tax is implemented. Trying to address all three of these goals with a single policy (carbon tax with exemptions) is suboptimal and compromises efficiency across all goals. Instead, individual policies should be used to address each policy goal.

## CP – Bubbles

#### Permutation do both – shields the link because the plan creates a market incentive implement the counterplan’s tech as fast as possible

#### CP causes warming.

**Robock ’10** (Alan; 10/5/2010; professor at Department of Environmental Sciences in Rutgers University; “Bubble, bubble, toil and trouble,” <http://climate.envsci.rutgers.edu/pdf/Bubble2.pdf>; Date Accessed: 7/9/2017; DS)

Seitz (2011) has proposed using micron-size bubbles in water to increase albedo and cool the water as an alternative to geoengineering in the stratosphere using sulfate aerosols. The slogan “Don’t dim the Sun; Brighten the water” appears twice in the paper. Seitz suggests that cooling oceanic regions this way would be a safer way to address the problem of global warming. The problem of global warming is real and potentially very dangerous (IPCC 2007). Society has various options for responding to this problem, nothing (the response so far), mitigation (reducing or eliminating emissions of greenhouse gases that are causing the warming—the far preferable option), adaptation and suffering in response to the warming and other climate impacts that are already happening and will grow in the future, and geoengineering. Geoengineering here will refer to “solar radiation management” attempts to reduce absorbed solar radiation to counteract the warming. Carbon capture and storage is also sometimes called geoengineering, but it has completely different ethical, risk, governance, and cost issues and will not be addressed here. Robock (2008a) and Robock et al. (2009) point out that while production of a stratospheric aerosol cloud would indeed cool the climate and prevent or reverse ice melting and sea level rise, it would also bring a large number of potential risks (Table 1). While Seitz correctly states that his bubble method would remove some of these risks, it would **bring its own list of risks.** These include impacts on convection in the ocean once you cool the ocean surface, which would remove the bubbles. A cooler ocean will also absorb CO2 more efficiently, **enhancing ocean acidification**. As artificial surfactants would be needed in some situations, the **costs and environmental impacts of these chemicals may present problems**. And what would be the **effects of bubble clouds on oceanic life, through their effects on temperature and amount of sunlight**? Bubble clouds would also induce changes in oceanic circulation and anom- alous evaporation, which would in turn affect atmospheric heating and atmospheric circulation. Would the bubble patterns allow regional climate control, with potential benefits, but also potential for use as a weapon?

#### CP wrecks ecosystem resilience.

**CBD ’12** (Convention on Biological Diversity; 1/2012; global agreement addressing all aspects of biological diversity: genetic resources, species, and ecosystems; “Impacts of Climate Related Geo-engineering on Biological Diversity,” <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&cad=rja&ved=0CEAQFjAF&url=http%3A%2F%2Fwww.cbd.int%2Fclimate%2Fdoc%2Fdraft-study-impacts-geoengineering-second-review-en.doc&ei=YH9fUMeFBe2-0QHr5YD4Ag&usg=AFQjCNHsdSSOpqZzKaLmzbp9ZzTnIJSZVQ>; Date Accessed: 7/9/2017; DS)

The specific impacts of surface albedo enhancement on biodiversity and ecosystem services, over and above the impacts of generic SRM approaches involving uniform dimming are described in section 4.1, depend on what method is used. Surface albedo can be increased, for example, through whitening the built environment, use of crops with more reflective foliage, covering deserts (or other lands) with reflective material, and use of micro-bubbles in water bodies. The albedo of the surface ocean might be enhanced through the introduction of microbubbles (currently called ‘Bright Water’) with claims that the microbubbles are effective at reducing solar radiation even at parts per million levels[[1]](#footnote-1). In general, if surface albedo changes were large enough to have an effect on the global climate, they would have to be deployed across a very large area – with consequent impacts on ecosystems, or would involve a very high degree of localised cooling. For instance, covering deserts with reflective material on a scale large enough to be effective in addressing the impacts of climate change would probably have significant negative ecological effects[[2]](#footnote-2), for instance on species richness and population densities. Introducing bubbles into large expanses of water bodies would probably have negative impacts on ocean biodiversity due to decreased light penetration, with possible impacts on currents and further knock-on impacts on local ecosystems.

#### Extinction

**Carrington 10/29** [(Damian, the Guardian's Environment editor) "Humanity has wiped out 60% of a animal populations since 1970, report finds," The Guardian, 10/29/18] TDI

Humanity has wiped out 60% of mammals, birds, fish and reptiles since 1970, leading the world’s foremost experts to warn that the **annihilation of wildlife** is now an emergency that **threatens civilisation**. The new estimate of the massacre of wildlife is made in a major report produced by WWF and involving 59 scientists from across the globe. It finds that the vast and growing consumption of food and resources by the global population is **destroying the web of life**, billions of years in the making, upon which human society ultimately depends for clean air, water and everything else. “We are sleepwalking towards the edge of a cliff” said Mike Barrett, executive director of science and conservation at WWF. “If there was a 60% decline in the human population, that would be equivalent to emptying North America, South America, Africa, Europe, China and Oceania. That is the scale of what we have done.” “This is far more than just being about losing the wonders of nature, desperately sad though that is,” he said. “This is actually now **jeopardising the future of people**. Nature is not a ‘nice to have’ – **it is our life-support system**.” “We are rapidly **running out of time**,” said Prof Johan Rockström, a global sustainability expert at the Potsdam Institute for Climate Impact Research in Germany. “Only by addressing both ecosystems and climate do we stand a chance of safeguarding a stable planet for **humanity’s future** on Earth.” Many scientists believe the world has **begun a sixth mass extinction**, the first to be caused by a species – Homo sapiens. Other recent analyses have revealed that humankind has destroyed 83% of all mammals and half of plants since the dawn of civilisation and that, even if the destruction were to end now, it would take 5-7 million years for the natural world to recover. The Living Planet Index, produced for WWF by the Zoological Society of London, uses data on 16,704 populations of mammals, birds, fish, reptiles and amphibians, representing more than 4,000 species, to track the decline of wildlife. Between 1970 and 2014, the latest data available, populations fell by an average of 60%. Four years ago, the decline was 52%. The “shocking truth”, said Barrett, is that the wildlife crash is continuing unabated. Wildlife and the ecosystems are vital to human life, said Prof Bob Watson, one of the world’s most eminent environmental scientists and currently chair of an intergovernmental panel on biodiversity that said in March that the destruction of nature is **as dangerous as climate change**. “Nature contributes to human wellbeing culturally and spiritually, as well as through the critical production of food, clean water, and energy, and through regulating the Earth’s climate, pollution, pollination and floods,” he said. “The Living Planet report clearly demonstrates that human activities are destroying nature at an unacceptable rate, threatening the wellbeing of **current and future generations.”** The biggest cause of wildlife losses is the destruction of natural habitats, much of it to create farmland. Three-quarters of all land on Earth is now significantly affected by human activities. Killing for food is the next biggest cause – 300 mammal species are being eaten into extinction – while the oceans are massively overfished, with more than half now being industrially fished. Chemical pollution is also significant: half the world’s killer whale populations are now doomed to die from PCB contamination. Global trade introduces invasive species and disease, with amphibians decimated by a fungal disease thought to be spread by the pet trade. The worst affected region is South and Central America, which has seen an 89% drop in vertebrate populations, largely driven by the felling of vast areas of wildlife-rich forest. In the tropical savannah called cerrado, an area the size of Greater London is cleared every two months, said Barrett. “It is a classic example of where the disappearance is the result of our own consumption, because the deforestation is being driven by ever expanding agriculture producing soy, which is being exported to countries including the UK to feed pigs and chickens,” he said. The UK itself has lost much of its wildlife, ranking 189th for biodiversity loss out of 218 nations in 2016. **The habitats suffering the greatest damage are rivers and lakes**, where wildlife populations have fallen 83%, due to the enormous thirst of agriculture and the large number of dams. “Again there is this **direct link** between the food system and the depletion of wildlife,” said Barrett. Eating less meat is an essential part of reversing losses, he said. The Living Planet Index has been criticised as being too broad a measure of wildlife losses and smoothing over crucial details. But all indicators, from extinction rates to intactness of ecosystems, show colossal losses. “They all tell you the same story,” said Barrett. **Conservation efforts can work**, with tiger numbers having risen 20% in India in six years as habitat is protected. Giant pandas in China and otters in the UK have also been doing well. But Marco Lambertini, director general of WWF International, said the fundamental issue was consumption: “We can no longer ignore the impact of current unsustainable production models and wasteful lifestyles.” The world’s nations are working towards a crunch meeting of the UN’s Convention on Biological Diversity in 2020, when new commitments for the protection of nature will be made. “We need a new global deal for nature and people and we have this narrow window of less than two years to get it,” said Barrett. “This really is the last chance. We have to get it right this time.” Tanya Steele, chief executive at WWF, said: “We are the first generation to know we are destroying our planet and the last one that can do anything about it

## CP – Cap and trade

#### Perm Do both

#### Links to the net benefit

#### No modeling – EU should’ve thumped but other countries are afraid

#### CP Fails at a national scale-creators of cap and trade vote aff

Hilsenrath 9 correspondent for the Wall Street Journal, internally cites Thomas Crocker, creator of cap and trade, former economics professor at the University of Wyoming (Jon, “Cap-and-Trade's Unlikely Critics: Its Creators”, Wall Street Journal, http://online.wsj.com/news/articles/SB125011380094927137)//WK

In the 1960s, a University of Wisconsin graduate student named Thomas Crocker came up with a novel solution for environmental problems: cap emissions of pollutants and then let firms trade permits that allow them to pollute within those limits. Now legislation using cap-and-trade to limit greenhouse gases is working its way through Congress and could become the law of the land. But Mr. Crocker and other pioneers of the concept are doubtful about its chances of success. They aren't abandoning efforts to curb emissions. But they are tiptoeing away from an idea they devised decades ago, doubting it can work on the grand scale now envisioned. "I'm skeptical that cap-and-trade is the most effective way to go about regulating carbon," says Mr. Crocker, 73 years old, a retired economist in Centennial, Wyo. He says he prefers an outright tax on emissions because it would be easier to enforce and provide needed flexibility to deal with the problem. The House has passed cap-and-trade legislation. The Senate could take up a measure in September. But Republicans strongly oppose the idea -- arguing that it is a tax that will hurt the economy -- and Democrats are struggling to come up with an approach that apportions the inevitable cost of a cap-and-trade system among different interests, from consumers to utilities to coal plants. Mr. Crocker, who went on to become a professor at the University of Wyoming, is one of two economists who dreamed up cap-and-trade in the 1960s. The other, John Dales, who died in 2007, was also a skeptic of using the idea to tame global warning. "It isn't a cure-all for everything," Mr. Dales said in an interview in 2001. "There are lots of situations that don't apply." Mr. Crocker sees two modern-day problems in using a cap-and-trade system to address the global greenhouse-gas issue. The first is that carbon emissions are a global problem with myriad sources. Cap-and-trade, he says, is better suited for discrete, local pollution problems. "It is not clear to me how you would enforce a permit system internationally," he says. "There are no institutions right now that have that power." Europe has embraced cap-and-trade rules. Emissions initially rose there because industries were given more permits than they needed, and regulators have since tightened the caps. Meanwhile China, India and other developing markets are reluctant to go along, fearing limits would curb their growth. If they don't participate, there is little assurance that global carbon emissions will slow much even if the U.S. goes forward with its own plan. And even if everyone signs up, Mr. Crocker says, it isn't clear the limits will be properly enforced across nations and industries. The other problem, Mr. Crocker says, is that quantifying the economic damage of climate change -- from floods to failing crops -- is fraught with uncertainty. One estimate puts it at anywhere between 5% and 20% of global gross domestic product. Without knowing how costly climate change is, nobody knows how tight a grip to put on emissions. In this case, he says Washington needs to come up with an approach that will be flexible and easy to adjust over a long stretch of time as more becomes known about damages from greenhouse-gas emissions. Mr. Crocker says cap-and-trade is better suited for problems where the damages are clear -- like acid rain in the 1990s -- and a hard limit is needed quickly. "Once a cap is in place," he warns, "it is very difficult to adjust." For example, buyers of emissions permits would see their value reduced if the government decided in the future to loosen the caps.

## CP – Carbon Capture/CCS

#### Permutation do both – shields the link because the plan creates a market incentive implement and upscale the counterplan’s tech as fast as possible

#### The tech falls flat – lack of regs, upscaling, gasification, and post-combustion gut effectiveness

Catf 7 [Catf, 2007, "Costs and Challenges of Carbon Capture and Storage," No Publication, http://www.fossiltransition.org/pages/costs\_and\_challenges/136.php, accessed 11-22-2019]LHSBC

Three points help place the costs and challenges of carbon capture and storage (CCS) in context:∂ CCS lowers the total societal cost of addressing climate change by approximately 30%.[[1]](http://www.fossiltransition.org/pages/costs_and_challenges/39.php##_ftnref1)This does not mean that CCS lowers electricity prices. It means without CCS, more costly methods are needed to meet carbon dioxide reduction targets, which could add trillions of dollars[[2]](http://www.fossiltransition.org/pages/costs_and_challenges/39.php#_ftn2)∂ ∂ CCS will not be widely used until carbon dioxide is regulated. That’s because CCS has only one purpose—compliance with environmental standards.∂ ∂ Implementing CCS means a new industry must emerge on a large scale to capture, store and inject carbon dioxide deep underground. It’s not as simple as adding a device to a plant.∂ ∂ ∂ While the actual cost of CCS vary, as a general guide:∂ ∂ Capture is more expensive than sequestration. Capture accounts for about 3/4 of the total CCS costs.∂ ∂ CCS raises the costs of electricity (compared to an uncontrolled plant) by between 30 and 80%.[[3]](http://www.fossiltransition.org/pages/costs_and_challenges/39.php#_ftn3) A key factor that drives this increase is the energy penalty associated with capture and compression of CO2 to make it ready for transport and injection.∂ ∂ Projected electricity prices from an old plant retrofitted with CCS are often lower than the projected prices from a proposed new plant with CCS. The reason is that the older plant is often fully depreciated and paid off.∂ ∂ Technology is not static. Historically, the cost of pollution controls has been far less than originally projected as technology is deployed and improved. Read our latest paper on CCS costs [here](http://www.fossiltransition.org/filebin/images/How_Much_Does_CCS_Really_Cost.pdf).∂ ∂ Gasification Challenges∂ With today’s technologies, capturing carbon dioxide from a new gasification plant is normally less expensive than building a new conventional coal plant with post-combustion capture.[[4]](http://www.fossiltransition.org/pages/costs_and_challenges/39.php#_ftn4),[[5]](http://www.fossiltransition.org/pages/costs_and_challenges/39.php#_ftn5) Gasification challenges include:∂ ∂ IGCC plants require the gasifier and power production facilities to work together at the same time. While both gasification and power production are mature technologies, integrating them has been a concern for utilities.∂ ∂ Construction costs have also been an issue. IGCC without carbon capture is generally considered to be more expensive to build than pulverized coal without CCS. [[6]](http://www.fossiltransition.org/pages/costs_and_challenges/39.php#_ftn6) Because of the lack of a mandate, carbon market price or regulatory framework, most recent plants have been proposed without CCS, though that is beginning to change.∂ ∂ Both altitude and coal type can have an effect on IGCC plant costs. Higher altitudes make IGCC plants more expensive to operate, and the higher ash and moisture content of some lower-rank coals can signifcantly reduce the efficiency of some gasification systems.∂ ∂ ∂ Post-Combustion Capture Challenges∂ Moving to commercial scale, reducing costs, and lowering energy penalties are the key challenges facing post-combustion capture. ∂ ∂ PCC will significantly increase electricity generation costs from traditional coal power plants. For new plants, PCC with current technology might increase the levelized cost of electricity by more than 80 percent.[[7]](http://www.fossiltransition.org/pages/costs_and_challenges/39.php#_ftn7) Retrofit costs for existing plants will be site-specific but could approach one half the cost of building a new coal power plant (without PCC).[[8]](http://www.fossiltransition.org/pages/costs_and_challenges/39.php#_ftn8)∂ ∂ PCC also imposes a significant “efficiency penalty” on coal power plants. The energy required to heat today’s PCC solvents and then compress CO2 from exhaust stack to pipeline pressure can reduce the output of an existing plant by 30 percent. (For a new IGCC plant, the relative decrease is output is about half this much.). This inefficiency results in increased coal use for an equivalent amount of electricity sold, and results in increased plant cooling requirements (with significant implications for plant water use).∂ ∂ Incremental improvements in the efficiency and costs of PCC processes are likely following initial commercial-scale demonstrations. Technology developers to date have had little incentive to optimize solvents and process configurations for the power industry.∂ ∂ Geologic Storage Challenges∂ The single largest challenge facing sequestration is scaling up the technology to a level large enough to address climate challenges. While enhanced oil recovery (EOR) has been used at large scale for decades, there have been relatively few sites where large amounts of CO2 have been injected into geologic brine formations. ∂ ∂ More large field demonstration projects are needed worldwide. Science and industry experience strongly indicate that sequestration is safe when practiced in an appropriate site. However, managing hundreds of sources injecting into a single sedimentary basin requires a high level of knowledge sharing and project coordination, as well as research and development support.∂ ∂ Monitoring, permitting and long-term care programs must also be developed so that commercial and public sequestration sites can be developed and environmental protection assured.∂ ∂ Enabling institutions are important to sequestration. How will an industry for sequestration emerge from test sites? In the United States, public utilities that focus solely on sequestration will need to evolve. A robust public policy framework must support the development of these institutions.

#### 2. The ocean is the largest storage for CO2 after we capture it – causes acidification

**Herzog**, Howard, **&** Dan **Golomb**. Apr. **‘6**. "Carbon Capture and Storage from Fossil Fuel Use." Carbon Capture and Storage from Fossil Fuel Use (n.d.): n. pag. Massachusetts Institute of Technology Laboratory for Energy and the Environment, Web. 2 July 2014.

By far, the ocean represents the largest potential sink for anthropogenic CO2. It already contains an estimated 40,000 GtC (billion metric tons of carbon) compared with only 750 GtC in the atmosphere and 2200 GtC in the terrestrial biosphere. Apart from the surface layer, deep ocean water is unsaturated with respect to CO2. It is estimated that if all the anthropogenic CO2 that 7would double the atmospheric concentration were injected into the deep ocean, it would change the ocean carbon concentration by less than **2%**, and lower its pH by less than 0.15 units. Furthermore, the deep waters of the ocean are not hermetically separated from the atmosphere. Eventually, on a time scale of 1000 years, over 80% of today’s anthropogenic emissions of CO2 will be transferred to the ocean**. Discharging CO2 directly to the ocean would accelerate this ongoing but slow natural process** and would reduce both peak atmospheric CO2 concentrations and their rate of increase.

#### Ocean acidification makes global warming worse

**Sandle, Ph.D from Keele University, 13**

(Tim, 8/31/13, Digital Journal, “Levels of ocean acidity affects global warming,” http://www.digitaljournal.com/article/357412, 6/27/14, SM)

Scientists have warned that **continued acidification of the oceans may lead to lower sulfur levels in the atmosphere, worsening the effects of climate change**.¶ The link between rising levels of acidity in the world's seas and the climate comes from **increased levels of carbon dioxide in the atmosphere**, which **leads to ocean acidification**. **This is formed as the greenhouse gas interacts with water to form carbonic acid in the ocean.** In turn, **ocean acidification appears to lead to decreased cloud formation and therefore worsening global warming over time.**¶ This is all linked to the ecological process whereby sulfuric acid seeds cloud formation. The majority of sulfur in the atmosphere is emitted from the ocean, often in the form of dimethylsulfide (DMS) produced by **phytoplankton. The problem is that in acidified ocean water, phytoplankton produce less DMS, leading to fewer clouds. Fewer clouds could lead to increased global temperatures.**

## CP – Club

#### Perm do both

#### Every climate accord disproves solvency – international incentives never line up

**Clubs fail – can’t break gridlock**

**Falkner 15** - London School of Economics and Political Science

Robert, July, ‘A minilateral solution for global climate change? On bargaining efficiency, club benefits and international legitimacy,’ Centre for Climate Change Economics and Policy, Working Paper No. 222, Grantham Research Institute on Climate Change and the Environment Working Paper No. 197, http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2015/07/Working-Paper-197-Falkner.pdf

The ‘k-group’ approach to international bargaining captures the logic of this argument. 41 Small groups of countries find it easier to reach agreements than large-n settings, mainly because fewer countries’ interests and circumstances need to be taken into account, fewer bilateral and plurilateral side-deals need to be done, and linkage politics can be used in a more targeted way. Furthermore, where club-based negotiations take place behind closed doors and away from the glare of the world’s media, trust is more likely to be built between the club members, and the temptation for negotiators to pander and posture is reduced.42 This is what happened in the early phase of the post-1945 trade talks. The GATT started out as a small club of major economies that negotiated a succession of trade liberalization agreements. The small number of players in the early GATT rounds reduced the complexity of reciprocal deals, and conducting the talks far from the limelight of public scrutiny helped to insulate the negotiations from protectionist interests.43 In short, reducing the number of players and creating an exclusive bargaining environment increases the efficiency of negotiations and thus the chances of finding a compromise agreement.∂ There is some evidence that the k-group logic can make a difference in international climate politics. Minilateralists point to the experience of the Copenhagen conference of 2009, where two weeks of painstaking multilateral negotiations failed to deliver the longawaited global climate treaty. It was only at the end of the conference, when a small group of world leaders came together in a more informal setting, away from the strictures of the UNFCCC process, that progress was made. Heads of state from the most important emitter countries, including the US, China and India, were able to agree on the Copenhagen Accord, a short political statement that was later integrated into the UNFCCC agreements and paved the way for the Durban Platform on Enhanced Action.44 The small group that achieved this outcome had no formal mandate or status within the UNFCCC. Formed spontaneously on a self-selecting basis, it comprised the leading emitters with veto power in climate politics.∂ But could such a k-group approach provide the breakthrough in future climate negotiations that the world has been waiting for? The experience with the Copenhagen Conference is instructive in this regard. The Copenhagen Accord is a political agreement short on detail and precision, laying out basic principles for how future negotiations are to advance the goal of climate mitigation. It succeeded precisely because it sidestepped some of the more difficult issues, especially the distribution of the mitigation burden between the main emitters. Where the interests of the great powers are too diverse and domestic support for strong international action too weak, changes to the bargaining process alone cannot hope to overcome those barriers, especially where distributional conflicts are involved. The comparison with trade negotiations – often cited by minilateralists – is also instructive here. In the GATT’s early days the main powers of North America and Europe achieved landmark deals based on a series of minilateral bargains. They were able to establish a rules-based regime, reduce tariffs across different sectors and agree certain national exemptions and flexibility clauses to bridge diverging national interests. But such compromises were possible in the GATT because the key countries bargained not just over the distribution of the costs of policy adjustment – they were also set to derive short and medium term gains from mutually agreed trade liberalization. The GATT negotiations succeeded because they were able to turn trade liberalisation into a (at least partially) private good that the members of the club could appropriate.∂ In contrast, the climate negotiations are set up primarily to focus on the distribution of mitigation burdens, with few if any economic gains on the table, at least in the short to medium term. In a situation where the main interest of a significant number of great powers lies in resisting costly policy measures to reduce emissions, shifting the negotiations to a minilateral forum will do little to induce a change in the interest calculus of major emitters. As some minilateralists acknowledge,45 **a climate club that includes most major emitters would face the same structural impediments to a global mitigation agreement that have plagued the UNFCCC negotiations**. Only by excluding reluctant veto players and constructing the club as a ‘coalition of the willing’ could potentially reduce interest divergence, thereby facilitating a mitigation agreement. This would, however, reduce the overall impact of such an agreement on global emissions, thereby **limiting its environmental effectiveness.**

**Key players won’t join**

**Falkner 15** - London School of Economics and Political Science

Robert, July, ‘A minilateral solution for global climate change? On bargaining efficiency, club benefits and international legitimacy,’ Centre for Climate Change Economics and Policy, Working Paper No. 222, Grantham Research Institute on Climate Change and the Environment Working Paper No. 197, http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2015/07/Working-Paper-197-Falkner.pdf

In sum, the preceding discussion suggests that while climate clubs may be able to make an important if limited contribution to global climate policy, they are unlikely to do so by altering the incentives of reluctant global players. Clubs will be at their most effective when they are constructed as ‘coalitions of the willing’, i.e. small groups of countries whose interests are closely aligned around a joint mitigation strategy. In such cases, climate clubs help the members to reduce the costs of emission reductions and encourage compliance. This can work in regional settings, for example in highly integrated regional organizations, such as the EU, or in looser networks of sub-national actors that link up their emissions trading schemes, as is the case in North America.62 It is also possible that such clubs emerge among countries and other actors whose interests are aligned along sectoral lines (e.g. major shipping companies and nations). In both these cases, the rationalist theory of club cooperation offers some limited hope for an improved regime design as part of a multi-level and policycentric governance system. However, climate clubs are unlikely to be able to win over, let alone coerce, major emitters that are reluctant to join the global mitigation effort. In this sense, they are not a ‘new solution’63 to the global climate problem.

## CP – Courtes

#### Perm – do the counterplan – **“United States” means any one body**

Chicago 7 (University of Chicago Manual of Style, “Capitalization, Titles”, http://www.chicagomanualofstyle.org/CMS\_FAQ/CapitalizationTitles/CapitalizationTitles30.html)

Q. When I refer to the government of the United States in text, should it be U.S. Federal Government or U.S. federal government? A. The government of the United States is not a single official entity. Nor is it when it is referred to as the federal government or the U.S. government or the U.S. federal government. It’s just a government, which, like those in all countries, has some official bodies that act and operate in the name of government: the Congress, the Senate, the Department of State, etc.

#### C – Litigation – causes unanswered questions and uncertainty which

Neese 5 (Angela – Candidate for Juris Doctor, University of Colorado School of Law, 2005; B.S.B.A., University of Denver, “THE BATTLE BETWEEN THE COLORADO OIL AND GAS CONSERVATION COMMISSION AND LOCAL GOVERNMENTS: A CALL FOR A NEW AND COMPREHENSIVE APPROACH”, 2005, 76 U. Colo. L. Rev. 561, lexis)

These two leading Colorado Supreme Court decisions, Bowen/Edwards and Voss, were decided over a decade ago, and yet these cases "leave many questions unanswered." n185 For example, the court did not adequately define "operational conflict," n186 and "it left to speculation the type of local regulation which will offend the principles articulated in those cases." n187 What these Colorado Supreme Court decisions did, in effect, was create a regime in which each occurrence of stringent local regulation of the oil and gas industry must be examined by the courts on a case-by-case basis. Because the court held that state preemption of local regulation is not total, "each provision of a local oil and gas regulation must be examined to determine whether it presents a conflict." n188 For the past decade, the Colorado Supreme Court has declined to hear any further cases on the issue of state preemption of local government oil and gas regulation, thereby foreclosing any possibility of providing more direct guidelines for the COGCC and local governments. As a result, this case-by-case system of preemption analysis has led to more than a decade worth of costly litigation, with no end in sight. The case-by-case regime leads to a high degree of unpredictability and puts natural gas developers and local governments constantly at odds. n189 The litigation that often results, when the industry and the local governments are forced to look to the courts to determine which regulations are controlling, is costly to the industry (and thus to natural gas consumers) and to local governments (and thus to the taxpayers). n190 The lack of predictability, the high costs of litigation, and the resulting delays in production are proof that the Colorado Supreme Court has done the state a disservice by not providing a workable framework on the issue of state preemption of oil and gas regulation. n191 Bowen/Edwards is considered the determinative case as to preemption, yet both sides cite this case in their briefs and point to the same language as suggestive that they will prevail. n192 The lack of clear guidelines under the current Colorado [\*585] case law results in a number of unanswered questions that will likely lead to future legal battles.

#### Perm do both – shields link to politics or they link

Perine 8 (Katherine, Staff – CQ Politics, “Congress Unlikely to Try to Counter Supreme Court Detainee Ruling”, 6-12, http://www.cqpolitics.com/wmspage.cfm?docID=news-000002896528&cpage=2)

**Thursday’s decision**, from a Supreme Court dominated by Republican appointees, **gives Democrats** further **cover against GOP sniping**. “This is something that the court has decided, and **very often the court** **gives political cover to Congress**,” **said** Ross K. **Baker**, a Rutgers Universitiy political science **professor**. “**You can** simply **point to a Supreme Court decision and say, ‘The devil made me do it.’** ”

## CP – Delay

#### Permutation do the counterplan

#### Links to net benefit

#### Delay is normal means.

Han **Chen** Danielle **Droitsch**, 6-3-20**18**, "Time for the US to End Fossil Fuel Subsidies," NRDC, <https://www.nrdc.org/experts/danielle-droitsch/time-us-end-fossil-fuel-subsidies> LHSLA LH

The first step to eliminate subsidies is to **do a full accounting of those that exist**. Fortunately, the US ranks relatively well on the transparency of reporting on fossil fuel subsidies, because the US and China completed a subsidy “peer review” process under the auspices of the G20. While the official US report contained gaps compared to the data on subsidies we’ve collected in this report, at least the US review included a list of substantial subsidies in need of reform. The next step is to actually implement the reforms needed to eliminate subsidies. Much of **this will require action through Congress, as many of the subsidies are embedded in the tax code**. Rather than spending billions subsidizing fossil fuel companies, it’s time for lawmakers to take proactive steps in the near-term to phase out government support for fossil fuel production at home, with a strong emphasis on ensuring a just transition for workers involved in these industries.

## CP – Disclosure

#### Counterplan doesn’t ensure corporate follow-on---Stress-Testing only results in internal assessments but doesn’t cause compliance

Baue 16---Bill Baue, 6-2-2016, "The Missing 60%: ExxonMobil, Forceful Stewardship and the 2°C Business Model Imperative," Huffington Post, http://www.huffingtonpost.com/bill-baue/the-missing-60-exxonmobil\_b\_10265140.html, Date Accessed: 1-29-2017

Let’s look at some facts. These climate risk resolutions “do not require turning off the taps” - at least not instantly. In ExxonMobil’s case, the resolution asks for a stress test of the company’s business model against the 2°C scenario supported by the peer-reviewed science and policy recommendations of the COP21 Paris Agreement on climate. In ExxonMobil’s case to the SEC for omitting the resolution, the company essentially argued that “national and world leaders will not have the backbone to restrict carbon sufficient to keep temperature increase down to 2°C,” according to attorney Sanford Lewis, who defended the resolution for its filers in the SEC process.

#### The status quo and the counterplan the green paradox because it signals climate policy without an implementation horizon---immediate emissions restrictions like the aff are key to solve warming and oil volatility

Laurence J. Kotlikoff 16, William Fairfield Warren Professor at Boston University, a Professor of Economics at Boston University, a Fellow of the American Academy of Arts and Sciences, a Fellow of the Econometric Society, a Research Associate of the National Bureau of Economic Research, President of Economic Security Planning, Inc., et al., 10/3/16, “Will the Paris Accord Accelerate Climate Change?,” http://www.kotlikoff.net/sites/default/files/paris-accord-accelerate%20%287%29.pdf

In the 2015 Paris Accord, 195 countries agreed to limit the planet’s temperature rise to 2℃ above pre-industrial levels. The Accord calls for moderate measures through 2025 and tougher measures thereafter. Unfortunately, the Accord includes neither an enforcement mechanism nor any compliance deadlines. Consequently, the Accord represents a voluntary arrangement that countries may fail to honor until they have been identified and called to account, both of which can take time. The Accord did accomplish one thing. It sent dirty-energy producers a clear message that their days are number.

This use it or lose it message – that reserves of oil, natural gas, and coal will become stranded assets – may be accelerating fossil fuel extraction and CO2 emissions. Since 2010, global oil production has risen by 10 percent,1 global coal production by 9 percent,2 and global natural gas production by 11 percent.3 Yet slower, not quicker release of CO2 is critical to limiting the planet’s temperature rise. Hence, the Paris accord, in not mandating immediate emission-limitation policy, may actually be accelerating climate change. This is Sinn (2008)’s well known Green Paradox.

This paper illustrates the Green Paradox arising from delaying climate change policy. Our vehicle is a two-period OLG model featuring dirty and clean energy. Dirty energy, referenced as oil, is exhaustible and in inelastic supply. Clean energy, referenced as solar, eventually supplies all energy needs but, depending on policy, this outcome may, paradoxically, occur too soon to prevent irreversible climate damage. Indeed, the earlier solar takes over, the worse matters can be for the climate.

The life-cycle model is the appropriate framework for studying climate policy since it captures the negative externality current generations impose on future generations in using fossil fuels. Climate policy’s natural objective is to achieve an abatement path that makes no generation worse off and at least some generations better off. The search for such efficient abatement policies moves the climate-policy debate from the realm of ethics to that of economic efficiency.

Our reference here to ethics alludes to the use of infinite-horizon models in which optimal climate policy is set based on the infinitely-lived, representative agent’s time-preference factor. The recent paper by Golosov et al. (2014) is an example. Its optimal carbon tax formula depends critically on the representative agent’s time-preference rate.4 But Altonji et al. (1992, 1997), Hayashi et al. (1996), and other studies, particularly Lee and Mason (2011) analyses of the postwar change in the shape of the age-consumption profile, provide strong evidence against the intergenerational altruism required by single-agent models. Indeed, were such intergenerational altruism ubiquitous, there would be no reason to analyze climate change policy. Agents with such preferences would set optimal climate policy to protect their progeny. This is true even if one considers different clans within a single country or in different countries. As shown in Kotlikoff (1983) and Bernheim and Bagwell (1988), the assumption of intergenerational altruism combined with the assumption that agents from different clans become altruistically linked with one another implies effective altruistic linkages across essentially everyone on the planet. In this case, there is global agreement on enacting first-best dirty energy policy. Stated differently, a climate-change policy problem can’t arise in models with infinitely-lived agents because such agents would automatically internalize the externality.

This said, were intergenerational altruism ubiquitous and operational, Golosov et al. (2014)’s elegant and impressive paper would provide an excellent guide to the planet’s single dynasty for setting abatement policy. But since this appears not to be the case, their model and similar models must be viewed as entailing the optimization of social welfare functions in which the time-preference rate becomes a central parameter for optimal carbon policy. Since there is no economic basis for choosing the preferences of social planners, "optimal" carbon policy devolves into a matter of ethical conviction.

If one leaves ethics aside and focuses on economics in the context of selfish life-cycle agents, optimal policy analysis becomes a matter of determining the set of policies that produce Pareto improvements. Once that set is determined, the job of the economist is finished and it is up to policymakers to determine what policies, if any, to undertake.

The natural means of achieving an efficient climate policy is levying a time-varying carbon tax rate, but using, as needed, generation-specific redistribution to achieve a Pareto improvement. Unfortunately, as we show, climate accords that permit delayed limitation of emissions encourage a fast rather than a slow fossil-fuel burn, which may be economically inefficient; i.e., they can be worse than doing nothing, producing a Pareto loss.

The same is true of policies that accelerate technical improvement in clean energy. Telling dirty energy producers that they will face much stiffer competition from clean energy sources in the relatively near term sends the same "use it or lose it" message and, unfortunately, also lead to a faster burn.

To be clear, our model was designed solely to extend lessons about exhaustible resource extraction first taught by Hotelling (1931). It is far too simple to provide precise policy prescriptions. Its use of two periods, rather than annual periods limits its ability to accurately capture annual climate change processes. Furthermore, using a two-period, rather than an annual-period model constrains the potential for dynamic policy adjustment through time stressed by Cai et al. (2013) and others. The choice of long time periods can also, as Cai et al. (2013) stress, affect both policy prescriptions and overlook stochastic changes to the economy and to climate damage.

Still, our models’ main message would surely carry over to far more detailed models, including models with more complex preferences, uncertainty, and statedependent policies. The reason is that our model is about the expected time-path of policy and the point that getting the policy timing wrong can be worse than running no policy whatsoever.5 To be sure, our point that optimal policy requires immediate action can be seen in the optimal tax policies computed by Cai et al. (2013), Golosov et al. (2014), and others. But the literature seems devoid of, or at least short on, studies examining the cost of policy delay.

#### Short-term reductions are key---the counterplan fails.

Kaufman et al. 16 (Noah Kaufman, economist for the US Climate Initiative in the Global Climate Program, Michael Obeiter, Senior Associate in World Research Institute’s Global Climate Initiative, Eleanor Krause, Researcher and Analyst for World Research Institute’s Carbon Pricing program, “Putting a Price on Carbon: Reducing Emissions” January 2016, https://www.wri.org/sites/default/files/Putting\_a\_Price\_on\_Carbon\_Emissions.pdf)

Electricity Sector

The electricity sector produces more greenhouse gas emissions than any other sector in the United States. Over four billion megawatt hours of electricity are produced each year, approximately two thirds of which are produced using fossil fuels (U.S. EIA 2015a). The result is over 2 billion metric tons of annual CO2 -equivalent emissions, which comprise roughly one third of total U.S. greenhouse gas emissions (U.S. EPA 2013a).

For the United States to meet its emissions reduction targets, fossil fuel usage in the electricity sector must be significantly curtailed. Fortunately, there are viable alternatives. Nuclear energy provides nearly 20 percent of total electricity generation, and renewables provide another 13 percent (U.S. EIA 2015b). The amount of electricity produced by solar and wind energy in particular has increased dramatically in the past decade as the costs of these technologies have plummeted (Feldman et al. 2012), making them a more viable alternative to fossil-fuel generation each year.

Still, absent strong climate change policies, the transition away from fossil fuels is unlikely to occur quickly enough to enable the United States to achieve its emissions targets. Accounting for the effects of the Clean Power Plan (the regulation of greenhouse gas emissions from existing power plants), the U.S. Environmental Protection Agency (EPA) forecasts that fossil fuels will still comprise about 60 percent of U.S. electricity generation in 2030. As explained below, carbon pricing can have dramatic effects on emissions in the electricity sector. As soon as the policy is implemented, high carbon generating units will operate less often because of higher operating costs. The carbon price will also change decisions about how much electricity to consume, which plants to build, and what efficiency measures to implement. Simultaneously, pricing carbon will induce investments in low-carbon technologies, the development of which will be crucial if the United States is to meet its long-term emissions targets.

#### Makes things worse—the tests are cheated, creates a dangerous placebo effect, causes collapse

Pam Martens and Russ Martens, journalists and veteran financial analysts, “Three Federal Studies Show Fed’s Stress Tests of Big Banks Are Just a Placebo,” WALL STREET ON PARADE, 11—16—16, <http://wallstreetonparade.com/2016/11/three-federal-studies-show-feds-stress-tests-of-big-banks-are-just-a-placebo/>, accessed 1-28-17.

Yesterday, the nonpartisan congressional watchdog, the Government Accountability Office (GAO), became the third Federal entity in the last two years to indicate that the Fed is muffing the job of stress testing the big Wall Street banks. The GAO report notes: “…the Federal Reserve’s organizational structure for the stress tests does not include a formal process through which model development or risk management at the aggregate—or system-of-models—level is implemented…By largely focusing the modeling principles on the component models and not applying those principles to the system of models, the Federal Reserve has limited its ability to manage the extent to which model risk is introduced into the supervisory stress test models.” Another failing according to the GAO report is this: “The Federal Reserve also has not conducted analyses to determine if its single severe supervisory scenario is sufficiently robust and reliable to promote the resilience of the banking system against a range of potential crises. Such analyses—including performing sensitivity analysis involving multiple scenarios—could help the Federal Reserve understand the range of outcomes that might result from different scenarios and explore trade-offs associated with reliance on a single severe supervisory scenario.” Last year, the Federal Reserve was criticized in a report by its Office of Inspector General over the models in its stress tests. But far more alarming was a report issued just this past March by the Office of Financial Research (OFR), which was also created under the Dodd-Frank legislation. The OFR report brought the illusory nature of the stress tests into sharp focus. A careful reading of the report strongly suggests that the stress tests are being used to simply comfort Congress and the public with the notion that Wall Street banks are not going to rapidly morph again into an exploding fireworks factory, when, in fact, there is no basis for that confidence. The OFR researchers who conducted the study, Jill Cetina, Mark Paddrik, and Sriram Rajan, found that the Fed’s stress tests are measuring counterparty risk for the trillions of dollars in derivatives held by the largest banks on a bank by bank basis. The real problem, according to the researchers, is the contagion that could spread rapidly if one big bank’s counterparty was also a key counterparty to other systemically important Wall Street banks. The researchers write: “A BHC [bank holding company] may be able to manage the failure of its largest counterparty when other BHCs do not concurrently realize losses from the same counterparty’s failure. However, when a shared counterparty fails, banks may experience additional stress. The financial system is much more concentrated to (and firms’ risk management is less prepared for) the failure of the system’s largest counterparty. Thus, the impact of a material counterparty’s failure could affect the core banking system in a manner that CCAR [one of the Fed’s stress tests] may not fully capture.” [Italic emphasis added.] It’s not that the Fed doesn’t have real-world experience that a failure by a major counterparty could rapidly spread contagion across Wall Street. That’s exactly what happened when the large insurer, AIG, failed in 2008. The U.S. government had to backstop AIG with $185 billion. Approximately half of the bailout money was then quietly funneled to the biggest banks on Wall Street to cover the counterparty guarantees on derivatives that AIG was on the hook to pay – but could not have paid except for the taxpayer bailout. The March 2016 OFR study also reached the stunning conclusion that just six banks make up the “core” of the U.S. financial system. That’s six banks out of a little more than 6,000 commercial banks. That dangerous core includes: Bank of America Corp., Citigroup Inc., Goldman Sachs Group, Inc., JPMorgan Chase Co., Morgan Stanley, and Wells Fargo & Co. The researchers noted that while individual bank holding companies direct losses have declined under the Fed’s stress tests, “counterparty credit risks to the banking system collectively have risen and may suggest a greater systemic risk than is commonly understood.” This counterparty concentration risk was also called out in the seminal report on the 2008 financial collapse by the Financial Crisis Inquiry Commission. The final report found: “Large derivatives positions, and the resulting counterparty credit and operational risks, were concentrated in a very few firms. Among U.S. bank holding companies, the following institutions held enormous OTC derivatives positions as of June 30, 2008: $94.5 trillion in notional amount for JP Morgan, $37.7 trillion for Bank of America, $35.8 trillion for Citigroup, $4.1trillion for Wachovia, and $3.9 trillion for HSBC. Goldman Sachs and Morgan Stanley, which began to report their holdings only after they became bank holding companies in 2008, held $45.9 and $37 trillion, respectively, in notional amount of OTC derivatives in the first quarter of 2009. In 2008, the current and potential exposure to derivatives at the top five U.S. bank holding companies was on average three times greater than the capital they had on hand to meet regulatory requirements. The risk was even higher at the investment banks. Goldman Sachs, just after it changed its charter, had derivatives exposure more than 10 times capital. These concentrations of positions in the hands of the largest bank holding companies and investment banks posed risks for the financial system because of their interconnections with other financial institutions.” Despite the devastation unleashed on the U.S. by the Wall Street banks in 2008, the worst economic collapse since the Great Depression, the biggest Wall Street banks now hold many trillions of dollars more in derivatives than they did in 2008. And, with the exception of Morgan Stanley, those derivatives are held at the FDIC-insured, taxpayer-backstopped, commercial banking units of the behemoth Wall Street banks. A careful assessment of what the Fed has actually been doing with its much ballyhooed annual release of stress test results strongly suggests it is simply offering up a placebo for a malignant cancer eating away at the very heart of the U.S. economy and the future of the struggling young people of this nation.

## CP – Eliminate FF Subsidies

#### Perm do the counterplan-- Meyer says carbon tax eliminates the subsidy on a lack of a tax.

#### No solvency—Meyer says current subsidies are declining now and they don’t remove the billions in the lack of a tax

#### Rebound and Consumption DA – subsidies are way too limited to solve

Hsu 11 (Shi-Ling Hsu, Professor of Law at University of British Columbia – previously Associate Prof at George Washington School of Law, Senior Attorney & Economist for the Environmental Law Institute. “The Case for a Carbon Tax: Getting Past our Hang-ups to Effective Climate Policy”, Island Press Page – 56-58)

The case for government subsidization is, as a theoretical matter, straightforward. An unpriced externality like car-bon dioxide emissions can be remedied by either a positive price imposed by carbon taxes or by a negative price created by subsidization. If we know, for example, that lowering the carbon dioxide emissions from the energy sector will require the development and deployment of renewable energy technologies, then it would seem to make sense to provide government funding for wind, solar, and other renewable energy technologies. This would be true whether the subsidy takes the form of a per-unit production subsidy, or direct funding for research and development: either wav, the goal is to lower costs and concomitantly lower prices. Compare, then, the effects of taxing carbon and of subsidizing renewable energy. At the margins, raising the price of carbon-emitting energy has the same competitive effect of lowering the price (through subsidies) of renewable energy. The net effect of subsidizing renew- able instead of pricing carbon is a transfer of money from tax- payers to the entire energy industry—to the renewable energy industry through subsidies, and to the carbon-emitting energy industries by not taxing them. Since pricing carbon would raise energy prices, the net effect on the average person, who is both a taxpayer and an energy consumer, would appear to be roughly a wash. There are three core problems with this argument. First, and most simply, higher energy prices are needed to spur energy conservation. Low energy costs undermine incentives to make industrial processes more energy-efficient, drive less, better insulate homes and construct more -efficient buildings, and to develop and WII (and buy) energy efficient appliances. Energy conservation measures may in fact turn out to be the greatest source of greenhouse gas reductions. A re- cent report by the consulting firm McKinsey found that some fairly routine and well-known energy conservation measures could produce a whopping $680 billion dollars worth of net energy savings, and re- duce projected energy demand by the year 2020 by 23 petcent.20 Many energy conservation measures actually have a negative abatement cost—that is, their energy savings exceeded the amortized cost of the upfront investments. These included insulation retrofits for residential and commercial buildings (especially the latter), switching residential lighting from incandescent bulbs to LEDs (light-emitting diodes), and capturing methane from landfills to generate electricity. 21 As Dieter Helm has observed, a problem with climate pol- icy is that it has by and large focused on reducing greenhouse gases from production, and not consumption.22 Reducing consumption does not sound like a good thing for love-starved politicians who have no stomach to curb energy consumption through taxation, even as we waste energy in mind-boggling ways. But the simple truth is that efforts to combat climate change will be unsuccessful without steps to reduce consumption. And there is nothing as effective as higher prices if the goal is to reduce consumption. Second, there is a limit on how low energy prices can be made through subsidization. Lowering the price of renewable energy lowers the demand for fossil fuels. But lowering demand for fossil fuels means that it will lower the price of fossil fuels. A lower price for fossil fuels encourages its use, exactly what we don't want. This "rebound" effect of lowering fossil fuel prices by subsidizing its alternatives dampens the effectiveness of subsidies in altering consumption choices. Re- bound effects for various renewable fuel standards policies in the United States are estimated to be on the order of a quarter to a third of reduced emissions.23 Moreover, at a certain point, prices be- come so low that they become irrelevant. If, hypothetically, you had a choice between buying electricity from a coal-fired plant for 3.7 cents per kilowatt-hour or buying electricity from a wind farm for 3.4 cents per kilowatt-hour, which would you chose? The answer could well be, "who cares?" For many energy consumers, the savings does not justify the time needed to investigate. Such is the pushing-on-a-string effect of trying to lower prices for everyone instead of raising them. So while higher taxes and lower energy costs may seem to be a wash, they are not. Third, the effectiveness of government subsidies assumes with- out justification—in fact, in the face of a mountain of evidence to the contrary—that it is possible to identity the "best" renewable energy technologies, or in general the "best" ideas to reduce greenhouse gas emissions. Too often, legislators think they catch wind of a great idea—such a revolutionary way of doing something that they can hardly resist the temptation to lend some assistance (all the better if the idea comes from a constituent or potential donor). It requires a bit of gullibility to ignore the failure of these supposedly great ideas to at- tract sufficient private financing. The danger is not so much in the waste of taxpayer dollars—this is addressed in another part of this chapter—but that emissions reductions will be both smaller and costlier than if a better instrument was used.

## CP – Geoengineering

#### Permutation do both – shields the link because the plan creates a market incentive implement the counterplan’s tech as fast as possible

#### Too many feasibility obstacles and the technique is too uncertain to resolve warming

NRC et al 15 [(Consensus Study Reports published by the National Academies of Sciences, Engineering, and Medicine document the evidence-based consensus on the study’s statement of task by an authoring committee of experts. Authors are National Research Council; Division on Earth and Life Studies; Board on Atmospheric Sciences and Climate; Ocean Studies Board; Committee on Geoengineering Climate) “Technical Analysis of Possible Albedo Modification Techniques." In Climate Intervention: Reflecting Sunlight to Cool Earth. Washington, DC: The National Academies Press. doi: 10.17226/18988.] AT

Robock et al. (2009b) and McClellan et al. (2012) have estimated costs of various delivery mechanisms to take sulfur to the stratosphere, but they did not address the issue of then producing aerosols with a desired size distribution. McClellan et al. estimated costs based on new aircraft designs optimized for delivery of sulfur, followed by in situ oxidation, to be $1 billion to $3 billion per MtS/yr to the stratosphere (20 to 30 km) or $2 billion to $8 billion to deliver 5 Mt to the same altitude range. There are similar estimated costs for hybrid airships that produce a majority of lift force from buoyancy and a smaller percentage from aerodynamic forces, but their large surface area complicates operations in high-altitude wind shear, and development costs were more uncertain. Commercially available aircraft, although poorly suited for high-altitude flight and significantly more expensive per mass of aerosol, could be used to deliver aerosol source species to about 18 km for exploratory work. “Pipes suspended by floating platforms provide low recurring costs to pump a liquid or gas to altitudes as high as 20 km, but the research, development, testing and evaluation costs of these systems are high and carry a large uncertainty; the pipe system’s high operating pressures and tensile strength requirements” (McClellan et al., 2012) make their feasibility very uncertain, and their ability to deliver aerosols distributed across broad swaths of the atmosphere is limited. Costs for rockets and guns appear to be significantly higher than for other systems, but they may also be suitable for exploratory research, or for delivery to very high altitudes. As a general caution, it is noted that many large-scale engineering projects experience higher costs than initially estimated, so all such cost estimates are likely to have significant uncertainties.∂ These estimates do not appear to account for costs associated with operating in an environment of high concentrations of SO2 and sulfate aerosols, but there is some evidence these issues should be considered. Carn et al. (2009) pointed to an increase in the incidence of crazing of acrylic windows (Bernard and Rose, 1990; Casadevall et al., 1996), forward airframe damage, and accumulation of sulfate deposits (anhydrite and gypsum) in turbines that block cooling holes, causing engine overheating (Casadevall et al., 1996; Miller and Casadevall, 2000), following the El Chichón (1982) and Pinatubo (1991) eruptions. Increases in aircraft damage would presumably increase the cost of deployment.∂ The cost of a responsible deployment strategy involves not just the cost of aerosol injection, but the cost of observing systems and infrastructure to detect and attribute the magnitude of and response to albedo changes from stratospheric aerosol injection. Estimating the full costs of an observing system and infrastructure to do this was beyond the charge of this committee, but these costs are generally estimated to be significant, as typical satellite deployment costs often run into the billions of dollars.∂ Unresolved or Less Tangible Issues for SAAM∂ There are a variety of other issues that have been raised regarding SAAM. These issues are real, and they must be considered and balanced when considering the other consequences, and possible benefits, from SAAM. This section includes several examples but is not a comprehensive list. One example, as pointed out by Robock (2008), is that SAAM would tend to “whiten” the sky (Kravitz et al., 2012a), as well as produce more colorful sunsets by increasing the scattering of sunlight. In addition, changes in direct versus diffuse sunlight may produce changes in ecosystems in the long term. For example, they would be expected to stimulate productivity in the understory of land ecosystems. Changes in UV-B light could also have an effect. Various crops need to be studied, as well as further studies on natural systems, in order to better quantify these types of impacts. Other examples of these types of issues have been compiled elsewhere (Robock, 2008, 2014), and these types of issues may need to be considered as part of an assessment of environmental impacts of SAAM.∂ Summary and Statement of Research Needs for SAAM∂ There are many component processes that are not sufficiently well understood to produce quantitative characterization of processes important to SAAM, and unambiguous statements about how an intervention by SAAM would affect the planet are thus not possible. Several processes are particularly deserving of attention from both modeling and measurement points of view because they are critical to any implementation of SAAM and are unique to SAAM strategies of climate intervention:∂ stratospheric aerosol microphysics (formation, growth, coalescence, and dispersion);∂ impacts on chemistry (particularly ozone);∂ impacts on water vapor in the upper troposphere and lower stratosphere; and • effects of additional aerosol on upper tropospheric clouds.∂ Because these processes are simplified and approximated in models, it is difficult for models to produce quantitative (or even, in some cases, qualitative) characterizations of SAAM or any resultant impacts (good or bad) to the planet. More research (measurements and models) would be needed if more precise statements about SAAM and its potential to benefit or harm the planet are desired.

#### SRM leads to global war – upends power dynamics

Kintisch ’14 (Eli Kintisch – research fellow for the American Association for the Advancement of Science’s Center for Science Diplomacy, two time MIT Knight Science Journalism Fellow, “Does humanity's tightening grip on the fate of nature portend new sources of global conflict?” January/February 2014, EbscoHost)

Australian ethicist Clive Hamilton calls the book "chilling" in its technocratic confidence. But Keith and Hamilton do agree on one thing: solar geoengineering could be a major geopolitical issue in the 21st century, akin to nuclear weapons during the 20th--and the politics could, if anything, be even trickier and less predictable. The reason is that compared with acquiring nuclear weapons, the technology is relatively easy to deploy. "Almost any nation could afford to alter the Earth's climate," Keith writes. That fact, he says, "may accelerate the shifting balance of global power, raising security concerns that could, in the worst case, lead to war." The potential sources of conflict are myriad. Who will control Earth's thermostat? What if one country blames geoengineering for famine-inducing droughts or devastating hurricanes? No treaties ban climate engineering explicitly. And it's not clear how such a treaty would operate. Keith professes ambivalence about whether humans are truly able to wield such powerful technology wisely. Yet he feels that the more information scientists uncover about the risks of geoengineering, the lower the chances the technology will be used recklessly. Though his book leaves unanswered many of the questions that arise over how to govern geoengineering, a policy paper that he published in Science last year goes further to address them: he and a coauthor proposed government authority over research and a moratorium on large-scale geoengineering but said there should be no treaties regulating small-scale experiments. Hamilton says this approach would lead nations on a path toward the conflict that he thinks would inevitably surround geoengineering. Allowing lightly regulated small experiments, he suggests, could undermine the urgency of political efforts toward cutting emissions. This, in turn, increases the possibility that geoengineering will be used, since failing to restrain emissions will leave temperatures rising. Hamilton accuses Keith of seeking a "naïve… cocoon of scientific neutrality" and says researchers cannot "absolve themselves of responsibility for how their schemes might be used or misused in the future."

#### Geo-engineering kills a billion socially dislocated people and disrupts Indian monsoon season

**Wood 9** – national correspondent @ The Atlantic (Graeme, “Re-Engineering the Earth,” *The Atlantic*, https://www.theatlantic.com/magazine/archive/2009/07/re-engineering-the-earth/307552/)

Of all the ideas circulating for blocking solar heat, however, sulfur-aerosol injection—the Blade Runner scenario—may actually be the least mad. And it provides an illustrative example of the trade-offs that all geo-engineering projects of its scale must confront. The approach is already known to work. When Mount Tambora erupted in Indonesia in 1815 and spewed sulfur dioxide into the stratosphere, farmers in New England recorded a summer so chilly that their fields frosted over in July. The Mount Pinatubo eruption in the Philippines in 1991 cooled global temperatures by about half a degree Celsius for the next few years. A sulfur-aerosol project could produce a Pinatubo of sulfur dioxide every four years. The aerosol plan is also cheap—so cheap that it completely overturns conventional analysis of how to mitigate climate change. Thomas C. Schelling, who won the 2005 Nobel Prize in economics, has pointed out how difficult it is to get vast international agreements—such as the Kyoto Protocol—to stick. But a geo-engineering strategy like sulfur aerosol “changes everything,” he says. Suddenly, instead of a situation where any one country can foil efforts to curb global warming, any one country can curb global warming all on its own. Pumping sulfur into the atmosphere is a lot easier than trying to orchestrate the actions of 200 countries—or, for that matter, 7 billion individuals—each of whom has strong incentives to cheat. **But**, as with nearly every geo-engineering plan, **there are substantial drawbacks to the gas-the-planet strategy**. Opponents say it might produce acid rain and decimate plant and fish life. Perhaps more disturbing, it’s likely to **trigger radical shifts** in the climate that would **hit the globe unevenly**. “Plausibly, 6 billion people would benefit and **1 billion would be hurt**,” says Martin Bunzl, a Rutgers climate-change policy expert. The billion negatively affected would include many in Africa, who would, perversely, live in a climate even hotter and drier than before. In India, rainfall levels might severely decline; the monsoons rely on temperature differences between the Asian landmass and the ocean, and sulfur aerosols could diminish those differences substantially.

## CP – NASA Funding

#### Perm do the counterplan—the plan doesn’t spec where the money goes.

#### Increased space funding causes space war

Dickens 10 (Peter Dickens teaches at the Universities of Brighton and Cambridge, UK. His most recent book, co-written with James Ormrod, is Cosmic Society: Towards a Sociology of the Universe (2009). The interactive website linked to this book and intended to stimulate debate over the humanization of the cosmos is The Sociology of the Universe. “The Humanization of the Cosmos—To What End?” November 2010 http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en75)///CW

Society is increasingly humanizing the cosmos. Satellites have for some time been central to the flow of information, to surveillance, and to the conduct of warfare. As these examples suggest, however, the humanization of the cosmos is primarily benefiting the powerful. These include major economic and military institutions. Furthermore, the forthcoming commodification and colonization of the cosmos is again likely to enhance the interests of the powerful, the major aerospace companies in particular. The time has come to consider alternative forms of cosmic humanization. These would enhance the prospects of the socially marginalized. They would also allow humanity to develop a better understanding of the cosmos and our relationship to it.[1](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en85) Humanizing Outer Space The 1969 Apollo 11 moon landing is often seen as the high point of society’s relationship with outer space. Nothing quite so dramatic or exotic seems to have happened in outer space since. But nearby, parts of the solar system (including the moon, some asteroids, and Mars) are now being routinely circled and explored and analyzed by robots. Furthermore, President Obama has recently made important announcements regarding a new U.S. space program that involves manned missions to Mars by the mid-2030s. But the NASA-based Constellation program to the moon and Mars has been cancelled. Instead, NASA will undertake a long-term research and development program aimed at supporting future forms of propulsion and exploration programs. Even more significant in the short-term is a proposed $25 billion being allocated to NASA to kick-start commercial manned spaceflight over the next five years. New forms of transport to the International Space Station will be funded, this time using innovative forms of “space taxis” designed by private sector space companies.[2](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en84) These plans entail new relations between the private and public sectors in the United States. Meanwhile, a presence in outer space is being developed by other societies. This is partly because such a presence is seen as an important symbol of modernization, progress, and social unity. The Indian government has announced a manned mission to the moon in 2013, the European Space Agency envisages projects to the moon and beyond, and the Chinese government is planning a similar project for 2020. This last development has caused some consternation over Obama’s plans. One suggestion is that the United States may after all be the next to send manned missions to the moon, because China’s space project is seen by some as a military threat that needs forestalling.[3](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en83) Yet among these plans and proposals, it is easy to forget that outer space is already being increasingly humanized. It has now been made an integral part of the way global capitalist society is organized and extended. Satellites, for example, are extremely important elements of contemporary communications systems. These have enabled an increasing number of people to become part of the labor market. Teleworking is the best known example. Satellite-based communications have also facilitated new forms of consumption such as teleshopping. Without satellite-based communications, the global economy in its present form would grind to a halt. Satellites have also been made central to modern warfare. Combined with pilotless Predator drones, they are now being used to observe and attack Taliban and Al-Qaida operatives in Afghanistan and elsewhere. This action is done by remote control from Creech Air Force Base at Indian Springs, Nevada. The 1980s Strategic Defense Initiative, or “Star Wars” program, aimed to intercept incoming missiles while facilitating devastating attacks on supposed enemies. A version of the program is still being developed, with the citizens of the Czech Republic and Poland now under pressure to accept parts of a U.S.-designed “missile defense shield.” This is part of a wider strategy of “Full Spectrum Dominance,” which has for some time been official U.S. Defense Policy.[4](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en82) Using surveillance and military equipment located in outer space is now seen as the prime means of protecting U.S. economic and military assets both on Earth and in outer space. Less dangerously, but still very expensively, a full-scale space-tourism industry has for some time been under active development. Dennis Tito, a multi-millionaire, made the first tourist trip into outer space in 2001. Richard Branson’s Virgin Galactic has now sold over three hundred seats at $200,000 apiece to its first tourists in outer space. The program is due to start in 2011, with spaceports for this novel form of travel now being built in Alaska, California, Florida, New Mexico, Virginia, Wisconsin, the United Arab Emirates, and Esrange in Sweden. Excursions circling the moon, likely to cost the galactic visitors around $100,000,000, are now under development. Since the Renaissance period of the sixteenth century, the word “humanization” has been used to connote something beneficial, especially to human beings. As we will now see, humanizing the cosmos is regarded in just these terms by some influential proponents of space travel and space colonization. The Space Renaissance Initiative One response to cosmic humanization is to welcome it as an early stage of a wholly beneficial cosmic human society, one eventually encompassing the solar system and beyond. Such is the view of the Space Renaissance Initiative, an international group of over seventy private organizations now promoting the expansion of society into the cosmos. The aims and ideals of the Space Renaissance are made clear by the Initiative’s manifesto published in 2010. It reads: Help the Space Economy Revolution! The global economy is entering a deep crisis, the worst since 1929. This is the second act of the “Crisis of Closed-World Ideologies”, which has been developing throughout the 20th century. In 1989 the fall of the Berlin wall was the Crisis of Collectivist Ideology. The recent massive failure of the financial system is the Crisis of Neo-Liberal Ideology. Both these ideologies failed because they are based upon a closed-world, terro-centric philosophy. There are now almost 7 billion humans making massive demands on planet Earth: we urgently need to open the frontier, and move to a wider vision of our world, so as to access geo-lunar system resources and energy. In short we need a new “Open World Philosophy”. The alternative would be the implosion and collapse of our civilization.[5](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en81) In short, the Space Renaissance Initiative argues, society is undergoing massive social, environmental, and population crises because it is thinking too small. The energy of the sun can, for example, be made into a source of clean power from outer space, which would solve society’s energy shortages at a stroke. The Initiative argues that opening up the cosmos to humanity—colonizing the solar system, and opening up resources in the moon, Mars, and the asteroids—could be central to social and environmental salvation. The progress made by the private sector in developing technologies and efficiencies for space tourism means that commercial enterprise can now start planning to venture still further afield. The philosophical roots of the Space Initiative are no less than the sixteenth-century Italian Renaissance and the Enlightenment. With the enlightened patronage of such families as the Medicis, an unprecedented new age of development took place: arts knew a wonderful age of innovation, culture took on some essential principles of classical Greek philosophy, and modern science was born, with men like Leonardo da Vinci, Michelangelo, and later Copernicus and Galileo leading the way. This movement led to the Age of Enlightenment and its most famous offspring: the American and French Revolutions. The manifesto also praises the writings of Descartes, Voltaire, and Jefferson. The belief of these philosophers in the enterprising individual, in freedom, in liberty, and in reason all mean that political power should be vested in the common person and not in states, kings, and nobility. The Space Renaissance Initiative believes in these concepts, seeing them as the basis of a new, progressive, liberating, humanization of the cosmos. But there are surely major problems here. For example, any claim that the Medici family (and similar families such as the Borgias) helped overthrow feudalism is far-fetched. The Medicis were bankers and merchants who made their money at the center of an emerging global mercantilist capitalism, one based in Northern Italy. They used this money to enhance their position within their feudal societies. Members of the Medicis even made themselves into popes, thus further enhancing their wealth and that of their many illegitimate offspring. Another of the Medicis was made the Queen of France. The language used by intellectual elites of the day was Latin. This appealed to scholars across Europe but not to the great mass of individuals living in Florence, Milan, or Venice.[6](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en80) The Medicis and individuals such as Leonardo are often celebrated as examples of “The Renaissance Universal Man,” one capable of spanning every kind of human practice such as art, music, and politics. This “Man” is perhaps best symbolized by Leonardo’s famous image of a male human being, stretched over the circle of the cosmos, his head in the heavens and his bowels located in earthly regions. But this Renaissance Man—or Woman—can also be seen as prefiguring the self-centered, narcissistic individualism of our own day, one seeing the whole of the cosmos at his or her command. This kind of modern human identity has since been enhanced by consumer-based capitalism and, given the problems it creates both for ourselves and our environment, there seems rather little reason to celebrate or restore it. The general point is that the vision of the Space Renaissance Initiative, with its prime focus on the power of the supposedly autonomous and inventive individual, systematically omits questions of social, economic, and military power. Similarly, the Initiative’s focus on the apparently universal benefits of space humanization ignores some obvious questions. What will ploughing large amounts of capital into outer space colonization really do for stopping the exploitation of people and resources back here on earth? The “solution” seems to be simultaneously exacerbating social problems while jetting away from them. Consumer-led industrial capitalism necessarily creates huge social divisions and increasing degradation of the environment. Why should a galactic capitalism do otherwise? The Space Renaissance Initiative argues that space-humanization is necessarily a good thing for the environment by introducing new space-based technologies such as massive arrays of solar panels. But such “solutions” are again imaginary. Cheap electricity is most likely to increase levels of production and consumption back on earth. Environmental degradation will be exacerbated rather than diminished by this technological fix. A simplistic and idealistic view of history, technology, and human agency therefore underpins the starting point of the Space Renaissance Initiative. Humanization in this shape—one now finding favor in official government circles—raises all kinds of highly problematic issues for society and the environment. What would an alternative, more critical, perspective on humanizing the cosmos tell us? The Cosmos: Capitalism’s New “Outside” Instead of indulging in over-optimistic and fantastic visions, we should take a longer, harder, and more critical look at what is happening and what is likely to happen. We can then begin taking a more measured view of space humanization, and start developing more progressive alternatives. At this point, we must return to the deeper, underlying processes which are at the heart of the capitalist economy and society, and which are generating this demand for expansion into outer space. Although the humanization of the cosmos is clearly a new and exotic development, the social relationships and mechanisms underlying space-humanization are very familiar. In the early twentieth century, Rosa Luxemburg argued that an “outside” to capitalism is important for two main reasons. First, it is needed as a means of creating massive numbers of new customers who would buy the goods made in the capitalist countries.[7](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en79) As outlined earlier, space technology has extended and deepened this process, allowing an increasing number of people to become integral to the further expansion of global capitalism. Luxemburg’s second reason for imperial expansion is the search for cheap supplies of labor and raw materials. Clearly, space fiction fantasies about aliens aside, expansion into the cosmos offers no benefits to capital in the form of fresh sources of labor power.[8](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en78) But expansion into the cosmos does offer prospects for exploiting new materials such as those in asteroids, the moon, and perhaps other cosmic entities such as Mars. Neil Smith’s characterization of capital’s relations to nature is useful at this point. The reproduction of material life is wholly dependent on the production and reproduction of surplus value. To this end, capital stalks the Earth in search of material resources; nature becomes a universal means of production in the sense that it not only provides the subjects, objects and instruments of production, but is also in its totality an appendage to the production process…no part of the Earth’s surface, the atmosphere, the oceans, the geological substratum or the biological superstratum are immune from transformation by capital.[9](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en77) Capital is now also “stalking” outer space in the search for new resources and raw materials. Nature on a cosmic scale now seems likely to be incorporated into production processes, these being located mainly on earth. Since Luxemburg wrote, an increasing number of political economists have argued that the importance of a capitalist “outside” is not so much that of creating a new pool of customers or of finding new resources.[10](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en76) Rather, an outside is needed as a zone into which surplus capital can be invested. Economic and social crisis stems less from the problem of finding new consumers, and more from that of finding, making, and exploiting zones of profitability for surplus capital. Developing “outsides” in this way is also a product of recurring crises, particularly those of declining economic profitability. These crises are followed by attempted “fixes” in distinct geographic regions. The word “fix” is used here both literally and figuratively. On the one hand, capital is being physically invested in new regions. On the other hand, the attempt is to fix capitalism’s crises. Regarding the latter, however, there are, of course, no absolute guarantees that such fixes will really correct an essentially unstable social and economic system. At best, they are short-term solutions. The kind of theory mentioned above also has clear implications for the humanization of the cosmos. Projects for the colonization of outer space should be seen as the attempt to make new types of “spatial fix,” again in response to economic, social, and environmental crises on earth. Outer space will be “globalized,” i.e., appended to Earth, with new parts of the cosmos being invested in by competing nations and companies. Military power will inevitably be made an integral part of this process, governments protecting the zones for which they are responsible. Some influential commentators argue that the current problem for capitalism is that there is now no “outside.”[11](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en75) Capitalism is everywhere. Similarly, resistance to capitalism is either everywhere or nowhere. But, as suggested above, the humanization of the cosmos seriously questions these assertions. New “spatial fixes” are due to be opened up in the cosmos, capitalism’s emergent outside. At first, these will include artificial fixes such as satellites, space stations, and space hotels. But during the next twenty years or so, existing outsides, such as the moon and Mars, will begin attracting investments. The stage would then be set for wars in outer space between nations and companies attempting to make their own cosmic “fixes.” Crisis, Outer Space, and the Restructuring of Capital: Some Evidence What evidence is there that economic, social, and environmental crises lie behind the growing humanization of the cosmos? One indication is that, between 2004 and 2009, the global space economy (this including commercial satellites, military hardware, space tourism infrastructure costs, and launch services) increased by 40 percent.[12](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en74) So, while the global economic crisis starting in 2008 has been grabbing the headlines, the sectors involved in the outer space economy have experienced very rapid growth. In 2009 space industry and government budgets involved in outer space rose by 7 percent to $261.61 billion. A 2010 survey of the global outer space economy puts this as follows: “amidst a widespread international economic crisis, the space industry proved resilient, demonstrating growth and expansion into 2010. While several other leading industries suffered dramatically, and many governments struggled to remain fiscally viable, the space industry defied the upheaval and broadened its fields of endeavour.”[13](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en73) All this suggests not just that the outer space economy is doing well while other sectors are doing less well, but that growing investment in the solar system is a response to global economic crisis. Again, this growth of the private space economy underlines the significance of President Obama’s shift toward private sector “solutions” to space humanization. The private sector has long argued that, in terms of creating technological innovation and reducing costs, it is superior to NASA and other government agencies. Now—and, it should be noted, with extensive earlier financial backing from NASA—it is advancing itself as capable of taking over large parts of the space program. But, at the same time, restructuring within the space industry is following some very familiar lines. Close links and mergers are taking place between large monopolistic companies and the smaller enterprises celebrated by the Space Renaissance Initiative. For example, Northrop-Grumman, one of the leading U.S. defense manufacturers, has recently bought Scaled Composites, the latter having pioneered lightweight materials used for space tourism vehicles. Northrop-Grumman has for many years designed and constructed satellite-guided drones used in Iraq, Afghanistan, and elsewhere. This merger raises the prospect of skills and technologies originally designed to take wealthy people into outer space being developed to observe and eliminate warlords—and others—back on earth. Space-X is another relatively small space tourism company. It was founded in 2002 by Elon Musk, a cofounder of PayPal. But this small enterprise is now rapidly growing as a result of a number of contracts from the American Airforce. Launch services provided to the USAF by Space-X are resulting in contracts worth up to $1 billion. Other links, this time between big and small capital, are also developing. Bob Bigelow, for example, has long been an important but small-scale contender in the outer space tourism business. His proposals have included hotels on the moon and in other parts of outer space. He has already constructed 1:3-scale working models of these projects. Now, his company is in close partnership with Boeing, the exceptionally large aerospace company. Together, they will supply the space taxis outlined by President Obama. They will take astronauts and scientists to the International Space Station. Bigelow declares himself very enthusiastic as “part of the Boeing team”: “We’re very excited about this program and the Boeing partnership in general. Boeing brings with it unparalleled experience and expertise in human spaceflight systems, which will be combined with Bigelow’s Aerospace’s entrepreneurial spirit and cost conscious practices.”[14](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en72) But another, more downbeat, assessment is that the individualistic, entrepreneurial spirit endorsed by the Space Renaissance Initiative is, in practice, being co-opted into the military-industrial complex. Space Law: Making the Survival of Humankind Profitable Given the increased emphasis on the commercialization of outer space, it comes as no surprise to find the question of private property in outer space opened up for debate. If capital is to undertake a space program and commodify nearby parts of the solar system, it needs reassurance that its investments will be protected by law. The issue is now being highlighted by an argument over the geostationary orbit (GEO). This is the 30 km-wide strip 35,786 km above the equator, one in which satellites can orbit at the same speed as the ground below them. With only three satellites in the GEO, a media conglomerate, a communications company, or a government surveillance agency can cover the whole world. No wonder it has been called “space’s most valuable real estate.”[15](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en71) This raises the urgent question, one still not adequately resolved, of who actually owns this area of outer space. Is it owned by the equatorial countries such as Colombia, Indonesia, and Kenya under this strip? Or is it jointly owned and managed by all states? The debate over the GEO is a microcosm of that concerning outer space as a whole. The present position is one in which the moon and other celestial bodies cannot be legally owned. Under Article II of the 1967 United Nations Outer Space Treaty, the whole of outer space “is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.”[16](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en70) It seems clear that the intention here was to prevent ownership and commodification of outer space. But this is now being challenged. Mirroring the perspective of the Space Renaissance Initiative, lawyers promoting the extension of the private sector into outer space argue that the framers of the UN Outer Space Treaty “were deliberately ambiguous about private property as opposed to nationally owned property.”[17](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en69) “Besides helping to ensure the survival of mankind,” these lawyers argue, “the settling of space—including the establishment of permanent settlements on the Moon and Mars—will bring incalculable economic and social benefits to all nations.”[18](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en68) Sufficient profits must be guaranteed, and this can only be done by ensuring property rights in space. Future outer space treaties should, according to one group of space lawyers, allow private ownership of a circle of land about 437 miles around an initial base. This means the reward for ensuring the future of humankind would be about six hundred thousand square miles of cosmic real estate, approximately the size of Alaska. Galactic Colonialism, Risk, and War But even if it were desirable, the success of a galactic colonialism is by no means guaranteed. This is because the very venture of space colonization brings new risks. The fifteenth-century Renaissance and the Enlightenment placed great faith in science as a means of bringing “progress.” Now such progress is regularly challenged. Furthermore, much scientific intervention today stems from the crises stemming from earlier intervention, or what some social scientists have called “manufactured risk.”[19](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en67) This kind of risk, for which no one agency or individual is usually culpable, is readily recognizable in space-humanization progress. Note, for example, that there are now around fourteen thousand tracked objects circling around the earth, known as “space debris” or “space junk.” Improved tracking systems will increase the number of smaller, observable tracked objects to around thirty thousand, many of these causing potential damage. Even whole satellites may collide. Such collisions are estimated at millions or even billions to one. But on February 10, 2009, such a collision actually happened. A defunct Russian satellite crashed into an American commercial satellite, generating thousands of pieces of orbiting debris.[20](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en66) Space junk poses a serious threat to the whole enterprise of space colonization, and plans are now afoot to launch even moresatellites, designed to drag older satellites out of orbit in order to avoid collisions.[21](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en65) Space colonization brings a number of other manufactured risks. The farther space vehicles penetrate the solar system, the more likely it is that they will be powered by nuclear, rather than solar, energy. It is not widely appreciated, for example, that the 1997 Cassini Mission to Saturn’s moons (via Jupiter and Venus) was powered by plutonium. One estimate is that if something had gone wrong while Cassini was still circling the earth, some thirty to forty million deaths could have occurred.[22](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en64) No plans were in place for such an eventuality. Yet, as early as 1964, a plutonium-powered generator fell to earth, having failed to achieve orbit. Dr. John Gofman, professor of medical physics at the University of California, Berkeley, then argued that there was probably a direct link between that crash and an increase of lung cancer on Earth. Both President Obama and the Russian authorities are now arguing for generating electricity with plutonium in space, and building nuclear-propelled rockets for missions to Mars.[23](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en63) Some of the wilder plans for space colonization also entail major risk. These include proposals for “planetary engineering,” whereby the climates of other planets would be changed in such a way as to support life. Dyes, artificial dust clouds, genetically engineered bacteria, and the redirecting of sunlight by satellite mirrors are all being advanced as means of “terraforming,” or making parts of the cosmos more like earth. This and the Cassini example further demonstrate the nature of “manufactured risk.” Science and technology, far from creating Renaissance or Enlightenment-style optimism and certainty, are creating new problems that are unforeseen and extremely difficult to cope with. But even manufactured risks may be minimal in scope, compared with another risk stemming from cosmic colonization. This is outright war. Armed conflict has long been a common feature of past colonialisms; between colonizing nations as well as between the colonizers and aboriginal peoples. Satellites are already a means by which territories and investments on Earth are monitored and protected by governments operating on behalf of their economic interests. But the prospect of galactic colonialisms raises the distinct possibility of hostilities in space. Galactic wars may therefore be the product of galactic colonialism. Such a scenario was prefigured by the Star Trek science fiction television series in which the main role of “The Federation” is the protection of capitalist mining colonies.[24](http://monthlyreview.org/2010/11/01/the-humanization-of-the-cosmos-to-what-end/#en62) It is a discomforting fact that both China and the United States are now actively developing their own versions of “full spectrum dominance.” China demonstrated its capabilities in January 2007 by shooting down one of its own defunct satellites. In February 2008, the U.S. Navy demonstrated a similar capability, destroying a faulty U.S. satellite with a sea-based missile. An arms race in outer space has already started.

## CP – Nuclear NRG

#### Permutation do both – shields the link because the plan creates a market incentive implement the counterplan’s tech as fast as possible

#### Without a carbon price, there won’t be ANY private investment OR innovation - CP can’t solve

BAS 16 (Bulletin of Atomic Scientists, citing David Titley, Professor of Practice in Meteorology, Affiliate Professor, Penn State School of International Affairs; Director, Center for Solutions to Weather and Climate Risk; Bulletin Science and Security Board, Sam Thernstrom, Executive Director, Energy Innovation Reform Project, Raymond Pierrehumbert, Halley Professor of Physics, University of Oxford; Bulletin Science and Security Board member, 2016. “Getting to Deep De-carbonization: What Role for Nuclear Power?” http://thebulletin.org/sites/default/files/2016%20Clock%20Symposium%20Final%20Report.pdf)

Currently there are few financial incentives for US companies to invest in nuclear power. Reactors become cost-competitive only when you assume a carbon price, Titley argued. A Republican White House and Congress are extremely unlikely to put a price on carbon, however. “Pricing carbon won’t get you where you need to be,” countered Sam Thernstrom, executive director of the Energy Innovation Reform Project. Predicting that Donald Trump may be a more pragmatic president than many people think, Thernstrom described “the most pragmatic approach we can take for the climate” is an expansion of nuclear power combined with carbon capture and sequestration at fossil-fuelburning power plants. He called for investments in innovation, coupled with regulatory reforms, to make it easier and faster to build new nuclear reactors. Focusing on “well-crafted policy that can drive innovation” is key, said Thernstrom. Most Republicans are not interested in arguing about climate science; they want to talk about practical clean energy policy options. “If the outcome of policies is competitive technologies, the market will take it from there.” “The idea that innovation will just come into being without a price on carbon is sheer magical thinking,” responded Ray Pierrehumbert, a physicist at the University of Oxford. He argued that, without carbon pricing, there would be scant incentive for companies to invest in either carbon capture or nuclear power. “The 800- pound gorilla in the room,” said Pierrehumbert, “is that we solve problems only when we invest in solving them. How do we do the kind of research we need to solve our problems?”

#### Can’t Solve Warming; Construction Timeframe

Brutuco 2014 (Rinaldo S., Founding President of The World Business Academy, A Nonprofit Think Tank Launched In 1986. Nuclear Power: Totally Unqualified To Combat Climate Change. World Business Academy. https://worldbusiness.org/nuclear-power-totally-unqualified-to-combat-climate-change/)

Even if we decided to replace all fossil-fuel plants with nuclear reactors – leaving cost issues aside – it would not be technically possible to build them quickly enough to meet even the modest targets of the Kyoto Protocol. In the U.S., up to 1,000 new reactors (nearly 10 times the current base) would be required at a cost of about $1.5 trillion to $2.0 trillion, based on industry estimates of $1,500-$2,000/KW for new nuclear plant construction.  In fact, Alvin M. Weinberg, former director of Oak Ridge National Laboratory argues that, in order to make a serious dent in carbon emissions, it would take perhaps four times as many reactors as suggested by the MIT study, or up to 4,000 reactors.[32]

## CP – Ocean Fertilization

#### Perm do both

#### Ocean fertilization is expensive and doesn’t work

**Int. J. of Global Warming 13.“**A method for estimating the cost to sequester carbon dioxide by delivering iron to the ocean” in, Int. J. of Global Warming 2013,

Seeding the oceans with iron will not address carbon emissions. Numerous geo-engineering schemes have been suggested as possible ways to reduce levels of the greenhouse gas carbon dioxide in the atmosphere and so reduce the risk of global warming and climate change. One such technology involves dispersing large quantities of iron salts in the oceans to fertilize otherwise barren parts of the sea and trigger the growth of algal blooms and other photosynthesizing marine life. Photosynthesis requires carbon dioxide as its feedstock and when the algae die they will sink to the bottom of the sea taking the locked in carbon with them. Unfortunately, present plans for seeding the oceans with iron fail to take into account several factors that could scupper those plans, according to Daniel Harrison of the University of Sydney Institute of Marine Science, NSW. Writing in the International Journal of Global Warming, Harrison has calculated the impact of iron seeding schemes in terms of the efficiency of spreading the iron, the impact it will most likely have on algal growth the tonnage of carbon dioxide per square kilometer of ocean surface that will be actually absorbed compared to the hypothetical figures suggested by advocates of the approach. “If society wishes to limit the contribution of anthropogenic carbon dioxide to global warming then the need to find economical methods of carbon dioxide sequestration is now urgent,” Harrison’s new calculations take into account not only the carbon dioxide that will be certainly be sequestered permanently to the deep ocean but also subtracts the many losses due to ventilation, nutrient stealing, greenhouse gas production and the carbon dioxide emitted by the burning of fossil fuels to produce the iron salts and to power their transportation and distribution at sea. His calculations suggest that on average, a single ocean iron fertilization will result in a net sequestration of just 10 tonnes of carbon per square kilometer sequestered **for a century** or more at a cost of almost US**$500 per tonne** of carbon dioxide. “Previous estimates of cost fail to recognize the economic challenge of distributing low concentrations of iron over large areas of the ocean surface and the subsequent loss processes that result in only a small net storage of carbon per square kilometer fertilized,” says Harrison. Others have addressed the maximum possible contribution by modeling and the generally accepted figure is around 1 billion tonnes of carbon, but those calculations do not take into account the losses discussed by Harrison. The real limit would be when the macro-nutrients are exhausted, what then is the flux of macro-nutrients into the iron limited regions per year? “Under ideal conditions the cost could be lowered and the efficiency increased but the availability of ideal conditions will be small,” says Harrison.

#### Iron fertilization causes ocean acidification

**Aumont,** O. **and Bopp**, L.: **10** Professors at Leibniz Institute of Marine Sciences, Professor at Kiel Institute for the World Economy at the Christian-Albrechts, Globalizing results from ocean in situ iron fertilization experiments, Global Biogeochem. Cy., 20, GB2017, doi:10.1029/2005GB002591, 2010.

To the extent that Ocean Iron Fertilization sequesters additional CO2 in the ocean, it will also amplify ocean acidification (Denman, 2008). This is most pronounced in areas where the se-questered CO2 is stored. In our model, OIF-induced acid-ification is largest in the upper few hundred meters of the Southern Ocean, where most of the exported carbon rem-ineralizes and thereby releases CO2. In this depth range, pH drops by another 0.15 units compared to the control run in year 2110 (Fig. 8) and the saturation state for calcium car-bonate, Skarn, drops by up to 0.4 units. The change in pH generally follows the OIF-induced change in DIC (Fig. 3b), although changes in nutrient concentrations (and, to a minor extent, simulated changes in calcium carbonate production and dissolution) have some impact on alkalinity and hence pH. Simulated surface pH decreases in the fertilized region by 0.006 pH units (Fig. 9), whereas it increases almost ev-erywhere outside the fertilized area. The OIF-induced globally avenged increase in surface pH by some 0.007 pH units slightly counteracts the much larger pH decrease by 0.34 pH units simulated by the unfertilized control experiment under the SRES A2 scenario by year 2110. Acidification induced by Southern Ocean large-scale iron fertilization is thus expected to be a specific problem in Southem Ocean near-surface waters, which are projected to become persistently undersaturated with respect to aragonite by mid-century already without OIF (Orr et al.. 2005). This development is also simulated by our model, which reveals that by 2110 about 20% of the ocean volume is undersaturated with respect to aragonite. Simulated Southern Ocean OIF leads to an acceleration of this process by a few decades (Fig. 10). However, once the Southem Ocean is undersatu-rated, the global volume of undersaturated waters increases at a slower rate in the continuous OIF experiment that sim- ulates slightly higher saturation states than the control run outside the fertilized region.

#### Ocean acidification makes global warming worse

**Sandle, Ph.D from Keele University, 13**

(Tim, 8/31/13, Digital Journal, “Levels of ocean acidity affects global warming,” http://www.digitaljournal.com/article/357412, 6/27/14, SM)

Scientists have warned that **continued acidification of the oceans may lead to lower sulfur levels in the atmosphere, worsening the effects of climate change**.¶ The link between rising levels of acidity in the world's seas and the climate comes from **increased levels of carbon dioxide in the atmosphere**, which **leads to ocean acidification**. **This is formed as the greenhouse gas interacts with water to form carbonic acid in the ocean.** In turn, **ocean acidification appears to lead to decreased cloud formation and therefore worsening global warming over time.**¶ This is all linked to the ecological process whereby sulfuric acid seeds cloud formation. The majority of sulfur in the atmosphere is emitted from the ocean, often in the form of dimethylsulfide (DMS) produced by **phytoplankton. The problem is that in acidified ocean water, phytoplankton produce less DMS, leading to fewer clouds. Fewer clouds could lead to increased global temperatures.**

## CP – OTEC

#### Permutation do both – shields the link because the plan creates a market incentive implement the counterplan’s tech as fast as possible

#### OTEC can’t solve- too expensive, vulnerable to storms, and it’ll corrode

**Friedman 14** Becca Friedman is a writer for the Ocean Energy Council, “EXAMINING THE FUTURE OF OCEAN THERMAL ENERGY CONVERSION”, March 2014, http://www.oceanenergycouncil.com/examining-future-ocean-thermal-energy-conversion//OF

Huge Capital, Huge Risks Despite the sound science, a fully functioning OTEC prototype has yet to be developed. The high costs of building even a model pose the main barrier. Although piecemeal experiments have proven the effectiveness of the individual components, a large-scale plant has never been built. Luis Vega of the Pacific International Center for High Technology Research estimated in an OTEC summary presentation that a commercial-size five-megawatt OTEC plant could cost from 80 to 100 million dollars over five years. According to Terry Penney, the Technology Manager at the National Renewable Energy Laboratory, the combination of cost and risk is OTEC’s main liability. “We’ve talked to inventors and other constituents over the years, and it’s still a matter of huge capital investment and a huge risk, and there are many [alternate forms of energy] that are less risky that could produce power with the same certainty,” Penney told the HPR. Moreover, OTEC is highly vulnerable to the elements in the marine environment. Big storms or a hurricane like Katrina could completely disrupt energy production by mangling the OTEC plants. Were a country completely dependent on oceanic energy, severe weather could be debilitating. In addition, there is a risk that the salt water surrounding an OTEC plant would cause the machinery to “rust or corrode” or “fill up with seaweed or mud,” according to a National Renewable Energy Laboratory spokesman.

#### OTEC brings carbon rich water to the oceans surface—releases CO2 into the atmosphere—that causes warming

**Quinby-Hunt et al. 87** (M.S, author of Polarized light scattering by aerosols in the marine atmospheric boundary layer, Collisions with ice/volatile objects: Geological implications, D. Sloan, P. Wilde, “POTENTIAL ENVIRONMENTAL IMPACTS OF ¶ CLOSED-CYCLE OCEAN THERMAL ¶ ENERGY CONVERSION”, Environmental Impact Assessment Review 1987, <http://ac.els-cdn.com/0195925587900357/1-s2.0-0195925587900357-main.pdf?_tid=59a3a226-0617-11e4-a5cb-00000aab0f26&acdnat=1404765988_dd01cec6ca4a8f88e6acfb02c198a730>, Accessed 7/7/14, MB)

Release of Carbon Dioxide and Other Gases¶ Gas solubility in sea water decreases with increasing temperature (Weiss 1970).¶ Thus, cold, deep water allowed to come to equilibrium with warm, surface water¶ would release CO2 and other gases when the cold deep water is brought to the¶ surface. Outgassing of CO2 occurs naturally in tropical waters (Keeling 1968).¶ Mercury released during natural upwelling is detectable (Fitzgerald et al. 1984).¶ Outgassing from OTEC-cycled water may alter local rates of outgassing, but as¶ the gases are eventually redissolved into seawater at higher latitudes and colder¶ temperatures, the total volume of gas in the almosphere is changed little (OTC/MSG¶ 1985). On the other hand, when fossil fuels are burned, the CO2 produced is¶ "new," formed by combining carbon from ancient geologic sinks with atmospheric¶ oxygen during combustion.¶ Some concern has been expressed (NRC 1983b; EPA 1983a) regarding possible¶ climate effects due to increased CO2 in the atmosphere--the greenhouse¶ effect (Brewer 1978). OTEC plants bring water containing CO2 at levels greater¶ than saturation to the surface. As the dynamics of CO2 release are determined¶ by a complex set of environmental conditions and chemical reactions, only a¶ worst-case order of magnitude (at best), estimate of CO2 release by OTEC¶ operations (OTC/MSG 1985; MSG 1985) is discussed here.¶ At an OTEC facility, CO2 may be released to the atmosphere (Table 1, Figure¶ 2). Residence time and pressure shifts are insufficient to allow significant gas¶ evolution from the cold-water reservoir, a confined space through which water¶ passes rapidly (Morse 1984). After discharge, CO2 or other gas concentrations¶ in the effluent would approach equilibrium with gases at that point of discharge,¶ as a worst case, in the mixed layer. The maximum CO2 that could evolve due¶ to OTEC operations is the difference between the CO2 in deep and surface waters.¶ For example, the CO2 concentration in surface water is approximately 2.0 mmole/kg¶ seawater (Takahashi et al. 1970). Water from 700 m contains approximately 2.4¶ mmole CO2/kg (Takahashi et al. 1970). Therefore, the maximum CO2 released¶ would be 0.4 mmole/kg, or 0.018 g/kg. If a 40-MW OTEC plant pumps 90¶ m3/sec (7.8 × 109 kg/day) of deep water to the surface, approximately 1.4 × 105¶ kg of CO2 could be released each day if all excess CO2 was outgassed (OTC/MSG¶ 1985).

## CP – Prizes

#### Permutation do both – shields the link because the plan creates a market incentive implement the counterplan’s tech as fast as possible

#### Can’t solve the aff – the counterplan can’t mandate market implementation and prizes take massive amounts of time to judge and scale up.

**Prizes fail – direct R&D funding is better**

---can’t estimate an innovation’s value

---firms can game the system

---can’t scale

**Clancy & Moschini 13** (Matthew S. and GianCarlo, Department of Economics and Center for Agricultural and Rural Development, “Incentives for Innovation: Patents, Prizes, and Research Constracts,” Applied Economic Perspectives, Vol. 35, No. 2, 2013, pg. 232-233, https://www.card.iastate.edu/faculty/profiles/giancarlo\_moschini/Clancy-Moschini-AEPP-2013.pdf)

The alternative of innovation prizes is **theoretically alluring**—witness the resurgence of interest that we briefly reviewed in this paper—but ultimately seems to be best-suited to a **narrow** set of applications. In the ( perhaps rare) case when the government has the ability to estimate an innovation’s value with a **high degree of confidence**, prizes would seem to be ideal, as they combine the ex ante inducement power of a patent system (the prospect of a sizeable reward) with the absence of ex post deadweight losses. For **most** potential innovations, however, firms possess special information about what innovations are **actually possible,** as well as their likely market value, and might otherwise have the ability to **manipulate a government’s estimates** of value under a prize system. In such cases a patent system, which sacrifices some ex post efficiency in the form of dead- weight loss and potential hold-up costs, can nevertheless align private investment in innovations with true social value. Furthermore, even when they are legitimate, innovation prizes may not be **scalable**, as they would require considerable **additional R&D funds** from public sources, which is an unattractive proposition in the current fiscal climate characterized by concerns over the government’s budget deficit and the size of public debt. **Direct** governmental **financing of research through a system of dynamic incentives** may, in some cases, be the **best system** for generating new knowledge. This is so when the value of a discovery is highly uncertain, even to its discoverers, and when the degree of positive spillovers becomes very high (such that a patent system may prove insufficient to spur the desired R&D investment). Much of the presently conducted basic research is directly supported by public funds, and it is **difficult to see** how it could be done otherwise. Indeed, in an era of scarce public resour- ces, the argument could be made that public funds should concentrate even more on basic science devoted to discoveries that potentially have a broad set of applications and large long-run payoffs. Such direct procure- ment of knowledge by the government must rely on disbursement mecha- nisms that provide suitable incentives, given the agency issues that inevitably arise. In this setting, an emerging concern is that grant-making agencies have become so risk-averse that potentially transformative research agendas are left to stagnate. Changes to the standard system for allocating competitive grants to encourage increased risk-taking, and an expanded focus on more radical research, might be warranted. Increasing support for individual researchers, as opposed to their projects, is a possi- ble way forward. The challenge here is to find workable ways to do so that eschew the dangers of researchers’ opportunistic behavior under moral hazard and asymmetric information. Some of the economic work that we have reviewed and discussed in this paper provides useful and promising insights in these directions.

## CP – Renewable Subsidies

#### Perm do both – Carbon tax plus spending key to renewables---subsidies alone fail

**Gorland 15** – JD and James Kent scholar (valedictorian) from Columbia

(Chase, “Inducing Renewable Energy Innovation Through Taxation”, 10/27/15, <http://stlr.org/2015/10/27/inducing-renewable-energy-innovation-through-taxation/>, Columbia Science and Technology Law Review)

The barriers to optimal incentives for research and development (R&D) in renewable energy and high efficiency technologies are widely understood—research produces positive externalities, which researchers are unable to capture the full benefit from, resulting in **chronic underinvestment**.[2] This underinvestment is particularly acute for R&D that may be sufficiently unproven in that researchers cannot be certain whether discoveries will ever be patentable or commercially viable, but findings may produce positive externalities in the form of knowledge that other researchers can later build upon.[3] Meanwhile, fossil fuels produce externalities in the form of GHG emissions and other environmental impacts, which means that their users are not confronted with the full social cost of fossil fuels despite internalizing the benefit. Existing infrastructure also creates a **lock-in effect** that gives incumbent technologies a lower sticker price than innovative technologies that may actually be more beneficial in the long term.[4] Opponents of extensive government intervention in private investment decisions through the use of incentives might note that the fossil industry’s dominance and lock-in are in part owed to the heavy subsidies that fossil fuel industries have enjoyed from the federal government for decades, achieved primarily through acceleration of deductions for exploration, drilling, and production costs.[5] These tax subsidies reduced the cost of the petroleum industry and gave it a competitive advantage, which in turn incentivized investment in technological innovation within that industry through much of the twentieth century.[6] The petroleum industry itself provides a model for how government intervention in financial incentives can lead to investment in otherwise risky R&D.[7] Existing Alternatives and Counterparts Federal subsidies, including direct research subsidies and tax-based subsidies, such as the research deduction and Production Tax Credits (PTCs) are important means for reducing the positive externalities of renewable energy R&D. However, these research subsidies have several downsides in the renewable energy context. Political gamesmanship surrounding PTCs, which must be renewed every two years, has **undermined the ability of businesses to fully invest with confidence** in renewable energy projects in reliance on PTCs.[8] [9] In a Pew Center survey of business, 65% of respondents indicated that potential policy changes in regulation and subsidies represent the **greatest uncertainty** faced by businesses considering low carbon technologies, in contrast with less than 25% of surveyed businesses responding that market uncertainties were greatest.[10] Subsidies for renewable energy also incentivize an **increase in energy consumption** by lowering the overall cost of electricity, which **undermines parallel efforts** to promote energy efficiency for the sake of overall GHG emissions reductions.[11] Existing fuel taxes are currently the most common form of energy tax, but they have many shortcomings as a measure to reduce GHG emissions. Taxes on fuel have been associated with pressures on the auto industry to develop fuel economy breakthroughs in vehicles, alongside direct regulation in the form of imposed standards. Yet given that transportation accounts for approximately 28% of GHG emissions, gasoline taxes are not effectively tailored to the goal of incentivizing innovation across a broader range of industries or forms of fossil fuel consumption. Fuel taxes may be partially justifiable as a coexisting supplement to carbon taxes in order to address other externalities, such as road accidents and other forms of air pollution, but they do not constitute a viable alternative. Policymakers have also considered a broad energy tax, most notably including President Clinton’s proposal of a BTU tax in 1993. However, and quite intuitively, energy taxes **do not tailor innovation** incentives as closely to the goal of developing low carbon technologies as a tax on carbon. While an energy tax would create greater incentives for improving energy efficiency of all sorts, it **does not tip the scales** in favor of renewable energy over fossil fuels. Innovation-Spurring Benefits of a Carbon Tax A carbon tax can **induce innovation** in renewable energy by making byproducts of this research more commercially competitive with existing fossil fuel technologies. **Both** carbon pricing and renewable energy and energy efficiency research subsidies are necessary to internalize both the negative externalities of greenhouse gases and the positive externalities of R&D. If the long-term cost of GHG emissions can be at least roughly accounted for in the price of fossil fuels, renewable energy technologies that currently suffer from underinvestment may become commercially worth pursuing.[12] A carbon tax gives inventors and businesses a free hand in deciding which renewable energy and efficiency projects constitute the best investment of time and resources.[13] Unlike direct regulation or targeted grants and subsidies, innovators can respond to incentives and decide which efforts are worth pursuing without needing to convince a regulator or lobby a legislator—innovative success can be decided on the free market. Additionally, unlike a system involving a fixed number of cap and trade permits, socially optimal GHG emissions need not be predetermined by government officials attempting to balance uncertainties in both economic impact and climate science.[14] An upstream carbon tax could be placed on a relatively small number of businesses which serve as entry points for a commodity into the market through a supply chain. This would be more cost effective to implement than a direct tax on millions of consumers, such as a ‘tailpipe tax.’ An upstream tax on fossil fuel producers or refiners would also be capable of establishing a large tax base while utilizing administrative economies of scale, covering an estimated 80-90% of GHG emissions, which could then be priced into downstream consumption incentives.[15] The most important uncertainty would be the tax rate itself, which may have to evolve with the consensus on socially and environmentally optimal GHG emissions.[16] The major downside of a carbon tax for manufacturing industries is the potential loss of economic competitiveness for adopting countries. Because carbon pricing results in a net increase in energy costs, a carbon tax would create a danger of “carbon leakage,” whereby elastic forms of manufacturing could be moved to countries without a similar tax, resulting in no net reduction in GHG emissions with respect to manufacturing.[17] Much of this carbon leakage might be alleviated with a border tax on imported goods accompanied by tax rebates on exports.[18] However, this would require either extensive maneuvering around existing WTO commitments or renegotiation with individual countries.[19] Each tax rate would also have to be based on industry averages in the importing country or within the US, and importers would need an opportunity to prove lower GHG emissions in their production process in order to retain the desired incentive effects of the tax.[20] Overall, some combination of a carbon tax and broad renewable research subsidies may be capable of overcoming many of the positive externalities of innovative yet unproven research, while still increasing the commercial competitiveness of renewable energy R&D in comparison with fossil fuels.

#### green paradox – the prospect of cheap renewables means producers would ramp up short term extraction and use before it becomes economically unsound

van den Bergh 16 (Jeroen, ICREA Research Professor in the Institute of Environmental Science and Technology, “Disagreement on Sustainability Policy within the Social Sciences?,” European Review, Vol. 24, No. 1, pg. 84)

Subsidies to reduce the cost and price of clean energy may result in a ‘green paradox’. 6 Market competition and the threat of a cheaper and amply available clean backstop technology cause the values of fossil fuel reserves in the earth to decline and their supplies to increase. This lowers their prices and stimulates their demand. The more effective are renewable energy subsidies, the stronger will be this effect. Since renewable energy sources mainly serve electricity generation, coal and gas markets will be most affected, and oil markets to a lesser extent. The paradox can be avoided by a supply measure, notably CO2 pricing, as it will keep fossil fuels sufficiently expensive. More generally, subsidies make energy just cheaper so that its overall use is encouraged. The solution for both problems is that energy subsidies need to go along with charges on dirty energy.

### 1AR – CP – Fund Renewables (Extra)

#### Subsidizing alt energy fails – no conservation incentive, price rebounding, picking tech backfires

Hsu 11 – Professor of Law at University of British Columbia – previously Associate Prof at George Washington School of Law, Senior Attorney & Economist for the Environmental Law Institute [Shi-Ling Hsu, The Case for a Carbon Tax: Getting Past our Hang-ups to Effective Climate Policy, Island Press] Page 35-37

The case for government subsidization is, as a theoretical matter, straightforward. An unpriced externality like car-bon dioxide emissions can be remedied by either a positive price imposed by carbon taxes or by a negative price created by subsidization. If we know, for example, that lowering the carbon dioxide emissions from the energy sector will require the development and deployment of renewable energy technologies, then it would seem to make sense to provide government funding for wind, solar, and other renewable energy technologies. This would be true whether the subsidy takes the form of a per-unit production subsidy, or direct funding for research and development: either wav, the goal is to lower costs and concomitantly lower prices. Compare, then, the effects of taxing carbon and of subsidizing renewable energy. At the margins, raising the price of carbon-emitting energy has the same competitive effect of lowering the price (through subsidies) of renewable energy. The net effect of subsidizing renew- able instead of pricing carbon is a transfer of money from tax- payers to the entire energy industry—to the renewable energy industry through subsidies, and to the carbon-emitting energy industries by not taxing them. Since pricing carbon would raise energy prices, the net effect on the average person, who is both a taxpayer and an energy consumer, would appear to be roughly a wash.

There are three core problems with this argument. First, and most simply, higher energy prices are needed to spur energy conservation. Low energy costs undermine incentives to make industrial processes more energy-efficient, drive less, better insulate homes and construct more -efficient buildings, and to develop and WII (and buy) energy efficient appliances. Energy conservation measures may in fact turn out to be the greatest source of greenhouse gas reductions. A re- cent report by the consulting firm McKinsey found that some fairly routine and well-known energy conservation measures could produce a whopping $680 billion dollars worth of net energy savings, and re- duce projected energy demand by the year 2020 by 23 petcent.20 Many energy conservation measures actually have a negative abatement cost—that is, their energy savings exceeded the amortized cost of the upfront investments. These included insulation retrofits for residential and commercial buildings (especially the latter), switching residential lighting from incandescent bulbs to LEDs (light-emitting diodes), and capturing methane from landfills to generate electricity. 21 As Dieter Helm has observed, a problem with climate pol- icy is that it has by and large focused on reducing greenhouse gases from production, and not consumption.22 Reducing consumption does not sound like a good thing for love-starved politicians who have no stomach to curb energy consumption through taxation, even as we waste energy in mind-boggling ways. But the simple truth is that efforts to combat climate change will be unsuccessful without steps to reduce consumption. And there is nothing as effective as higher prices if the goal is to reduce consumption.

Second, there is a limit on how low energy prices can be made through subsidization. Lowering the price of renewable energy lowers the demand for fossil fuels. But lowering demand for fossil fuels means that it will lower the price of fossil fuels. A lower price for fossil fuels encourages its use, exactly what we don't want. This "rebound" effect of lowering fossil fuel prices by subsidizing its alternatives dampens the effectiveness of subsidies in altering consumption choices. Re- bound effects for various renewable fuel standards policies in the United States are estimated to be on the order of a quarter to a third of reduced emissions.23 Moreover, at a certain point, prices be- come so low that they become irrelevant. If, hypothetically, you had a choice between buying electricity from a coal-fired plant for 3.7 cents per kilowatt-hour or buying electricity from a wind farm for 3.4 cents per kilowatt-hour, which would you chose? The answer could well be, "who cares?" For many energy consumers, the savings does not justify the time needed to investigate. Such is the pushing-on-a-string effect of trying to lower prices for everyone instead of raising them. So while higher taxes and lower energy costs may seem to be a wash, they are not.

Third, the effectiveness of government subsidies assumes with- out justification—in fact, in the face of a mountain of evidence to the contrary—that it is possible to identity the "best" renewable energy technologies, or in general the "best" ideas to reduce greenhouse gas emissions. Too often, legislators think they catch wind of a great idea—such a revolutionary way of doing something that they can hardly resist the temptation to lend some assistance (all the better if the idea comes from a constituent or potential donor). It requires a bit of gullibility to ignore the failure of these supposedly great ideas to at- tract sufficient private financing. The danger is not so much in the waste of taxpayer dollars—this is addressed in another part of this chapter—but that emissions reductions will be both smaller and costlier than if a better instrument was used.

#### Renewable incentives don’t cause enough reductions

Brian Murray et al 14, director of the Environmental Economics Program at Duke University, Maureen Cropper, PhD and Department of Economics Chair at the University of Maryland, Francisco C. de la Chesnaye, Senior Project Manager at the Electrical Power Research Institute, John Reilly, Co-Director of the Joint Program on the Science and Policy of Global Change at MIT, “How Effective are U.S. Renewable Energy Subsidies in Cutting Greenhouse Gases?,” May 2014, American Economic Review, Vol. 104, Issue #5, p.573-574

Policies at different levels of government have aimed to provide economic incentives to reduce GHG emissions. Many economists would favor placing a price on GHGs, either through a carbon tax or cap-and-trade program. However, political forces have limited the use of these approaches, favoring instead tax incentives for zero or low-GHG emitting energy. Unfortunately, there has been a dearth of studies that have examined the effectiveness of various tax provisions on emissions. To understand their effect requires understanding how the incentive affects market choices, given a complex mix of existing regulatory measures unrelated to the specific tax incentive, the reaction of multiple markets to the change, and ultimately the effect on emissions.

The analysis presented here was motivated by a Congressional request to examine the issue. Our key finding is that, despite tax revenue losses of $10 billion per year in 2010, these provisions have a very small impact on GHG emissions and, in some cases, may actually increase emissions. The results are troubling if GHG reduction is a significant goal of these policies. There are several reasons why these incentives have failed to significantly reduce GHG emissions. The renewable electricity tax credits do increase renewable power generation, but the effect is small relative to the entire generating fleet. The impact of the ITC and the PTC is also reduced by the existence of renewable power mandates in more than half the states. On the biofuel side, the subsidies do indeed increase the production and use of the subsidized products; however, this does little to lower the carbon intensity of fuel use because of the lifecycle emissions from the cultivation of the feedstock, and transportation and production of the fuel. Moreover, the subsidy lowers the price of gasoline, leading to a classic rebound effect that increases emissions from higher gasoline use.

The findings also point to the importance of representing the complex institutional and market interactions inherent in these policies. Economists have been able to reduce many complex market relationships to simple elasticity estimates. A significant result of this study is that such reduced-form relationships can leave out structural aspects of the market and regulatory environment, and lead one astray.

Perhaps it is not surprising that the tax code provisions studied are not particularly effective. Emissions reduction is only one of the policy’s objectives; energy security, spurring “green” technology growth and rural economic development are others and the provisions are narrowly targeted at only a few emitting activities. Given the lack of political will to introduce a more effective GHG tax or cap-and-trade program, maybe the most we can hope for are tax incentives or other narrowly directed measures. However, based on this study, these do not appear likely to take us very far in reducing GHG emissions.

#### climate prizes fail –empirics

Brüggemann and Meub 15 [Julia Brüggemann, Chair of Economic Policy and SME Research, University

of Göttingen, EXPERIMENTAL EVIDENCE ON THE EFFECTS OF INNOVATION CONTESTS, CEGE, Number 251, http://wwwuser.gwdg.de/~cege/Diskussionspapiere/DP251.pdf]

Concluding Remarks The present article provides novel empirical perspective on the discussion regarding the use of innovation contests as a policy instrument to foster innovation activity. Accordingly, we transfer a sequential innovation setting to the lab by building upon a real effort word creation task. We analyze cooperation behavior and innovativeness in two types of innovation contests, namely a prize for the aggregate innovativeness and an additional prize for the best innovation. Our results show that both types of contests substantially reduce the willingness to cooperate among subjects, as demanded royalty fees significantly increase. Nevertheless, this does not reduce the actual cooperation, i.e. the propensity to make use of other innovators’ products. Despite the higher royalty fees in the innovation contest treatments, the total innovativeness remains constant across treatments. This finding illustrates that subjects accept paying higher royalty fees when striving to win an innovation contest. Our results further indicate that the intensified competition in innovation contests tends to reduce the individual income opportunities, given that higher royalty fees have to be paid. Moreover, we derive some general policy implications. Let us consider the potential effects of innovation contests on aggregate welfare. Our results show that welfare is not necessarily increased, especially when opportunities to innovate are restricted, e.g. by the sequentiality of the process itself or constraints in the available investment capital. Furthermore, when considering the transaction costs for organizing the contest and the costs of the prize itself, overall welfare might substantially decrease. This issue is particularly relevant for state- subsidized contests, whereby taxes are reallocated while no adequate gains in innovation activity might be achieved.

#### Renewable incentives without the tax have no impact --- pricing is key to drive demand

Newell 2015 (Richard G., Professor of Energy and Environmental Economics at Duke University,  
“The Role of energy technology policy alongside carbon pricing” in *Implementing a US Carbon Tax¸* Routledge, pgs. 180-181)//JBS

Taking these parts together, the strategy seeks to increase both the demand for and the supply of GHG-reducing innovations in a balanced way - one that empha-sizes those aspects of the overall innovation process that the private and public components of the system are best oriented toward advancing. R&D push without the pull of demand is like pushing on a rope: ultimately having little impact.3 In fact, ratcheting up R&D and other technology policies in an attempt to compensate for insufficiently stringent emissions policy can dramatically raise the cost of achieving a given amount of GHG mitigation. Conversely, market demand-pull without sup-portive R&D policies may miss longer-term opportunities for significantly lowering GHG reduction costs and expanding opportunities for greater GHG mitigation. A coupled "emissions price plus R&D" strategy, as suggested here, offers the best opportunity for mitigating GHG emissions at the lowest possible cost to society. The remainder of the chapter will consider each stage of the technology innovation process separately - research and development, demonstration, and deployment - elaborating on the innovation strategy proposed above, and high-lighting in particular its ability to address the unique challenges and opportunities at each point of the innovation process. Research and development Both parts of the innovation strategy work toward the advancement of climate mitigation technology, although each targets a different part of the economy. First part of the innovation strategy: Stimulating private sector R&D The first part of the innovation strategy seeks to harness the power of private sector investment. Industry is central to the U.S. innovation system, performing 71 percent and funding 62 percent of total U.S. R&D (Figure 10.1). The single most important part of solving the climate technology problem is therefore to address the GHG externality through emissions pricing. The emissions price attaches a financial cost to GHGs and — just as people will consume less of something that carries a price than they will of something given away for free — will induce households and firms to buy technologies with lower GHG emissions (such as lower-emission power plants and more efficient cars and appliances). In turn, the emissions price creates a demand-driven, profit-based incentive for the private sector to invest in R&D and other innovative efforts to bring new, lower-cost, climate-friendly technologies to market. In all, the GHG price helps to stimulate progress at multiple stages of the innovative technology process: basic and applied research, development, demonstra-tion, and deployment (Box 10.1) (demonstration and deployment to be discussed in greater detail below).

#### Renewables without a carbon tax fails, prefer the perm

Newell 2015 – Prof of Energy and Environmental Economics @ Duke   
Richard, “The Role of energy technology policy alongside carbon pricing” in *Implementing a US Carbon Tax¸* Routledge, p. 188

The purpose of this chapter is to outline how a well-targeted set of climate policies, including those targeted directly at science and innovation, could help lower the overall costs of mitigation. It is important to stress, however, that poorly designed technology policy will raise rather than lower the societal costs of climate mitigation. To avoid this, government support should emphasize areas that are least likely to be undertaken by the private sector, assuming that industry will face substantial incentives in the form of a market-based price on GHG emissions. As discussed, this would tend to emphasize strategic basic and applied research that advances science in areas critical to climate mitigation. In addition to generating useful results, such funding also serves the critical function of training the next generation of scientists and engineers for future work in both the private and nonprofit sectors. Climate technology policy must complement rather than trying to substitute for emissions pricing. On the research side, R&D without market demand for the results is like pushing on a rope and would ultimately have little impact. On the deployment side, technology-specific mandates and subsidies may have some emission reduction benefits, but will tend to generate those reductions in a relatively expensive, inefficient way relative to an economy-wide emissions price. The scale of the climate technology problem and our other energy challenges requires a solution that is as cost-effective as possible.

## CP – Solar Shield

#### [Geoengineering answers also apply]

#### Solar shield is unrealistic and doesn’t solve alt causes

Keith 15 (David Keith, Harvard environmental scientist, “A cheap and dangerous global warming fix.” PBS News Hour, July 16, 2015. <http://www.pbs.org/newshour/making-sense/cheap-controversial-solution-climate-change/>) S.He

Paul Solman: Is solar geoengineering a solution to climate change? David Keith: It’s certainly not a solution if by solution you mean that solar geoengineering is the only thing that could be done. If you do not bring the emissions of carbon at the atmosphere to zero, you can’t have a stable climate. It’s really as simple as that. And I think a lot of policy is being confused with crazy assumptions that it’s all one thing or another. The important question about solar geoengineering is: Would it make sense to do a small amount of it to reduce risks over the century in addition to cutting emissions? Paul Solman: But as I understand it, once you go down this path, a rich person could send up a bunch of Lear jets emitting sulfates to bounce the rays back towards the sun. That could have dramatic consequences one way or the other. David Keith: So it appears that it’s cheap enough that, in principle, it’s within the realm of possibility for the most wealthy people. But I think that’s actually a nonsense scenario. In practice, this would quickly become an issue of state negotiation and state power, not of individuals. Paul Solman: What about a rogue individual who domiciles in the Cayman Island or something like that? David Keith: I think it’s very implausible that it would be done on large scale by a single person — a Goldfinger. Paul Solman: But might there be a state, China for example, that comes to the conclusion that this is better than nothing — that it ought to do it at least for a while. David Keith: That’s much more plausible. I think the way this is actually most likely to happen is that some coalition of states decides that their risk of doing this is small compared to the benefits. They’re not doing it as an alternative to cutting emissions, but as a way to reduce risks to the humans most affected by climate change, especially the poor, and to ecosystems worldwide. And in that case, if it’s true that in fact the benefits are widespread and the risks aren’t very big, a likely outcome would be that other states loudly say, “We decry this unilateral action.” And privately they say, “We’re really happy somebody’s doing it.”

## CP – States

#### Perm do both – shields the link by signaling cooperation. Trump shifts the blame through twitter

#### Enforcement DA – States don’t have the capacity to enforce the tax and report on it especially when they’re coordinating

Barry G. Rabe, 2015, Professor of Public Policy in the Ford School @ Michigan, holds appointments in the School of Natural Resources and Environment and the Program in the Environment. He is a non-resident senior fellow in the Governance Studies Program at the Brookings Institution, 20 May 2015, The Durability of Carbon Cap-and-Trade Policy, http://onlinelibrary.wiley.com/doi/10.1111/gove.12151/full

Two, does the policy provide governing agencies sufficient flexibility to take advantage of policy learning through mid-course adjustments once performance indicators emerge and trouble spots become evident? This reflects needed flexibility in policy design and skill to identify problems and respond accordingly. Intergovernmental relations studies demonstrate that adaptive capacity is a particularly significant challenge at state and local levels, where staffing levels and disciplinary range vary markedly, and yet tailoring policies to changing localized circumstances may be essential to their long-term survival. This may be a particularly challenging issue in cases where multiple states are attempting to work together and must find ways to adapt within state and regionally.¶ Such flexibility may be especially crucial in complex policies such as cap-and-trade, which essentially try to chart the future of a state's energy demand and supply in developing a plan for emissions reduction that is expected to last nearly a half-century (Carlson and Fri 2013). In turn, states may only have attempted to operationalize cap-and-trade in one prior instance, the sulfur dioxide case in which responses to sulfur emissions were readily available via minable coal with low-sulfur content or viable emissions-control technology. States launching their own version of cap-and-trade for carbon in confederation with other jurisdictions faced far greater complexity, lacking any overarching federal framework to make needed adjustments, federal agency support for state operations, readily accessible energy alternatives to fossil fuels, or viable emissions-abatement technology. State policy professionals attempting to sustain operations of a new carbon cap-and-trade arrangement would not only need some continued support from elected principals through various election cycles and leadership changes but also analytical skills, reliable data, and managerial latitude to navigate inevitable bumps following initial adoption.¶ Three, does the policy have the capacity to produce demonstrable outcomes or benefits that can build and sustain constituency support, especially in the face of future political challenges? Both developmental and redistributive policies have long relied on the tried-and-true method of distributing either cash or visible social services to recipients, thereby building a base of familiarity among recipients and support for policy continuation (Campbell 2003; Mettler 2005). Eric Patashnik has referred to such programs as having “a massive tangible impact on citizens' lives on a daily basis” (Patashnik 2008, 29). Indeed, redistributive programs have frequently been adjusted to reach larger constituencies over time, in part to expand their constituency base (Peterson, Rabe, and Wong 1986), and a wide range of social welfare programs has proven remarkably durable even after major political challenges (Pierson 1994). An analysis of the Affordable Care Act anticipated that the early rollout of new health-care benefits would serve to build constituency support and dampen opposition (Skocpol and Jacobs 2011).¶ Regulatory policies have generally lacked this opportunity. Reliable measurement of their impacts often remains unclear, limiting their capacity to produce clear-cut deliverables for citizens. This challenge would appear especially great in an area such as reducing short-term fossil fuel use and greenhouse gas emissions in hopes of decreasing long-term climate risks. Most Americans are likely unaware that national emissions have declined by more than 10% in the past decade due to a range of policy, economic, and shale-based energy development factors, much less comprehend how they personally have benefited from this occurrence. Political efforts to frame climate mitigation as an economic development or “green jobs” strategy have proven extremely difficult to assess credibly in economic terms, let alone demonstrate benefits to the general citizenry. Initial public support or indifference may turn to opposition if increased energy costs related to cap-and-trade fail to generate any clear-cut benefits and thereby undermine its prospects of becoming a durable policy.

#### It gets struck down – State carbon taxes are illegal

**Shankse 14** (Professor Darien Shanske, UC Davis School of Law, J.D. from Stanford Law School, a Ph.D. from UC Berkeley in Rhetoric, “State-Level Carbon Taxes and the Dormant Commerce Clause: Can Formulary Apportionment Save the World” Chapman Law Review 9/27/2014, P. 195-196)

The Supreme Court imposes an almost per se rule of invalidity as to taxes that discriminate between in-state and out-of-state taxpayers.Thus, the answer to the second question, about applying different rates to products based on the different carbon footprints of different states or regions, is very likely to be “no” and that would seem to be the end of the story whatever the answers to the other questions.21 Indeed, out-of-state producers seem necessarily to be at a disadvantage to the extent that the border adjustment takes into account the additional carbon burned in transporting a product. As to the first and third questions—can there be a special import charge at all and how much imprecision is permissible— the Court has tolerated special taxes on imports (the use tax) only when they precisely matched up with a tax on domestic consumption (the sales tax).22 Because assessing the carbon intensity of both domestic and imported products is going to be the product of informed guesswork, it looks like such a practice will not pass muster either. Thus, the answer to the first and third questions is also “no.”

#### Timeframe DA – litigation means can’t solve warming.

Ferrey 08 (Steven Ferrey, Professor of Law at Suffolk University Law School, and in 2003 was Visiting Professor of Law at Harvard Law School, author of six books and more than seventy-five articles on the energy, environmental, legal and policy interface, Ecology Law Quarterly, Volume 35 Issue 4 Article 4, September 2008. “Goblets of Fire: Potential Constitutional Impediments to the Regulation of Global Warming.” http://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=1888&context=elq)

The law is a stubborn thing. Carbon policy would be much more seamlessly implemented at the state level in a coordinated fashion by leading states if the Constitution did not get in the way. However, the manner in which most of the states have attempted to regulate carbon raises significant potential constitutional challenges. First, because states do not want the carbon reduction costs they impose on their in-state generators to attract higher-carbon power from out-of-state power imports, they seek to secure the borders, or at least surcharge and dissuade the intruding power flows.458 Because the states are attempting to not only regulate carbon produced within their borders, but also create carbon regulated islands into which externally-produced wholesale power can no longer enter freely without penalty, there are significant Commerce Clause issues. Wholesale electricity moves in interstate commerce at the speed of light.459 While it is perfectly understandable why certain states see this as a policy imperative, their actions trip over historic legal prohibitions against impeding the free flow of commerce based on the geographic point of origin of that commerce. Second, the decision of most of these states to maximize associated revenues by auctioning all of their newly created allocations to emit carbon triggers Supremacy Clause concerns. 460 Again here, the motives may be worthy: public money is limited, carbon emissions loom large on the policy landscape, and auctioning allocations to emit carbon maximizes public income while rationing the emissions. The motive appears even more integrated when states propose to utilize the revenues of this allocation sale to fund a variety of programs that will reduce greenhouse gas production within the state.461 However, jurisprudentially, motive matters according to the Supreme Court. States officially have expressed their purpose of this auction to increase the price for certain high-emitting carbon power plant operations (coal in particular), as a way to change the dispatch order of which plants are allowed to run by the FERC-regulated Independent System Operator.462 The announced objective is to make the operation of certain high-carbon-emitting plants so expensive that they become the last plants called on to operate by the regional ISO. When unit dispatch order and operation, solely a function of federally jurisdictional pricing in modem electricity markets, is manipulated indirectly by states that attempt to inflate the federally approved wholesale price at which certain facilities operate, it becomes constitutionally suspect under the Supremacy Clause. 463 When there are ignored, more direct, and less legally burdensome ways 464 to get at these carbon issues, such as by requiring a certain percentage of renewable energy or low-carbon energy in the power supplymix,4 65 the probability of finding a state legally overreaching the normal exclusive wholesale jurisdiction of the FERC to regulate wholesale power pricing is more likely. Nowhere is the line of demarcation of federal-state responsibility pursuant to the Supremacy Clause more firmly etched in the legal precedent than in power sector regulation. In fact, Supremacy Clause jurisprudence in the power area has its own distinct nomenclature-the filed rate doctrine. 466 This bright line between federal and state jurisdiction has been firmly and consistently carved in the judicial firmament over three-quarters of a century. Finally, but perhaps less clear, are constitutional issues with the Compact Clause and foreign commerce powers. 46 7 While this may or may not affect RGGI, it is another issue that can be litigated and thus undercut legal confidence in, and regulatory certainty of, state carbon regulation programs. Califomia's joining with other western states and some Canadian provinces raises foreign commerce issues. This is not to mention a host of other legal issues, beyond the scope of this Article, that some of the state carbon regulatory initiatives may run afoul of state statutes. These latter issues can be more readily cured by remedial state legislation or other action. However, the Commerce Clause and Supremacy Clause issues are fundamental elements of the U.S. Constitution. They are not cured by any legal state action which would be inferior to the Constitution itself. Having focused on the legal issues accompanying the particular way the leading states have embarked on carbon regulation, nonetheless, intelligent carbon policy is imperative. The consensus of scientific opinion is that this is the preeminent ecological issue of this century. Some of the most respected climatologists argue that we have until 2015 to radically reduce the emission of C0 2, or face a very different planet.4 68 We require an expedited, targeted carbon policy to temper the Goblet of Fire that powers industrial society. But it does little to accelerate carbon restrictions at the state level, only to walk into protracted litigation that will truncate or halt the implementation of these initiatives. Whether the constitutional issues raised by the structure chosen for these state carbon schemes in the United States will prove to be fatal, is only one consideration. The corollary point is that the constitutional issues are real enough not to be easily dismissed by a court, and thus guarantee years of litigation and appeal, during which time these programs will be stunted, if not enjoined altogether. And if Dr. Hansen is correct that carbon emissions worldwide must be reversed by 2015,469 then we will expend the majority of these precious remaining years litigating the constitutionality of state carbon schemes instead of implementing legally sound solutions. These Commerce Clause and Supremacy Clause issues are just now beginning to be raised470 against the less controversial renewable energy trust fund and Renewable Portfolio Standard programs that half the states have adopted as matters of state law.471 There is some legal similarity in the design of RGGI and these trust fund programs. In fact, use of system benefit charges 472 and trust fund expenditures is one suggestion of how to defend the RGGI scheme may deal with the major problem of "leakage." However, the existing state renewable programs have escaped legal challenge until mid 2008 for reasons that the carbon regulation programs will not: \* The trust fund programs are financed by taxes in the retail utility bill to all ratepayers, and are spread across the utility consumer rate-base so that the impact on any stakeholder is de minimus at a few cents each month.473 \* Carbon regulation will impose huge financial obligations differentially on different generating sources, depending on their carbon emissions and size. While the impact is vested only on a limited number of stakeholders, that impact is significant and dramatically shifts the playing field for electric power production, fuel source, and economic viability in deregulated markets. 474 \* Carbon regulation in the RGGI region will only target CO2 emissions from larger power generating sources; 475 it exempts smaller units and exempts other GHGs that are up to several thousand times more potent per molecule in causing global warming and persist in the atmosphere much longer than CO 2. 476 \* There is a broad constituency for the "carrot" of grants to fund renewable energy trust fund projects, without any stakeholder objecting - most rate payers do not know they are paying for these programs and utilities are held economically harmless and can take some credit for the program. By contrast, there will be significant resistance to the "stick" of carbon taxes and allowance auctions imposed on previously unregulated independent power producers. 477 \* It is unprecedented that government in the United States charges targeted regulated entities for allowances to emit air emissions. 478 The stakes and stakeholders are very different in carbon regulation and renewable energy support. Both Governor Schwarzenegger's energy advisor and industry groups looking at RGGI implementation forecast litigation.479 While these litigants are initially targeting the non-constitutional grounds, over time the broader issues will be apparent. In sum, the state scheme for carbon regulation, once the program regulations become final,480 is sure to be challenged legally by the adversely affected stakeholders. This Article has suggested that states have legal discretion to shape carbon policy within constitutional bounds. In the end, it may be that federal carbon legislation is necessary not only for uniformity and certainty, but to eliminate the issues of the Commerce Clause, Supremacy Clause, and Compact Clause in state-formulated carbon regulation. If RGGI really was an effort to get the federal government to take more definitive action to regulate carbon emissions, 481 then it has been effective. And if RGGI encounters constitutional challenges, this may be a more lasting achievement. All of these issues arise only because carbon regulation is being implemented differentially by state action, which in some instances may overreach the limits of state authority or set up geographically based ring-fences. And here may be the compelling reason for prompt enactment of carbon legislation at the federal level-it will result in immediate action rather than years of litigation. Federal carbon regulation avoids the challenge to individual state actions and constitutional issues. Truly, time is of the essence, and good policy regarding the goblets of fire should follow suit to address carbon emissions.

#### Doesn’t solve modelling – states can’t implement border tariffs – ensures leakage and emissions continue in other countries

**Morris et al 16** (Morris, Adele. Bookbinder, David. Bauman, Yoram. Morris is a senior fellow and policy director for Climate and Energy Economics at the Brookings Institution. “STATE-LEVEL CARBON TAXES: OPTIONS AND OPPORTUNITIES FOR POLICYMAKER CLIMATE AND ENERGY ECONOMICS DISCUSSION PAPER.” Brookings Institute. JULY 28, 2016)

Despite these measures, concerns may remain. For example, California imports about half of its cement from China. How can California impose a carbon price on its cement plants when doing so would crush the state’s firms’ market share and shift emissions abroad?56 At the national level, the issue can be reduced with border carbon adjustments (import taxes or export rebates adjust for disparate carbon policies). However, at the state level such border adjustments may be **infeasible**.

#### Federal Lands DA – States can’t tax 1/3 of US emissions

Gerarden et al 16 – Harvard Kennedy School & NBER (Gerarden, W. Spencer Reeder, James H. Stock, Federal Coal Program Reform, the Clean Power Plan, and the Interaction of Upstream and Downstream Climate Policies, NBER Working Paper No. 22214, Issued in April 2016)

In 2014, U.S. coal production was 1.00 billion short tons, of which approximately 42% was mined on federally managed lands. U.S. 2014 coal net exports were 86 million tons, most of which was metallurgical coal. Approximately 93% of coal consumption in the United States is to produce steam for generating electricity. Burning coal (federal and non-federal) accounted for approximately 1.7 billion metric tons of CO2 emissions in 2014, roughly one third of all CO2 emissions from fossil fuels.4 As shown in Figure 1, nearly all federal coal deposits are in western states. Wyoming, Montana, Colorado, and Utah together account for 94% of coal mined on federal and Indian lands (Table 1). The single largest basin for U.S. coal production is the Powder River Basin (PRB) in Wyoming and Montana. Figure 2 shows coal production by region from 2001-2013. In federal fiscal year 2014, 364 million short tons were produced on federal lands in Montana and Wyoming, 93 percent of which was in Wyoming (see Table 1). Most but not all of the mineral rights in the PRB are federal. State mineral rights, and some tribal and private rights, are typically checkerboarded inholdings surrounded by land with federal rights. PRB mines are large surface mines that use massive drag line technology in a manner that follows seams, often across land with different owners of mineral rights. A mine that spans federal and other tracts is generally consolidated into a logical mining unit that allows for continuity in operations across the federal and other tracts when coal seams cross property boundaries.

#### Legitimacy DA – no modeling

Morris 16 (Andrew, Senior Fellow @ Brookings - Economic Studies, Climate and Energy Economics Project, Policy Director - Climate and Energy Economics Project, with YORAM BAUMAN, Carbon Washington, DAVID BOOKBINDER, Niskanen Center, “State-level carbon taxes: options and opportunities for policymakers,” JULY 28, 2016, https://www.brookings.edu/wp-content/uploads/2016/07/State-level-carbon-taxes-Options-and-opportunities-for-policymakers.pdf)

Precedents for this kind of cooperation include the IFTA fuel tax arrangement discussed earlier. In addition, the Multistate Tax Commission advises states on the adoption of uniform tax policies to simplify the tax code and ease the burden on interstate commerce. These discussions could extend to the context of carbon tax design. 49¶ To be sure, this hardly lays out an economically ideal approach to the mitigation of global climatic disruption. While far better than nothing, even a reasonably coordinated collection of state and provincial carbon pricing policies, in part derived from a patchwork of federal regulations and supplemented by a collage of other federal and sub-national policies, would create inefficiently disparate abatement incentives across sources, gases, sectors, and jurisdictions. Relying on state action also complicates international negotiations around both emissions targets and carbon prices. For example, it is difficult for the U.S. State Department to make a strong case to other countries that the United States will achieve a particular emissions goal by a certain date if the policies to attain it are directed by state actors over which the federal government has little control. Arguably, a more comprehensive approach, across and within major economies, will prove indispensable to achieve ambitious GHG stabilization targets at reasonable cost. But in the absence of new federal legislation in the United States, this scenario of state and provincial coordination is about as good as it could get. 50

#### The perception of some state action shields the link

**Overby 3** A. Brooke, Professor of Law, Tulane University School of Law, “Our New Commercial Law Federalism.” Temple University of the Commonwealth System of Higher Education Temple Law Review, Summer, 2003 76 Temp. L. Rev. 297 Lexis

We held in New York that Congress cannot compel the States to enact or enforce a federal regulatory program. Today we hold that Congress cannot circumvent that prohibition by conscripting the States' officers directly. The Federal Government may neither issue directives requiring the States to address particular problems, nor command the States' officers, or those of their political subdivisions, to administer or enforce a federal regulatory program. It matters not whether policymaking is involved, and no case-by-case weighing of the burdens or benefits is necessary; such commands are fundamentally incompatible with our constitutional system of dual sovereignty.n65 The concerns articulated in New York and echoed again in Printz addressed the erosion of the lines of political accountability that could result from federal commandeering.n66 Federal authority to compel implementation of a national legislative agenda through the state legislatures or officers would blur or launder the federal provenance of the legislation and **shift political** consequences and **costs** thereof to the state legislators. Left unchecked, **Congress could foist upon the states expensive or unpopular programs yet shield itself from accountability to citizens.** While drawing the line between constitutionally permissible optional implementation and impermissible mandatory implementation does not erase these concerns with accountability, it does ameliorate them slightly.

## CP – Synthetic Trees

#### Permutation do both – shields the link because the plan creates a market incentive implement the counterplan’s tech as fast as possible

#### Synthetic trees fail.

**McDermott 9** (Matt McDermott is an Editor, Business & Energy. October 8, 2009. “CO2 Scrubbing Artificial Trees Won't Save Us - Need Massive Investment, Colossal Infrastructure” https://www.treehugger.com/natural-sciences/co2-scrubbing-artificial-trees-wont-save-us-need-massive-investment-colossal-infrastructure.html) LHSLA LH

For some reason (frankly, entirely lost on me) the idea of artificial trees to remove CO2 from the atmosphere seems to grab people's imagination in a way other geoengineering schemes don't. Well, over at Yale e360 there's a good piece that goes into the pros (artificial CO2 scrubbers could work with low chance of unintended consequences) and cons (it's gonna be really expensive) of deploying them on a wide scale: There are a number of different ways of using these artificial trees -- which won't look much like trees, despite some artists' conceptions -- and the original piece details different methods being researched, but it's really other aspects of this that grab me. 100 Years of Deployment Needed to Start to See Desired Effect First of all, though the tech has been tested on a small scale, we're probably five years away from a small scale deployment and two decades from wide scale implementation. And then, if the high costs can be overcome (more on this further down...), according to oceanographer John Sheppard, who led the Royal Society's recent examination of different geoengineering schemes, you'll need "100 years of deployment before you start to see the effect your looking for." If there ever was a quote that places this into the Plan C category of emission reductions, I'm not sure what it would be. Not that it shouldn't be investigated, but don't hold out hope that this is an emergency response to emission reductions -- more like a long term strategic response to supplement other reduction strategies. $20 Trillion per 50ppm of CO2 Removal Which brings us to cost: Author David Biello reminds us that the Royal Society estimates that the infrastructure required to deploy the millions of the these CO2 scrubbers required to 650 billion tons of carbon from the atmosphere by 2100 to keep CO2 to 450 ppm (not the increasingly recommended 350 ppm) will be "as large, or larger than, that of the current fossil fuel extraction." James Hansen estimates that to cost be 50 ppm of CO2 removal to be in the range of $20 trillion. Yes, trillion. Lowering Emissions Must Be Primary Goal Which all means, to defer to the Royal Society again, that the safest and most predictable method of reducing greenhouse gases is (drum roll) to not emit them in the first place. And the first line of attack in that : Energy efficiency, renewable energy, stopping deforestation.

## CP – Tech

#### Permutation do both – shields the link because the plan creates a market incentive implement the counterplan’s tech as fast as possible

#### Tech-drive climate policy sucks – MIT proves

**McDonald 16** (Michael, “**MIT thinks a carbon tax is the only way to break our dependence on fossil fuels**,” Business Insider, March 5, 2005, http://www.businessinsider.com/mit-carbon-tax-only-way-to-break-dependence-on-fossil-fuels-2016-3)

A new study by economists at MIT and the University of Chicago confirms this reality. The authors show that **technology driven cost reductions** in fossil fuels will lead society to continue using those fuels for **decades or even centuries** under present conditions. The only way to force society off of that path, according to the study, is through a **carbon tax**. Such a carbon tax, called a Pigouvian tax in economics, is meant to curb the negative effects from fossil fuel consumption. There are serious questions about whether such a tax is politically realistic or implementable as even the authors acknowledge in this study and others. The study says that fossil fuel consumption is likely to continue despite a continued fall in the cost of renewable energy sources. According to the authors, neither decreases in supply related to the old concern about “running out of resources”, nor improvements in renewables technology alone will be enough to materially impact the use of fossil fuels for the foreseeable future. In particular, natural gas power plants and conventional gasoline retain large advantages compared to current and probable future renewables costs in the form of both solar power for electricity and battery packs for electric cars. The study finds that oil needs to average at least $90 a barrel for instance before battery powered cars make significant economic sense. Further, the result of externalities – the costs of pollution and carbon emissions – push that breakeven price required for battery powered cars to take off up to $115 per barrel even after assuming that U.S. Department of Energy forecasts improving battery technology prove accurate. Realistically then, in order to get consumers to make wholesale switches from fossil fuels to renewables would require **a carbon tax of at least $43 per metric ton of carbon** released.

## CP – Last Names

1) Black folks in academia should have the choice to include their last names- your ev presumes every single black person has a last name connected to slavery which is a totalization disad- African migrants exist too; your model of debate would justify white people omitting black schoalrs last names which also allows white folx to decredit black scholarship- turns the CP

2) This violence is inevitable- team code is premised upon last names

# K

## K- Gillepsie

### Gillepsie

The negative must disprove the political action of the 1ac

1) Debates about insttional engagement are valuable- they give us tools to debate with state power which is a portable skill

2) Fiat is good and you should let us weigh the case- it’s vital to fair and educational engagement – outweighs because clash is the only unique form of edu prefer a) Fairness---they moot the 1AC which makes it impossible to engage them since we’re always one step behind b) Plan focus good it’s key to education---it’s predictable, stable and they can’t reject the entirety of the 1AC for one bad part

3) Debate is good for black people- gets people to college, provides a forum for black folx to publically beat white kids in a competitive activity- it’s nonviolent

4) Communication is possible and productive; it’s a learned process and valuable to disrupt how people have been habituated into antiblack paradigms

5) Begs the question of why you’re in debate- it’s an extracurricular activity that you can leave at any time

Defense now: 1) Not about the aff- no explanation for why climate change is psychologically violent 2) This is generic af and not proven empirically- Gillepsie also engages in forms of communication via writing which disproves your thesis claim

## K – Afropess (Psychoanalysis Based)

#### Framework---the K must prove the whole plan is bad---weighing the aff is vital to fair and educational engagement – outweighs because clash is the only unique form of edu prefer

#### a) Fairness---they moot the 1AC which makes it impossible to engage them since we’re always one step behind

#### b) Plan focus good it’s key to education---it’s predictable, stable and they can’t reject the entirety of the 1AC for one bad part

#### Floating PIK’s are a voting issue – They moot the entirety of the 1AC and skirt engagement – It’s not predictable because debaters sift through literally hundreds of thousands of words in hundreds of cards per topic.

#### Extinction outweighs – we have no way of knowing whether structural conditions will be the same thousands of years in the future but extinction forecloses any ability for marginal improvements to be made.

#### Permutation do both – The alternative isn’t incommensurate with the plan. The alt is a way of looking at the world, NOT a material action that acts to resolve all anti-blackness.

#### Psychoanalysis is false –

#### Psychoanalysis by Fanon on a few people in the 50’s doesn’t scale up to entire societies.

#### Psychoanalysis is non-falsifiable – it just asserts its thesis and the only way to prove it is through more psycho analysis

#### Knowing future powers of structures is inherently flawed – humans are open systems that have only been subject to change for a minute part of history.

**Gordon 15** --- Lewis, Afro-Jewish philosopher, political thinker, educator, and musician, Professor at the University of Connecticut in Philosophy and Africana Studies, European Union Visiting Chair in Philosophy; Nelson Mandela Visiting Professor of Politics and International Studies at Rhodes University, South Africa; and Chairman of the Frantz Fanon awards committees of the Caribbean Philosophical Association, transcribed from <https://youtu.be/UABksVE5BTQ>, presenting and discussing his book “What Fanon Said”

\*\*\*Theonaturalism – religion based difference

-Gordon: debate about proof of pessimism is red herring b/c no way to know, even based on history, to project 10 years in the future what social systems will look like, no metaphysical basis to say that things will never change, functions as a tiebreaker

-Answers ontology: ontological structures themselves are inherently paradoxes, to say that anti blackness is ontological imposes the condition itself, persons marked by political systems, justifications they’ve made for ontology rely on a flawed premise that ignores that systems of power can only be relational and contingently imposed

-Impact turn: no inherent trajectory or arc to how things happen, fact this debate is messy and examples on both sides proves shouldn’t invest mental energy in debating these theoretical endpoints, sort out contingent applications

The first thing to bear in mind you may wonder why in the beginning of the talk I talked about philosophical anthropology. And many people when they are trying to talk about social change they never think about *what a human being is* and this is something Fanon pays attention to. **Many people want to have closed conceptions of human beings because then human beings can be predicable**. In fact, in fanons writing he gave an example. One of the problems is that when he would walk in reason seems to walk out. One problem we have to bear in mind when we try to look at the question of human beings **in terms of rigid closed systems** is that we often are trying to get as a model of how we work as theorists on issues of social change that are actually based on what we can call **law like generalizations**. Now what is a law like generalization? It is when you make sure that whatever you say has no contradiction down the line. So if you are to say this much [gestures with hand] the next stage must be consistent with that, and the next stage until you are maximally consistent. Do you get that? But here is the problem – and I can just put it in a nut shell- nobody, nobody in this room would like to date, be married to, or be a best friend with a maximally consistent person. You know what that is. Its hell. And this tells you something, because if somebody where maximally consistent, you know what you would say that person is not reasonable. And we have a person here who does work on Hegel that can point out this insight, that a human being has the ability to evaluate rationality. Now why is that important? Because you see the mistake many of us make is **many of us want to push the human being into that maximized law like generalization model**. So when we think about our philosophical anthropology, some people, our question about intersectionality for instance, what some people don’t understand is nowhere is there ever a human being who is one identity. People talk about race – do you ever really see a race walking? You see a racialized man or woman, or transman or transwoman. Do you ever see a class walking? Class is embodied in flesh and blood people. And we can go on and on. So if we enrich our philosophical anthropology we begin to notice certain other things. And one of the other things we begin to realize is that **we commit a serious problem when we do political work.** And the problem is this. The question about **Wilderson** for instance. There is this discussion going on (and allot of people build it out of my earlier books). I have a category I call, as a metaphor, an antiblack world. You notice **an indefinite article** – **an anti-black world**. The reason I say that is because **the world is different from an anti-black world**. The project of racism is to create a world that would be **completely anti-black or anti-woman.** **Although that is a project, it is not a fait accompli**. People don’t seem to understand how recent this phenomenon we are talking about is. A lot of people talk about race they don’t even know the history of how race is connected into theonaturalism. How, for instance, Andalucia and the pushing out of the Moors. The history of how race connected to Christianity was formed. A lot of people don’t understand – from the standpoint of a species whose history is 220,000 years old, what the hell is 500 years? **But the one thing that we don’t understand to is we create a false model for how we study those last 500 years**. We study the 500 years as if the people who have been dominated **have not been fighting and resisting.** Had they not been fighting and resisting we wouldn’t be here. And then we come into this next point because you see the problem in the formulation of **pessimism** and **optimism** is they are both based on forecasted knowledge, a prior knowledge. **But human beings don’t have prior knowledge.** And in fact – what in the world are we if we need to have guarantees for us to act. You know what you call such people? Cowards. The fact of the matter is our ancestors – let’s start with enslaved ancestors. The enslaved ancestors who were burning down those plantations, who were finding clever ways to poison their masters, who were organizing meetings for rebellions, none of them had any clue what the future would be 100 years later. Some had good reason to believe that it may take 1000 years. But you know why they fought? Because they knew it wasn’t for them. **One of the problems we have in the way we think about political issues is we commit what Fanon and others in the existential tradition would call a form of political immaturity. Political immaturity is saying it is not worth it unless I, me, individually get the payoff**. When you are thinking what it is to relate to other generations – remember Fanon said the problem with people in the transition, the pseudo postcolonial bourgeois – is that they miss the point, you fight for liberation for other generations. And that is why Fanon said other generations they must have their mission. But you see some people fought and said no I want my piece of the pie. And that means the biggest enemy becomes the other generations. And that is why the postcolonial pseudo-bourgeoisie they are not a bourgeoisie proper because they do not link to the infrastructural development of the future, it is about themselves. And that’s why, for instance, as they live higher up the hog, as they get their mediating, service oriented, racial mediated wealth, the rest of the populations are in misery. The very fact that in many African countries there are people whose futures have been mortgaged, the fact that in this country the very example of mortgaging the future of all of you is there. What happens to people when they have no future? It now collapses the concept of maturation and places people into perpetual childhood. So one of the political things – and this is where a psychiatrist philosopher is crucial – is to ask ourselves what does it mean to take on adult responsibility. And that means to understand that **in all political action it’s not about you**. **It is what you are doing for a world you may not even be able to understand**. Now that becomes tricky, because how do we know this? **People have done it before**. There were people, for instance, who fought anti-colonial struggles, there are people (and now I am not talking about like thirty or forty years ago, I am talking about the people from day one 17th 18th century all the way through) and we have no idea what we are doing for the 22nd century. And **this is where developing political insight comes in.** Because **we commit the error of forgetting the systems we are talking about are human systems**. They are not systems in the way we talk about the laws of physics. A human system can only exist by human actions maintaining them. **Which means every human system is incomplete.** **Every human being is by definition incomplete**. Which means you can go this way or you can go another way. The system isn’t actually closed.

#### Optimism is good for black health – stats prove generational advancements which takes out their time is non-linear arguments

**Graham 18** (Carol Graham; Leo Pasvolsky Senior Fellow at the Brookings Institution, a College Park Professor at the University of Maryland, and a Senior Scientist at Gallup, served as Vice President and Director of Governance Studies at Brookings, A.B. from Princeton University, an M.A. from The Johns Hopkins School of Advanced International Studies, and a Ph.D. from Oxford University; 1/30/18; “Why are black poor Americans more optimistic than white ones?”; <https://www.brookings.edu/articles/why-are-black-poor-americans-more-optimistic-than-white-ones/>; accessed 2/20/19)

America has seen a dramatic increase in the number of so-called “deaths of despair”. Caused by opioid addiction, alcohol or drug overdose and suicide, these deaths have hit middle-aged white people without a college education particularly hard. The trend is extensive enough to have driven up the overall mortality rate, with the U.S. in the unusual position of being a rich country where life expectancy is falling rather than going up. Amid all this is a perhaps unexpected reality—the people who are **most optimistic** about their future are the most disadvantaged: poor **black Americans**, who are even slightly more optimistic than rich black people. And by poor, we mean a household of four earning less than $24,000 (£16,800) per year, which is effectively the official U.S. poverty line. Very different outlooks are revealed when black and white people are asked about their wellbeing. To measure the differences, we use an 11-point scale, where 0 is desperate and 10 is very optimistic.On this scale, black people are, on average, 1.1 points higher on the optimism scale than white people are. Black people on average score above 8, while the average for white people is 7. The gap across poor black people and poor white people is even larger, at 1.4 points. That is a significant gulf—greater than the difference between rich and poor people, which is 0.6 points. The average score for rich people is 7.5, while for poor people it is 6.9. The starkest disparity is found in the detail that poor black people are almost three times as likely to be a point higher on the optimism scale than poor white people. And poor **black people** are **half as likely to report** **experiencing stress** the previous day **than** poor **white people**. Desperation, **stress**, and worry are closely **linked to** a greater risk of **premature death**, regardless of income or race. People with **low levels of optimism** and high levels of stress and worry are more likely to **die** from deaths of despair, or to live in areas with high levels of such deaths. The link is strongest for poor white people without a college education, especially those who live in rural areas. Of course, this relationship can run both ways. Desperation can lead to premature death,but living in an area where many such deaths occur can itself be a potential cause of lack of hope, stress, and worry. The link between **optimism and longevity is strong**. Among Americans born between 1935 and 1945, those who reported higher levels of optimism as young adults were much more likely to be alive in 2015 than less optimistic people. We found that 86 percent of pessimists died by 2015, while only 77 percent of the optimists did. The explanations for these trends are complex, but economics and ambition play a part. For many years, blue-collar white people had some advantages over minorities, but they are now among the most disaffected parts of society and the most vulnerable to deaths of despair. Crucially, they are much more likely to report that their lives are worse than those of their parents and, in terms of stable employment and status, that is often the case. In contrast, black and Hispanic people are more likely to report that their lives are better than their parents’ lives. While disadvantage and discrimination still exist, minorities have been making **gradual progress** in narrowing gaps with white people in terms of their education, wages, and life expectancy. Some of this is because of **concrete gains** made by those communities. But much of the improvement is due to the relative decline in the incomes and status of poor white people—a trend associated with the hollowing-out of blue-collar jobs, which are decreasing in both number and stability at the same time as the market for high-skilled labor continues to prosper and grow.

#### Anti-Humanism is a theoretical shortcut to elide analysis of alternative visions of freedom – strategically deploying humanism is necessary for political struggle

**Wilder 16** [(Gary, Gary Wilder works on the French empire, colonial states, historical anthropology, and social/political theory, with a focus on western Africa, the Antilles, and Europe. He is the author of The French Imperial Nation-State: Negritude and Colonial Humanism between the Two World Wars (2005), which traces empire-wide networks of science, administration, public opinion, and literature that linked colonial reformers in French West Africa to a black public sphere in Paris. His current research project, “Freedom Time: Negritude, Decolonization, Utopia,” examines post–World War II initiatives by African and Caribbean legislators to reconstitute France as a postcolonial federal democracy. Wilder was awarded a Mellon Foundation New Directions Fellowship, only one of ten awarded nationally in 2006, which allowed him to spend a year as a Visiting Fellow at the Human Rights Program of Harvard Law School. He holds a joint Ph.D. in anthropology and history from the University of Chicago and came to the Graduate Center from Pomona College in Fall 2009.) "Here/Hear Now Aimé Césaire!," South Atlantic Quarterly, 7/2016] TDI  
These key terms illuminate crucial aspects of what made Césaire a distinc- tive thinker whose critical voice may continue to resonate for us today. But in order to attend to Césaire as he did his predecessors—as a contemporary— we should recognize how his intellectual orientation and insights brush against the grain of many current theoretical tendencies. In both critical theory and postcolonial studies, the standard operation is to unmask pur- portedly universal categories as socially constructed, culturally particular, and implicated in practices, systems, and logics of domination. These are indispensable critical moves. But this approach often devolves into a hunt for traces of universalism or humanism, whether in textual artifacts or political projects, in order to reveal the regressive or oppressive essence of the object. **This “aha” moment thus becomes the punch line of the discussion rather than the starting point for analysis.** Such fears of complicity with power do not only belie a longing for intellectual and political purity. **They also make it difficult to think dialectically, to identify aspects of given arrangements that may point beyond their actually existing forms.** The current insistence on negative critique also makes scholars **reluc- tant to identify desirable alternatives** and specify the kind of world they might want to create. But what do we concede if we are unable or unwilling to risk affirming more just, more human, ways of being to which we can say “yes”? It is not easy for radical thinkers to reconcile a nonprescriptive orienta- tion to a radically open future with the imperative to envision more desirable arrangements (Coronil 2011). But **ignoring or deferring the challenge does not make it disappear**. Following anticolonial thinkers like Césaire, espe- cially those located within the black Atlantic critical tradition, may remind us **not to forfeit categories such as freedom, justice, democracy, solidarity, and humanity** to the dominant actors who have instrumentalized and degraded them. Given this dilemma, the attention paid to Vivek Chibber’s recent polemic against subaltern studies is not surprising. Such attention, however, seems to be less about the merits of his universalist Marxism than about a sense of some of the limitations and impasses into which certain currents of postcolonial thinking have led (Chibber 2013).7 Partha Chatterjee himself has recently written, “The task, as it now stands, cannot . . . be taken forward within the framework of the concepts and methods mobilized in Subaltern Studies . . . what is needed are new projects” (2012a: 44). He suggests that such projects should probably focus on “cultural history” and “popular cul- ture” with a renewed focus on visual materials and embodied practices rather than written texts and on ethnography rather than intellectual his- tory. Moreover, he links this invitation to study “the ethnographic, the practi- cal, the everyday and the local” to a focus on subnational “regional forma- tions” and “minority cultures” and languages whose specificities, he observes, had not been sufficiently engaged by earlier subaltern studies research on “India,” “Pakistan,” or “Bangladesh” (47–49). Valuable as such studies would surely be, it is not clear how a renewed focus on locality, with place-based assumptions about territory, consciousness, and categories, could do the kind of critical work necessary to grasp the deep shifts in politi- cal logics, structures, and practices that characterize the world-historical present. On the contrary, such approaches risk reproducing precisely the culturalist and territorialist assumptions about political identification and affiliation that need to be rethought in light of contemporary conditions.8 Chatterjee’s surprising emphasis on local ethnography seems consis- tent with one trend in postcolonial thinking that risks reviving the types of civilizational thinking, and associated assumptions about origins and authenticity, that it had earlier set out to dismantle (Chakrabarty 2007; Mah- mood 2005; Mignolo 2011). Consider the important ways that Talal Asad has invited us to rethink liberal assumptions about “tradition,” with respect to liberal and nonliberal forms of life. In dialogue with Ludwig Wittgenstein and Alasdair MacIntyre, Asad (1986) has developed a powerful critique of liberal secularism—and the secularist logic that subtends many modern lib- eral states—from the standpoint of embodied and discursive traditions. On the one hand, he reminds us that “Islamic tradition” is neither singular nor unchanging; it is a structured and dynamic space for reasoned argument. On the other hand, he reminds us that despite liberalism’s claims to post- traditional neutrality, it too constitutes a particular tradition (albeit one that defines itself in opposition to inherited, embodied, and practice-oriented forms of tradition-based reasoning). Asad’s genealogical insights have rightly informed recent critiques of Western liberal ideologies, states, and politics especially regarding their arro- gant, condescending, and violent responses to tradition-rooted practices and practitioners, whether outside or inside the West. But his interventions, how- ever unintentionally, have also led scholars to establish dubious chains of equivalence between modernity, the West, and liberalism. Such operations seem to disregard Asad’s important invitation to understand traditions as capacious, heterogeneous, and dynamic spaces of inquiry, disputation, and revision, not simply as a set of rigid behavioral scripts, unchanging cultural formulas, or dogmatic ideological precepts. This reduction of political moder-nity to a one-dimensional liberalism obscures, for example, the many currents of progressive antiliberalism within the tradition of modern Western political thought. It fails to recognize the significant number of non-European colonial intellectuals engaged in anti-imperial struggles who were active participants in such “traditions within traditions.” It also disregards the contradictions within and redeemable fragments of even liberal political thinking, fragments that, if realized, might point far beyond, and possibly explode, liberalism itself. To reify modern or Western politics into a static and stereotypical liber- alism is to risk practicing an unfortunate form of “Occidentalism” that would reinforce archaic civilizational assumptions about incommensurable and unrelated worlds (and worldviews) and disregard the actual history and open possibilities for practices of cross-cultural solidarity whereby anti- imperial actors outside Europe could enter into dialogue or affiliate with, or even discover ways that they are already situated within, counterhegemonic “Western” political traditions. Critics have rightly mobilized singularity, incommensurability, or untranslatability against liberal attempts to discover an abstract humanity and thereby discount situated and embodied forms of life. But the question is whether we treat incommensurability or untranslat- ability as an epistemological or political limit or as an always imperfect start- ing point for practices of dialogue, coordination, affiliation, reciprocity, soli- darity. For isn’t the impossibility of full transparency or undifferentiated unity simply the unavoidable condition within which all communication, sociality, and politics must be attempted?9 **My point is not to congratulate dissident currents within the West**, let alone to recuperate liberalism. It is rather to approach radical and emancipa- tory politics from a place of not-already-knowing, of not presuming to know a priori which aspects of a tradition are irredeemable, which traditions may become allies or habitations, what the boundaries of (thoroughly plastic) tra- ditions must be. This **nondogmatic** and **experimental orientation to politics**, traditions, and concepts is one of the most precious and timely gifts that Césaire may offer to us now. He practiced a concrete cosmopolitan relation- ship to modern traditions of philosophy, aesthetics, and politics, one that was highly developed by the robust tradition of black Atlantic criticism within which he was firmly rooted along with predecessors (e.g., Toussaint and W. E. B. DuBois), contemporaries (e.g., C. L. R. James, James Baldwin, Suzanne Césaire, Senghor), and descendants (e.g., Fanon, Edouard Glissant, Stuart Hall, Paul Gilroy, Achille Mbembe, David Scott). Understandable concerns about totalizing explanation and Eurocentric evaluation have led a generation of scholars to insist on the incommensurable alterity of non-European forms of thought. But perhaps we should be con- cerned less exclusively with unmasking universalisms as covert European particularism than with also **challenging the assumption that the univer- sal is European property**. I read Césaire not in order to provincialize Euro- pean concepts but to deprovincialize Antillean thinking. Césaire’s critical reworkings remind us that the supposedly **European categories of political modernity properly belong as much to the African and Caribbean actors who coproduced them** as to the inhabitants of continental Europe. Similarly, Afri- can and Caribbean thinkers, no less than their continental counterparts, produced abstract and general propositions about “humanity,” “history,” and “the world.” In contrast to invocations of multiple modernities, Césaire **never granted to Europe possession of a modernity or universality or humanity** that was always already translocal and fundamentally Caribbean. He never treated self-determination, emancipation, freedom, equality, or justice as essentially European and foreign. Césaire’s intellectual and political inter- ventions radically challenged reductive territorialist approaches to social thought. He refused to concede that “France” was an ethnic or continental entity, that Martinique was not in some real way internal to “French” society and politics, or that he was situated outside of modern critical traditions. Thus his ongoing and unapologetic engagements with Hegel, Marx, Proud- hon, Nietzsche, Lautréamont, Rimbaud, Mallarmé, Bergson, Freud, Breton, Frobenius, and Lenin, alongside his many African, Antillean, and African American interlocutors. The sonic blurring between “here” and “hear” in the title of this essay is meant to signal not only the contemporaneity of Césaire’s thought for us here now but the imperative that we open ourselves to his presence and recognize his actuality across the epochal divide by hearing what he actually said. This gesture builds on Walter Benjamin’s insight that every now is a “now of rec- ognizability” whereby “what has been comes together in a flash with the now to form a constellation” through which past epochs become newly legible (1999: 462). I also follow Césaire himself, who engaged in dialogue with pre- decessors as if they were contemporaries and who addressed future interlocu- tors directly as if they were already present. Like Benjamin, Césaire practiced a form of radical remembrance that connected outmoded pasts to charged presents. This attention to vital histories was bound up with a poetic politics that identified transformative possibilities dwelling within existing arrange- ments and a proleptic politics that anticipated seemingly impossible futures by trying to enact them concretely in the here and now. But Césaire can only speak to us now if we listen rather than presume to know what someone like him in his situation must have, or should have, been saying. Until very recently, scholarship on his work has been overdetermined by methodological nationalism (that puzzles over his refusal to pursue state sovereignty), identitarian culturalism (that debates how adequately Césaire expressed Antillean lived experience and whether or not he was an essential- ist), and a disciplinary division of labor (that too often splits his poetry, criti- cism, and politics into separate domains). Generally, Cold War scholarship was shaped by a need to evaluate him in relation to canonical anticolonial nationalists and fit him into a narrative of decolonization-as-national-inde- pendence. This has made it difficult to recognize the epochal character, world-making ambition, and global sensibility of his political reflections. Faced with the promise of decolonization, Césaire conjugated concrete acts with political imagination in ways that displaced conventional opposi- tions between aesthetics and politics, realism and utopia, pragmatism and principle. Such efforts were animated by what I have been calling radical lit- eralism and utopian realism and which he called inflection and poetic knowledge. He regarded freedom as a problem whose institutional solution was not self-evident and could only be situational. His interventions demon- strated the nonnecessary relationship between colonial emancipation, popu- lar sovereignty, and self-determination, on the one hand, and territorial state sovereignty and national liberation, on the other. He pursued cosmopolitan aims concretely through transcultural practices and by attempting to invent new political forms through which to ground plural and postnational demo- cratic arrangements. We should recognize that Césaire formulated a critique not of Western civilization from the standpoint of African or Antillean culture but of modern Western racism, imperialism, and capitalism from the standpoint of Antil- lean and African historical situations and experiences. More generally, it was a critique of an alienated and alienating modernity from the standpoint of embodied and poetic ways of being, knowing, and relating (to self, others, and world). Above all, Césaire recognized residues of, and resources for, more just, human, and integrated ways of living together within Antillean, African, and European texts, traditions, forms, histories, and conditions. In his view, Antilleans—as culturally particular actors, imperial subjects, New World denizens, moderns, and humans—were their rightful heirs. He was con- cerned less with defining culturally authentic concepts, spaces, and arrange- ments for Antilleans (apart from Europe or uncontaminated by modernity) than with overcoming imperialism, in solidarity with other struggling peo- ples, in order to establish less alienated forms of human life globally. Remembering Césaire’s insistence that modern currents of radicalism were shared legacies and common property may help us to rethink inherited assumptions about the relation between territory, ethnicity, consciousness, and interest (Buck-Morss 2009, 2010). They invite us to deterritorialize social thought and to decolonize intellectual history. **This is a matter not of valoriz- ing non-European forms of knowledge**, as important as such a move certainly is, but of **questioning the presumptive boundaries of “Europe” itself**—by rec- ognizing the larger scales on which modern social thought was forged and of appreciating that colonial societies produced self-reflexive thinkers concerned with large-scale processes and future prospects. We can thereby recognize Césaire as a situated postwar thinker of the postwar world, one of whose pri- mary aims was to place into question the very categories “France,” “Europe,” and “the West” by way of an immanent critique of late imperial politics. He envisioned postnational arrangements through which humanity could attempt to overcome the alienating antinomies that had impoverished the quality of life in overseas colonies and European metropoles. **His situated humanism and concrete cosmopolitanism should thus be placed in a constel- lation of modern emancipatory thinking oriented toward worldwide human freedom that included antiracist, anti-imperial, internationalist, and socialist thinkers from a range of traditions**: black Atlantic, First Internationalist, global anarchist, Western Marxist, Marxist humanist, Third Worldist.

## K – Afropess (Warren)

#### Framework---the K must prove the whole plan is bad---weighing the aff is vital to fair and educational engagement – outweighs because clash is the only unique form of edu prefer

#### a) Fairness---they moot the 1AC which makes it impossible to engage them since we’re always one step behind

#### b) Plan focus good it’s key to education---it’s predictable, stable and they can’t reject the entirety of the 1AC for one bad part

#### Floating PIK’s are a voting issue – They moot the entirety of the 1AC and skirt engagement – It’s not predictable because debaters sift through literally hundreds of thousands of words in hundreds of cards per topic.

#### Extinction outweighs – we have no way of knowing whether structural conditions will be the same thousands of years in the future but extinction forecloses any ability for marginal improvements to be made.

#### Permutation do both – The alternative isn’t incommensurate with the plan. The alt is a way of looking at the world, NOT a material action that acts to resolve all anti-blackness.

## K – Buddhism

#### Framework---the K must prove the whole plan is bad---weighing the aff is vital to fair and educational engagement – outweighs because clash is the only unique form of edu prefer

#### a) Fairness---they moot the 1AC which makes it impossible to engage them since we’re always one step behind

#### b) Plan focus good it’s key to education---it’s predictable, stable and they can’t reject the entirety of the 1AC for one bad part

#### Extinction outweighs – we have no way of knowing whether structural conditions will be the same thousands of years in the future but extinction forecloses any ability for marginal improvements to be made.

#### Permutation do both – The alternative isn’t incommensurate with the plan. The alt is a way of looking at the world, NOT a material action that resolves their impact.

#### Floating PIK’s are a voting issue – They moot the entirety of the 1AC and skirt engagement – It’s not predictable because debaters sift through literally hundreds of thousands of words in hundreds of cards per topic.

#### You can’t vote neg unless you’ve experienced Buddhism as being true

Buddhists Against Reincarnation No Date (<http://www.buddhistsagainstreincarnation.com/>, RBatra)

The Buddha clearly asked his followers not to believe things simply because he said them or they are stated in religious texts **but because you have experience of them being true** (Kalama Sutta). It follows therefore that there should be no pressure on the Buddhist to believe in reincarnation – from others or from within themselves. Reincarnation is not one of the 4 noble truths and does not feature in the 8 fold path or Meditation.

#### Reincarnation is false—the idea that it’s true misrepresents the Buddha and fails to convince others that Buddhism is good

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This site is dedicated to encouraging open free debate and thought on the issue of reincarnation (a term used here to mean ‘Rebirth’at the point of death). We would like to make the following points derived from human experience.

1. Hear no evil, see no evil, speak no evil

It is true that some might gain significant reassurance from a belief in reincarnation and we should be sympathetic to this. People who need a belief will tend to defend it by ceasing to listen, switching attention, or being distracted by irritation and contempt. Hopefully they will not be harmed by this site. Perhaps they would choose not to read further.

2. Seeing is believing

To hold untrue beliefs has unpleasant side effects. Irrational beliefs are often in conflict with rational ones and this causes tension and suffering to the believer (Festinger Cognitive Dissonance Theory in psychology). ‘We learn things with great certainty through directly experiencing them via the senses.’- This human belief is in conflict with a belief in reincarnation (which few believers would claim to have any direct experience or evidence of). **As there is no physical evidence for reincarnation there is little reason to believe in it.**

3. Throwing the baby out with the bathwater

Human beings have a tendency to reject a group of associated ideas (as in the case of Buddhism) if they find just one of these ideas to be untrue. This means that intelligent people might reject Buddhism on the basis of their strong reasonable disbelief in reincarnation. This would be unfortunate.

4. ‘It’s not a religion’

Buddhism is not a religion yet it strays away from human observation into ‘spiritual’ territories when it deals with reincarnation and the human soul. It therefore puts itself in conflict with other religions which may disagree that, for example, a human might come back as a goat after death. As a result many religious people may not contemplate Buddhist beliefs simply because of its association with reincarnation. This is unfortunate as they may benefit from Buddhist ideas and practices.

5. ‘Grasping’

A belief in rebirth can encourage thoughts and desires of surviving death. This grasping tendency leads to suffering (see 4 noble truths below).

6. Buddhism is subtle

The rebirth can be seen as metaphorical. Every day and every moment we change and are ‘reborn' as the contents of our bodies, thought, memories and feelings change. In fact after 7 years there is very little original material left in a human. Most has been replaced. Buddhism is subtle but its simplified expression can be misleading.

7. The Messenger and the Message

The message of Buddha was carried orally for a 100 years before being written down. It is unlikely to have remained unaltered in that time due to the limitations of human nature, intellect and memory. It should also be remembered that Buddha was a human being and was therefore able to be wrong as well as right about intellectual matters including Rebirth of consciousness at the point of death.

**Buddha appears to Reject the concept of Reincarnation**

‘There is rebirth of character,

**but no transmigration of self.**

Thy thought-forms reappear,

But there is no egoentity transferred.

The stanza uttered by a teacher

is reborn in the scholar who repeats the words.’ (9)

‘Thy self to which though cleavest is a constant change.

Years ago thou wast a small babe;

Then, thou wast a boy;

Then a youth, and now, thou art a man.

Is there an identity of the babe and the man?

There is an identity in a certain sense only.

Indeed there is more identity between the flames

of the first watch and the third watch,

even though the lamp might have been extinguished

during the second watch’ (57) .

#### Realism is inevitable—justifies our epistemology and takes out the alternative

**de Araujo,** professor for Ethics at Universidade do Estado do Rio de Janeiro, **14**

(Marcelo, “Moral Enhancement and Political Realism,” Journal of Evolution and Technology 24(2): 29-43)

Some moral enhancement theorists argue that a society of morally enhanced individuals would be in a better position to cope with important problems that humankind is likely to face in the future such as, for instance, the threats posed by climate change, grand scale terrorist attacks, or the risk of catastrophic wars. The assumption here is quite simple: our inability to cope successfully with these problems stems mainly from a sort of deficit in human beings’ moral motivation. If human beings were morally better – if we had enhanced moral dispositions – there would be fewer wars, less terrorism, and more willingness to save our environment. Although simple and attractive, this assumption is, as I intend to show, false. At the root of threats to the survival of humankind in the future is not a deficit in our moral dispositions, but the endurance of an old political arrangement that prevents the pursuit of shared goals on a collective basis. The political arrangement I have in mind here is the international system of states. In my analysis of the political implications of moral enhancement, I intend to concentrate my attention only on the supposition that we could avoid major wars in the future by making individuals morally better. I do not intend to discuss the threats posed by climate change, or by terrorism, although some human enhancement theorists also seek to cover these topics. I will explain, in the course of my analysis, a conceptual distinction between “human nature realism” and “structural realism,” well-known in the field of international relations theory. Thomas Douglas seems to have been among the first to explore the idea of “moral enhancement” as a new form of human enhancement. He certainly helped to kick off the current phase of the debate. In a paper published in 2008, Douglas suggests that in the “future people might use biomedical technology to morally enhance themselves.” Douglas characterizes moral enhancement in terms of the acquisition of “morally better motives” (Douglas 2008, 229). Mark Walker, in a paper published in 2009, suggests a similar idea. He characterizes moral enhancement in terms of improved moral dispositions or “genetic virtues”: The Genetic Virtue Program (GVP) is a proposal for influencing our moral nature through biology, that is, it is an alternate yet complementary means by which ethics and ethicists might contribute to the task of making our lives and world a better place. The basic idea is simple enough: genes influence human behavior, so altering the genes of individuals may alter the influence genes exert on behavior. (Walker 2009, 27–28) Walker does not argue in favor of any specific moral theory, such as, for instance, virtue ethics. Whether one endorses a deontological or a utilitarian approach to ethics, he argues, the concept of virtue is relevant to the extent that virtues motivate us either to do the right thing or to maximize the good (Walker 2009, 35). Moral enhancement theory, however, does not reduce the ethical debate to the problem of moral dispositions. Morality also concerns, to a large extent, questions about reasons for action. And moral enhancement, most certainly, will not improve our moral beliefs; neither could it be used to settle moral disagreements. This seems to have led some authors to criticize the moral enhancement idea on the ground that it neglects the cognitive side of our moral behavior. Robert Sparrow, for instance, argues that, from a Kantian point of view, moral enhancement would have to provide us with better moral beliefs rather than enhanced moral motivation (Sparrow 2014, 25; see also Agar 2010, 74). Yet, it seems to me that this objection misses the point of the moral enhancement idea. Many people, across different countries, already share moral beliefs relating, for instance, to the wrongness of harming or killing other people arbitrarily, or to the moral requirement to help people in need. They may share moral beliefs while not sharing the same reasons for these beliefs, or perhaps even not being able to articulate the beliefs in the conceptual framework of a moral theory (Blackford 2010, 83). But although they share some moral beliefs, in some circumstances they may lack the appropriate motivation to act accordingly. Moral enhancement, thus, aims at improving moral motivation, and leaves open the question as to how to improve our moral judgments. In a recent paper, published in The Journal of Medical Ethics, neuroscientist Molly Crockett reports the state of the art in the still very embryonic field of moral enhancement. She points out, for example, that the selective serotonin reuptake inhibitor (SSRI) citalopram seems to increase harm aversion. There is, moreover, some evidence that this substance may be effective in the treatment of specific types of aggressive behavior. Like Douglas, Crockett emphasizes that moral enhancement should aim at individuals’ moral motives (Crockett 2014; see also Spence 2008; Terbeck et al. 2013). Another substance that is frequently mentioned in the moral enhancement literature is oxytocin. Some studies suggest that willingness to cooperate with other people,and to trust unknown prospective cooperators, may be enhanced by an increase in the levels of oxytocin in the organism (Zak 2008, 2011; Zak and Kugler 2011; Persson and Savulescu 2012, 118–119). Oxytocin has also been reported to be “associated with the subjective experience of empathy” (Zak 2011, 55; Zak and Kugler 2011, 144). The question I would like to examine now concerns the supposition that moral enhancement – comprehended in these terms and assuming for the sake of argument that, some day, it might become effective and safe – may also help us in coping with the threat of devastating wars in the future. The assumption that there is a relationship between, on the one hand, threats to the survival of humankind and, on the other, a sort of “deficit” in our moral dispositions is clearly made by some moral enhancements theorists. Douglas, for instance, argues that “according to many plausible theories, some of the world’s most important problems — such as developing world poverty, climate change and war — can be attributed to these moral deficits” (2008, 230). Walker, in a similar vein, writes about the possibility of “using biotechnology to alter our biological natures in an effort to reduce evil in the world” (2009, 29). And Julian Savulescu and Ingmar Persson go as far as to defend the “the need for moral enhancement” of humankind in a series of articles, and in a book published in 2012. One of the reasons Savulescu and Persson advance for the moral enhancement of humankind is that our moral dispositions seem to have remained basically unchanged over the last millennia (Persson and Savulescu 2012, 2). These dispositions have proved thus far quite useful for the survival of human beings as a species. They have enabled us to cooperate with each other in the collective production of things such as food, shelter, tools, and farming. They have also played a crucial role in the creation and refinement of a variety of human institutions such as settlements, villages, and laws. Although the possibility of free-riding has never been fully eradicated, the benefits provided by cooperation have largely exceeded the disadvantages of our having to deal with occasional uncooperative or untrustworthy individuals (Persson and Savulescu 2012, 39). The problem, however, is that the same dispositions that have enabled human beings in the past to engage in the collective production of so many artifacts and institutions now seem powerless in the face of the human capacity to destroy other human beings on a grand scale, or perhaps even to annihilate the entire human species. There is, according to Savulescu and Persson, a “mismatch” between our cognitive faculties and our evolved moral attitudes: “[…] as we have repeatedly stressed, owing to the progress of science, the range of our powers of action has widely outgrown the range of our spontaneous moral attitudes, and created a dangerous mismatch” (Persson and Savulescu 2012, 103; see also Persson and Savulescu 2010, 660; Persson and Savulescu 2011b; DeGrazie 2012, 2; Rakić 2014, 2). This worry about the mismatch between, on the one hand, the modern technological capacity to destroy and, on the other, our limited moral commitments is not new. The political philosopher Hans Morgenthau, best known for his defense of political realism, called attention to the same problem nearly fifty years ago. In the wake of the first successful tests with thermonuclear bombs, conducted by the USA and the former Soviet Union, Morgenthau referred to the “contrast” between the technological progress of our age and our feeble moral attitudes as one of the most disturbing dilemmas of our time: The first dilemma consists in the contrast between the technological unification of the world and the parochial moral commitments and political institutions of the age. Moral commitments and political institutions, dating from an age which modern technology has left behind, have not kept pace with technological achievements and, hence, are incapable of controlling their destructive potentialities. (Morgenthau 1962, 174) Moral enhancement theorists and political realists like Morgenthau, therefore, share the thesis that our natural moral dispositions are not strong enough to prevent human beings from endangering their own existence as a species. But they differ as to the best way out of this quandary: moral enhancement theorists argue for the re-engineering of our moral dispositions, whereas Morgenthau accepted the immutability of human nature and argued, instead, for the re-engineering of world politics. Both positions, as I intend to show, are wrong in assuming that the “dilemma” results from the weakness of our spontaneous moral dispositions in the face of the unprecedented technological achievements of our time. On the other hand, both positions are correct in recognizing the real possibility of global catastrophes resulting from the malevolent use of, for instance, biotechnology or nuclear capabilities. The supposition that individuals’ unwillingness to cooperate with each other, even when they would be better-off by choosing to cooperate, results from a sort of deficit of dispositions such as altruism, empathy, and benevolence has been at the core of some important political theories. This idea is an important assumption in the works of early modern political realists such as Machiavelli and Thomas Hobbes. It was also later endorsed by some well-known authors writing about the origins of war in the first half of the twentieth century. It was then believed, as Sigmund Freud suggested in a text from 1932, that the main cause of wars is a human tendency to “hatred and destruction” (in German: ein Trieb zum Hassen und Vernichtung). Freud went as far as to suggest that human beings have an ingrained “inclination” to “aggression” and “destruction” (Aggressionstrieb, Aggressionsneigung, and Destruktionstrieb), and that this inclination has a “good biological basis” (biologisch wohl begründet) (Freud 1999, 20–24; see also Freud 1950; Forbes 1984; Pick 1993, 211–227; Medoff 2009). The attempt to employ Freud’s conception of human nature in understanding international relations has recently been resumed, for instance by Kurt Jacobsen in a paper entitled “Why Freud Matters: Psychoanalysis and International Relations Revisited,” published in 2013. Morgenthau himself was deeply influenced by Freud’s speculations on the origins of war.1 Early in the 1930s, Morgenthau wrote an essay called “On the Origin of the Political from the Nature of Human Beings” (Über die Herkunft des Politischen aus dem Wesen des Menschen), which contains several references to Freud’s theory about the human propensity to aggression.2 Morgenthau’s most influential book, Politics among Nations: The Struggle for Power and Peace, first published in 1948 and then successively revised and edited, is still considered a landmark work in the tradition of political realism. According to Morgenthau, politics is governed by laws that have their origin in human nature: “Political realism believes that politics, like society in general, is governed by objective laws that have their roots in human nature” (Morgenthau 2006, 4). Just like human enhancement theorists, Morgenthau also takes for granted that human nature has not changed over recent millennia: “Human nature, in which the laws of politics have their roots, has not changed since the classical philosophies of China, India, and Greece endeavored to discover these laws” (Morgenthau 2006, 4). And since, for Morgenthau, human nature prompts human beings to act selfishly, rather than cooperatively, political leaders will sometimes favor conflict over cooperation, unless some superior power compels them to act otherwise. Now, this is exactly what happens in the domain of international relations. For in the international sphere there is not a supranational institution with the real power to prevent states from pursuing means of self-defense. The acquisition of means of self-defense, however, is frequently perceived by other states as a threat to their own security. This leads to the security dilemma and the possibility of war. As Morgenthau put the problem in an article published in 1967: “The actions of states are determined not by moral principles and legal commitments but by considerations of interest and power” (1967, 3). Because Morgenthau and early modern political philosophers such as Machiavelli and Hobbes defended political realism on the grounds provided by a specific conception human nature, their version of political realism has been frequently called “human nature realism.” The literature on human nature realism has become quite extensive (Speer 1968; Booth 1991; Freyberg-Inan 2003; Kaufman 2006; Molloy 2006, 82–85; Craig 2007; Scheuerman 2007, 2010, 2012; Schuett 2007; Neascu 2009; Behr 2010, 210–225; Brown 2011; Jütersonke 2012). It is not my intention here to present a fully-fledged account of the tradition of human nature realism, but rather to emphasize the extent to which some moral enhancement theorists, in their description of some of the gloomy scenarios humankind is likely to face in the future, implicitly endorse this kind of political realism. Indeed, like human nature realists, moral enhancement theorists assume that human nature has not changed over the last millennia, and that violence and lack of cooperation in the international sphere result chiefly from human nature’s limited inclination to pursue morally desirable goals. One may, of course, criticize the human enhancement project by rejecting the assumption that conflict and violence in the international domain should be explained by means of a theory about human nature. In a reply to Savulescu and Persson, Sparrow correctly argues that “structural issues,” rather than human nature, constitute the main factor underlying political conflicts (Sparrow 2014, 29). But he does not explain what exactly these “structural issues” are, as I intend to do later. Sparrow is right in rejecting the human nature theory underlying the human enhancement project. But this underlying assumption, in my view, is not trivially false or simply “ludicrous,” as he suggests. Human nature realism has been implicitly or explicitly endorsed by leading political philosophers ever since Thucydides speculated on the origins of war in antiquity (Freyberg-Inan 2003, 23–36). True, it might be objected that “human nature realism,” as it was defended by Morgenthau and earlier political philosophers, relied upon a metaphysical or psychoanalytical conception of human nature, a conception that, actually, did not have the support of any serious scientific investigation (Smith 1983, 167). Yet, over the last few years there has been much empirical research in fields such as developmental psychology and evolutionary biology that apparently gives some support to the realist claim. Some of these studies suggest that an inclination to aggression and conflict has its origins in our evolutionary history. This idea, then, has recently led some authors to resume “human nature realism” on new foundations, devoid of the metaphysical assumptions of the early realists, and entirely grounded in empirical research. Indeed, some recent works in the field of international relations theory already seek to call attention to evolutionary biology as a possible new start for political realism. This point is clearly made, for instance, by Bradley Thayer, who published in 2004 a book called Darwin and International Relations: On the Evolutionary Origins of War and Ethnic Conflict. And in a paper published in 2000, he affirms the following: Evolutionary theory provides a stronger foundation for realism because it is based on science, not on theology or metaphysics. I use the theory to explain two human traits: egoism and domination. I submit that the egoistic and dominating behavior of individuals, which is commonly described as “realist,” is a product of the evolutionary process. I focus on these two traits because they are critical components of any realist argument in explaining international politics. (Thayer 2000, 125; see also Thayer 2004) Thayer basically argues that a tendency to egoism and domination stems from human evolutionary history. The predominance of conflict and competition in the domain of international politics, he argues, is a reflex of dispositions that can now be proved to be part of our evolved human nature in a way that Morgenthau and other earlier political philosophers could not have established in their own time. Now, what some moral enhancement theorists propose is a direct intervention in our “evolved limited moral psychology” as a means to make us “fit” to cope with some possible devastating consequences from the predominance of conflict and competition in the domain of international politics (Persson and Savulescu 2010, 664). Moral enhancement theorists comprehend the nature of war and conflicts, especially those conflicts that humankind is likely to face in the future, as the result of human beings’ limited moral motivations. Compared to supporters of human nature realism, however, moral enhancement theorists are less skeptical about the prospect of our taming human beings’ proclivity to do evil. For our knowledge in fields such as neurology and pharmacology does already enable us to enhance people’s performance in a variety of activities, and there seems to be no reason to assume it will not enable us to enhance people morally in the future. But the question, of course, is whether moral enhancement will also improve the prospect of our coping successfully with some major threats to the survival of humankind, as Savulescu and Persson propose, or to reduce evil in the world, as proposed by Walker. V. The point to which I would next like to call attention is that “human nature realism” – which is implicitly presupposed by some moral enhancement theorists – has been much criticized over the last decades within the tradition of political realism itself. “Structural realism,” unlike “human nature realism,” does not seek to derive a theory about conflicts and violence in the context of international relations from a theory of the moral shortcomings of human nature. Structural realism was originally proposed by Kenneth Waltz in Man, the State and War, published in 1959, and then later in another book called Theory of International Politics, published in 1979. In both works, Waltz seeks to avoid committing himself to any specific conception of human nature (Waltz 2001, x–xi). Waltz’s thesis is that the thrust of the political realism doctrine can be retained without our having to commit ourselves to any theory about the shortcomings of human nature. What is relevant for our understanding of international politics is, instead, our understanding of the “structure” of the international system of states (Waltz 1986). John Mearsheimer, too, is an important contemporary advocate of political realism. Although he seeks to distance himself from some ideas defended by Waltz, he also rejects human nature realism and, like Waltz, refers to himself as a supporter of “structural realism” (Mearsheimer 2001, 20). One of the basic tenets of political realism (whether “human nature realism” or “structural realism”) is, first, that the states are the main, if not the only, relevant actors in the context of international relations; and second, that states compete for power in the international arena. Moral considerations in international affairs, according to realists, are secondary when set against the state’s primary goal, namely its own security and survival. But while human nature realists such as Morgenthau explain the struggle for power as a result of human beings’ natural inclinations, structural realists like Waltz and Mearsheimer argue that conflicts in the international arena do not stem from human nature, but from the very “structure” of the international system of states (Mearsheimer 2001, 18). According to Waltz and Mearsheimer, it is this structure that compels individuals to act as they do in the domain of international affairs. And one distinguishing feature of the international system of states is its “anarchical structure,” i.e. the lack of a central government analogous to the central governments that exist in the context of domestic politics. It means that each individual state is responsible for its own integrity and survival. In the absence of a superior authority, over and above the power of each sovereign state, political leaders often feel compelled to favor security over morality, even if, all other things being considered, they would naturally be more inclined to trust and to cooperate with political leaders of other states. On the other hand, when political leaders do trust and cooperate with other states, it is not necessarily their benevolent nature that motivates them to be cooperative and trustworthy, but, again, it is the structure of the system of states that compels them. The concept of human nature, as we can see, does not play a decisive role here. Because Waltz and Mearsheimer depart from “human nature realism,” their version of political realism has also sometimes been called “neo-realism” (Booth 1991, 533). Thus, even if human beings turn out to become morally enhanced in the future, humankind may still have to face the same scary scenarios described by some moral enhancement theorists. This is likely to happen if, indeed, human beings remain compelled to cooperate within the present structure of the system of states. Consider, for instance, the incident with a Norwegian weather rocket in January 1995. Russian radars detected a missile that was initially suspected of being on its way to reach Moscow in five minutes. All levels of Russian military defense were immediately put on alert for a possible imminent attack and massive retaliation. It is reported that for the first time in history a Russian president had before him, ready to be used, the “nuclear briefcase” from which the permission to launch nuclear weapons is issued. And that happened when the Cold War was already supposed to be over! In the event, it was realized that the rocket was leaving Russian territory and Boris Yeltsin did not have to enter the history books as the man who started the third world war by mistake (Cirincione 2008, 382).3 But under the crushing pressure of having to decide in such a short time, and on the basis of unreliable information, whether or not to retaliate, even a morally enhanced Yeltsin might have given orders to launch a devastating nuclear response – and that in spite of strong moral dispositions to the contrary. Writing for The Guardian on the basis of recently declassified documents, Rupert Myers reports further incidents similar to the one of 1995. He suggests that as more states strive to acquire nuclear capability, the danger of a major nuclear accident is likely to increase (Myers 2014). What has to be changed, therefore, is not human moral dispositions, but the very structure of the political international system of states within which we currently live. As far as major threats to the survival of humankind are concerned, moral enhancement might play an important role in the future only to the extent that it will help humankind to change the structure of the system of states. While moral enhancement may possibly have desirable results in some areas of human cooperation that do not badly threaten our security – such as donating food, medicine, and money to poorer countries – it will not motivate political leaders to dismantle their nuclear weapons. Neither will it deter other political leaders from pursuing nuclear capability, at any rate not as long as the structure of international politics compels them to see prospective cooperators in the present as possible enemies in the future. The idea of a “structure” should not be understood here in metaphysical terms, as though it mysteriously existed in a transcendent world and had the magical power of determining leaders’ decisions in this world. The word “structure” denotes merely a political arrangement in which there are no powerful law-enforcing institutions. And in the absence of the kind of security that law-enforcing institutions have the force to create, political leaders will often fail to cooperate, and occasionally engage in conflicts and wars, in those areas that are critical to their security and survival. Given the structure of international politics and the basic goal of survival, this is likely to continue to happen, even if, in the future, political leaders become less egoistic and power-seeking through moral enhancement. On the other hand, since the structure of the international system of states is itself another human institution, there is no reason to suppose that it cannot ever be changed. If people become morally enhanced in the future they may possibly feel more strongly motivated to change the structure of the system of states, or perhaps even feel inclined to abolish it altogether. In my view, however, addressing major threats to the survival of humankind in the future by means of bioengineering is unlikely to yield the expected results, so long as moral enhancement is pursued within the present framework of the international system of states.

## K – Cap

#### Framework---the K must prove the whole plan is bad---weighing the aff is vital to fair and educational engagement – outweighs because clash is the only unique form of edu prefer

#### a) Fairness---they moot the 1AC which makes it impossible to engage them since we’re always one step behind

#### b) Plan focus good it’s key to education---it’s predictable and stable and they can’t reject the entirety of the 1AC for one bad part

#### Floating PIK’s are a voting issue – They moot the entirety of the 1AC and skirt engagement – It’s not predictable because debaters sift through literally hundreds of thousands of words in hundreds of cards per topic.

#### Case outweighs – the 1AC prevents the mass extinction of the human race. Even if capitalism happens the revolt is impossible and useless absent a population to revolt and be saved.

#### Permutation Double Bind- Do the alternative in all instances except for the aff. The alternative should either be able to overcome one tiny instance of capitalism or it can’t solve for capitalism at all.

#### The alt can’t solve warming – individual action isn’t pragmatic and only market forces spur the innovation that rights the ship

**Wagner and Weitzman 15** - Research associate at Harvard’s School of Engineering and Applied Sciences, lecturer on Environmental Science and Public Policy, and Fellow at the Harvard University Center for the Environment, PhD in political economy and government from Harvard; Professor of Economics at Harvard University, fellow of the Econometric Society and the American Academy of Arts and Sciences

(Gernot and Martin, “Climate Shock”, April 2015, Princeton University Press)

It would be easy to conclude that economics—capitalism—is the problem. Economic is indeed at the core of the problem. Or rather: misguided market forces are. One seeming solution then would be to simply change our ways. If only we slowed down, went back to the land, and generally did more with less, climate change would be a thing of the past. Not quite. Most would like to spend more time with our families frolicking in fields of green and less time tied to our desks. But that's clearly not enough. The math on voluntary action simply doesn't add up. And the calculus of changing capitalism as we know it—however desirable that may be as an independent goal—is daunting, to say the least. It also confuses the issue. Some, like activist author Naomi Klein, call for ''taxing the rich and filthy" That's a nice turn of phrase. One might agree that we probably should be taxing the rich more. But that's a different problem entirely. First and foremost, we ought to be taxing the filthy. Instead of "sticking it to the man," the point is to **stick it to carbon**. Far from posing a fundamental problem to capitalism, it's **capitalism with all its innovative and entrepreneurial powers that is our only hope of steering clear** of the looming climate shock. That's **not a call for letting markets run free**. Laissez-faire may sound good with the right French accent—in theory. But it can't work in a situation where prices don't reflect the true costs of our actions. Unbridled human drive—erroneously bridled drive, really—is what has gotten us into this current predicament. **Properly channeled human drive and ingenuity**, guided by a high enough price on carbon to reflect its true cost to society, is our best hope for getting us out. Only then can we afford the luxury of talking about what would truly be an ethical solution: for carbon pollution to go the way of child labor and slavery—something to be avoided on purely moral grounds. Kick out the economists, and call in the priests, imams, rabbis, or your favorite nondenominational philosopher. Just not quite yet. Moving to the moral high ground requires having high ground left that's not yet inundated by rising sea levels. That, in turn, requires taking the economics seriously.

#### Link turn – The plan turns capitalist consumption against itself collapsing the material mindset surrounding energy.

#### Their cap causes warming card says b/c no incentive to switch—AC provides the incentive

#### Capitalism is sustainable and self-correcting---they can’t solve

**Seabra 12** (Leo, has a background in Communication and Broadcasting and a broad experience which includes activities in Marketing, Advertising, Sales and Public Relations, 2/27, “Capitalism can drive Sustainability and also innovation,” http://seabraaffairs.wordpress.com/2012/02/27/capitalism-can-drive-sustainability-and-also-innovation/)

There are those who say that if the world does not change their habits, even the end of economic growth, and assuming alternative ways of living, will be a catastrophe. “Our lifestyles are unsustainable. Our expectations of consumption are predatory.Either we change this, or will be chaos”. Others say that the pursuit of unbridled economic growth and the inclusion of more people in consumption is killing the Earth. We have to create alternative because economic growth is pointing to the global collapse. “What will happen when billions of Chinese decide to adopt the lifestyle of Americans?” I’ll disagree if you don’t mind… **They might be** wrong. **Completely wrong** .. Even very intelligent people wrongly interpret the implications of what they observe when they lose the perspective of time. In the vast scale of time (today, decades, not centuries) it is the opposite of what expected, because they start from a false assumption: the future is the extrapolation of this. But not necessarily be. How do I know? Looking at history. What story? The history of innovation, this thing generates increases in productivity, wealth, quality of life in an unimaginable level. It is innovation that will defeat pessimism as it always did. It was innovation that made life today is incomparably better than at any other time in human history. And will further improve. Einstein, who was not a stupid person, believed that capitalism would generate crisis, instability, and growing impoverishment. He said: “The economic anarchy of capitalist society as it exists today is, in my opinion, the true source of evil.” The only way to eliminate this evil, he thought, was to establish socialism, with the means of production are owned by the company. A centrally controlled economy would adjust the production of goods and services the needs of people, and would distribute the work that needed to be done among those in a position to do so. This would guarantee a livelihood to every man, women and children. Each according to his possibilities. To each according to their needs. And guess what? What happened was the opposite of what Einstein predicted. Who tried the model he suggested, impoverished, screwed up. Peter Drucker says that almost of all thinking people of the late nineteenth century thought that Marx was right: there would be increased exploitation of workers by employers. They would become poorer, until one day, the thing would explode. Capitalist society was considered inherently unsustainable. It is more or less the same chat today. **Bullshit. Capitalism, with all appropriate regulations, self-**corrects. It is **an adaptive system that learns and changes by design. The design is just for the system to learn and change.** There was the opposite of what Einstein predicted, and held the opposite of what many predict, but the logic that “unlike” only becomes evident over time. It wasn’t obvious that the workers are those whom would profit from the productivity gains that the management science has begun to generate by organizing innovations like the railroad, the telegraph, the telephone .. to increase the scale of production and cheapen things. The living conditions of workers today are infinitely better than they were in 1900. They got richer, not poorer .. You do not need to work harder to produce more (as everyone thought), you can work less and produce more through a mechanism that is only now becoming apparent, and that brilliant people like Caetano Veloso still ignores. The output is pursuing growth through innovation, growth is not giving up. More of the same will become unsustainable to the planet, but most of it is not what will happen, will happen more different, than we do not know what is right. More innovative. Experts, such as Lester Brown, insist on statements like this: if the Chinese also want to have three cars for every four inhabitants, as in the U.S. today, there will be 1.1 billion cars there in 2030, and there is no way to build roads unless ends with the whole area used for agriculture. You will need 98 million barrels of oil per day, but the world only produces about 90 million today, and probably never produce much more. The mistake is to extrapolate today’s solutions for the future. We can continue living here for 20 years by exploiting the same resources that we explore today? Of course not. But the other question is: how can we encourage the stream of innovations that will enable the Chinese, Indians, Brazilians, Africans .. to live so as prosperous as Americans live today? Hey, wake up … what can not stop the engine of innovation is that the free market engenders. This system is self correcting, that is its beauty. We do not need to do nothing but ensure the conditions for it to work without distortion. The rest he does himself. It regulates itself.

#### Growth gets us off the rock – solves inevitable extinction and sustainability

**Ashworth, ’10** (Stephen Ashworth is a long-standing Fellow of the British Interplanetary Society. He works in academic publishing in the Voltaire Foundation, part of Oxford University – Towards the Sociology of the Universe, part 2 – 18 December 2010 – http://www.astronist.demon.co.uk/space-age/essays/Sociology2.html)

**There are thus two** plausible **end-points to our current phase of growth**: **collapse back to a pre-industrial level** (the supernova burns out), **or continued growth** taking us onto a sustainable level of technological maturity (the baby grows up). **The difference between these two** future **courses is immense**. In terms of population, **the carrying capacity of Earth** for human populations **is greater than the current 6 or 7 billion, but not very much** so, perhaps a few tens of billions (depending on the technologies available). **Any retreat** to medieval levels of technology **would cut this figure by a factor of ten, probably down to less than a billion.**  But **the carrying capacity of the Solar System is at least a million times greater than that of a high-tech Earth**, and that of the Galaxy at least a billion times greater again than that of the Solar System. The present-day situation of human society is therefore that it finds itself at a cross-roads of unparalleled significance. **If growth is not maintained**, then, unless they can reignite that growth phase, **our descendants are forever restricted to planet Earth**. But must they necessarily fall back to a medieval or even more primitive level? Could industrial civilisation survive for a while in a zero-growth phase at around its present-day level of development, and if so, for how long? In any discussion of mankind and space, this is a key question which must be addressed. Certainly, pre-industrial civilisations have survived with little change over millennial timespans, but to what extent does industrial technology change this picture? And what about million-year timespans? **The only types of industrial civilisation we have observed so far have been that based on capitalist economics, and that based on socialism**, in which a political ideology takes over the role of capital. Capitalist societies would seem to be expansionary in their very nature: they are defined by the self-multiplying power of capital. But **could a socialist society,** one with a suitable ideology which was sufficiently severely imposed, **preserve zero growth indefinitely? I think not**, because societies evolve in an unpredictable manner. **Governments which have tried** to maintain control in, say, Tokugawa Japan (1603-1868) or Soviet Russia (1917-1989) **have failed in their goals** of stability (Japan) or planned growth (Russia), and modern liberal democracy works by limiting its ambitions and ceding much power to the economy at large. Even a global dictatorship, which unlike those two historical examples would by definition not face competition from abroad, would, I think, be unable to control all the disruptive political, technological and economic forces emerging unpredictably worldwide over centuries and millennia. **The result would then be either the breakout of a new phase of growth, or decline** and collapse**. In view of the likelihood of** long-term **adverse climate change** (whether triggered by industrial pollution, **or asteroid impact**, or an outbreak of super-vulcanism, or the return of ice-age conditions, or solar variations), **and in addition the persistent threat of** global high-tech conflict (whether spreading destruction by **nuclear weapons, or** computer viruses, or **genetically engineered organisms**, or microscopic or macroscopic robots), **decline would be the more plausible outcome.**  Nevertheless, the question as to how long a global zero-growth industrial civilisation could survive in a stable state on one planet is an interesting one, though not one that is likely to attract unbiased analysis by modern sociology. **What, however, if growth is maintained?** Surely Earth will become overburdened and that growth will lead to environmental and social collapse? The point here is that, **while the resources of Earth are limited, those of the Solar System are very much greater**. Growth in population sizes and in the usage of energy and raw materials may therefore continue for a number of centuries into the future, provided that two conditions are met: \* Material growth on Earth levels off; \* Material growth in space and on other planets takes over the upward trend. **Is this not equivalent to saying that Earth must settle down with a zero-growth society before space development begins? No, so long as the terrestrial and extraterrestrial economies are linked**. While this remains true, it will be possible for investors on Earth to invest capital in extraterrestrial development, and receive dividends back from that development. While most Earth-dwelling people will remain on the mother planet, there will also be flows of people, goods and ideas between Earth and her colonies, which must also have a profound economic effect. A net inflow of value to Earth is in any case necessary in order that terrestrial investment in outer space does not merely produce inflation in the home economy. But that inflow need not be of material goods, and is more likely to consist of energy (solar power delivered on microwaves or lasers) and information (software and product development). But surely ultimately the limits of the Solar System will be reached, and the interplanetary civilisation have to settle down as a zero-growth society? Yes, granted. But this differs from a zero-growth planet Earth due to the immense size of the Solar System, which is larger than Earth by between four and six orders of magnitude, depending how far out one wants to go – to the distance of Mars, say, or to the Oort comet cloud far beyond Pluto. **An interplanetary industrial civilisation is secure for the long term in a way that a monoplanetary one is not**, because it is too large to form a unity, either politically or environmentally, and because it is forced to adapt to a wide range of hostile environmental conditions. **It will** therefore **be secure against any conceivable environmental or military disaster**, because such a disaster can only affect a single planet, or at most a limited region of the system. Climate change or world war on Earth has no effect on Mars, and vice versa. And with the majority of the population in orbiting artificial space colonies, even a major change in solar luminosity could be tolerated (though such a change is not expected to have a noticeable effect for hundreds of millions of years yet). With interplanetary civilisation, the social system as a whole can tolerate decline and collapse in particular locations, because they can then be recolonised from outside. Once humanity achieves interstellar status, this security factor is clearly vastly enhanced. **However, in order for interplanetary growth to occur in the first place, an economic mechanism must be in place to drive it. The most suitable economic mechanism that has been demonstrated so far is capitalism**. Its need for continuous expansion makes it highly appropriate as an economic system for a society colonising its local planetary system.

## K – EcoFem

#### Framework---the K must prove the whole plan is bad---weighing the aff is vital to fair and educational engagement – outweighs because clash is the only unique form of edu prefer

#### a) Fairness---they moot the 1AC which makes it impossible to engage them since we’re always one step behind

#### b) Plan focus good it’s key to education---it’s predictable and stable and they can’t reject the entirety of the 1AC for one bad part

#### Floating PIK’s are a voting issue – They moot the entirety of the 1AC and skirt engagement – It’s not predictable because debaters sift through literally hundreds of thousands of words in hundreds of cards per topic.

#### Case outweighs – the 1AC prevents the mass extinction of the human race. They can’t control the root cause because the state and the market always override the alt

#### Perm do both

#### Perm do the aff with the mindset of the alt

#### Link Turn – the plan checks masculine forms of resource extraction and pollution that drive our planet to destruction. History proves that capitalist market forces are always inevitable which means it’s just a question of operating within structures of power.

#### Anti-management leads to extinction---we’re past the point where ‘hands off’ can sustain wilderness

**Minteer 12** – PhD, Professor of Environmental Ethics and Conservation in the School of Life Sciences at ASU (Ben, “Refounding Environmental Ethics,” p. 170-174)

And that, of course, is the rub: Any serious GHG mitigation policy will be dependent upon the collective will of citizens and policy makers to push it for- ward, a will that continues to be undermined by an inertial combination of politi- cal calculation and presentist economic analyses as well as by the public's consid- erable lack of basic knowledge regarding GCC. On this last point, a recently released Yale study of U.S. citizens' understanding of climate-change science is especially troubling (Leiserowitz, Smith, and Marlon 2010). Among the study results is the finding that only 50 percent of Americans believe that global warm- ing is caused primarily by human activities, while only 45 percent know that car- bon dioxide traps heat on the planees surface. The Yale researchers also find that just 25 percent of respondents had heard of ocean acidification and oral bleach- ing, suggesting a widespread ignorance of GCC's ecological impacts. To make matters even worse, the study reveals that a significant portion of the public believes that banning aerosols and rocket launches is a viable solution to global warming. In all, the Yale study paints a disquieting portrait of public knowledge regarding GCC. It is sobering to consider what this failure of scientific literacy might portend for citizens' support for the bold and proactive conservation policies—and novel environmental management efforts—that will be increas- ingly necessary to address new ecological realities under GCC. Conservation on a rapidly changing planet, in sum, will likely require a more flexible, innovative, preemptive approach to safeguarding species and maintain- ing ecosystem health in the twenty-first century, one that responds to rapid envi- ronmental change and uncertainty by enhancing ecological resilience and the capacity of systems to absorb such changes without negative consequences for the delivery of key products and services. In so doing, it will, in many instances, demand from us a more activist and "hands-on" style of species protection and ecological management and a simultaneous shift away from more traditional preservationist assumptions within key areas of conservation law and policy. I believe it will also require a parallel transformation in our ethical views justifying these assumptions. Paradigm Shifts in Environmental Ethics The reality of rapid and global environmental change—including GCC and its interaction with other environmentally transformative forces, such as accelerating urbanization and pollution, the spread of invasive species, and emerging infec- tious diseases—will ultimately compel us to come to grips with a new philosophi- cal and ethical paradigm for species conservation and ecological management in this century, one in which conventional normative standards for nature protec- tion (e.g., "pristine," "natural," "native") give way in many cases to more dynamic and relativist descriptive and value categories. From managed relocation of spe- cies outside their native ranges, to the emergence of novel systems as valued tar- gets of ecological management, to the turn (in some cases) toward engineered or "invented" ecological systems for providing ecosystem services (e.g., Palmer et al. 2004), these shifts not only reflect revised judgments about the acceptability of the human modification of nature to achieve nature conservation and sustain- able development goals but also speak to a deeper philosophical reorganization of the dominant ecological-policy and management worldview. The emerging paradigm of conservation and ecological management under planetary change signals a significant departure from the traditional preservation- ist agenda of academic environmental ethics. Since its origins in the 1970s, envi- ronmental ethics has generally sought to provide arguments to protect nature from human influence and, especially, manipulation; in most cases, this has sup- ported an unequivocal "hands-off" attitude toward wild nature. Indeed, the field's overwhelming focus on establishing nature's moral standing via arguments for intrinsic value (and parallel defenses of nonanthropocentric worldviews) were primarily motivated by the desire to condemn human environmental impacts and protect the human-independent integrity of species and ecosystems. Deriving historical justification and philosophical inspiration from environmentalist icons, such as Muir (and, more objectionably, Leopold), many environmental ethicists developed a presumptive anti-interventionist posture toward human-nature rela- tionship. This perspective may be found in much of the early and canonical non- anthropocentric literature, such as Paul Taylor's influential case for biocentrism, Respect for Nature (1986). Among other things, Taylor's text may be read as an elegant defense of autonomous, wild nature against all forms of human manipu- lation and encroachment. The preservationist, anti-interventionist position in environmental ethics, however, was not only directed at the traditional destroyers of nature's integrity (i.e., land developers, polluters, poachers, etc.). It would also be deployed by some philosophers to condemn activities pursued under the banner of conservation. Nonanthropocentric writers, such as Robert Elliot (1997) and Eric Katz (1997, 2009), for example, emphatically object to the growing practice of ecological res- toration—an effort requiring significant human design and, often, technological prowess—for destroying natural value and effecting human control over the natural world. The preservationist view would also dominate, not surprisingly, in ruminations on the ethics of wilderness protection, where ecocentric writers, such as Holmes Rolston, vigorously defend the "untrammeled" and universalized wil- derness ideal against its deconstructionist critics—including those "friendly," pro- conservation writers within environmental ethics and environmental history (e.g., Rolston 1991 ; Lemons 2007; Nelson and Callicott 2008). Yet in a poststationary world, the resolute preservationist stance, especially in its anti-interventionist modality, is **no longer practicable**. As we have seen, shifting ecological baselines forced by a rapidly changing climate will render attempts to strictly preserve native species assemblages and historical wilderness characteristics extremely difficult, if not **impossible**, in a significant number of cases. Even though postequilibrium models in ecology—and the implications of natural dynamism and flux for environmental management—have been recog- nized for decades now (e.g., Botkin 1992; Wu and Loucks 1995), GCC [global climate change] is widely predicted to impose conditions that will mark a dramatic break with even these accounts of natural variability. What this entails for the traditional nature- preservationist agenda within environmental-ethics and conservation-advocacy circles is not the relinquishing of our ethical commitment to species and wilder- ness protection, but rather the revising of our understanding of and normative attitude toward the requirements of species conservation and wilderness protec- tion on a rapidly changing planet. As I argue above, **it will** likely **demand** the acceptance of **more activist** and anticipatory **strategies** for saving species from the consequences of climate change and related large-scale, transformative forces. These efforts will involve a heavier human hand and, in many contexts, the ethi- cal sanction of **aggressive conservation interventions** as well as the relaxation (to varying degrees) of the longstanding commitment to ecological history in bio- logical conservation. Whatever the configuration of the various strategies that will come to domi- nate nature conservation in this next century, it seems clear that what will be needed from environmental ethicists to support and assess these efforts are not arguments for protecting an untouched nature from human modification but rather pragmatic evaluative frameworks able to guide adaptive and effective man- agerial and conservation interventions. A refounded and constructive environ- mental ethics, that is, will need to engage the novel challenges—and especially the difficult policy and management trade-offs—of conserving species and ecosys- tems under global change without retreating to a simplistic form of preservation- ism that views the human manipulation of nature as inherently destructive and ethically repugnant. This new ethical paradigm will necessarily be plural- istic and contextual in form; it will operate within a larger scientific, philosophi- cal, and policy model focused on the policy goals of enhancing ecological resil- ience and adaptive capacity in the face of rapidly emerging and unprecedented environmental transformations. It will also require ethical principles for avoid- ing potentially destructive interventions in ecological systems, norms reflecting a sense of restraint, responsibility, and significant community engagement with natural systems as they evolve and change (Higgs and Hobbs 2010). Whether we like it or not, **anticipatory intervention** in biological populations, communities, and ecosystems **will** likely **prove** ever more **necessary** for conserva- tion purposes and for the maintenance of increasingly stressed ecological services. What this ultimately spells for nature protection, I believe, is the reconstruction of conservation philosophy and action that moves us away from the ideal of pre- serving species and systems in historical systems and insulating them from all manner of human impacts to a model of directing ecological change in sustain- able and desirable ways that promotes species persistence and ecosocial sustain- ability (albeit with different emphases, depending on the conservation and mana- gerial context). Although this may strike many ethicists and conservationists as signifying a radical departure from hard-won preservationist standards, there is no reason to assume that this dynamic, activist, and proactive approach will jeop- ardize the strong tradition, in the United States and elsewhere, of protecting spe- cies from extinction and natural areas from degradation. Indeed, these emerging environmental-management and conservation-policy pathways under global change should reflect our commitment to species and ecological protection in addition to **ensuring** the provision of goods and services necessary for **human** **survival** and cultural integrity. Justifying this mission within a reorganized con- servation enterprise—while simultaneously supporting serious efforts focused on climate change mitigation—is a critically important task for a postpreservationist and policy-minded environmental ethics. refounded, pragmatic environmental ethics that embraces ethical pluralism and assumes an experimental stance toward ecological decision making— while recognizing the need to address environmental problems via methods that seek practical accommodation of disparate stakeholder values—can be an impor- tant player in nature conservation in the era of global environmental change. This is especially true to the degree that the eclipse of historical baselines for conserva- tion will require new modes of public dialogue among scientists, managers, and citizens with a common stake in shaping intelligent and principled policy and management goals on a rapidly changing planet. These deliberations will neces- sarily reflect new and dynamic standards that emerge from a more balanced inter- change between ecological and social values as older preservationist and restora- tionist paradigms recede and we look to new conservation approaches and policy objectives more appropriate for safeguarding species and managing ecosystems under GCC. The moral hazards we will face in this effort, however, are real. There is a genuine danger, for exarnple, that the embrace of our responsibility for directing sustainable ecological change and the turn away from traditional preservationist norms for conservation will simply become another step toward the destructive domination of wild species and landscapes—that is, another biological power grab by humans in the era of the "Anthropocene" (see Zalasiewicz et al. 2010). Although this risk should be of great concern to all of us who care about wild species and nature, I believe it is naive to think that assuming increasingly out- moded preservationist positions in debates over conservation law and policy will significantly reduce it. Rather, the real moral challenges now facing us seem to be of the following sort: Can we become adaptive and careful stewards of species and systems as the world changes in unpredictable and unprecedented ways around us, or will we continue to push planetary biodiversity to the precipice—and into the chasm of extinction? Can we help species and natural areas adapt to rapidly changing environmental conditions without undercutting efforts to simulta- neously address the societal drivers of anthropogenic climate change, pollution, and habitat conversion? Can we learn to demonstrate sufficient humility and precaution in planetary management so as to avoid creating further problems with our technological "fixes" (see, e.g., geoengineering the planet)? These are haunting questions, in part because they are unanswerable in the present. The answers, however, will ultimately define much of our character as a people, in terms of our ethical relations with wild species and our ecological and cultural bequest to those Who will come along after us. They also point the way toward a new and critically important agenda for a pragmatic environmental ethics in the coming decades. Writing more than eighty years ago, Leopold cut to the heart of this challenge in a particularly unforgettable passage (even for him), one that I shall let close this chapter and this book: If there be, indeed, a special nobility inherent in the human race—a special cosmic value, distinctive from and superior to all other life—by what token shall it be manifest? By a society decently respectful of its own and all other life, capable of inhabiting the earth without defiling it? Or by a society like that of John Burroughs' potato bug, which exterminated the potato, and thereby exterminated itself As one or the other shall we be judged in "the derisive silence of eternity." (119231 1991, 97).

**The alt’s ethic of permanent resistance is the worst option for women – their normative strategy just reifies the public private dichotomy**

**Mansbridge 3**– Professor of Political Leadership and Democratic Values @ Harvard

(Jane, “Anti-statism and Difference Feminism in International Social Movements,” International Feminist Journal of Politics)

Feminist strategies that neglect or consistently deplore state action cannot accomplish what women need – because individuals need collectives such as states to solve collective action problems and to move toward more just social arrangements. Strategies that rely heavily on women’s differences from men also cannot accomplish what women need – because women are like men in many ways relevant to individual and collective action. Despite these truths, social movements also need some strategies of action that work separately from and sometimes against the state. Moreover, strategies that accentuate the differences between oppressed and oppressing bring needed energy to a movement. The best overall strategy is, therefore, to realize that both states and difference theories are dangerous weapons, and proceed with caution.¶ In this important paper, Jane Jaquette sounds the alarm. She exposes the dangers of ignoring the state and the dangers of ‘difference feminism’. She also shows how these are linked. Although I will underscore the merits of anti-state activity and difference feminism, I agree that a feminist strategy that neglected or deplored state action would be weak indeed. So would a strategy that relied on women’s differences from men.¶ First, the merits of Jaquette’s argument.¶ One strand in feminist theory and practice greatly suspects the state. This **suspicion can escalate into outright rejection**, with potentially **grave consequences for women**.¶ The philosophical case for the state is relatively simple. Collective action¶ can improve human lives. Efficient collective action requires coercion. Instru- ments of collective action involving coercion can, paradoxically, increase human freedom. We are freer to do many things if we can bind ourselves with legally enforceable contracts. Rather than enforcing these contracts privately, it is more efficient and potentially more just to give a monopoly of legitimate violence to one entity, so long as that entity can reasonably claim to be more just than the alternatives. Humans have long struggled to devise relatively legitimate forms of coercion. The history of democracy is part of that struggle, although that history has nowhere produced national-level institutions that are highly legitimate. Despite their incapacity ever to be fully legitimate, however, we still need both states and international institutions to help solve collective action problems and to give scope to the human capacity for justice.¶ Regarding women, the practical case for the state, must be grounded in contemporary realities. In some states, such as Sweden, women do better, compared to men, than in the most egalitarian of known pre-state entities, such as the Kung!. Moreover, although the dangers of state power for women are great, it is not practical to contemplate returning to pre-state entities. Human beings seem to want the goods produced by more extensive forms of cooperation, including those that require legitimate coercion. Given that states will not disappear in the near future, what stance should we take toward them? My answer is: wary usage. **State power will be used against women**, just as other forms of power are used against women, **unless we intervene**. One response is to establish barriers, such as constitutional or internationally enforceable rights, to certain kinds of invasions by state power. Another is to make states more likely to act in the interests of women.¶ In the United States both theory and institutional practice carry suspicion of the state farther than in most countries, with some malign consequences. Ours has been a ‘liberalism of fear’ more than an Enlightenment liberalism that envisions a common good. Americans are wary of state power, encouraged in that wariness by powerful capitalist interests. Jaquette rightly warns against this. State power can serve both as a brake on the negative externalities of capitalism and as a positive force for material redistribution. Particularly when patriarchal power takes violent forms in the private sphere, state power can help women struggle against that violence as well as other non-state evils.¶ The question, then, is how far to carry wariness of state power and of theories of state universalism and impartiality. I believe we must both use state power and place bounds on. Because the state as a tool is dangerous and flawed, we need to use it with caution.¶ Jaquette faults contemporary feminist anti-state theorists not for wanting to abolish the state but for spending their energies on wariness rather than on how to use it for redistribution. How important one thinks this problem is depends on how one judges the current balance within feminist theory. Many feminist theorists – e.g. Susan Okin, Nancy Fraser, Iris Young – call for redistributive reforms requiring state power. Perhaps in Latin America, from¶ 356 International Feminist Journal of Politics –––––––––––––––––––––––––––¶ ￼Downloaded by [Harvard Library] at 12:19 04 August 2014¶ which Jaquette takes her lead, theorists of the North are represented by anti- state theory. In that case, one must ask why these are the theorists Latin American feminists choose to read. Anti-state discourse may have informed radical practice in Latin America not because anti-state theory is dominant in the North but because activists in Latin America find that anti-state discourse meets their organizing needs. Anti-state discourse may reflect the reality of individuals working on the margins of states that either are relatively corrupt or, even more obviously than most, enforce the interests of dominant classes.¶ Jaquette also rightly warns of the dangers of valorizing action in civil society to the neglect of state action. However, we need evidence that the more women participate in NGOs the less they participate in the state. Without such evidence it seems equally plausible that the more women participate in NGOs the more they will acquire the skills and contacts required for involve- ment in state politics. Some individuals also will not be able to deal with the hierarchy, coercion and male dominance embedded in all states. They will need to work in social movements. Political activism usually sustains a division of labor, with the individuals who can best deal with established institutions doing just that and those who are most repelled by those institutions charting another course. The directions they take sometimes conflict with one another.¶ Women and feminists trying to achieve places in the state, whether as femocrats or politicians, face major barriers but also major attractions. I do not know how much we should worry that they will not be attracted to these jobs because of radical anti-state discourse. In the United States this does not seem to be a huge problem. In some countries, women who could be agents of feminist change turn down jobs in the state because those jobs are boring and unsatisfying. When these women speak of their frustrations, radical anti- state discourse appears to play a small or non-existent role.¶ In short, Jaquette is right that an established anti-state discourse within radical movements makes productive interaction with states less likely, but I am not sure that such discourse is created by feminist theory.¶ Jaquette also points to distortions produced by difference feminism. It is true that any stress on women’s differences reinforces the tendency of dominant groups such as white or middle-class women to interpret ‘women’s’ experiences primarily in light of their own experiences. In recent years, women of color have produced the greatest advances in feminist theory, forcing white feminists to look more closely at their hegemonically defined concepts of commonality; this work has given all feminists the tools to understand better differences within their groups and subgroups.¶ In addition, in most areas of presumed personality difference between men and women, the differences are extremely small. The currently definitive meta-analysis of studies on Carol Gilligan’s hypothesis shows that – at least in the United States, in the highly educated populations where she argues that differences should appear – only very small differences can be found.¶ –––––––––––––––––– Jane Mansbridge/Anti-statism and difference feminism 357¶ Downloaded by [Harvard Library] at 12:19 04 August 2014¶ Most studies do not show women taking a different approach to justice or behaving more cooperatively than men. Studies designed to elicit behavioral gender differences often generate practically none.¶ In-groups, we now know, exaggerate similarities within their group and their differences from other groups. The human brain makes these predictable cognitive and emotional mistakes in in-group/out-group differentiation. Recognizing this tendency, we should constantly struggle to take into account the fact that our social and first-order cognitive estimates of such differences are usually exaggerated. In the case of gender, all societies also engage in ‘gratuitous gendering’ – giving gendered meanings to nouns and patterns of action that do not functionally require that identification. These processes increase even more our perceptions of gender difference.¶ Today we have little idea what differences might or might not emerge between men and women in a non-oppressive society. It seems mistaken, therefore, to insist on difference rather than focusing on the effects of dominance.¶ Finally, as Jaquette warns, promising different political results based on the premise that women are different from men is dangerous. We are almost certain not to deliver on that promise, at least in the short run. The backlash after the US suffrage movement was undoubtedly caused in part by disillusion at the lack of change when women won the vote.¶ And yet, small differences that do appear between men and women can take on major symbolic significance, precisely because of our human tendency to exaggerate group differences. Although using that significance is danger- ous, not only because it exaggerates reality but also because it underlines the very stereotypes that have been used to keep women in their place, the existence of danger does not mean that we should forswear this tool – any more than for swearing the tool of state action. Just remember: when using a dangerous tool, take active precautions against its potential harms.¶ Difference arguments for electing women are not just arguments from ‘utility’, as Jaquette reports Marian Sawer’s point. For example, the fact that women are perceived as more honest than men can advance an attack on corruption by associating its female leaders with honesty. Using positive stereotypes of women in this way need not be degrading. Successful uses may even result in males adopting certain features of female symbolism to signify their own adherence to better standards.¶ In another example, among professional populations in the United States, women are somewhat more likely than men to adopt participatory, egalitarian styles of leadership. The difference probably derives from women’s relative powerlessness, which teaches skills of persuasion rather than command. In the US women’s movement of the late 1960s and 1970s, women used the gender differences they perceived in listening, interpreting body language and participatory style to create significant departures from the prevailing styles of left politics in organizations dominated by men. The message, ‘We do things differently’ is exhilarating. It prompts greater effort in trying to¶ 358 International Feminist Journal of Politics –––––––––––––––––––––––––––¶ Downloaded by [Harvard Library] at 12:19 04 August 2014¶ forge a new model, because the effort is associated not only with a different culture that can replace the old one but also with a different self and associated selves.¶ Turning from practical politics to political theory, concepts are also often gender-coded. Freedom and self-interest, for example, are often coded as male, community and altruism as female. It is not surprising, then, that when feminist theorists entered the field of theory, some explicitly supported certain values previously denigrated as female. Although the arguments made for these values might not be female, their proponrnts often were. Moreover, having been raised in a subculture that had been allocated cultural respon- sibility for these values, women had often thought about them more thor- oughly than men. Women had also usually experienced the denigration of these values first-hand.¶ In short, Jaquette is right that stressing women’s differences from men is fraught with danger. But values and practices that many cultures associate with women are often good in themselves, denigrated because of their association with women. Asserting the value of these ideals and practices from a stance as women often makes emotional, cognitive and political sense.¶ Importantly, Jaquette identifies a link between anti-state discourse and difference feminism. A number of anti-state theorists who are also strongly anti-essentialist would deny this identification. But in social movements themselves, the identification makes sense. The state is male; hence difference feminists should be anti-state. The state is instrumental, self-interested and hierarchical; women are communal, nurturing and participatory. To the degree that these associations are simply accepted as unchangeable truths, they compound the most problematic anti-state mistake.¶ I agree wholeheartedly with Jaquette’s fears in seeing no visible trend toward a renewed interest in the politics of economic justice, at least in the United States. In contrast to the creativity in the struggle against globalization, there has been an absence of ‘street-level’ activism against, for example, the revolutionary shift in tax burdens in the USA. More positively, the anti- sweatshop movement has had some good effects in raising consumer con- sciousness and bringing younger activists in touch with international labor movement organizing. As for the causes of the shift away from the politics of economic justice, I agree with Jaquette that it is related to the post-Cold War era and the temporary triumph of capitalism. I am not so sure that it has much to do either with activists’ anti-state discourse or with difference feminism.¶ This commentary has concentrated on the caveats to Jaquette’s thesis. I conclude by stressing again my fundamental agreement with her argument. Feminists have a ‘stake in a capable state’. It would be **catastrophic** to be so carried away by the theoretical virtues of civil society or by anti-state discourse as to deaden oneself to the practical need to work with the state to **improve the lives of women**.¶ Because ideas have influence, it is worth stressing Jaquette’s point that¶ –––––––––––––––––– Jane Mansbridge/Anti-statism and difference feminism 359¶ Downloaded by [Harvard Library] at 12:19 04 August 2014¶ ‘norms adopted internationally depend on states to implement them’; and **only** states can change the rules for women and other disadvantaged groups. The welfare state is a huge improvement over the arbitrary power of men in private families. Women’s groups must therefore work closely with govern- ments or remain on the fringe. Feminists will not only have to ‘learn to live with the state’. They should **learn to work with the state**. For those who do not already know this, Jaquette’s article is required reading.

## K – Existential Reps

#### Our frame for climate change alters the paradigm for climate debates, spurring action

**Watson 2016** - associate professor at the University of Queensland in Brisbane, president of the Society for Conservation Biology and director of the science and research initiative at the Wildlife Conservation Society  
James, "Bring climate change back from the future," Nature 534:7608, doi:10.1038/534437a

The death of the last individual of the last population of a mammal species, indeed of any species, is as irreversible as it is profoundly sad. Yet the widespread coverage of this extinction and the subsequent outpouring of concern from across society tapped into something else. Species go extinct every day with little fanfare or report. The last Australian mammal to go extinct before the melomys was the Christmas Island pipistrelle (Pipistrellus murrayi) in 2009, with almost no press. The melomys extinction was covered because it ended the idea that climate change will be a concern for species only in the future. That reflects a fundamental, widespread problem with how we think about and report on climate change, especially when it comes to nature and conservation. Too many people still think that climate change is a problem that we can deal with later. It’s easy to see why. Climatologists use long-term forecasts, on timescales such as 50–100 years, and for good reason. It takes long periods of time for alterations in atmospheric concentrations of greenhouse gases to cause change. Looking ahead for a scientist brings increased certainty — we know that there will be a problem to address. And politicians like to emphasize the long term for the opposite reason: they can stress the uncertainties in the detail, and talk about action without needing to take any. Yet these distant forecasts have also become the basis of how people assess and communicate the probable effects of climate change on species and ecosystems. And as the Bramble Cay melomys shows, we are seeing those impacts now. The world’s climate system is already seriously disrupted: the global average temperature is already nearly 1 °C warmer than it should be. Across Earth, we are seeing radical shifts in daily temperatures, rainfall regimes and the timing of seasons, as well as overall increases in the number and intensity of droughts, cyclones and floods. It is now accepted that we have moved beyond the natural climate cycle and that, even if climate-mitigation policies are implemented immediately, it will take centuries to recover. Nature is in the firing line. Climate change introduces new threats and speeds up existing declines. There is an avalanche of extinctions coming because of the direct impacts of change — temperature, rainfall and sea-level rise. But that is not the end of it. Climate change also interacts with other major forces that have precipitated the current extinction crisis — most of which are also driven by human actions. Vulnerable human communities are responding to the changing climate, and adding significant pressure to already degraded ecosystems. For example, expansion of agricultural activities owing to more favourable rainfall regimes across the Albertine Rift and the valleys of the Congo Basin now increasingly threatens the most biodiverse regions in Africa. If we are going to have a fighting chance to avert the current extinction crisis, we must accept and communicate that climate change is already upon us and that proactive action is needed now. We should not treat the news of the extinction of the melomys as an interesting question for Trivial Pursuit or an undergraduate exam — we need to treat it as a lesson. This species did not live in a place where its existence came into conflict with other societal needs, such as good farming land or places to live. It was on an uninhabited island, effectively protected from other threats. A wide range of actions could have been taken to manage its population without causing conflict with other competing agendas. Australian marsupials are well researched, and given the melomys’s habitat requirements, the islands’ low elevation and the fact that there is widespread knowledge of increasing sea levels across coastal Australia, it was not hard to work out that the species was in dire trouble. Yet almost nothing was done in time: there were no proactive plans to monitor the melomys, move a few individuals to create a rescue population or create a simple sea-level barrier. No action was taken because of the attitude that climate change is not really happening yet, and there is time to sort it out. This is unacceptable. We need a fundamental shift in how the scientific community, the media, policymakers and environmental funders view and discuss climate change. When we think about the impact of climate change on biodiversity, we need to start framing the issue as something that is already well under way and that, in conjunction with other **threats, needs to be managed now.** Crucial to this will be research on what species are immediately threatened by climate change, followed by plans to help them to survive. It will be complicated, but to give nature a chance, we need to harness the fears of the future to address the realities of the present.

#### Reps don’t shape reality – No one really cares about the rhetoric that people use in the age of Trump. People brush off attacks as ad homs and they rush to fringe of relevance ignoring any actual implications their language has.

#### Floating PIK’s are a voting issue – They moot the entirety of the 1AC and skirt engagement – It’s not predictable because debaters sift through literally hundreds of thousands of words in hundreds of cards per topic.

#### Perm do both – recognize existential threats and people suffering now

#### It does the policy of the affirmative and it’s plan plus so perm do the alt and perm do the aff with the mindset of the alt

#### Functional competition good – preserves clash around the effects plan which is best to ensure negative ground is predictable and engagement occurs

## K – Queerpess

#### Framework---the K must prove the whole plan is bad---weighing the aff is vital to fair and educational engagement – outweighs because clash is the only unique form of edu prefer

#### a) Fairness---they moot the 1AC which makes it impossible to engage them since we’re always one step behind

#### b) Plan focus good it’s key to education---it’s predictable and stable and they can’t reject the entirety of the 1AC for one bad part

#### Floating PIK’s are a voting issue – They moot the entirety of the 1AC and skirt engagement – It’s not predictable because debaters sift through literally hundreds of thousands of words in hundreds of cards per topic.

#### Extinction outweighs – we have no way of knowing whether structural conditions will be the same thousands of years in the future but extinction forecloses any ability for marginal improvements to be made.

#### Permutation do both – we can recognize the violence of futurity while still saying future queer bodies should not suffer

#### Group the rant – it’s based on completely bogus science

**Bunge, McGill University philosopher, 2010**

(Mario, “Should Psychoanalysis Be in the Science Museum?”, 10-5, <http://www.newscientist.com/article/mg20827806.200-should-psychoanalysis-be-in-the-science-museum.html>)

We should congratulate the Science Museum for setting up an exhibition on psychoanalysis. Exposure to pseudoscience greatly helps understand genuine science, just as learning about tyranny helps in understanding democracy. Over the past 30 years, psychoanalysis has quietly been displaced in academia by scientific psychology. But it persists in popular culture as well as being a lucrative profession. It is the psychology of those who have not bothered to learn psychology, and the psychotherapy of choice for those who believe in the power of immaterial mind over body. Psychoanalysis is a bogus science because its practitioners do not do scientific research. When the field turned 100, a group of psychoanalysts admitted this gap and endeavoured to fill it. They claimed to have performed the first experiment showing that patients benefited from their treatment. Regrettably, they did not include a control group and did not entertain the possibility of placebo effects. Hence, their claim remains untested (The International Journal of Psychoanalysis, vol 81, p 513). More recently, a meta-analysis published in American Psychologist (vol 65, p 98) purported to support the claim that a form of psychoanalysis called psychodynamic therapy is effective. However, once again, the original studies did not involve control groups. In 110 years, psychoanalysts have not set up a single lab. They do not participate in scientific congresses, do not submit their papers to scientific journals and are foreign to the scientific community - a marginality typical of pseudoscience. This does not mean their hypotheses have never been put to the test. True, they are so vague that they are hard to test and some of them are, by Freud's own admission, irrefutable. Still, most of the testable ones have been soundly refuted. For example, most dreams have no sexual content. The Oedipus complex is a myth; boys do not hate their fathers because they would like to have sex with their mothers. The list goes on. As for therapeutic efficacy, little is known because psychoanalysts do not perform double-blind clinical trials or follow-up studies. Psychoanalysis is a pseudoscience. Its concepts are woolly and untestable yet are regarded as unassailable axioms. As a result of such dogmatism, psychoanalysis has remained basically stagnant for more than a century, in contrast with scientific psychology, which is thriving.

#### Our impacts are produced by a flawed and ongoing present, which shields---AND, even if our impacts are futural, they don’t vest all value in reproduction---treating anti-suffering actions as anti-queer cements queer abjection

Nina **Powers 09**. Prof @ Roehampton University.“Non-Reproductive Futurism,” borderlands, vol.8 No.2, <http://www.borderlands.net.au/vol8no2_2009/power_futurism.pdf>

Edelman’s desire to conflate all politics with reproductive futurism **does an injustice to the politics** behind some of the historical shifts in the way abortion, for example, has been conceived. Even in the examples Edelman himself gives of anti-reproductive movements, he is quick to state that these campaigns for abortion rights frame the argument in terms of a ‘fight for our future – for our daughters and sons’ (Edelman, 2004: 3). But, whilst it is true that the anti-abortion debate (especially in America) is often played out on the territory of the right (where the rhetoric of pro-life reigns), it is certainly not the case in other parts of the world that abortion is defended in the name of those children already born, i.e. trapped in the framework of reproductive futurity. Elsewhere, **it is the rationality of the woman**, **her ability to make economic and pragmatic decisions** that feature foremost in any debate about the rights and wrongs of abortion. Historically, too, discussions about abortion took place in broader contexts that stressed abortion alongside questions of the equal right to work, progressive notions of family structure and so on. Before Stalin repealed the laws, the Soviet Union under Lenin was the first to provide free and on demand abortions. These laws were couched not in terms of ‘life,’ but in terms of pragmatism **predicated on a notion of political equality**. As Wendy Z. Goldman puts it: Soviet theorists held that the transition to capitalism had transformed the family by undermining its social and economic functions. Under socialism, it would wither away and under communism, it would cease to exist entirely. (Goldman, 1993: 11) Unless the family is considered in its social and economic function, it makes no sense to speak of its power as an image, however powerful this image might be. Edelman ultimately **concedes** far too much to a very narrow ideological image of the family that, whilst pernicious, is easier to undo with reference to history and practice than he seems to think. As Tim Dean puts it: ‘the polemical ire that permeates No Future seems to have been appropriated wholesale from the rightwing rants to which he recommends we hearken’ (Dean, 2008: 126). In the first section I tried to identify some of the contradictions between the contemporary family and the demands of capitalism, while above I gave examples of politics not based on reproduction and reproduction not based on futurity: what follows from this is that there are important historical shifts in the way in which the family and the image of the child comes to shift in and out of focus. Take the discussions surrounding in vitro fertilisation. First viable as a reproductive practice in the late 1970s, early artificial insemination was regarded as a ‘paganistic and atheistic’ practice (Barrett and McIntosh, 1982: 11). Now, however, despite the wastage of potential viable embryos in the process, it is generally regarded as a practical option for infertile couples. Here the contradictions of contemporary social feeling towards children is exposed once again: reproductive futurism turns out not to be invested in all children, but only those it chooses to keep out of a pragmatism enabled by technology. Edelman talks about the ‘morbidity inherent in fetishization as such’ when opponents of abortion use photos of foetuses to highlight the proximity of the foetus to the ‘fully-formed child’ (Edelman, 2004: 41). He is right that morbidity and the politics of life seem to go hand-inhand, but then proceeds to argue that it is the queer alone that has a duty to remain true to this morbidity, to expose the ‘misrecognised’ investments of ‘sentimental futurism’: The subject … must accept its sinthome, its particular pathway to jouissance … This, I suggest, is the ethical burden to which queerness must accede in a social order intent on misrecognising its own investment in morbidity, fetishisation, and repetition: to inhabit the place of meaninglessness associated with the sinthome; to figure an unregenerate, and unregenerating, sexuality whose singular insistence on jouissance, rejecting every constraint imposed by sentimental futurism, exposes aesthetic culture – the culture of forms and their reproduction, the culture of Imaginary forms – as always already a “culture of death” intent on abjecting the force of a death drive that shatters the tomb we call life. (Edelman, 2004: 47-8) This does not exactly seem like a revelation. We live for the most part in pragmatic acceptance of this culture of death. It hardly shocks us when, for example, statistics reveal that, in 2004, 60% of women who had abortions had already given birth to at least one child (Sharples, 2008). Those people most identified with children – mothers – turn out, quite often, to deal with ‘life’ rather more pragmatically than we might otherwise believe. Edelman has to ignore historical and current examples of abortion rights campaigns, and other attitudes towards the family, in order to shoehorn all politics into a single vision to which he then opposes his notion of the queer. As Brenkman puts it: ‘To grant the Right the status of exemplary articulators of “the” social order strikes me as **politically self-destructive** and **theoretically just plain wrong’** (Brenkman, 2002: 177). There are genuine moments of historical and political importance in terms of thinking about the family that seem to escape **Edelman’s dismissal of politics as inevitably futural**. We do not need to give up on politics altogether, whilst still accepting that the image of the child is a massive ideological obstacle. Rancière’s notion of political equality (‘Politics … is that activity which turns on equality as its principle’ (Rancière, 1999: ix)) neither concedes ground to politics as it appears (the ordering of the state, the police, a supposed consensus) nor does it think that politics is impossible or nondesirable, as Edelman does. We must ask: is all politics conservative by definition? Does negativity or resistance to existing power structures always translate back into some stable and positive form? The examples of the kibbutzim and the various contradictions in the ideology and practices of contemporary reproduction make it clear that Edelman, whilst having a strong argument about the shape that the ideology of the child takes, **has to ignore the unstable compromises** that the contemporary world **has already made with itself** regarding **life and death in reproduction**. Alan Sinfield has questioned whether we should really conflate all political aspirations with Edelman’s conception of reproductive futurism: ‘perhaps reproductive futurism is capturing and abusing other political aspirations and they should be reasserted’ (Sinfield, 2005: 50**). It is not,** then, **that all politics is reproductively futural**, but that this image has come to pervert other political desires, which may have a more complex relationship to children and a progressive conception of humanity**.** Edelman polemically dismisses the ‘left’ attitude to the queer, as ‘nothing more than a sexual practice in need of demystification’ (Edelman, 2004: 28). Whilst a certain strain of leftist thinking does pursue this demystificatory line (arguing, for example, that many forms of sexual expression are ‘natural’), Edelman reduces the left position on sexuality to a simple question of **acceptance**, as a way of arguing that **the queer can mean nothing to the left.** But there are, as indicated above, quite different ways of thinking about the family (in a non-futural, non-ideological way) and about politics, and the two together. When Rancière discusses the ‘subject of politics’, he makes it clear that: The subject of politics can precisely be identified neither with “humanity” and the gatherings of a population, nor with the identities defined by constitutional texts. They are always defined by an interval between identities, be these identities determined by social relations or juridical categories. (Rancière, 2006a: 59) Could this ‘interval between identities’ be the jouissance that Edelman aligns with the queer? Whilst Edelman’s psychoanalytic subject could in no way be understood as a similar (non)entity to Rancière’s ‘subject of politics,’ this idea of the interval seems to indicate a site of noncapture that could be described in a certain sense as ‘queer.’ In Edelman’s response to John Brenkman he states that: ‘Sexuality refuses demystification as society refuses queerness’ (Edelman, 2002: 181-5). By reifying sexuality as something that ‘refuses’ meaning, **Edelman oddly substantialises it**; Rancière’s way out of the identities determined by social relations or juridical categories is much less dependent on any pre-existing identity, **even though he retains the very concept of politics that Edelman rejects**. There seems to be no reason why the subject of politics for Rancière couldn’t be a ‘queer’ subject in Edelman’s sense, at the same time **as reclaiming a notion of rationality away from the categories of the state.** Before turning to a brief summary of this tentative queer rationalism, one more structural element of Edelman’s argument will be addressed: that of the death drive.

#### The death drive doesn’t exist, but their continued use of it to mimetically explain all violence means they link more

Jonathan **Dollimore 13**, Professor in the School of English and American Studies at the University of Sussex, Death, Desire and Loss in Western Culture, googlebooks

The death-drive theory has not found wide acceptance among Freud's followers. With significant exceptions like Melanie Klein, it has been explicitly denounced as **misconceived biology, unsubstantiated speculation, logically incoherent and**/or **without evidence**. It has also been attributed to Freud's own painful personal circumstances: the death of his daughter, the death of a grandson, his own illness (cancer), and his lifelong preoccupation with death. Of those who have been sympathetic to the idea, most have tended to tame it - as indeed did Freud himself. One move was to rewrite the instinct as largely an instinct of aggression. But for Freud the aggressive aspect of the death drive had been secondary; the instinct was primarily self-destructive. Sadism derives from a more primordial masochism, which means in effect that human aggression is, originally, self destructiveness.∂ Of all subsequent theorists of psychoanalysis, Jacques Lacan takes the death drive most seriously, and most contemporary psychoanalytic attention to it comes via him. To his credit, Lacan does not underplay or tame the death drive, and he locates Freud firmly within the Western tradition when he remarks that Freud questioned life as to its meaning and his answer was not that it had none 'which is a convenient way of washing one's hands of the whole business' - but that life has 'only one meaning, that in which desire is borne by death' (Ecrits, p. 277).∂ According to Lacan, the Freudian world is one not of things, nor even of being, but rather of desire. More so even than Freud, Lacan finds in desire 'the paradoxical, deviant, erratic, eccentric, even scandalous character by which it is distinguished from need'. Although this distinction has been 'always obvious to moralists worthy of the name', psychoanalysis nevertheless misses the point by pursuing an obscurantist reduction of desire to need (p. 286). And that, for Lacan, is a cardinal error. This distinction belween desire and need leads him to dwell on something else in both Freud and earlier writers, moralists and otherwise: the relation between desire and lack. In modern psychoanalysis we find a secularized, intensified version of an existential perception that goes back a long way, even though the immediate influences here are Heidegger and Kojeve:∂ Desire is a relation of being to lack. This lack is the lack of being properly speaking. It isn't the lack of this or that, but lack of being whereby the being exists. (Lacan, Seminar, 11.222-3)∂ For Lacan, death is the name for a primordial absence intrinsic to presence; as John Forrester puts it, 'presence includes as its very condition the limit beyond which is its absence' (p. 176).16 To bind desire so resolutely into lack and absence means that it inevitably becomes a kind of essential negativity (Lacan, Seminar, 1.146)\*' - something premised on an initial failure of satisfaction and which, as such, comes to exist only by virtue of its own alienation; as Juliet Mitchell puts it, 'Desire persists as an effect of a primordial absence and it therefore indicates that, in this area, there is something fundamentally impossible about satisfaction itself (Lacan. Feminine Sexuality, p. 6). One consequence of this is a radical fragmentation of the human subject.18∂ In one respect Lacan recasts the familiar metaphysical idea that life is rooted in death: 'it is death that sustains existence' (Ecrits, p. 300). In his development of this idea he combines diverse elements of the Western tradition of desire's impossibility: a theology of desire as death, crossed with something more romantic if no less severe - desire as annihilating excess, a primordial discord. The two elements are fused in those places where, for example, he speaks of 'that desperate affirmation of life that is the purest form in which we recognize the death instinct' (p. 104). These ideas then get reworked according to structuralist and linguistic preoccupations, as when he speaks of the 'frenzy' of desire 'mocking Ihe abyss of Ihe infinite', and of how this amounts to 'no other derangement of instinct than that of being caught in the rails - eternally stretching forth towards the desire for something else - of metonymy. Hence its "perverse" fixation at the very suspension-point of the signifying chain where the memory-screen is immobilized and the fascinating image of the fetish is petrified' (p. 167).∂ In the same vein Lacan suggests that it is from death that existence takes on all the meaning it has; the lack which is at the heart of desire is also the price that human beings pay for their admission to language and culture. Death makes life possible in that it makes meaning and representation possible; it is not only before speech but 'primordial to the birth of symbols' (pp. 104-5, 300). Hence Lacan's most well-known formulation, that the unconscious is structured like a language, and his claim to have demonstrated 'the profound relationship uniting the notion of the death instinct to the problems of speech' (Four Fundamental Concepts, p. 20; Merits, p. 101). Richard Boothby regards this as the most radical and innovative aspect of Lacan. I remain unconvinced.19∂ Lacan's invocations of death's centrality to life are more derivative than their complex, often obscure, formulations suggest.20 When he declares that∂ All that life is concerned with is seeking repose as much as possible while awaiting death. This is what devours the time of the suckling baby at the beginning of its existence... Life is concerned solely with dying {Seminar. 11.233)∂ we can hear Freud and Schopenhauer most closely, but also Montaigne (especially in that last assertion - 'Life is concerned solely with dying'), who also, incidentally, consolidated his own perception of this truth with extensive citation of classical sources. In the giving over of the newborn child to death we might hear too the early Christian Fathers. Lacan does not exactly disguise his precedents; the passage just cited continues with a reference to Hamlet's 'to die, to sleep, perchance to dream' and to the idea developed by philosophers in antiquity that it would have been better not to have been born. But (and this recalls Freud's own evasive acknowledgment of his influences) in Lacan these allusions to the past are fleeting, in passing, almost secretive; the implication is that these past writers anticipate something which can only properly, and only now, be understood through the lens of Lacanian psychoanalysis, whose complexity is, at the same time, almost guaranteed to defeat the attempt. Some at least of that complexity is **obscurantist**.∂ In the wake of contemporary cultural developments, including the perceived failure of sexual radicalism and the trauma of AIDS, there are those who have turned to Lacan for a more honest view of desire, and, via him, are reconsidering a severe account of human desire. I should not speak for them; what I find in Lacan is an **overtheorized** expression of something more significantly and relevantly expressed elsewhere (in Freud and before). It this respect I believe he is symptomatic of a much wider tendency in (post-) modern theory. But in terms of his influence alone Lacan remains significant for this study. By crossing Freud's death drive with the philosophy of lack and nothingness derived from Kojeve's version of Hegel (itself influenced by Heidegger), he continues to drive death ever further into being; now, perhaps more inexorably than ever before, death is the lack which drives desire. In doing that he also exemplifies another significant tendency in modern thought which I have already remarked, namely the antihumanist wish to decentre 'man' in the name of a philosophy which is truly adequate to the complexity of being, yet which seeks to **retain** a residual human **mastery** in the very effort of articulating this complexity. As we have seen, the philosophical bid to comprehend the truth of being was always a form of intellectual empowerment - even, or rather especially, when issuing in the declaration that life, desire and the world have to be renounced. But modern theory, having lost faith in older philosophical notions of truth, now half-settles for the mastery of a new kind of complexity which it partly produces in order to enable this performance of mastery. **Phoenix-like**, the omniscient, masterful and above all complex analytic of the modern theorist **rises above** his sacrifice of 'man' to death.

#### Psycho is non-falsifiable

#### We need to learn the ABILITY of trickery when confronted with a heteronormative, anti-black, cis-normative world – their arguments on desire make tricking policymakers easier, but only engaging institutions by speaking their language can do this

**Sullivan 17** (Shannon Sullivan, Chair of Philosophy and Professor of Philosophy and Health Psychology at the University of North Carolina, Charlotte, 2017, “Setting Aside Hope: A Pragmatist Approach to Racial Justice,” in Pragmatism and Justice, p. 231-245)

While West likely is right that black communities are crucial for black people to be able to withstand antiblack racism, it is important to note, in accordance with the above studies, that those communities that helped mitigate the harmful physiological effects of antiblack racism were not particularly based on hoping. They instead were based on coping. They were collective outlets for sharing experiences of and venting frustration about stressful racial encounters, for example, which is not the same thing as generating hope that antiblack racism can be eliminated. What might black communities that cope look like? For starters, "**coping**" as used here does not mean **surrendering**, selling out, or **merely getting by**. Communities that **cope** would be communities that recognize that "nothing has worked" against antiblack racism and that black people "have exhausted the discourses of humanism and the strategies of equality" (Warren 2015.228). I want to underscore the pragmatic significance of this recognition. **Pragmatically understood**, the value of things is found in their **effects**—including the ultimate effect of **whether they enable flourishing** (Sullivan 2001)—and the effect of humanism hasn't been the flourishing of black people. Pursuing strategies of racial equality hasn't worked. These realizations are important for the effects they can have: they allow a very different set of strategies in relationship to antiblack racism to emerge. Rather than defeatist, letting go of the goal of racial equality can be liberating and invigorating for black people. It can free them up to envision new goals, to develop new truths about how best to respond to racism, and thus to stop banging their heads against a wall that will not budge. "Casting off the equality ideology." Bell urges, "will lift the sights----From this broadened perspective on events and problems, [black people] can better appreciate and cope with racial subordination" (1992b, 378). For example. Bell claims that rather than spend energy and time trying to fully integrate American schools—which still has not happened sixty years after Brown v. Board of Education and has been reversed in some major cities (see, e.g., Michelson, Smith, and Nelson 2015)—black people should work on raising money for and strengthening all-black schools (1992a. 63). More generally, racial realism would urge that black people devise strategies that acknowledge the "white self-interest principle": white people will never do anything to improve the lives of black people unless it first and foremost benefits themselves as well, particularly economically (Bell 1992a. 54). In many ways, then, **successfully fighting** white racism is a **very crude, nonsophisticated business**. It isn't about devising fancy moral arguments or ideal forms of jurisprudence; it instead involves "**making a shameless appeal to the predictable self-interest of whites**" and their wallets (1992a. 107). One could add that it also relies on the predictable **self-delusion**, self-grandeur, and racial ignorance of while people. Bell (1992a, 62) argues that black **people**—both individuals and communities—need to be like **Brer Rabbit** of the Uncle Remus stories, **who tricks Brer Fox** into setting him free by **convincing** Brer Fox that throwing Brer Rabbit into the briar patch is the **worst thing that Brer Fox could ever do** to him. **Brer Fox acts in what he thinks is his own best interest**—an interest in harming Brer Rabbit by keeping him captive—and in so doing, **he does the very thing that enables Brer Rabbit to escape**. A **masterful tactician** at **manipulating** the canine **ignorance** and solipsistic focus of Brer Fox. Brer Rabbit doesn't rely on rational argumentation, nor does he depend on **the law** or any universal rights of animal kind to obtain his freedom. **He instead** is **ruthlessly realistic** about the malicious self-interest that motivates Brer Fox, and for that reason he is able to **devise an effective strategy** for getting out of his clutches. Brer Rabbit doesn't succeed in making any sort of large-scale or structural change in the relationship between foxes and rabbits, nor does he particularly hope to. He instead focuses practically on how to save his life in the midst of a particular struggle with Brer Fox. and through his struggle, he is able to flourish even if the overarching tyranny of foxes has not been eliminated.

## K – Setcol

#### Framework---the K must prove the whole plan is bad---weighing the aff is vital to fair and educational engagement – outweighs because clash is the only unique form of edu prefer

#### a) Fairness---they moot the 1AC which makes it impossible to engage them since we’re always one step behind

#### b) Plan focus good it’s key to education---it’s predictable and stable and they can’t reject the entirety of the 1AC for one bad part

#### Floating PIKs are a voter – moots the 1AC and makes us debate against ourselves by reading Das against our plan. Kills clash and education

#### Extinction outweighs – we have no way of knowing whether structural conditions will be the same thousands of years in the future but extinction forecloses any ability for marginal improvements to be made.

#### Independently, don’t let them get out of DAs to everyone in the US adopting their praxis by shifting the alt to “just in this round” – that decimates rigorous contestation and causes academic insulation which reinforces privilege and internal link turns solvency. They force people to go back to violent countries and backgrounds.

#### Make the 2NR explain the alternative – anything else allows for neoliberal cooption and definitely means we get the perm because the alt could be literally anything.

#### Permutation do both – Decolonization fails absent tackling particular forms of oppression and material barriers to solvency – their theory encourages inaction in the face of inevitability, ignores the contingencies of intersectional and relational violence, and commodifies decolonization for settler pleasure.

**Davis et al. 17**. Lynne Davis, Associate Professor, Indigenous Studies, Trent University; Jeff Dennis, Associate Professor, Sociology McMaster University; Raven Sinclair, Associate Professor, Social Work University of Regina. “Pathways of settler decolonization.” Settler Colonial Studies 7(4): 393-7.

In addition to interdisciplinarity, the papers also share a concern to move from analysis toward action. Scholars such as Macoun and Strakosch,1 and Snelgrove, Dhamoon and Corntassel2 have warned against an abdication of responsibility by settler activists because the structural nature of settler colonialism would seem to defy a transformed future. In assessing the strengths and limitations of settler colonial theory, Macoun and Strakosch challenge those who use settler colonial theory (SCT) to realize its transformative opportunities while acting consciously to counter limitations identified by various critics. They caution against a stance of inevitability of settler colonialism that would risk delegitimizing Indigenous resistance, and they worry about re-inscribing settler academics’ political and intellectual authority to the detriment of Indigenous voices. At the same time, they note the contribution of SCT in providing a theoretical language to understand colonialism as a continuing force in the present, including an analysis of how both conservative and progressive settler movements may detract from Indigenous political challenges to the state, thus problematizing settler efforts at reconciliation and decolonization. They identify as one of its strengths the ability of SCT to provide non-Indigenous people with ‘a better account of ourselves’, 3 and to generate new conversations and alliances between Indigenous and non-Indigenous peoples. Snelgrove, Dhamoon and Corntassel warn that SCT’s rapid ascendancy in the academy could overshadow Indigenous Studies and the voices of Indigenous peoples. They argue that: without centering Indigenous peoples’ articulations, without deploying a relational approach to settler colonial power, and without paying attention to the conditions and contingencies of settler colonialism, studies of settler colonialism and practices of solidarity run the risk of reifying (and possibly replicating) settler colonial as well as other modes of domination.4 In their view, Indigenous resistance and resurgence must remain central in discussions of changing relationships: Theorists of Indigenous resurgence, such as Taiaiake Alfred and Leanne Simpson, among others, also express the possibility for settler society listening, learning, and acting […] in accordance with and for what is being articulated [by Indigenous people]; Indigenous resurgence is ultimately about reframing the conversation around decolonization in order to re-center and reinvigorate Indigenous nationhood. Macoun and Strakosch, and Snelgrove, Dhamoon and Corntassel gesture towards action by settler society to follow the lead of resurgence theorists in transforming settler colonialism, despite the structural, relational and affective challenges of anti-colonial struggle, in order to ‘reinvigorate Indigenous nationhood’ The authors in this volume examine pathways to settler decolonization, analyzing the uneven terrain of settler efforts and experiences through the lenses of SCT, Indigenous scholars and grassroots communities, and specific disciplinary analyses. While SCT has been criticized for its inability to theorize a decolonial future, this volume interrogates what happens when settlers engage with and seek to transform the system. What does such action look like? What challenges, complexities and barriers are faced? What are the stumbling blocks? And what opportunities and possibilities emerge? The articles in this volume all note the need for settlers to transform our/their relations with the land and with Indigenous peoples, while recognizing the structural and psychological challenges of applying these principles in practice. It is one thing to care about the environment, and quite another to reorient one’s lifestyle around sustainable practices and the health of local ecosystems. It is one thing to feel a connection to a place, and another to accept the notion of ‘non-human agency’. 6 Likewise, it is easier for settlers to advocate for the return of land to Indigenous peoples ‘over there’ rather than right where settlers and settler states and corporations (claim to) own property.7 Transforming social relations is not just a matter of befriending Indigenous people; it means developing long-term relations of accountability, engaging in meaningful dialogue, and respecting Indigenous laws and jurisdiction. Learning to transform relationships in these ways – and to transform self-understandings and thinking and feeling patterns or ‘settler common sense’ 8 – is an ongoing process; it is not linear, but rather iterative, occurring in what Hiller in this volume calls ‘upward and downward spirals’. Moreover, settlers’ anti-colonial learning (and unlearning) does not simply precede action; it occurs through action, through meaningful relationships with Indigenous peoples and with other engaged settlers, and through experimentation with activism of various sorts. The Nehiyawak (Cree) refer to this relational and iterative social justice-focused process as kisāhkīwewin: love in action. Several papers in this volume also address the role of emotions in settler decolonization. While critical self-reflection is essential to this process, and while emotions such as guilt, shame and indignation can help motivate settlers to change their ways and support Indigenous resurgence (as Bacon shows in one of the articles collected here), it is equally important not to treat ‘unsettling the settler within’ 9 as an end in itself; rather than dwelling in discomfort, the point of unsettlement is to be a springboard to action that benefits Indigenous peoples. A related point of tension (or contention) is whether decolonization is in the interests of settlers. Boudreau (in this volume) argues that deep decolonizing solidarities must not be based on self-interest; decolonization for settlers entails sacrifice, or giving up power and privilege. This may be true and, therefore, if it is believed that there is nothing in it for settlers, why would they ever pursue it? Although decolonization may not be in settlers’ short-term economic or political interests, it may fulfill a humanistic, ethical and moral commitment. Moreover, decolonization may be in virtually everyone’s long-term interest, particularly if Indigenous resurgence assists in combatting climate change, ever-growing economic inequality, and other political and social problems. As Tuck and Yang make clear, decolonization is not a metaphor for other social justice projects.10 Nevertheless, settler colonialism does intersect with other systems of oppression, and decolonization would be incomplete without also tackling racism, capitalism and heterosexism.11

#### Reject settler colonialism as a structural analytic---it propagates a false consciousness that pacifies people out of improving lived conditions.

Manu Vimalassery 16, Assistant Professor of American Studies at Barnard College, Juliana Pegues, Alyosha Goldstein, “On Colonial Unknowing”, Theory & Event, 19(4), https://muse.jhu.edu/article/633283

The theorization of “settler colonialism” is indicative of these tensions. Activists and academics have increasingly taken up settler colonialism as an analytic to address the particular ways in which colonialism operates and persists in places such as Canada, Australia, New Zealand, and the United States, as well as Israel/Palestine. To a considerable extent, much of the work that has recently become associated with settler colonial studies has already been underway in Native American and Indigenous studies, as well as other fields including ethnic studies and colonial discourse studies. Our contention is that the particular ways in which settler colonialism has assumed predominance as an analytic risks obscuring or eliding as much as it does to distinguish significant features of the present conjuncture.22 Indeed, we suggest that when settler colonialism is deployed as a stand-alone analytic it potentially reproduces precisely the effects and enactments of colonial unknowing that we are theorizing in this introduction. Approaches to the analysis of settler colonialism, as isolated from imperialism and differential modes of racialization, are consequences of the institutionalization of this work as a distinct subfield, which is claimed and consolidated through analytic tendencies that foreclose or bracket out interconnections and relational possibilities. Settler colonial histories, conditions, practices, and logics of dispossession and power must necessarily be understood as relationally constituted to other modes of imperialism, racial capitalism, and historical formations of social difference. The key insights of settler colonial studies into the particularity of settlement as a manner of colonial power have also led to a tendency to focus on this distinction as constituting a discrete and modular form or ensemble of practices— such as Patrick Wolfe’s often cited contention that “settler colonialism destroys to replace”23—that can be applied across differences of geography or time. As such, settler colonialism appears as a self-contained type rather than a situatedly specific formation that is co-constituted with other forms and histories of colonialism, counter-claims, and relations of power. For instance, in the U.S. context, settler colonialism as a singular manner of colonialism entirely misses the ways in which the abduction and enslavement of Africans and their descendants was a colonial practice that, while changing in its intensities and modes of organization over time, was co-constitutive of colonialism as a project of settlement rather than a supplement that demonstrates the taking of land and labor as distinct endeavors. Wolfe’s description of settler colonialism as a structure, and not an event, has by now achieved the status of a truism in analyses of settler colonialism.24 Wolfe’s work has been crucial in bringing further attention to the fact that colonialism is an ongoing fact of life for indigenous peoples more than fifty years after the advent of the so-called era of decolonization. His scholarship insightfully underscored historical continuities in the shifting regimes and policies of settler states in relation to indigenous peoples, and challenged a certain produced ignorance about the “post” colonial character of societies like the U.S., Canada, Australia, and New Zealand.25 Yet drawing an absolute distinction between structure and event, and as a result, discarding a focus on the historicity of settler colonialism, neglects some of the ways Wolfe distinguishes between the binary terms structure/event in the service of further analysis. For example, Wolfe emphasizes how settler colonialism is a “complex social formation” with “structural complexity” that emerges through process.26 When taken up as a modular analytic that travels without regard to the specificities of location or social and material relations, a categorical event/structure binary banishes deeply engaged historical knowledge from the landscape, turning away from historical materialism, devolving into a scholastic debate over identities and standpoints that are reduced to structural essences and divorced from politics or contingency. Emphasizing structure over event also limits the analysis of settler colonialism itself into a descriptive typology, orienting our vision narrowly within the technical perspective of colonial power (in the white Commonwealth countries), away from geographies from below, such as a hemispheric perspective of the Americas, with their multiple and distinct modes of colonialism, thus replicating the conditions of unknowing.27 Foregrounding structure against event might also divert attention away from imperialism. This binary perpetuates taking what Lisa Lowe calls the “colonial divisions of humanity” as given. Situating this compartmentalization as a consequence of imperial formations calls attention to how, as Lowe writes, “The operations that pronounce colonial divisions of humanity—settler seizure and native removal, slavery and racial dispossession, and racialized expropriations of many kinds—are imbricated processes, not sequential events; they are ongoing and continuous in our contemporary moment, not temporally distinct now as yet concluded.”28 If the analytic project is reduced to naming and delimiting settler colonialism as a distinct structure of power that exists in specific places, primarily the settler peripheries of Anglo imperium, we lose focus on the Caribbean and the Americas as the grounds of modern imperialism, abdicating the hard-won horizon of anti-imperialism. An emphasis on structure over event is symptomatic of the stabilization of colonial unknowing through binaries and schematic modes of thought. As Wolfe writes, “Territoriality is settler colonialism’s specific, irreducible element.”29 However, Wolfe’s cartographic model is that of the frontier, in which “the primary social division was encompassed in the relation between natives and invaders.”30 The frontier is a linear model, a binary opposition between civilization and savagery, reflecting both a colonizing subjectivity and its state form. What socio-spatial imaginaries, and concomitant critical models, might become visible if we thought from other spatial forms, such as circles or spirals, spatial forms that are often more relevant to indigenous epistemologies than straight lines? If we remapped the colonial condition through circular or spiraling forms, what new insights might we gain on the decolonial imperative? For one, we might be able to better grasp colonial, racial, and imperial simultaneities, as well as positions that do not easily fit into a settler/native binary. As Wolfe writes, “Settler-colonists came to stay. In the main, they did not send their children back to British schools or retire ‘home’ before old age could spoil the illusion of their superhumanity. National independence did not entail their departure.”31 Moreover, to inflect these insights through the lens of negritude produces a considerably more complex set of possibilities, where the verbs come and stay do not carry any simple or easily recoverable trace of agency or consent.32 As Iyko Day writes, “the logic of antiblackness complicates a settler colonial binary framed around a central Indigenous/settler opposition.”33

#### Tuck and Yang hate the K – the 1NC’s gap between theory and praxis is another move to settler innocence. Unless they get THE FUCK off the land you should never vote neg.

Tuck and Yang 12 [Eve Tuck and K. Wayne Yang, \*State university of New York at New Paltz \*\*University of California, San Diego, 2012, "Decolonization is not a metaphor," Decolonization: Indigeneity, Education & Society Vol. 1, No. 1, 2012, pp. 1-40, https://clas.osu.edu/sites/clas.osu.edu/files/Tuck%20and%20Yang%202012%20Decolonization%20is%20not%20a%20metaphor.pdf, accessed 9-30-2019] LHSBC

Fanon told us in 1963 that decolonizing the mind is the first step, not the only step toward overthrowing colonial regimes. Yet we wonder whether another settler move to innocence is to focus on decolonizing the mind, or the cultivation of critical consciousness, as if it were the sole activity of decolonization; to allow conscientization to stand in for the more uncomfortable task of relinquishing stolen land. We agree that curricula, literature, and pedagogy can be crafted to aid people in learning to see settler colonialism, to articulate critiques of settler epistemology, and set aside settler histories and values in search of ethics that reject domination and exploitation; this is not unimportant work. However, the front-loading of critical consciousness building can waylay decolonization, even though the experience of teaching and learning to be critical of settler colonialism can be so powerful it can feel like it is indeed making change. Until stolen land is relinquished, critical consciousness does not translate into action that disrupts settler colonialism. So, we respectfully disagree with George Clinton and Funkadelic (1970) and En Vogue (1992) when they assert that if you “free your mind, the rest (your ass) will follow.”

# NC

## GPP

#### Existential threats outweigh

GPP 17 (Global Priorities Project, Future of Humanity Institute at the University of Oxford, Ministry for Foreign Affairs of Finland, “Existential Risk: Diplomacy and Governance,” Global Priorities Project, 2017, <https://www.fhi.ox.ac.uk/wp-content/uploads/Existential-Risks-2017-01-23.pdf>

1.2. THE ETHICS OF EXISTENTIAL RISK

In his book Reasons and Persons, Oxford philosopher Derek Parfit advanced an influential argument about the importance of avoiding extinction:

I believe that if we destroy mankind, as we now can, this outcome will be much worse than most people think. Compare three outcomes:

(1) Peace.

(2) A nuclear war that kills 99% of the world’s existing population.

(3) A nuclear war that kills 100%.

(2) would be worse than (1), and (3) would be worse than (2). Which is the greater of these two differences? Most people believe that the greater difference is between (1) and (2). I believe that the difference between (2) and (3) is very much greater. ... The Earth will remain habitable for at least another billion years. Civilization began only a few thousand years ago. If we do not destroy mankind, these few thousand years may be only a tiny fraction of the whole of civilized human history. The difference between (2) and (3) may thus be the difference between this tiny fraction and all of the rest of this history. If we compare this possible history to a day, what has occurred so far is only a fraction of a second.65

In this argument, it seems that Parfit is assuming that the survivors of a nuclear war that kills 99% of the population would eventually be able to recover civilisation without long-term effect. As we have seen, this may not be a safe assumption – but for the purposes of this thought experiment, the point stands. What makes existential catastrophes especially bad is that they would “destroy the future,” as another Oxford philosopher, Nick Bostrom, puts it.66 This future could potentially be extremely long and full of flourishing, and would therefore have extremely large value. In standard risk analysis, when working out how to respond to risk, we work out the expected value of risk reduction, by weighing the probability that an action will prevent an adverse event against the severity of the event. Because the value of preventing existential catastrophe is so vast, even a tiny probability of prevention has huge expected value.67

Of course, there is persisting reasonable disagreement about ethics and there are a number of ways one might resist this conclusion.68 Therefore, it would be unjustified to be overconfident in Parfit and Bostrom’s argument.

In some areas, government policy does give significant weight to future generations. For example, in assessing the risks of nuclear waste storage, governments have considered timeframes of thousands, hundreds of thousands, and even a million years.69 Justifications for this policy usually appeal to principles of intergenerational equity according to which future generations ought to get as much protection as current generations.70 Similarly, widely accepted norms of sustainable development require development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs.71

However, when it comes to existential risk, it would seem that we fail to live up to principles of intergenerational equity. Existential catastrophe would not only give future generations less than the current generations; it would give them nothing. Indeed, reducing existential risk plausibly has a quite low cost for us in comparison with the huge expected value it has for future generations. In spite of this, relatively little is done to reduce existential risk. Unless we give up on norms of intergenerational equity, they give us a strong case for significantly increasing our efforts to reduce existential risks.

1.3. WHY EXISTENTIAL RISKS MAY BE SYSTEMATICALLY UNDERINVESTED IN, AND THE ROLE OF THE INTERNATIONAL COMMUNITY

In spite of the importance of existential risk reduction, it probably receives less attention than is warranted. As a result, concerted international cooperation is required if we are to receive adequate protection from existential risks.

1.3.1. Why existential risks are likely to be underinvested in

There are several reasons why existential risk reduction is likely to be underinvested in. Firstly, it is a global public good. Economic theory predicts that such goods tend to be underprovided. The benefits of existential risk reduction are widely and indivisibly dispersed around the globe from the countries responsible for taking action. Consequently, a country which reduces existential risk gains only a small portion of the benefits but bears the full brunt of the costs. Countries thus have strong incentives to free ride, receiving the benefits of risk reduction without contributing. As a result, too few do what is in the common interest.

Secondly, as already suggested above, existential risk reduction is an intergenerational public good: most of the benefits are enjoyed by future generations who have no say in the political process. For these goods, the problem is temporal free riding: the current generation enjoys the benefits of inaction while future generations bear the costs.

Thirdly, many existential risks, such as machine superintelligence, engineered pandemics, and solar geoengineering, pose an unprecedented and uncertain future threat. Consequently, it is hard to develop a satisfactory governance regime for them: there are few existing governance instruments which can be applied to these risks, and it is unclear what shape new instruments should take. In this way, our position with regard to these emerging risks is comparable to the one we faced when nuclear weapons first became available.

Cognitive biases also lead people to underestimate existential risks. Since there have not been any catastrophes of this magnitude, these risks are not salient to politicians and the public.72 This is an example of the misapplication of the availability heuristic, a mental shortcut which assumes that something is important only if it can be readily recalled.

Another cognitive bias affecting perceptions of existential risk is scope neglect. In a seminal 1992 study, three groups were asked how much they would be willing to pay to save 2,000, 20,000 or 200,000 birds from drowning in uncovered oil ponds. The groups answered $80, $78, and $88, respectively.73 In this case, the size of the benefits had little effect on the scale of the preferred response. People become numbed to the effect of saving lives when the numbers get too large. 74 Scope neglect is a particularly acute problem for existential risk because the numbers at stake are so large. Due to scope neglect, decision-makers are prone to treat existential risks in a similar way to problems which are less severe by many orders of magnitude. A wide range of other cognitive biases are likely to affect the evaluation of existential risks.75

## Ethical Modesty

#### Use ethical modesty for the framework debate

#### Topic education: EC kills all substantive education and we just have the same phil debates every round.

#### Moral hedging: We don’t know if morality is 100% certain which means we should fuse the theories to have the highest probability of achieving moral good.

#### Strat Skew: Skews aff strategy because they have 6 minutes to win on substance or framework, whereas the affirmative can only focus on 1

#### Ground: Some arguments either auto-affirm or auto-negate--If we listen to only one winning framework, then the other side has no ground

#### Extinction o/ws: We can only have moral obligations if we’re alive in the first place.

## NC – Skep

#### Skepticism doesn’t function in debate because the resolution presupposes the existence of morality, Kempson 77

Ruth Kempson. Semantic Theory (New York: Cambridge, 1977).

The original example The King of France is baldis thus said to presuppose the sentence There is a kingofFrance since, as Strawson argues, one judges the truth or falsity of this statement by assuming the existence of the King of France and by assessing on the basis of this assumption whether or not he actually is bald. I**f there is no king of France, then the statement *The King of France is bald* is neither true nor false.**

#### Skepticism is useless since it doesn’t guide our action, Grosen:

PHILOSOPHY 203 (W) Lecture 1: Skepticism and rationality. <http://www.princeton.edu/~grosen/puc/phi203/Skepticism.html>

The moderate **skeptic** thus challenges a claim to knowledge without denying that the underlying belief is well supported by the evidence. These **arguments** are important, and much can be learned from studying them. But they **are of limited interest**, in part **because we can usually just concede the skeptic's point without much fuss.** Presented with a moderate skeptical challenge **we can usually say: "Sure, now that you mention it,** I agree that **I don't really *know* very much, and I'm being sloppy when I say that I know this or that. But that doesn't mean that my ordinary opinions are unwarranted or that I should agonize here and now about how to revise them.** Thanks very much for calling this fact to my attention**: I hereby resolve be more cautious in my claims to Knowledge from now on. But I see no reason to change my mind about anything important."**

#### Skepticism doesn’t guide action and thus you can ignore it even if you believe it 99%,

Ross 08

Jacob Ross - “Rejecting Ethical Deflationism” – Ethics 116, July 2006

Another kind of nondiscriminating theory is ethical nihilism. [means] This is the view that the notions of good and bad and of right and wrong are illusions and that, objectively speaking, no option or state of affairs is better than any other, nor are any two options or states of affairs equally good. Thus, while uniform theories assign the same value to all of our options, nihilistic theories don’t assign values to any of our options. 2 Now suppose once again that I have a degree of credence of .01 in TL from the previous example, but this time I have a degree of credence of .99 in a nihilistic theory, TN. And again suppose that I must decide between sending the trolley to the right and sending it to the left. In this case we could reason as follows. According to TL, it would be better for me to send the trolley to the left than to send it to the right. And so my credence in TL gives me pro tanto subjective reason to send the trolley to the left. The only way this could fail to be the most rational option would be if my credence in TN gave me a sufficiently strong countervailing subjective reason to send the trolley to the right. But TN implies that there would be nothing valuable or disvaluable about either alternative. And so my credence in TN gives me no subjective reason to favor either alternative. Hence the pro tanto subjective reason to send the trolley to the left is unopposed, and so this is the rational option. I would choose this same option if I were to deliberate on the basis of TL alone. Thus, taking into account TN has no effect on what I ultimately choose, and so TN can harmlessly be excluded from consideration in deciding how to act. That is, I can harmlessly reject the nihilistic theory and deliberate on the supposition that the nondeﬂationary theory, TL, is true.

## NC- GCB

1) Religious args are a voting issue- forcing debaters to argue against deep personally held convictions like their spirituality is psychologically violent

2) Problem of Evil- if God is ominipotent and omnbivevolent, then they actively choose to have evil in our world- two implications

a) Takes out the (AC/NC)- a wholly good being would logically create a world without evil, but evil exists, so there can’t be a God

b) Your theory is violent- it justifies chattel slavery and the Holocaust being morally permissible because that was the status quo during their time period- drop them for ethically justifying genocide

3) There’s no warrant for even if the squo is good, why it can’t be better- we win solvency which disproves the NC

4) All religions say we should protect the Earth because it’s God divine creation- climate change causes mass ecological death so affirm

5) Freewill takes out the NC- the GCB gave us freewill to create better states of affairs so we should do what external obligations tell us to do- if we win the aff is a good idea don’t vote on the NC

## NC – Hobbes

### Author = violent

#### Hobbes is pretty fucked up. Hobbes not only participated in but upheld racial slavery.

Sorentino 16 (Sara-Maria Sorentino earned her PhD in Culture & Theory in 2018 from the University of California, Irvine. Her research is interested in excavating connections between anti-black violence, philosophical abstraction, and material reproduction. Her book manuscript, in progress, engages a black feminist philosophy of history to put pressure on received discourses from political theology, political theory, political economy, and psychoanalysis by exposing the centrality of slavery to their conceptual worlds. Along with book chapters and book reviews, she has work published or forthcoming in Rhizomes, Theory & Event, and International Labor and Working-Class History. The Sociogeny of Social Death: Blackness, Modernity, and its Metaphors in Orlando Patterson. <http://www.rhizomes.net/issue29/sorentino.html> Yes, I can cite things bovering, I just don’t trust Loyola not to read friv theory.) AB

Troublingly, when his decades-long series' of books and essays on the genealogy of freedom finally arrives at the early modern period, Patterson provides an out for the Enlightenment. In Freedom, he credits John Locke with the distinction of having "bluntly stated," like few others before or since, the war slavery doctrine's "nearly universalizing way of rationalizing and symbolically expressing the condition of slavery."[[140]](http://www.rhizomes.net/issue29/sorentino.html#footnote-140) Patterson's later "Modern Construction of Rights," continues this theme, praising both Locke and Hobbes for initiating the modern "reconception of freedom" through the language of "fundamental human rights," most fundamental among them is the right not to be a slave.[[141]](http://www.rhizomes.net/issue29/sorentino.html#footnote-141) But, as I am developing elsewhere, Hobbes and Locke utilized the war slavery doctrine not to include racial slaves into the discourse of rights, but to forge a generalized myth for the founding of the nation in the articulation of the globe. Indeed, along with other key natural law theorists like Hugo Grotius, they not only participated in and upheld racial slavery,[[142]](http://www.rhizomes.net/issue29/sorentino.html#footnote-142) but directly elided the racial slave, evoking instead an idealized political subject (the metaphorical slave), whose self-determination is set in opposition to an originary, affectable, and threatening indeterminacy at the border of the polis, a blackness that the political calls itself to protect. Patterson collapses the line of rhetorical condensation in which war slavery provides only partial rationalization and severed symbolic expression for slavery, explaining away any impasse between the ideal and the real, blithely incriminating political theorists for a hypocritical, but insubstantial, voluntarism, cemented by unfortunate circumstance: neither Hobbes nor Locke, he writes, "had the courage or the means to practice or even to encourage what they preached for real living slaves."[[143]](http://www.rhizomes.net/issue29/sorentino.html#footnote-143) Patterson's decontextualization of political theory is presaged in his earlier, effusive Ethnic Chauvinism: "it should be clear that none of the major faults of the Enlightenment were intrinsic. They came mainly from carelessness, bourgeois selfishness, and the over enthusiasm of the intellectual frontiersman. They can all be easily corrected."[[144]](http://www.rhizomes.net/issue29/sorentino.html#footnote-144) This displacement of the intimacy between slavery and a modern discourse of subjectivity from the internal architecture of rights correlates across all Patterson's assessments of both race and racism as problems of parochial disposition. Instead, I have been arguing, racial slavery is the sociogenesis of the human, an unthought mediation for a precariously indeterminate state, the shadow generated by an attempt to give form and order to a disintegrating world.

#### 2 implications – A] an obvious reason to drop the debater – they make debate inherently unsafe by justifying oppressive and racist ideologies, forcing minorities to the fringes of the debate space – comes first since it changes the game of debate – it’s a prior question since representations shape our understandings and the lens by which we view policies and ideas B] their fw allows endless racism which is morally wrong and o/w all offense – that’s a reason their NC is false – normative theories that justify oppression, a moral wrong, aren’t ethical theories we should use

**Offense is incoherent—no warrant for why sovereign cant have obligations and why those obligations harm the State of nature.**

**Sovereign must have some obligations or they could just say slavery should be instated and it would be permissible.**

### Ideas = violent

#### Absolutionist theories where we can’t question the state pave the way for genocidal actions – Hobbes himself was used to justify social Darwinism.

Dvorsky 13**:** Dvorsky, George [Contributing Editor, Gizmodo] “How the pseudoscience of Social Darwinism nearly destroyed humanity.” *Gizmodo.* September 2013. RP

Following the publication of Darwin’s On the Origin of Species in 1860, many political theorists and opportunistic politicians applied his findings to human society. In the 20th century, these ideas were put into practice — and it nearly destroyed us. Here’s why Social Darwinism was one of the worst ideas ever. Charles Darwin’s theory of natural selection was unlike any that had preceded it, the shockwaves of which are still being felt today. Even Copernicus’s terribly upsetting notion — that the Earth revolves around the Sun — only mildly perturbed our sense of the universe and our place within it. The same could be said about Newton’s clockwork physics and Einstein’s relativistic interpretation of the cosmos. These axiomatic shifts certainly changed the way Western society looked at itself, but not to the degree that Darwinian natural selection did. Indeed, Darwin’s dangerous idea penetrated deeply into a hypersensitive realm that had stubbornly languished beyond human understanding: The origin of life. Darwin’s theory served not merely as an explainer for life on Earth — it was also a veritable God killer. What’s more, it “reduced” humanity to the level of animals, forever disrupting the [Judeo-Christian](http://io9.com/does-the-new-pope-believe-in-evolution-453874239) notion that humanity existed in an exalted place between God and the natural world. Humanity, it was suddenly realized, was not privy to the whims of God, but rather to the laws of nature. Moreover, the human species wasn’t static. For the 19th Century intelligentsia, this further reinforced burgeoning notions of materialism, the sense of social change and progress, and the inexorable struggle for survival. **Feeding off earlier notions posited by the likes of Thomas Hobbes (who argued that the original state of nature is nasty, brutish, and short), Thomas Malthus (whose theories on human population growth served as a kind of proto-sociobiology) Auguste Comte (a positivist), and Jean-Baptiste Lamarck (who presented an earlier, but inaccurate, theory of evolution), many thinkers began to apply Darwinian notions to human individuals, society, and races. In the absence of God, went the argument, humanity needed to act to ensure its fitness and ongoing survival. Darwin’s thesis seemed to provide a blueprint on how this could be done. And thus began the transference of Darwinian theories from animal species to social groups and races — a development that would lead to catastrophic results. As a term, “Social Darwinism” was used sparingly in the 19th Century; it was only popularized in the United States in 1944 by historian Richard Hofstadter. And indeed, it’s a term that casts a wide net, encompassing several different areas as it pertains to the extension of Darwinism to the social realm. Indeed, its wide interpretation led thinkers to a number of different conclusions, including the reinforcement of individualism and minimalist government, theories about racial and societal “hygiene” and** [**eugenics**](http://io9.com/5925024/why-eugenics-will-always-fail)**, notions of racial superiority and the justified use of force, and the idea that the human species could be moulded by the state**. Part of the problem is that Darwin’s theory arrived at a dangerous time — a time when Western cultural and scientific sensibilities were not entirely ready for it; it was an idea ahead of its time, and by consequence, was misappropriated to realms into which it didn’t belong. The acceptance of Social Darwinism was not only a symptom of an emerging and overly enthusiastic scientism, but also the result of poorly developed conceptions surrounding race, ethnicity, and biological diversity. It appeared during a time of deeply embedded and unquestioned racism, where the conditions of under-developed nations and poverty-stricken visible minorities were attributed to racial inferiority. It was also driven by a [fallacy](http://io9.com/5974468/the-most-common-cognitive-biases-that-prevent-you-from-being-rational) that exists to this very day, namely the Naturalistic Fallacy. Social Darwinism was often justified on account of evolution being a “natural” process — a very dangerous proposition, to be sure. The human brain is capable of 1016 processes per second, which makes it far more powerful than any… During the latter half of the 19th century, Darwin’s biological ideas began to influence not just political theorists, but politicians as well. His theory — which described the process of variation and selection, the struggle for existence, and the need for adaptation and improvement — were applied to human society, primarily to reinforce and rationalize aspects of competition and struggle. It was also used to justify political control by a minority (e.g. imperialism and colonialism) and the capitalistic system itself. What’s more, because Darwinism was (and still is) often misunderstood to imply an evolutionary trajectory, evolution was also equated with social progress. The chief advocates of Social Darwinism during the 19th century included Herbert Spencer and William Graham Sumner. Interestingly, Spencer’s highly influential work, Progress: Its Law and Cause, was released three years before the publication of Darwin's On the Origin of Species, while his First Principles was printed in 1860. So while Spencer was not immediately influenced by Charles Darwin, the subsequent popularization and legitimization of his ideas were most certainly a direct consequence. Both Spencer and Sumner asserted the value of the struggle for life which resulted in improvement, a natural consequence of the “survival of the fittest” doctrine. This early form of Social Darwinism had a distinctive laissez-faire character to it, whose supporters advocated for an individualist order of society. Herbert Spencer in particular was an ardent individualist. He firmly believed that the functions of the state should be limited to protection, and that no restrictions should be placed on commerce, and no provision made for social welfare or education. This individualism was a clear consequence of his application of evolutionary biology to social relationships. All existence, Spencer argued, grew through a series of transformations from the simple to the complex by successive variations. He saw civilization as an ongoing process in which humans adjusted to an increasingly complex world. This evolutionary process, in the absence of interference, led inevitably to social improvement — an idea that now resonates with modern libertarians. He also saw the poor as being biologically “unfit.” Public efforts to help them, be it through legislation, charity, and social reconstruction, were undesirable because it might allow them to mature and pass on their weakness. He suggested that the whole thrust of nature was to get rid of the inefficient in order to make room for the superior. The way he looked at it, if they weren’t fit enough to live, they would die — and it was probably for the better. Spencer wrote: Other evils, no less serious, are entailed by legislative actions and by actions of individuals, single and combined, which overlook or disregard a kindred biological truth. Beside an habitual neglect of the fact that the quality of a society is physically lowered by the artificial preservation of its feeblest members, there is an habitual neglect of the fact that the quality of a society is lowered morally and intellectually, by the artificial preservation of those who are least able to take care of themselves.” Similarly, Cesare Lombroso, an Italian physician, [argued in 1876](http://www.marxist.com/science-old/marxismanddarwinism.html) that born criminals were essentially proto-humans — a throw-back in evolution. Similar sentiments were also used to justify slavery in the United States. These ideas would go on to influence the eugenics movement, an early 20th century initiative designed to prevent those deemed too unworthy to pass their deleterious genes to the next generation, lest the overall health of human society be compromised. Additionally, the burgeoning Social Darwinism of the time would go on to influence such politicians as Otto von Bismarck, Joseph Chamberlain, and Theodore Roosevelt. It was often used in the political arena to justify eugenic or racial differences, imperialist expansion, colonialism, and war. These politicians, whether they did so opportunistically or sincerely, used these sentiments to stress competitive relationships and struggles between nations and groups in order to ensure the survival of the physically and mentally worthiest people. And to further the cause of their nation. **Without question, the most infamous application of Social Darwinism was in Nazi Germany.** By the early 20th century, the pseudoscientific generalities of Social Darwinism remained popular in Europe — and it spoke to those advocating for racial purity. Indeed, Social Darwinism served to heighten race consciousness to a greater degree; anti-semitism during this time was justified on biological grounds. Historian Alan Cassels writes: Above above all, German Volkish cultists excoriated Jews as “a pestilence and a cholera” which threatened to pollute the race. To accomplish this corruption, Jewish males were supposed to lust perpetually after Aryan women. A logical recommendation to be drawn from this view was the destruction of German Jewry in order to preserve the purity of the German race — a proposal made by some fanatics before 1914 and ultimately implemented by the Nazis. Using such thinking, Jews could then be persecuted not for their actions or beliefs, but simply for who they were. Adolf Hitler further articulated these beliefs in the first volume of Mein Kampf. He essentially saw the world as one gigantic struggle among the races — a struggle that would ultimately be won by the strongest. And therein lay one of the most nefarious ideas to take root in modern politics — the notion that force could always be justified in this context, with no room for ethics, law, or humanitarian scruples. The acceptance of Social Darwinism by the Nazis goes a long way in explaining the intense brutality meted out during the Second World War. It not only motivated them to unite the Teutonic peoples, but to decimate races altogether, and to claim other lands as the conquerors of more primitive races — including the Slavs who Hitler described as being subhuman, a race suitable for both colonization and, eventually, annihilation (Hitler’s Hunger Plan, which was never put into practice on account of stubborn Soviet resistance, called for the deliberate starvation of tens of millions of Slavs in preparation for the colonization of Ukraine and parts of Russia). So severe, was Naziism, that its political opponents deemed it an existential risk. It had to be wiped out lest its tentacles spread to all corners of the Earth, spawning a culture-crushing and science-stifling Dark Age. The resulting war — the first to feature apocalyptic [weapons](http://io9.com/11-jaw-dropping-weapons-from-world-war-ii-you-probably-511010752) — was the greatest human-instigated disaster to befall our civilization. The Second World War witnessed the introduction of hundreds of cutting-edge and often bizarre…But fascists weren’t the only totalitarians to be influenced by Darwin. The misapplication of biology to politics was also committed by the communists. Karl Marx read On the Origin of Species and absolutely loved it. Not only did it speak to his materialist sensibilities, it also affirmed his theory of class struggle — an agenda that was put into full force by Joseph Stalin during the Great Terror period, a time when millions of people were murdered by the Soviet apparatus as a means of self-colonization. Marx wrote: Darwin’s work is most important and suits my purpose in that it provides a basis in natural science for the historical class struggle...Despite all shortcomings, it is here that, for the first time, ‘teleology’ in natural science is not only dealt a mortal blow but its rational meaning is empirically explained. What’s more, it also affirmed in Marx’s mind that humanity is a work in progress. It supported his conception of the utopian New Man — [the next iteration of the human species](http://io9.com/no-china-is-not-conducting-a-giant-eugenics-project-512749419). But rather than have it come about through the haphazard processes of natural selection, it could be enforced through state imposition. Sadly, Darwin never intended for this to happen. For the most part, he limited the theory to the biological realm (though he did delve into speculative sociology in his later work, The Descent of Man). But like so many things in life, it takes only a few people to ruin it for everybody else. To this day, Darwinism has its detractors, including Creationists who wrongly blame Darwin and his theory for the travesties committed last century. Quite obviously, equating natural selection — a remarkably potent theory that’s accepted wholeheartedly by any serious biologist — with the ills of Social Darwinism is a tragic mistake. The science is still science, while Social Darwinism, with its gratuitous generalizations and misreadings of how natural selection works (e.g. it completely fails to account for group selection theories and the rise of such characteristics as empathy) will forever remain in the realm of pseudoscience. What’s more, the application of Darwinian processes to human morality is about as facile an exercise as it gets. **As a moral maxim, “survival of the fittest” is as unenlightened as it gets. If anything, the general tendency of human society is remove itself as far away from possible to this process. If anything, Social Darwinism is anathema to civilized society. And the fact that it nearly destroyed us should serve as a potent lesson**.

### Util/Extinction under Hobbes

#### 1. Hobbes says that one of the laws of nature is that we must value self-preservation over all other rights because we fear death the most out of all. A state cannot ask you to risk your life for the sake of the state, otherwise the state violates the social contract. (Hobbes *Leviathan* chapter 13-15)

#### 2. The NC is hiding under Hobbesian language: it’s standard is *avoiding the state of nature*, and it says that the sovereign is away to do that. Our global war impacts *are* that violent state of nature in its worst form, so we outweigh under their actual standard.

#### 3. The sovereign must preserve itself as a prerequisite to the moral and pragmatic reasons for its existence. Extinction is a prerequisite to their framework.

## NC- Kant

### Turns

**First, subsidies violate the framework – market intervention harms free choice**

**Roos 12:** Dave Roos. “How Libertarianism Works”. HowStuffWorks: Basic Principles of Libertarianism. July 10th, 2012. <https://people.howstuffworks.com/libertarianism1.htm>. FD-RW

The foundation of libertarianism is individual freedom. The individual should be free to make his or her own choices according to his or her own desires, as long as those choices don't infringe on the rights of others. The most important and basic [human rights](https://money.howstuffworks.com/economics/volunteer/organizations/human-rights-organizations.htm), according to libertarianism, are life, liberty and property. Libertarians believe that these "natural rights" existed before and outside of any organized form of government [source: [Boaz](http://www.theihs.org/what-libertarian)]. If left to themselves, libertarians argue, people will respect and protect these rights. Government doesn't need to force or coerce us. Limited government is a critical pillar of libertarianism. While conservatives and liberals would use big government to push their individual agendas, libertarians believe that **the best thing the government can do is to get out of the way** [source: [Miron](http://www.theihs.org/what-libertarian)]. The only responsibility of government, under libertarianism, is to protect the rights of its citizens. In no way should the government use its laws -- tax law, regulations on business, censorship laws -- to coerce or influence the free choices of its citizens. The only actions that should be forbidden by law are murder, rape, robbery, kidnapping and fraud [source: [Boaz](http://www.theihs.org/what-libertarian)]. Everything else would be tolerated as a byproduct of free choice. Tolerance is another key principle of libertarianism. Libertarians believe that individuals should be free to make their own choices and live their own lives. For that reason, libertarians oppose the criminalization of drug use. They support gay [marriage](https://people.howstuffworks.com/marriage.htm) and full rights for same-sex couples. They oppose severe restrictions on abortion [source: [Miron](http://www.theihs.org/what-libertarian)]. The libertarian message is simple: if I believe in the freedom to make my own life choices, then I should tolerate the free choices of others, as long as they do me no harm. Freedom is also central to the libertarian approach to economics. A limited government should not interfere with or attempt to influence the economy. The best economy is powered by truly free markets. **The government should never provide subsidies** or bailouts to artificially prop up certain industries, like agriculture, [banks](https://money.howstuffworks.com/personal-finance/banking/bank.htm), or the auto industry. Instead, free choice and fair competition should reign. If businesses compete on a level playing field, and consumers are allowed to freely choose among them, then the free market will dictate fair prices and fair wages. For example, the government shouldn't hand out tax credits for buying hybrid vehicles -- that's coercion. Instead, it should cultivate the kind of free-market economy that drives carmakers to compete to build the most efficient and affordable cars possible. Libertarians don't believe that the individual exists in a bubble. Instead, they believe that individual freedom is the foundation of a successful civil society. Civil society is composed of all of our informal and formal associations: family, community, church, school, workplace, clubs, trade associations, etc. Libertarians argue that it is within these freely formed associations that we develop and exercise true compassion, service and social welfare. They don't believe that we should let the homeless suffer the consequences of their "free choices," but they also don't believe that impersonal government welfare programs are the solution [source: [Libertarian Party](http://www.lp.org/issues/poverty-and-welfare)]. Instead, if we're free to develop healthy compassionate communities, we'll take care of our own. In other words, cooperation is better than coercion [source: [Boaz](http://www.cato-at-liberty.org/are-libertarians-anti-government/)].

**Second, equal freedom necessitates the protection of the environment – environmental degradation contradicts freedom  
Ataner 12:** Attila Ataner ‘12 (B.A., J.D.). “Kant on Freedom, Property Rights, and Environmental Protection.” Thesis submitted to McMaster University to partially fill a requirement for a master’s degree in the arts. October 2012. FD-RW  
We can also make our point with a series of questions: If “[f]reedom requires that you be able to have usable things fully at your disposal, to use as you see fit, and so to decide which purposes to pursue with them”,131 then is not the destruction of usable things in contradiction with the requirements of freedom? How are you supposed to pursue any further purposes if you have made it your purpose to destroy the things within which you pursue your purposes? Clearly, given the Kantain perspective on the meaning of property, the (permanent) destruction of finite, non-renewable natural resources, such as land, is incoherent: one simply cannot invoke the right of property, or the freedoms that it is supposed to enable, to justify destroying such resources. Similarly, suppose Hegel is right to say that property permits the suppression of the “pure subjectivity of personality”, or that in possessing property I become “an actual will”, or that property “gives my will existence”, such that “not until he has property does the person exist as reason”. In that case, wouldn’t the destruction of property result in a failed actualization of the will? Suppose, again, we have a land-owner who wishes to poison his lands, rendering them unfit for future use: is such a person actualizing his will freely and effectively, or is he undercutting his own (future) ability to act freely and effectively? I maintain that, for both Kant and Hegel, the destruction of property holdings, especially of finite depletable resources, is fundamentally incompatible with the core rationale of property as a freedom-maximizing institution. Put differently, the destructive, dissipating or non-sustainable use of finite, depletable natural resources, especially land, constitutes a **transgression of freedom** because such use is **radically inconsistent** with the conditions under which alone “the greatest use of freedom” is possible. That is, Kant’s core tenet regarding the necessity of property acquisition as a function of our extended freedom in the world dictates that the character of usable things as usable, as means fit for the realization of human purposes, must be maintained in perpetuity.

### AT General

1) Tailoring objection—you can tailor maxims to become specific enough to be universal. For example, I can will lying only in a very specific circumstance, which would prevent any contradiction because not everyone would be lying.

2) Collapses to consequentialism – we only know that something isn’t universalizable because in consequence it contradicts the will. For example, freedom violations would be bad because in consequence it sets a precedent that freedom is incoherent.

3) No intentionality – it’s impossible to weigh and compare intents absent intervention of our own intuition. Proves their offense is just self-serving and doesn’t guide to action.

4) The only way that we know an action is good or bad is through its consequences. A violation of a constraint might be bad because it results in treating someone as a means. Talking about how we can only know intent does nothing for you: consequentialists concede this and speculate about end states based on the aims of the actions.

5) Weighability – only consequentialism explains degrees of wrongness—if I break a promise to meet up for lunch, that is not as bad as breaking a promise to take a dying person to the hospital. Only the consequences of breaking the promise explain why the second one is much worse than the first.

6) No intent-foresight distinction – the actions we take are inevitably informed by predictions from certain mental states, meaning consequences are a collective part of the will – thus, all ends are willed so the AC collapses to util.

7) No act-omission distinction—governments are responsible for everything in the public sphere so inaction is implicit authorization of action: they have to yes/no bills, which means everything collapse to aggregation.

### AT Korsgaard

1. Fallacy of the origin. Just since rationality made morality doesn't mean we respect it. Killing my parents doesn't kill me, just like disrespecting rationality doesn't destroy morality.

2. No normative implications- why does it matter that we can reflect? Humans have opposable thumbs and fish don't and we don't use that as a meta-ethic.

3. Reflection does not imply normativity since different people come to different things with their reflections, or else all of our opinoins would be the same.

4. Is/ought fallacy- just because this faculty exists doesn't mean its moral.

### AT Benhabib/Hoppe

1) Ridiculous- you need water to act with agency also, ur arg proves why its intrusmentally valuable not intrisncially- proves fw is means to an end to something else

2) Conflates pre/post fiat distinction

## NC – Util = Permissibility

### 1AR – Resolvability TJF

#### NonUQ: every framework is equally resolvable; you just go off the arguments on the flow like always.

#### Resolvability flows aff: Resolving which side has extinction impacts is easier than resolving which side is more categorically imperative, best for the sovereign, etc.

### 1AR – Aggregation Impossible

#### We can quantify death because it deprives us of infinite future value.

### 1AR – Bostrom Infinite Universe

#### No quals—Bostrom’s a philosopher, not a scientist

#### Universe is finite: finite speed times finite time equals finite distance.

**A local increase in pleasure increases total pleasure of an infinite universe, so util still works.**

### 1AR – Infinite Consequences

#### The terminal consequence of the squo is extinction which our evidence says we solve

#### Prefer proximate causes—we can still have intent and can achieve this intent which proves we can use consequentialism

# 2AR

## K’s

### Warming

#### Warming causes the death of every person on planet earth absent immediate action – the plan is key because it leverages the mechanisms of the neoliberalist market against itself to check against paternalistic and masculine forms of overconsumption that perpetuate massive forms of inequality in the status quo – downwind stream pollution, rising sea levels in districts that cannot afford levies or flooding insurance, and endless exploitation of native’s land for black gold. The pursuit of energy and wealth is inevitable so it’s only logical to guide those intentions toward technology that sustains our planet.

### Econ

#### Cap and trade collapses the economy through a popped bubble created by massive permit trading – that causes the decline of US leadership worldwide. The plan revitalizes the only form of environmentalism in the age of Trump. Even if US leadership is bad, it is comparatively not as worse as the unchecked authoritarianism from Russia and China. War disproportionately affects the poor because endless conscription of the brown and blacks removes any labor from the lower classes and locks people of color into endless cycles of suffering.

## Condo

### 2AR—Condo OV

#### Conditionality is a voting issue

#### 1st is strat skew—LD time skew massively screws over the aff. LD DOESN’T HAVE A 2AC; the 1AR has to make its initial arguments and start weighing in half the time the negative only has to present their initial arguments. 1ARs need to be able to make strategic choices to restrict the 2NR—condo kills the Aff’s ability to do that. Aff flex controls the internal link to fairness since the Neg is just SO advantaged in LD.

#### 2nd is Depth—LD rounds are already short as it is. Philosophy and theory debates already distract us from the core controversy of the topic. Conditionality encourages the Negative to go for the least covered position. This also encourage Affs to give blippy 1ARs out of necessity to cover everything. Rebuttal speeches are vacuous; the Neg either just wins out of sheer brute force or the Aff wins on a blip. Unconditionality ensures exponentially increased quality of argumentation on both sides going into rebuttals.

#### Fairness is a voting issue because competitive equity is axiomatic of any game.

#### Education is the only reason schools fund debate.

#### Fairness controls the internal link to and outweighs education; overwhelmed 1ARs kill the Aff’s ability to engage which is the only way to learn anything. Education is inevitable; but debate is a game and Conditionality lets the negative cheat.

#### Drop the team—Winning the round is the debater’s greatest incentive to win the round. Winning the thesis of our interpretation proves drop the debater; the negative having multiple paths to the ballot is bad and they should lose for us impact turning their practice.

#### Competing Interpretations—Reasonability is arbitrary and invites judge intervention.

#### Reasonability doesn’t follow the same offense defense paradigm that the rest of debate does. You wouldn’t vote Neg if they only extended defense in the 2NR.

#### Double Bind—Either a) they are on the right side of the issue so they should be able to win their counter interpretation or b) they aren’t which means they should lose.

#### Drop the debater justifies competing interps-A debater will lose this round based on the theory debate, whoever’s interpretation is better forwards a better model of debate and the ballot should endorse that model.

### 2AR—A2 Real World Policy

#### Clash outweighs the educational impact of policymaking since allowing negs to not defend their CP’s means that no policy education occurs. The unique benefit of debate is from substantive engagement, so no clash means no education.

#### This misses the point: Policymaking is only useful since we advocate solutions to real-world problems. But if negs can just abandon their advocacies, there’s no point in the educational exercise since we no longer have to find the best or most supported CP’s.

#### Condo's not key – we can find the best policy option over the course of the topic.

### 2AR—A2 Multiple Angles

#### Multiple rounds solve – the aff has to debate a variety of counterplans and Kritiks throughout the tournament.

### 2AR—A2 You Get Perms

#### Perms aren’t an ADVANTAGE, they merely equalize the round since they’re defense against CPs, not offense. They’re also very limited since they can’t sever, so they don’t provide any advantage.

#### Perms are restricted by the CP’s read in the round, so the neg still controls perm strategy since they can pick which CP to read, so perms don’t give the aff an advantage.

#### Perms are extremely easy for the neg to answer – net benefits are designed to link to the perm, while the aff has to defend the plan the whole debate

### 2AR—A2 Neg Flex

#### They get infinite prep too – the aff was disclosed and they can also do prep

#### Even if the aff can plan out the perfect 1AR answers to every neg positions, condo skews time allocation and creates contradictions that preclude our best answers

### 2AR—A2 One Condo

#### Infinitely regressive – their counterinterp is phrased to artificially restrict offense to a single conditional advocacy, but all their standards justify infinite conditional positions – there's no logical reason why [their standards] would stop at one advocacy

### 2AR—A2 Info Processing

#### Depth over breadth – learning about multiple ways to test the aff occurs over the course of the season, not necessarily in one debate round. Five rounds that are in-depth on one issue are preferable to five rounds that discuss several counterplans at once.

#### Info overload – debaters only have so much time to think about advocacies, and introducing multiple conditional counterplans prevents critical thinking about new information, turning debate into a question of coverage rather than real deliberation

### 2AR—Argument Exposure

#### Out of round research doesn't outweigh:

#### Competitive incentives– aff debaters won't research good answers to specific counterplans if condo means their answers likely won't matter anyway

#### Clash controls the link to education – absent a two-sided discussion on the counterplan that challenges the neg to do research and learn about the nuances of plan/CP debate, we only learn about

#### Too optimistic – their standard assumes that the neg will find educational and innovative arguments, while in reality negs will just rush to stack the 1NC with generic kritiks and counterplans like states, cap, and courts.

#### *If out of round education comes first, then their standards based on in-round clash also don't matter.*

1. Seitz R (2011) Bright water: hydrosols, water conservation and climate change. Climatic Change. doi:10.1007/s10584-010-9965-8 [↑](#footnote-ref-1)
2. The Royal Society (2009) *Geoengineering the Climate: Science, Governance and Uncertainty*. RS Policy document 10/09. The Royal Society, London, 82 pp [↑](#footnote-ref-2)