### 1

#### Transportation Strikes are low now due to Federal Strike Bans.

Bauernschuster et Al 17, Stefan, Timo Hener, and Helmut Rainer. "When labor disputes bring cities to a standstill: The impact of public transit strikes on traffic, accidents, air pollution, and health." American Economic Journal: Economic Policy 9.1 (2017): 1-37. (Faculty of Business Administration and Economics, University of Passau, Innstra)//Elmer

New York City's **Taylor Law,** which was put into effect **in response to a transit strike** in 1966, represents an example of a particularly draconian measure. Under Section 210, the law **prohibits** any **strike or** other concerted **stoppage** 01 worn or slowdown by public employees (Division of Local Government Services 2009). Instead, it prescribes binding arbitration by a state agency to resolve bargaining deadlocks between unions and employers. **Violations** against the prohibition on strikes are **punishable with hefty penalties**. The fine for an individual worker is **twice** the striking employee's **salary** **for each** **day** the strike lasts. In addition, union leaders face **imprisonment**. Since its inception in 1967, the Taylor Law has generated a lot of controversy. To proponents, it was **successful in averting several potential transit strikes** that would have imposed significant costs on the city and its inhabitants (OECD 2007). Indeed, New York City has only seen two transit strikes over the past four decades—in 1980 and in 2005. In both cases, harsh monetary penalties were imposed on workers and unions. The 2005 transit strike additionally led to the imprisonment of a union leader, and saw the Transport Workers Union (TWU) filing a formal complaint with the ILO. Since then, the ILO has urged the United States government to restore the right of transit workers to strike, arguing that they do not provide essential services justifying a strike ban (Committee on Freedom of Association 2011, 775). So far, the Taylor Law has not been amended in this direction.

#### Transit Strikes cause mass damage that far outweighs any benefits – specifically causes high Air Pollution by causing shifts to Personal Traffic.

Bauernschuster et Al 17, Stefan, Timo Hener, and Helmut Rainer. "When labor disputes bring cities to a standstill: The impact of public transit strikes on traffic, accidents, air pollution, and health." American Economic Journal: Economic Policy 9.1 (2017): 1-37. (Faculty of Business Administration and Economics, University of Passau, Innstra)//Elmer

This paper aims to answer two questions that are at the heart of the Taylor Law controversy and similar debates elsewhere: Do strikes in the public transportation sector cause disruptions that endanger the safety and health of urban populations? And how large are the costs of transit strikes to noninvolved third parties? To get at these questions, our **analysis uses time series and cross-sectional variation** in powerful registry data **to quantify** the **effects of public transit strikes** in five domains: traffic volumes, travel times, accident risk, pollution emissions, and health (see Figure 1). The **context** **for our study** are the five largest cities in **Germany**, which provides us with an ideal setting. In particular, in contrast to countries that have imposed de jure restrictions on public transit strikes, **German courts** de facto **protect the right to strike** in this sector. **As a consequence**, Germany **regularly faces strikes by transit workers.** Our analysis exploits 71 one-day strikes in public transportation over the period from 2002 to 2011. We identify the daily effects of these strikes using both time series and cross-sectional variation in our data. In a first step, we estimate the impact on the total length of time that cars are in operation (henceforth, total car hours operated). To do so, we make use of two data sources. First, we use hourly informa tion from official traffic monitors to estimate the effect of transit strikes on traffic volumes. Second, we use congestion data based on GPS speed measurements from TomTom, a global supplier of navigation and location products and services, to esti mate the effect on travel times. Combining the two estimates allows us to compute the effect on total car hours operated. In a second step, we explore likely knock-on consequences by expanding the analysis in three directions. First, we assess the impact of strikes on the incidence and severity of car accidents using detailed regis ter data, which includes all vehicle crashes recorded by the German police. Second, to investigate the effect on atmospheric pollution, we draw on hourly data from official air monitors. Third, we explore the effect on human health using register data, which includes information about all patients admitted to all German hospi tals. Our identification strategy is based on a generalized difference-in-differences approach. It flexibly captures daytime and day-of-week patterns, seasonality effects, and long-run time trends, which are all allowed to vary by city. What emerges **is a picture of remarkable consistency**. **During** the morning peak of a **strike day**, **total car hours operated** **increase by 11 to 13 percent.** This increase can be decomposed into two separate effects: a 2.5 to 4.3 percent increase in the number of cars on roads and a 8.4 percent increase in travel times. In addition, our results suggest that transit strikes **pose** a **non-negligible threat** **to public safety and public health.** We find a 14 percent increase in the number of vehicle crashes, which is accompanied by a 20 percent increase in accident-related personal injuries. Moreover, we observe that transit strikes have **sizable effects on ambient air pollution**. **Emissions** of particulate matter **increase by 14 percent**, while nitrogen dioxide concentrations in ambient air increase by 4 percent. Finally, analyzing health out comes related to air pollution, we find that young children are subject to negative health effects. Among this subgroup, hospital admissions for respiratory diseases increase by 11 percent on strike days. The costs of strikes—both to the parties directly involved in a dispute and to the public at large—have been the subject of extensive research since the mid-twentieth century. Until the 1990s, the main conclusion of the literature was that strikes impose significant financial costs on the workers and the firm directly involved in walkouts, but only negligible costs in most cases on non-involved third parties (Kaufmann 1992). Our study firmly rejects this conclusion: based on our estimates, **the increase in aggregate travel time caused by a single strike corresponds to 1,550 full-time equivalent work weeks**. This translates into **third-party congestion costs of €3.2 million per strike or €228.9 million for all 71 strikes in our sample.** Our work complements a small but impressive literature in economics analyzing the impact of strikes. Focusing on the hospital sector, Gruber and Kleiner (2012) investigate the effects of nurses' strikes on patient outcomes. After controlling for time and hospital specific heterogeneity, they observe increased mortality and read mission rates, and conclude that strikes in hospitals kill.3 Examining walkouts in the education sector, Belot and Webbink (2010) and Baker (2013) find that teacher strikes had negative effects on student achievement in Belgium and Canada. Finally, there are a few interesting studies of strike impact in the private sector. Krueger and Mas (2004) show that strikes in tire production facilities decreased the quality of tires resulting in an increase of fatal accidents. In a similar vein, Mas (2008) finds that strikes at Caterpillar led to lower product quality. In comparison to other strikes that have been studied in the literature, there is one specific aspect about urban public transport that makes it an intriguing case to study: the population at risk from strikes is potentially very large and likely to be affected along multiple dimensions. This is due to several interrelated facts: (i) in many advanced cities, the two major modes of transportation are private vehicles and public transit; (ii) urban public transport is typically provided under monopoly conditions—either by public sector companies or by operators working under licenses granted by public authorities; (iii) without the availability of a close substitute, public transit strikes are likely to significantly disrupt the normal travel of transit riders and disturb traffic patterns by increasing the use of private vehicles; (iv) two of the main externalities associated with an increase in the usage of private cars are traffic accidents and air pollution, and entire city populations—not just transit users—may be adversely affected in each of these areas when public transport shuts down. Quantifying these potential impacts is not just interesting in itself, but also an important ingredient to meaningful discussions about the regulation of labor relations in sectors providing services regarded as public or essential.4 The remainder of the paper is organized as follows. Section I provides the institutional setting and discusses how transit strikes might affect cities and their inhabitants. Section II describes the data. Section III outlines the empirical strategy, followed by the results in Section IV. Section V discusses the size of the effects by monetizing the third party costs of transit strikes and comparing them to the private costs of struck employers. Background A. The Role of Public Transit and the Regulation of Labor Relations The five largest German cities, home to roughly 8.2 million people, are characterized by an intensive use of public transportation. In 2013, Berlin, Hamburg, Munich, Cologne, and Frankfurt together accounted for a total number of 3.4 billion public transit users in their metropolitan areas.5 This corresponds to an average 9.3 million passengers a day. In Berlin, the German capital, roughly 43 percent of commuters use public transit, while about 38 percent travel by car (Wingerter 2014). Public transportation networks are extensive in all sample cities. In Hamburg, for example, the transportation network comprises 91 subway stations, 68 suburban train stations (S-Bahn), more than 1,300 bus stops connecting a network of nearly 1,200 km in a city with less than 2 million inhabitants. The importance of public transportation in major German cities is comparable to the role it plays in the largest city in the United States. New York City has a population of roughly 8.4 million people. In 2014, its Metropolitan Transportation Authority moved about 9 million riders per day or 3.3 billion passengers a year on subways, buses, and railroads.6 Approximately 56 percent of commuters in New York City use public transit, while about 27 percent travel by car.7 While the use of mass transit in New York City and major German cities is com parable, the regulation of labor relations in the public transportation sector differs markedly. As mentioned above, New York City's Taylor Law prohibits strikes by transit workers under the threat of harsh penalties. Other cities in the United States with no-transit-strike laws include Chicago, Boston, and Washington, DC. For a German, it must come as a surprise that many countries impose de jure restrictions on strikes in the public transportation sector. Indeed, in Germany, the right to strike is a fundamental right based on the Freedom of Association (Koalitionsfreiheit) as laid out in Article 9(3) of the constitution (Grundgesetz). Only civil servants, judges, and soldiers are excluded from the right to strike. Until the 1990s, the big infra structure industries—i.e., telecommunications, postal, and public transportation ser vices—were state monopolies. Workers in these industries had civil servant status and thus were not allowed to strike. However, when these industries were gradually privatized during the 1990s, newly hired workers were no longer given civil servant status and therefore gained the right to strike. Today, public transit workers, whether employed by Germany's rail operator Deutsche Bahn or local public transport providers, are allowed to engage in industrial action. The only de facto restriction on transit workers' right to strike is that the parties of an industrial conflict are responsible for the provision of a minimum service (Klaß et al. 2008). This is intended to act as a balance of their interests with those of non-involved third parties.8 In Germany, industrial action by transit workers is typically announced one day ahead of a strike. However, at that time, there is still substantial uncertainty as to exactly which services will be affected and to what degree. Thus, the actual extent of a strike cannot be clearly assessed prior to the start of a strike. The strikes we exploit in this study have the following feature in common: they do not shutdown the entire transportation system, but there are significant distortions in terms of service frequency. As a rule of thumb, at least one-third and up to two-thirds of all connections in affected cities are canceled or severely delayed on strike days. After the official end of a strike, it usually takes some hours until service is back to normal. Having described the context and setting of our study, we now go on to discuss how urban populations might be affected by public transit strikes. B. Public Transit Strikes and Car Traffic Given the intensive use of public transportation in major German cities, we expect **strikes by transit workers** to **have** **profound** short-run **effects on** the **mode of transport** of commuters. Some might **feel forced to use** their **private car** or motorbike or a taxi on strike days. Others might switch to their bike or just walk. Again others might postpone their journey. Van Exel and Rietveld (2001) summarize the existing evidence as follows: **public transit strikes induce** most **public transit users to switch to the car** (either as driver or passenger) and **as a result traffic density** as well as road congestion **increases**. A similar conclusion is reached by Anderson (2014), who ana lyzes freeway traffic during a 35-day strike by transit workers in Los Angeles. His estimations reveal an increase in delays during peak periods by almost 50 percent due to increased car traffic.9 Finally, Adler and van Ommeren (2015) exploit transit strikes in Rotterdam and also find positive effects of transit shutdowns on congestion. Based on these findings we formulate our first testable prediction. PREDICTION 1: **Public transit strikes increase the number of cars on roads**, especially during peak periods. Travel times increase due to rising traffic congestion. C. Car Traffic and Accidents The frequency and severity of road accidents depends on several traffic characteristics that may be affected by public transit strikes. Examples we have in mind include the number of cars in road systems, driving skills, driver behavior, and speed. First, an often-used specification by transport economists suggests that the expected number of road accidents rises with the number of potential accidents which, in turn, is an increasing function of the number of cars in the system (Shefer and Rietveld 1997). Edlin and Karaca-Mandic (2006) confirm this prediction by showing that traffic density increases accident costs substantially. Second, the expected number of road accidents is a function of the behavior and skills of drivers. In this regard, we would expect that public transit strikes reduce average driving skills since marginal drivers with less experience appear on road systems. This channel works to increase the frequency of road accidents. In addition, it is well understood that driving in high-density traffic can contribute to stress and therefore lead to behavioral patterns—e.g., tailgating, aggressive driving, braking abruptly—that increase accident risk (Transport Research Center 2007). More accidents are likely to result in additional personal injuries (Shefer and Rietveld 1997). However, the same logic does not necessarily apply to accidents involving severe injuries or fatalities: with an increase in congestion stemming from more cars in the system, average travel speed decreases, thus potentially causing a reduction in the number of severe accidents. Evidence from the United States indeed suggests a substantial reduction in the number of fatal road accidents during morning peak hours, periods in which traffic density is the highest (Farmer and Williams 2005). But there is also evidence, emerging from the United Kingdom, that the picture is more differentiated. In particular, congestion as a mitigator of crash severity is less likely to occur in urban conditions, but may still be a factor on higher speed roads and highways (Noland and Quddus 2005). Our focus will be on accidents in urban conditions. Thus, it remains a priori unclear whether an increase in congestion stemming from public transit strikes affects the incidence of severe accidents, and if so in what direction. Against this background, our second testable prediction is: PREDICTION 2: Public transit strikes increase the frequency of car accidents which, in turn, leads to a rise in accident-related injuries. The effect on accidents involving severe injuries or fatalities is a priori unclear. D. Car Traffic and Air Pollution **Car traffic** is **associated with air pollution** mainly **due to engine exhaust**. The chemical processes in fuel burning thus determine the expected effect of traffic on air pollution. Internal combustion engines powering the vast majority of **cars** in developed countries **emit** oxides of **nitrogen**, **carbon monoxide**, unburned or partially burned organic compounds, and particulate matter with the amounts depending amongst other things on operating conditions (Heywood 1988). In particular, it is well understood that congested stop-and-go traffic is associated with higher emissions than free-flow traffic. There are three reasons for this. First, the efficiency of internal combustion engines, which depends on revolutions per minute (rpm), is highest at medium speed (Davis and Diegel 2007). Acceleration and deceleration episodes decrease the time operated in the optimal rpm range, which in turn increases emissions per minute driven. Second, **congestion** **increases travel times**, and so **leads to a rise in fuel consumption and emissions** per distance driven. Third, particulate matter emissions not only stem from fuel burning process, but also from brake wear and tire wear on tarmac—both high in congested traffic. From an empirical viewpoint, several studies suggest that **high traffic volumes and congestion are causes of ambient air pollution** (see, e.g., Currie and Walker 2011; Knittel, Miller, and Sanders 2011). A pollutant that is not caused by car traffic, and therefore can be used for a placebo test, is sulfur dioxide (Lalive, Luechinger, and Schmutzler 2013). Indeed, sulfur dioxide emissions from cars are close to nonexistent since modern gasoline no longer contains significant amounts of sulfur. From these arguments our third testable prediction arises: PREDICTION 3: Public transit strikes increase road-traffic related air pollution. A pollutant expected to be unaffected is sulfur dioxide.

#### Stable Mass Transit solves Transport Emissions which cause Warming.

* Thanks Sam for Finding

Ionescu 21 Diana Ionescu 11-5-2021 "To Fight Climate Change, Support Public Transit" <https://www.planetizen.com/news/2021/11/115186-fight-climate-change-support-public-transit> (Diana is a contributing editor to Planetizen.)//Elmer

Andrew J. Hawkins argues in favor of boosting **public transit as** a **crucial way to fight climate change**, warning against the **potential "death spiral**" **caused by declining ridership** which reduces revenue, leading to worse service which discourages riders even further. As Hawkins writes, There’s more at stake than good buses and trains. The recent report from the United Nations **I**ntergovernmental **P**anel on **C**limate **C**hange **confirms** that a hotter, wetter, more inhospitable future is all but certain. The **transportation sector** is **responsible for nearly a third of greenhouse gases**, **most** of which **come from tailpipe emissions**. High-quality **mass transit can do a lot to fight climate change**, but only if people are willing to use it. Since the start of the pandemic, transit agencies have struggled against a raft of challenges as some riders abandon their systems while essential workers and other transit-dependent commuters rely on public transportation more than ever. Agencies around the country are implementing major service changes and reducing or eliminating fares in an effort to get riders back on board and expand the reach of their systems, with mixed results. These initiatives will create more benefits than just improved transit service for those who use it, transit supporters argue. As Hawkins concludes, "**high-quality transit is the only real solution to** our vast, seemingly intractable problems with **climate change**, inequality, land use, and housing."

#### Warming causes Extinction

Kareiva 18, Peter, and Valerie Carranza. "Existential risk due to ecosystem collapse: Nature strikes back." Futures 102 (2018): 39-50. (Ph.D. in ecology and applied mathematics from Cornell University, director of the Institute of the Environment and Sustainability at UCLA, Pritzker Distinguished Professor in Environment & Sustainability at UCLA)//Re-cut by Elmer

In summary, six of the nine proposed planetary boundaries (phosphorous, nitrogen, biodiversity, land use, atmospheric aerosol loading, and chemical pollution) are unlikely to be associated with existential risks. They all correspond to a degraded environment, but in our assessment do not represent existential risks. However, the three remaining boundaries (**climate change**, global **freshwater** cycle, **and** ocean **acidification**) do **pose existential risks**. This is **because of** intrinsic **positive feedback loops**, substantial lag times between system change and experiencing the consequences of that change, and the fact these different boundaries interact with one another in ways that yield surprises. In addition, climate, freshwater, and ocean acidification are all **directly connected to** the provision of **food and water**, and **shortages** of food and water can **create conflict** and social unrest. Climate change has a long history of disrupting civilizations and sometimes precipitating the collapse of cultures or mass emigrations (McMichael, 2017). For example, the 12th century drought in the North American Southwest is held responsible for the collapse of the Anasazi pueblo culture. More recently, the infamous potato famine of 1846–1849 and the large migration of Irish to the U.S. can be traced to a combination of factors, one of which was climate. Specifically, 1846 was an unusually warm and moist year in Ireland, providing the climatic conditions favorable to the fungus that caused the potato blight. As is so often the case, poor government had a role as well—as the British government forbade the import of grains from outside Britain (imports that could have helped to redress the ravaged potato yields). Climate change intersects with freshwater resources because it is expected to exacerbate drought and water scarcity, as well as flooding. Climate change can even impair water quality because it is associated with heavy rains that overwhelm sewage treatment facilities, or because it results in higher concentrations of pollutants in groundwater as a result of enhanced evaporation and reduced groundwater recharge. **Ample clean water** is not a luxury—it **is essential for human survival**. Consequently, cities, regions and nations that lack clean freshwater are vulnerable to social disruption and disease. Finally, ocean acidification is linked to climate change because it is driven by CO2 emissions just as global warming is. With close to 20% of the world’s protein coming from oceans (FAO, 2016), the potential for severe impacts due to acidification is obvious. Less obvious, but perhaps more insidious, is the interaction between climate change and the loss of oyster and coral reefs due to acidification. Acidification is known to interfere with oyster reef building and coral reefs. Climate change also increases storm frequency and severity. Coral reefs and oyster reefs provide protection from storm surge because they reduce wave energy (Spalding et al., 2014). If these reefs are lost due to acidification at the same time as storms become more severe and sea level rises, coastal communities will be exposed to unprecedented storm surge—and may be ravaged by recurrent storms. A key feature of the risk associated with climate change is that mean annual temperature and mean annual rainfall are not the variables of interest. Rather it is extreme episodic events that place nations and entire regions of the world at risk. These extreme events are by definition “rare” (once every hundred years), and changes in their likelihood are challenging to detect because of their rarity, but are exactly the manifestations of climate change that we must get better at anticipating (Diffenbaugh et al., 2017). Society will have a hard time responding to shorter intervals between rare extreme events because in the lifespan of an individual human, a person might experience as few as two or three extreme events. How likely is it that you would notice a change in the interval between events that are separated by decades, especially given that the interval is not regular but varies stochastically? A concrete example of this dilemma can be found in the past and expected future changes in storm-related flooding of New York City. The highly disruptive flooding of New York City associated with Hurricane Sandy represented a flood height that occurred once every 500 years in the 18th century, and that occurs now once every 25 years, but is expected to occur once every 5 years by 2050 (Garner et al., 2017). This change in frequency of extreme floods has profound implications for the measures New York City should take to protect its infrastructure and its population, yet because of the stochastic nature of such events, this shift in flood frequency is an elevated risk that will go unnoticed by most people. 4. The combination of positive feedback loops and societal inertia is fertile ground for global environmental catastrophes **Humans** are remarkably ingenious, and **have adapted** to crises **throughout** their **history**. Our doom has been repeatedly predicted, only to be averted by innovation (Ridley, 2011). **However**, the many **stories** **of** human ingenuity **successfully** **addressing** **existential risks** such as global famine or extreme air pollution **represent** environmental c**hallenges that are** largely **linear**, have immediate consequences, **and operate without positive feedbacks**. For example, the fact that food is in short supply does not increase the rate at which humans consume food—thereby increasing the shortage. Similarly, massive air pollution episodes such as the London fog of 1952 that killed 12,000 people did not make future air pollution events more likely. In fact it was just the opposite—the London fog sent such a clear message that Britain quickly enacted pollution control measures (Stradling, 2016). Food shortages, air pollution, water pollution, etc. send immediate signals to society of harm, which then trigger a negative feedback of society seeking to reduce the harm. In contrast, today’s great environmental crisis of climate change may cause some harm but there are generally long time delays between rising CO2 concentrations and damage to humans. The consequence of these delays are an absence of urgency; thus although 70% of Americans believe global warming is happening, only 40% think it will harm them (http://climatecommunication.yale.edu/visualizations-data/ycom-us-2016/). Secondly, unlike past environmental challenges, **the Earth’s climate system is rife with positive feedback loops**. In particular, as CO2 increases and the climate warms, that **very warming can cause more CO2 release** which further increases global warming, and then more CO2, and so on. Table 2 summarizes the best documented positive feedback loops for the Earth’s climate system. These feedbacks can be neatly categorized into carbon cycle, biogeochemical, biogeophysical, cloud, ice-albedo, and water vapor feedbacks. As important as it is to understand these feedbacks individually, it is even more essential to study the interactive nature of these feedbacks. Modeling studies show that when interactions among feedback loops are included, uncertainty increases dramatically and there is a heightened potential for perturbations to be magnified (e.g., Cox, Betts, Jones, Spall, & Totterdell, 2000; Hajima, Tachiiri, Ito, & Kawamiya, 2014; Knutti & Rugenstein, 2015; Rosenfeld, Sherwood, Wood, & Donner, 2014). This produces a wide range of future scenarios. Positive feedbacks in the carbon cycle involves the enhancement of future carbon contributions to the atmosphere due to some initial increase in atmospheric CO2. This happens because as CO2 accumulates, it reduces the efficiency in which oceans and terrestrial ecosystems sequester carbon, which in return feeds back to exacerbate climate change (Friedlingstein et al., 2001). Warming can also increase the rate at which organic matter decays and carbon is released into the atmosphere, thereby causing more warming (Melillo et al., 2017). Increases in food shortages and lack of water is also of major concern when biogeophysical feedback mechanisms perpetuate drought conditions. The underlying mechanism here is that losses in vegetation increases the surface albedo, which suppresses rainfall, and thus enhances future vegetation loss and more suppression of rainfall—thereby initiating or prolonging a drought (Chamey, Stone, & Quirk, 1975). To top it off, overgrazing depletes the soil, leading to augmented vegetation loss (Anderies, Janssen, & Walker, 2002). Climate change often also increases the risk of forest fires, as a result of higher temperatures and persistent drought conditions. The expectation is that **forest fires will become more frequent** and severe with climate warming and drought (Scholze, Knorr, Arnell, & Prentice, 2006), a trend for which we have already seen evidence (Allen et al., 2010). Tragically, the increased severity and risk of Southern California wildfires recently predicted by climate scientists (Jin et al., 2015), was realized in December 2017, with the largest fire in the history of California (the “Thomas fire” that burned 282,000 acres, https://www.vox.com/2017/12/27/16822180/thomas-fire-california-largest-wildfire). This **catastrophic fire** embodies the sorts of positive feedbacks and interacting factors that **could catch humanity off-guard and produce a** true **apocalyptic event.** Record-breaking rains produced an extraordinary flush of new vegetation, that then dried out as record heat waves and dry conditions took hold, coupled with stronger than normal winds, and ignition. Of course the record-fire released CO2 into the atmosphere, thereby contributing to future warming. Out of all types of feedbacks, water vapor and the ice-albedo feedbacks are the most clearly understood mechanisms. Losses in reflective snow and ice cover drive up surface temperatures, leading to even more melting of snow and ice cover—this is known as the ice-albedo feedback (Curry, Schramm, & Ebert, 1995). As snow and ice continue to melt at a more rapid pace, millions of people may be displaced by flooding risks as a consequence of sea level rise near coastal communities (Biermann & Boas, 2010; Myers, 2002; Nicholls et al., 2011). The water vapor feedback operates when warmer atmospheric conditions strengthen the saturation vapor pressure, which creates a warming effect given water vapor’s strong greenhouse gas properties (Manabe & Wetherald, 1967). Global warming tends to increase cloud formation because warmer temperatures lead to more evaporation of water into the atmosphere, and warmer temperature also allows the atmosphere to hold more water. The key question is whether this increase in clouds associated with global warming will result in a positive feedback loop (more warming) or a negative feedback loop (less warming). For decades, scientists have sought to answer this question and understand the net role clouds play in future climate projections (Schneider et al., 2017). Clouds are complex because they both have a cooling (reflecting incoming solar radiation) and warming (absorbing incoming solar radiation) effect (Lashof, DeAngelo, Saleska, & Harte, 1997). The type of cloud, altitude, and optical properties combine to determine how these countervailing effects balance out. Although still under debate, it appears that in most circumstances the cloud feedback is likely positive (Boucher et al., 2013). For example, models and observations show that increasing greenhouse gas concentrations reduces the low-level cloud fraction in the Northeast Pacific at decadal time scales. This then has a positive feedback effect and enhances climate warming since less solar radiation is reflected by the atmosphere (Clement, Burgman, & Norris, 2009). The key lesson from the long list of potentially positive feedbacks and their interactions is that **runaway climate change,** and runaway perturbations have to be taken as a serious possibility. Table 2 is just a snapshot of the type of feedbacks that have been identified (see Supplementary material for a more thorough explanation of positive feedback loops). However, this list is not exhaustive and the possibility of undiscovered positive feedbacks **portends** even greater **existential risks**. The many environmental crises humankind has previously averted (famine, ozone depletion, London fog, water pollution, etc.) were averted because of political will based on solid scientific understanding. We cannot count on complete scientific understanding when it comes to positive feedback loops and climate change.

### 2

#### Low Air Traffic Strikes now due to lack of Right to Strike – the plan reverses penalties.

Youn 19 Soo Youn 1-22-2019 "Why TSA and FAA workers can't just go on strike to end the shutdown" <https://abcnews.go.com/US/tsa-faa-workers-strike-end-shutdown/story?id=60540070> (Freelance Journalist)//Elmer

All over Twitter and Facebook, citizen commentators are offering a solution to end the partial U.S. government shutdown: **airport workers should just go on strike**. "How many hours after all the TSA workers went on strike would the government be re-opened?" tweeted consultant David Rothkopf, a sentiment echoed throughout the Twittersphere, calling on Transportation Security Administration workers and air traffic controllers to not show up for work. [Tweet Omitted] "The employees of the TSA can do even more. I propose a MASS sickout in Atlanta, the Monday after the Super Bowl. I'm not saying to disrupt the game...but make it impossible for those people to go back home. MAKE Congress and the President pay attention," radio host Joe Madison tweeted. The employees of the TSA can do even more. I propose a MASS sickout in Atlanta, the Monday after the Super Bowl. I'm not saying to disrupt the game...but make it impossible for those people to go back home. MAKE Congress and the President pay attention.https://t.co/N4nio3yudz — Joe Madison (@MadisonSiriusXM) January 22, 2019 But **striking is illegal for federal workers.** "Federal employees are **governed** chiefly **by** the **F**ederal **S**ervice **L**abor **M**anagement **R**elations **A**ct of 1978. That statute prohibits strikes by federal workers," University of Michigan law professor Kate Andrias told ABC News in an email. Moreover, the act **bars workers from getting a future federal government** job "if he or she 'participates in a strike, or asserts the right to strike against the Government of the United States," Andrias added, quoting the act. **For many air traffic controllers**, whose ranks are already at 30-year lows, **the last strike has been seared** into their memories. In **1981**, nearly **13,000 controllers walked out** after contract talks between their union, The Professional Air Traffic Controllers Organization (PATCO), and the Federal Aviation Administration broke down. Then-President Ronald **Reagan** **fired 11,000 controllers** within days and the **union was decertified**. Reagan also instituted **a lifetime ban** for working for the FAA for the striking controllers. While then-President Bill Clinton issued an executive order to modify the ban, "it's a short shelf-life profession," Georgetown University history professor Joseph A. McCartin told ABC News. There's also a mandatory retirement age of 56. "That's more than 13 years," McCartin, who wrote a book about the PATCO strike, explained. "Many were not interested in coming back." **Were they to strike** today, **federal workers could face prosecution and even jail time**. "While the clear majority of states make public-sector strikes illegal, the statute covering most federal employees **has some of the toughest penalties for illegal strikes**. Specifically, the statute covering most federal workers makes striking a crime, which is unusual," Joseph E. Slater, a law professor at the University of Toledo and an expert in public sector labor law, told ABC News in an email. "The typical penalties are (i) you can be fired and (ii) you and your union can be fined. But in addition to that, you can be jailed for striking against the federal government. And indeed, a number of the PATCO strikers were back in the early 1980s," Slater explained. The suggestion of a strike, or another way to walk off the job, is something Nick Daniels, president of the National Air Traffic Controller’s Association (NATCO) Fort Worth Center's chapter hears a lot. But as a union leader, he's well aware of the penalties.

#### Trade is rebounding now.

Wood 9-16 Laura Wood 9-16-2021 “Global Terminal Tractor Market (2021 to 2026) - Advancements in Terminal Tractors Presents Opportunities” <https://www.globenewswire.com/en/news-release/2021/09/16/2298189/28124/en/Global-Terminal-Tractor-Market-2021-to-2026-Advancements-in-Terminal-Tractors-Presents-Opportunities.html> (Senior Press Manager at Research and Markets)//Elmer

However, **a strong rebound in global trade** **with** the **recovery of major industries** across the globe since the middle of last year has **helped soften** the **impact of the pandemic** for trade. The **global economic recovery** is also **expected to be fueled by** the **higher production of vaccines** and vaccination rates, allowing businesses to reopen more quickly. According to World Trade Organization (WTO), the **volume** of world merchandise trade is **expected to increase by 8.0%** in 2021 after having fallen 5.3% in 2020, continuing its rebound from the pandemic-induced collapse that bottomed out in the second quarter of 2020.

#### Strong Airline Industry key to global trade and the economy – strikes obliterate these benefits.

PWC 16, Pricewaterhouse Coopers. "Economic impact of air traffic control strikes in Europe." (2016). (PricewaterhouseCoopers LLP)//Elmer

2.2.1 The importance of connectivity The International Civil Aviation Organization (ICAO) defines connectivity as an indicator of a network’s concentration and its ability to move passengers from their origin to their destination seamlessly22. **Air connectivity is key to economic growth**, in part because it **enables States to attract business investment and human capital**. An increase in air connectivity **also spurs tourism, which is vital to many countries’ economic prosperity**. There is a **range of evidence produced** by airline industry authorities and academics which **suggests** that **as aviation expands, productivity and hence GDP increases**.23 In 2013 PwC completed a **deep-dive analysis** into **how aviation connectivity** **contributes to** the UK’s economy. The study identified five channels through which aviation plays a “positive enabling role”: **trade** in services, trade in goods, tourism, **business investment and innovation**, and productivity. A key finding emerging from academic and industry studies is the **strong linkage that has been observed over the last 20 years between airline industry growth and GDP growth.** In addition, studies have found that **a 10 percent increase in business air usage, or air travel connectivity, leads to an increase in whole economy productivity of between 0.07 percent and 0.9 percent.24** This includes: x reducing air travel times, giving businesses greater efficiency of access to a wider marketplace; x facilitating oversight of far-flung operations and thereby helping control their risks; thus x enabling investment and human capital to flow more freely across borders and exploit comparative advantages. In particular, a 2006 Oxford Economics study highlights the statistical linkage between business air usage and the level of GDP – in technical terms the study found that business air usage and Total Factor Productivity have a robust co-integrating relationship. Their key result implies that, “other things equal, a 10% increase in business air usage could raise GDP by 0.6% in the long run”. The report also notes that the growth in air transport in the 10 years prior to 2006 “boosted long-run underlying productivity by 2.0% across the EU25.”25 Further evidence on the specific channels of impact of aviation on GDP is outlined in the literature review in Section 4.3 of this report. Air transport is an important enabler to achieving economic growth and development. **Air transport facilitates integration into the global economy** **and provides vital connectivity on a** national, regional, and **international scale**. World Bank In the context of this study, if an **air traffic control strike** **causes** a reduction in the ability for airlines to operate flights as scheduled, this reduces the number of passengers and shipments able to reach their desired destinations as planned. Both **cancelled and delayed flights** **obstruct trade and connectivity**. Furthermore, a **pattern of disruptions will create** **uncertainty and discourage businesses** and consumers **from activities** that require air travel, therefore **reducing trade and connectivity further**. Given the importance of the link between the whole economy productivity and the airline sector output, it is therefore crucial to incorporate this linkage directly into our economic modelling of the impact of ATC strikes.

#### Collapse of Trade causes Hotspot Escalation – goes Nuclear.

Kampf 20 David Kampf 6-16-2020 “How COVID-19 Could Increase the Risk of War” <https://www.worldpoliticsreview.com/articles/28843/how-covid-19-could-increase-the-risk-of-war> (Senior PhD Fellow at the Center for Strategic Studies at The Fletcher School)//Elmer

But that overlooked the ways in which the risk of interstate war was already rising before COVID-19 began to spread. Civil wars were becoming more numerous, lasting longer and attracting more outside involvement, with dangerous consequences for stability in many regions of the world. And the global dynamics most commonly cited to explain the falling incidence of interstate war—democracy, economic prosperity, international cooperation and others—were being upended. If the spread of democracy kept the peace, then its global decline is unnerving. **If globalization and** economic **interdependence kept** the **peace, then** a looming global depression and the **rise of** nationalism and **protectionism are disconcerting**. If regional and global institutions kept the peace, then their degradation is unsettling. If the balance of nuclear weapons kept the peace, then growing risks of proliferation are disquieting. And if America’s preeminent power kept the peace, then its relative decline is troubling. Now, the pandemic, or more specifically the world’s reaction to it, is revealing the extent to which the factors holding major wars in check are withering. The idea that war between nations is a relic of the past no longer seems so convincing. The Pessimists Strike Back More than any other individual, it was cognitive scientist Steven Pinker who popularized the idea that we are living in the most peaceful moment in human history. Starting with his 2011 bestseller, “The Better Angels of Our Nature: Why Violence Has Declined,” Pinker argued that the frequency, duration and lethality of wars between great powers have all decreased. In his 2019 book, “Enlightenment Now: The Case for Reason, Science, Humanism, and Progress,” he wrote that war “between the uniformed armies of two nation-states appears to be obsolescent. There have been no more than three in any year since 1945, none in most years since 1989, and none since the American-led invasion of Iraq in 2003.” Optimists like Pinker held that, rather than the world falling apart, as a quick glance at headline news might suggest, the opposite was true: Humanity was flourishing. More regions are characterized by peace; fewer mass killings are occurring; governance and the rule of law are improving; and people are richer, healthier, better educated and happier than ever before. In their book, “Clear and Present Safety: The World Has Never Been Better and Why That Matters to Americans,” Michael A. Cohen and Micah Zenko argued that the evidence is so overwhelming that it is difficult to argue against the idea that wars between great powers, and all other interstate wars, are becoming vanishingly rare. Even when wars do break out, they tend to be shorter and less deadly than they were in the past. John Mueller, a senior fellow at the Cato Institute, also reasoned that the idea of war, like slavery and dueling before it, was in terminal decline, while Joshua Goldstein, an international relations researcher at American University, credited the United Nations and the rise of peacekeeping operations for helping win the “war on war.” But in recent years, a range of critics have begun to poke holes in these arguments. Tanisha M. Fazal, an international relations professor at the University of Minnesota, contends that the decline in war is overstated. Major advances in medicine, speedier evacuations of wounded soldiers from the field of battle and better armor have made war less fatal—but not necessarily less frequent. Fazal and Paul Poast, who is at the University of Chicago, further assert that the notion of war between great powers as a thing of the past is based on the assumption that all such conflicts resemble World War I and II—both are historical anomalies—and overlooks the actual wars fought between great powers since 1945, from the Korean War and the Vietnam War to proxy wars from Afghanistan to Ukraine. Meanwhile, Bear F. Braumoeller, an Ohio State political science professor, analyzed the same historical data on conflicts used by Pinker, Mueller and Goldstein, and found no general downward trend in either the initiation or deadliness of warfare over the past two centuries. What’s more, Braumoeller contends that the so-called “long peace”—the 75 years that have passed without systemic war since World War II—is far from invulnerable, and that wars are just as likely to escalate now as they used to be. Just because a major interstate war hasn’t happened for a long time, doesn’t mean it never will again. In all probability, it will. And by focusing solely on interstate wars, the optimists miss half the story, at least. Wars between states have declined, but civil wars never disappeared—and these **internal conflicts** **could easily escalate into regional or global wars**. The number of conflicts in the world reached its highest point since World War II in 2016, with 53 state-based armed conflicts in 37 countries. All but two of these conflicts were considered civil wars. To make matters worse, new studies have shown that civil wars are becoming longer, deadlier and harder to conclusively end, and that these internal conflicts are not really internal. Civil wars harm the economies and stability of neighboring countries, since armed groups, refugees, illicit goods and diseases all spill over borders. Some 10 million refugees have fled to other countries since 2012. The countries that now host them are more likely to experience war, which means states with huge refugee populations like Lebanon, Jordan and Turkey face legitimate security challenges. Even after the threat of violence has diminished in refugees’ countries of origin, return migration can reignite conflicts, repeating the brutal cycle. A Yugoslav Federal Army tank. Perhaps most importantly, recent research indicates that civil wars increase the risk of interstate war, in large part because they are attracting more and more outside involvement. In a 2008 paper, researchers Kristian Skrede Gleditsch, Idean Salehyan and Kenneth Schultz explained that, in addition to the spillover effects, two other factors in civil wars increase international tensions and could possibly provoke wider interstate wars: external interventions in support of rebel groups and regime attacks on insurgents across international borders. Immediately after the Cold War, none of the ongoing civil wars around the world were internationalized. According to the Uppsala Conflict Data Program, there were 12 full-fledged civil wars in 1991—in Afghanistan, Iraq, Peru, Sri Lanka, Sudan, and elsewhere—and foreign militaries were not active on the ground in any of them. Last year, by contrast, every single full-fledged civil war involved external military participants. This is due, in part, to the huge growth in U.S. military interventions abroad into civil conflicts, but it’s not only the Americans. All of today’s major wars are in essence proxy wars, pitting external rivals against one another. Conflicts in Syria, Yemen and Libya are best understood not as civil wars, but as international warzones, attracting meddlers including the United States, Russia, Saudi Arabia, Turkey, Iran, France and many others, which often intervene not to build peace, but to resolve conflicts in a way that is favorable to their own interests. These internationalized wars are more lethal, harder to resolve and possibly more likely to recur than civil wars that remain localized. It is not that difficult to imagine how these conflicts could spark wider international conflagrations. Wars, after all, can quickly spiral out of control. As Risks Increase, Deterrents Decline To make matters worse, most of the global trends that explained why interstate war had decreased in recent decades are now reversing. The theories that democracy, prosperity, cooperation and other factors kept the peace have been much debated—but if there was any truth to them, their reversals are likely to increase the chance of war, irrespective of how long the coronavirus pandemic lasts. Democracy is often considered a prophylactic for war. Fully democratic countries are less likely to experience civil war and rarely, if ever, go to war with other democracies—though, of course, they do still go to war against non-democracies. While this would be great news if democracy and pluralism were spreading, there have now been 14 consecutive years of global democratic decline, and there have been signs of additional authoritarian power grabs in countries like Hungary and Serbia during the pandemic. If democracy backslides far enough, internal conflicts and foreign aggression will become more likely. Other theories posit that **economic bonds between countries** have **limited wars** in recent decades. Dale Copeland, a professor of international relations at the University of Virginia, has argued that **countries work to preserve ties when there are high expectations for future trade**, **but war becomes** increasingly **possible when trade is predicted to fall.** If **globalization brought peace**, the recent wave of far-right nationalism and populism around the world may increase the chances of war, as tariffs and other trade barriers go up—mostly from the United States under President Donald Trump, who has launched trade wars with allies and adversaries alike. The coronavirus pandemic immediately elicited further calls to reduce dependence on other countries, with Trump using the opportunity to pressure U.S. companies to reconfigure their supply chains away from China. For its part, China made sure that it had the homemade supplies it needed to fight the virus before exporting extras, while countries like France and Germany barred the export of face masks, even to friendly nations. And widening economic inequalities, a consequence of the pandemic, are not likely to enhance support for free trade. This assault on open trade and globalization is just one aspect of a decaying liberal international order, which, its proponents argue, has largely helped to preserve peace between nations since World War II. But that old order is almost gone, and in all likelihood isn’t coming back. The U.N. Security Council appears increasingly fragmented and dysfunctional. Even before Trump, the world’s most powerful country ratified fewer treaties per year under the Obama administration than at any time since 1945. Trump’s presidency only harms multilateral cooperation further. He has backed out of the Paris Agreement on climate change, reneged on the Iran nuclear deal, picked fights with allies, questioned the value of NATO and defunded the World Health Organization in the middle of a global health crisis. Hyper-nationalism, rather than international collaboration, was the default response to the coronavirus outbreak in the U.S. and many other countries around the world. It’s hard to see the U.S. reluctance to lead as anything other than a sign of its inevitable, if slow, decline. The country’s institutionalized inequalities and systemic racism have been laid bare in recent months, and it no longer looks like a beacon for others to follow. The global balance of power is changing. China is both keen to assert a greater leadership role within traditionally Western-led institutions and to challenge the existing regional order in Asia. Between a rising China, revanchist Russia and new global actors, including non-state groups, we may be heading toward an increasingly multipolar or nonpolar world, which could prove destabilizing in its own right. Finally, the pacifying effect of nuclear weapons could be waning. While vast nuclear arsenals once compelled the United States and the Soviet Union to reach arms control agreements, old treaties are expiring and new talks are breaking down. **Mistrust is growing**, and the **chance of an** unwanted **U.S.-Russia nuclear confrontation is** arguably as **high** as it has been since the Cuban missile crisis. The theory of nuclear peace may no longer hold if more countries are tempted to obtain their own nuclear deterrent. Trump’s decision to abandon the Iran nuclear deal, for one thing, has only increased the chance that Tehran will acquire nuclear weapons. It’s almost easy to forget that, just a few short months ago, the United States and Iran were one miscalculation or dumb mistake away from waging all-out war. And despite Trump’s efforts to negotiate nuclear disarmament with Kim Jong Un’s regime in Pyongyang, it is wishful thinking to believe North Korea will give up its nuclear weapons. At this point, negotiators can only realistically try to ensure that North **Korea’s** **nuclear menace** **doesn’t get** even **more potent**. In other words, by turning inward, the United States is choosing to leave other countries to fend for themselves. The end result may be a less stable world with more nuclear actors. If leaders are smart, they will take seriously the warning signs exposed by this global emergency and work to reverse the drift toward war. If only one of these theories for peace were worsening, concerns would be easier to dismiss. But **together**, they are unsettling. While the world is not yet on the brink of **World War III** and no two countries are destined for war, the odds of avoiding future conflicts don’t look good. The pandemic is already degrading democracies, harming economies and curtailing international cooperation, and it also seems to be fostering internal instability within states. Rachel Brown, Heather Hurlburt and Alexandra Stark argue that the coronavirus could in fact sow more civil conflict. If this proves accurate, the increase in civil wars is likely to lead to more external meddling, and these next **proxy wars** **could** soon **precipitate all-out international conflicts** if outsiders aren’t careful. **With** the **usual deterrents to conflict declining** around the world, **major wars could soon return**.

### Soft Power

#### Alt Causes to Soft Power Decline – Labor isn’t key – 1AC Brand re-cutting

1AC Brand 21 [Brand finance reports on a wide array of domestic and global news stories; news topics include politics/government, business, technology, religion, sports/entertainment, science/nature, and health/lifestyle. “The decline of US soft power? Last year's ranking leader, America plummets down the Global Soft Power Index.” May 2, 2021. https://www.prnewswire.com/news-releases/the-decline-of-us-soft-power-last-years-ranking-leader-america-plummets-down-the-global-soft-power-index-301238970.html]

LONDON, March 2, 2021 /PRNewswire/ -- **A year of widespread turmoil** is starkly **reflected in America's steep drop in the Global Soft Power Index** 2021, making the US the fastest-falling soft power nation globally. Defined as ability to influence the preferences and behaviors of other nations around the world, soft power is linked to attraction or persuasion, rather than coercion. Between a **turbulent election campaign** and a **haphazard COVID-19 response**, the US lost its position as the world's soft power superpower, falling from last year's 1st to 6th position in 2021. With an overall Index score of 55.9 out of 100, down by -11.2 points on last year's 67.1 – the US recorded a more significant decline than any other nation in the ranking. With former President Donald Trump's hesitance to acknowledge the scale and severity of the pandemic criticized at home and abroad, the US places at the very bottom of the Index's COVID-19 metric, ranking at an abysmal 105th place among all nations rated in the study. David Haigh, CEO of Brand Finance, commented: "The raging of the virus across the US combined with President Trump's rebuke of medical expertise and touting of reckless home-remedies is the most likely culprit for the waning of America's long-held role model status internationally, at a time where sensible global leadership has arguably been most needed." Unveiled at the virtual Global Soft Power Summit 2021, hosted by leading brand valuation consultancy Brand Finance in partnership with BBC Global News, the Global Soft Power Index 2021 represents the most comprehensive research study on perceptions of nation brands – capturing the opinions of 75,000 respondents across 100 countries. Playing host to various speakers, the Summit also included inputs from David Miliband, CEO and President of the International Rescue Committee, as well as Joseph Nye – the Harvard University Professor originally responsible for coining the phrase 'soft power'. According to Professor Nye, the demise of US soft power began as early as 2017 under the Trump administration, but there is hope for recovery: "Trump's narrow view of international allies, withdrawal from global agreements like the Paris Climate Accord, and lack of support for the WHO were already damaging American soft power before COVID-19 even hit. "**Trump** was the first president that **did not place a high emphasis on values**. When America emphasized values, it made the nation more attractive to society, hence our soft power was unrivalled. "The question is if we can recover our soft power, and I think the answer is yes. If America continues making progress on vaccines and can get the pandemic under control, coupled with a sharp economic recovery, then our prospects look good. So, if I were to comment on what the Global Soft Power Index will say next year, I believe the US will be back on an upward trend." David Miliband, in turn, warned of the challenges ahead and underlined the importance of integrity and internal unity for soft power: "There are more power centers today than ever before, and this increased competition for soft power means reproducing past results is going to be much tougher. In this regard, I think the US is going to have to work a lot harder to re-establish its reputation in the next four years. "If a nation is divided, it becomes harder to attract others, and soft power will suffer as a result. Every government lives in coalition with its own people, regardless of the type of rule in place, and the greatest threat to the soft power of a country is dissonance between what it says it stands for and what its actions reveal it to stand for."

#### US violations of International Labor Standards are inevitable and multiple Alt Causes other than the Right to Strike.

Rosenberg 20 Eli Rosenberg 10-7-2020 "U.S. accused of violating international labor laws, forced-labor protections in new complaint" <https://www.washingtonpost.com/business/2020/10/08/international-complaint-worker-protections/> (University of California at Los Angeles, BA in American literature and Latin American studies)//Elmer

**Leaders** representing a large number of U.S. trade unions **filed** a **complaint** **with** the **U**nited **N**ations’ **labor** **agency** Wednesday, **arguing** that the country under President **Trump** has **violated** **international labor standards during the coronavirus pandemic.** The complaint was **filed by** the Service Employees International Union and the AFL-CIO at the Geneva headquarters of the International Labour Organization, a more than 100-year-old institution run by the U.N. that works to upholds human rights on work-related issues like safety and collective bargaining. The complaint details numerous ways U.S. labor law and enforcement are failing workers, and spotlights their further weakening under Trump. And it **charges** the **U**nited **S**tates **with** **violating workers’ rights** in terms not typically associated with well-off countries, at one point saying the bind many essential workers have been placed in during the pandemic — **forced to risk infection or lose their jobs** and potentially unemployment benefits **— amounts to a system of forced** **labor**. The complaint is another sign of the frustration over the treatment of workers under the Trump administration, and it places the United States in the realm of potential wrongdoing typically occupied by less-developed and less-democratic countries. “Covid has laid bare what we already knew,” Richard Trumka, the president of the AFL-CIO said in an interview. “It has demonstrated that not only is the U.S. violating workers’ rights, but those violations are resulting in people dying. It became so outrageous that we wanted to file a complaint.” The Labor Department and Occupational Safety and Health Administration did not respond to a request for comment. The National Labor Relations Board declined to comment. The complaint points to two main avenues of failure for U.S. labor law and policy: the country’s antiquated labor laws, such as the 1935 National Labor Relations Act, which leaves farmers, gig workers, contractors and other classes of workers without protection; and the softening of workers’ protections by the Trump administration that has continued into the pandemic. Some of the complaint’s harshest words were reserved for the Trump administration’s orders declaring industries such as meatpacking essential, compelling them to stay open even amid potential novel coronavirus outbreaks, while federal agencies, including OSHA, declined to issue enforceable safety regulations. “These executive orders gave a green light for employers to force workers to report for work and risk their lives or lose their jobs,” said the complaint, signed by Trumka and SEIU President Mary Kay Henry. “This is tantamount to forced labor.” The complaint highlighted the racial implications of these orders too, arguing one executive order was inherently discriminatory because the vast majority of meatpacking workers who contracted the coronavirus were Black or Hispanic. The complaint also took aim at other ways Trump’s labor agencies rolled back protections for workers. During the pandemic’s early weeks, the NLRB, which oversees union elections, suspended them, giving companies more time to maneuver against them, the complaint charged. The NLRB also issued a memo in March that the union presidents said signaled employers could avoid bargaining about proposed layoffs because of the pandemic. And in two cases in August, the NLRB said companies were in the clear for dismissing workers who expressed concern about safety issues during the pandemic, even though workers have protections from the National Labor Relations Act from being fired in many cases for raising safety concerns at work. “Each of these decisions disarms workers and their unions in the face of management actions to violate their collective bargaining rights in the Covid-19 crisis,” the complaint said. “Since these memoranda also serve as instructions to NLRB regional authorities on how to handle similar cases, they have a cascading effect that will undermine workers’ rights in weeks and months ahead as the pandemic continues to ravage American workplaces.”

#### Soft Power “Liberal Order” fails and doesn’t solve Democracy or War.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

#### Multilateralism fails—*diverging interests* and a *lack of faith* guarantee cooperation is at best superficial

Heribert Dieter 14, Senior Associate at the German Institute for International and Security Affairs, Non-Resident Senior Fellow, Chongyang Institute for Financial Studies, Visiting Professor for International Political Economy at Zeppelin University, Doctorate in Political Science and Economics, Free University of Berlin, 1/31/14, The G-20 and the Dilemma of Asymmetric Sovereignty – Why Multilateralism Is Failing in Crisis Prevention, International Relations and Security Network, <http://www.isn.ethz.ch/Digital-Library/Articles/Detail/?lng=en&id=176145>

Yet, tightening the rules for financial market regulation is not the only field where the G-20 is failing. Despite the mantra-like repetition of memoranda of understanding, the trade ministers of the G-20 have not been able to overcome their conflicts of interest and reach a settlement in the Doha Round of the World Trade Organization (WTO). What are the reasons for this failure?Although the G-20 managed to prevent a revival of protectionist measures on a broad front in the midst of the crisis, there is a large gap between the announcements of the G-20 and quantifiable results in trade policy. There is not one final communiqué that lacks a clear statement stressing the importance of the WTO and the necessity to conclude the Doha Round. Nonetheless, the reality of trade policy looks very different. All the states that are preventing the conclusion of the Doha Round through their vetoes are members of the G-20.

Despite there being little public information available on the reasons for the deadlock in the Doha Round, it is known that the US, Brazil, and China are blocking its conclusion. The emerging economies Brazil and China oppose the US’s demand for the complete elimination of tariffs on industrial goods. Conversely, the US resists the request to comprehensively abandon subsidies to the agricultural sector.Thus, the Doha Round is not concluded because three important members of the G-20 no longer believe in multilateral solutions and would rather engage in preferential agreements. For experts in the field of international trade, this is a paradox. There is a broad consensus that a single rulebook for international trade would facilitate economic growth and contribute to a worldwide increase in prosperity. This, however, cannot be said for the currently popular free trade agreements. So why are the countries in the G-20 incapable of further developing the common rules for international trade? One explanation is the lack of a hegemonic power that is willing to guarantee compliance with the rules of the game, but at the same time establish a system that provides member countries with sufficient economic benefits. In any event, this is how the postwar economy emerged: The US enforced the system of Bretton Woods and made sure that the participation in this economic regime remained attractive. Of course, the Bretton Woods regime never was a truly global system, since member countries of the Council on Mutual Economic Assistance did not participate. Still, within the bipolar order of the Cold War, the US managed to keep the system open and stable.¶ After the collapse of the USSR and the following short-lived “unipolar moment” (Charles Krauthammer) of complete hegemony of the US, the multilateral order was being advanced until 1995, the founding year of the WTO. Since the turn of the millennium and the parallel emergence of a multipolar order, nearly all attempts to organize cooperation without hegemony (Bob Keohane) have failed. The present multipolar world is characterized by superficial cooperation. Global Governance, whether in policies to prevent further climate change or in economic policy, remains on hold. Even worse: The world is returning to regulation on the level of the nation-state and non-cooperation. The American political scientist Ian Bremmer refers to the resulting situation as “G-Zero,” an era in which groups such as the G-20 will no longer play a vital role. The negative perception of the international division of labor¶ Apparently, there is no such thing as an identity of interests of individual states, as assumed by the advocates of global regulation and global governance. In other words: The gap between the preferences of individual states is widening rather than narrowing. However, governments must respect the preferences of their societies in the formulation of policies if they do not wish to lose legitimacy. Then again, the different preferences of societies are the immediate result of severely diverging perceptions of the international division of labor. Even in the G-20, individual societies have very different perceptions of the effects of globalization and its economic effects.¶ In Europe and the US, many people are increasingly critical of the international division of labor, if not outright hostile to globalization. According to a number of surveys, only about one-fifth to one-third of the respondents in OECD countries see greater opportunities than risks in globalization. Even in Germany, numerous politicians and citizens have been critical of globalization, although Germany strongly benefits from open markets and the resulting intensification of international trade.¶ Without a political anchoring in the member states, the G-20 has no future¶ The unfavorable perceptions of globalization and the outlined asymmetric sovereignty have resulted in a standstill in the G-20. Instead of a further development of the multilateral order, at best the status quo will be preserved. This is why we can expect nothing substantial – at least in terms of economic policy and financial regulation – from the G-20 summit in St. Petersburg on September 5 and 6. The structural impediments to successful financial regulation and trade policies on a supranational level cannot be overcome by the heads of government and state of the G-20. At least there is some hope in those areas where the countries of the G-20 have identical interests. This applies primarily to measures to close down tax loopholes. In 2008, ambitious expectations of a comprehensive reorganization of international trade relations through the G-20 were raised. Unfortunately, the G-20 cannot and will not deliver on crisis prevention. Today, more modest goals will have to be set. The key obstacle to success in the further development of global rules in trade and finance can be found in the G-20 societies themselves. Perceptions about globalization need to be addressed by policy makers at the national level, as do the widespread reservations about the international division of labor in the OECD countries. If societies continue to show diverging preferences, the development of comprehensive global economic governance in the G-20 will be all but impossible.

#### 1AC Kromah is about “Hard Power Hegemony?” NOT Soft Power Influence – they don’t have a Causal Internal Link – don’t give it to them

#### Heg is ineffective

Fettweis 17 – Associate Professor of Political Science at Tulane University (Christopher, “Unipolarity, Hegemony, and the New Peace,” *Security Studies*, 26:3, 423-451, 5-8-2017, http://dx.doi.org/10.1080/09636412.2017.1306394)//Elmer

Conflict and Hegemony by Region Even the most ardent supporters of the hegemonic-stability explanation do not contend that US influence extends equally to all corners of the globe. The United States has concentrated its policing in what George Kennan used to call “strong points,” or the most important parts of the world: Western Europe, the Pacific Rim, and Persian Gulf.64 By doing so, Washington may well have contributed more to great power peace than the overall global decline in warfare. If the former phenomenon contributed to the latter, by essentially providing a behavioral model for weaker states to emulate, then perhaps this lends some support to the hegemonic-stability case.65 During the Cold War, the United States played referee to a few intra-West squabbles, especially between Greece and Turkey, and provided Hobbesian reassurance to Germany’s nervous neighbors. Other, equally plausible explanations exist for stability in the first world, including the presence of a common enemy, democracy, economic interdependence, general war aversion, etc. The looming presence of the leviathan is certainly among these plausible explanations, but only inside the US sphere of influence. Bipolarity was bad for the nonaligned world, where Soviet and Western intervention routinely exacerbated local conflicts. Unipolarity has generally been much better, but whether or not this was due to US action is again unclear. Overall US interest in the affairs of the Global South has dropped markedly since the end of the Cold War, as has the level of violence in almost all regions. There is less US intervention in the political and military affairs of Latin America compared to any time in the twentieth century, for instance, and also less conflict. Warfare in Africa is at an all-time low, as is relative US interest outside of counterterrorism and security assistance.66 Regional peace and stability exist where there is US active intervention, as well as where there is not. No direct relationship seems to exist across regions. If intervention can be considered a function of direct and indirect activity, of both political and military action, a regional picture might look like what is outlined in Table 1. These assessments of conflict are by necessity relative, because there has not been a “high” level of conflict in any region outside the Middle East during the period of the New Peace. Putting aside for the moment that important caveat, some points become clear. The great powers of the world are clustered in the upper right quadrant, where US intervention has been high, but conflict levels low. US intervention is imperfectly correlated with stability, however. Indeed, it is conceivable that the relatively high level of US interest and activity has made the security situation in the Persian Gulf and broader Middle East worse. In recent years, substantial hard power investments (Somalia, Afghanistan, Iraq), moderate intervention (Libya), and reliance on diplomacy (Syria) have been equally ineffective in stabilizing states torn by conflict. While it is possible that the region is essentially unpacifiable and no amount of police work would bring peace to its people, it remains hard to make the case that the US presence has improved matters. In this “strong point,” at least, US hegemony has failed to bring peace. In much of the rest of the world, the United States has not been especially eager to enforce any particular rules. Even rather incontrovertible evidence of genocide has not been enough to inspire action. Washington’s intervention choices have at best been erratic; Libya and Kosovo brought about action, but much more blood flowed uninterrupted in Rwanda, Darfur, Congo, Sri Lanka, and Syria. The US record of peacemaking is not exactly a long uninterrupted string of successes. During the turn-of-the-century conventional war between Ethiopia and Eritrea, a highlevel US delegation containing former and future National Security Advisors (Anthony Lake and Susan Rice) made a half-dozen trips to the region, but was unable to prevent either the outbreak or recurrence of the conflict. Lake and his team shuttled back and forth between the capitals with some frequency, and President Clinton made repeated phone calls to the leaders of the respective countries, offering to hold peace talks in the United States, all to no avail.67 The war ended in late 2000 when Ethiopia essentially won, and it controls the disputed territory to this day. The Horn of Africa is hardly the only region where states are free to fight one another today without fear of serious US involvement. Since they are choosing not to do so with increasing frequency, something else is probably affecting their calculations. Stability exists even in those places where the potential for intervention by the sheriff is minimal. Hegemonic stability can only take credit for influencing those decisions that would have ended in war without the presence, whether physical or psychological, of the United States. It seems hard to make the case that the relative peace that has descended on so many regions is primarily due to the kind of heavy hand of the neoconservative leviathan, or its lighter, more liberal cousin. Something else appears to be at work.

#### Primacy is more unstable – our evidence is comparative.

Christopher Preble 16, vice president for defense and foreign policy studies at the Cato Institute. PhD in History from Temple University. With William Ruger. 2016. “The Problem With Primacy.” In “Our Foreign Policy Choices, Rethinking America’s Global Role” https://poseidon01.ssrn.com/delivery.php?ID=741072022102024090075118113101083026016056000029024069069123111076082080009064093108016120111006027011049007074022115108007102123042042011081092085100005025006088070001052041101115092080116097001012108114029011071004086091092118120095090091004096029029&EXT=pdf

Another key problem is that primacy inadvertently increases the risk of conflict. Allies are more willing to confront powerful rivals, because they are confident that the United States will rescue them if the confrontation turns ugly, a classic case of moral hazard, or what Barry Posen calls "reckless driving." Restraining our impulse to intervene militarily or diplomatically when Our vital national interests are not threatened would reduce the likelihood that Our friends and allies will engage in such reckless behavior in the first place. Libya and Georgia are only two cases of this problem. Plus, a more restrained U.S. foreign policy would provide a powerful incentive for allies to share the burden of defense. Primacy has not stopped rivals from challenging U.S. power. Russia and China, for example, have resisted the U.S. government's efforts to expand its influence in Europe and Asia. Indeed, by provoking security fears, primacy exacerbates the very sorts of problems that it claims to prevent, including nuclear proliferation. U.S. efforts at regime change and talk of an "axis of evil" that needed to be eliminated certainly provided additional incentives for States to develop nuclear weapons to deter U.S. actions (e.g„ North Korea). Meanwhile, efforts intended to smother security competition or hostile ideologies have destabilized vast regions, undermined Our counter- terrorism efforts, and even harmed those we were ostensibly trying to help. After U S. forces deposed the tyrant Saddam Hussein in 211)3, Iraq descended into chaos and has never recovered. The situation in Libya is not much better; the United States helped Overthrow Muammar el-Qaddafi in 2011, but violence still rages. The Islamic State, which Originated in Iraq, has now established a presence in Libya as well. It is clear that those interventions were counterproductive and have failed to make America safer and more secure.

### Unions

#### This China Innovation scenario is nonsense – yes, the Plan might make the US ahead of China but you don’t reverse causally REMOVE China’s Bio-terror capabilities.

#### Unions decrease Innovation.

Bradley 17, Daniel, Incheol Kim, and Xuan Tian. "Do unions affect innovation?." Management Science 63.7 (2017): 2251-2271. (Department of Finance, University of South Florida, Tampa, Florida)//Elmer

An alternative hypothesis makes the opposite empirical prediction. **Unionization** may **create** **misaligned incentives among employees and impede firm innovation.** There are at least three plausible reasons for such a reduction in innovation. First, because **innovation requires considerable investment** in intangible assets such as research and development (R&D), **contracts** **that** effectively **motivate innovation are almost always incomplete**. **Once** the **investment** has been **made** and the innovation process begins, **workers** may have incentives to expropriate rents by **demanding higher wage concessions**, recognizing that the costs are sunk. This **ex post hold-up problem** on the part of employees in turn **leads to** an ex ante **underinvestment in R&D** (Grout 1984, Malcomson 1997), which **ultimately impedes innovation**. Second, **unionizing** the **workforce** **could encourage shirking** because the negative consequences for supplying less effort are reduced. That is, unionization **reduces** the **probability of dismissal**, so it lowers the cost of shirking and could lead to lower productivity among workers. Third, **unions** **alter** the distribution of worker wages, leading to a reduction in **wage inequality** among workers (Frandsen 2012). To the extent that innovative and talented workers are in demand in the labor market, **reduced wage gaps may force out innovative employees**, which contributes to the decline in innovation in unionized firms. Although the three underlying mechanisms discussed are different, they are all related in the sense that **unionization creates misaligned incentives and impedes innovation.** We refer to the general decline in innovation after unionization stemming from any one or all of these potential consequences as the “misaligned incentives hypothesis.” We test the above two hypotheses by examining whether unions promote or impede firm innovation. Following existing literature that uses patenting data to capture firms’ innovativeness (i.e., Aghion et al. 2005, Nanda and Rhodes-Kropf 2013, Seru 2014), we **use** the number of patents granted to a firm and the number of future citations received by each patent obtained from the National Bureau of Economic Research (**NBER**) Patent Citation database to measure innovation output. The former captures the quantity of firm innovation, and the latter captures the quality of firm innovation. We **collect** union election **results from** the National Labor Relations Board (**NLRB**), which allows us to compare changes in innovation output for firms that elect to become unionized to those that vote against it. The empirical challenge of our study is to identify the causal effect of unionization on firm innovation. A standard ordinary least squares (OLS) approach that regresses innovation output on a unionization variable suffers from potentially severe identification problems. Union election results could be correlated with firm unobservable characteristics that affect firm innovation output (the omitted variable concern) or firms with low innovation potential may be more likely to pass unionization elections (the reverse causality concern). Both problems could make it difficult to draw causal inferences from unionization to innovation. To attempt to establish causality, we use a regression discontinuity design (RDD) that relies on “locally” exogenous variation in unionization generated by these elections that pass or fail by a small margin of votes. This approach compares firms’ innovation output subsequent to union elections that pass to those that do not pass by a small margin. It is a powerful and appealing identification strategy because, for these close-call elections, passing is very close to an independent, random event and therefore is unlikely to be correlated with firm unobservable characteristics. After performing various diagnostic tests to ensure that the key identifying assumptions of the RDD are satisfied, we show that **unionization has a negative effect on firm innovation**. According to our nonparametric local linear regression estimation, passing a union election leads to an **8.7% decline in patent counts** and a **12.5% decline in patent citations** three years after the election. This result is robust to alternative choices of kernels and bandwidths and is absent at artificially chosen thresholds that determine union election outcomes. The negative effect of unionization on innovation is present in both manufacturing (where most unions form) and nonmanufacturing industries, but it is statistically insignificant in firms located in states with right-to-work legislation where unions have less power to expropriate rents. We show that a cut in R&D spending, reduced productivity of current and newly hired inventors, and the departure of innovative inventors are possible underlying mechanisms through which unionization impedes firm innovation. Finally, we find that firms shift innovation activities away from states where union elections are successful.

#### Prefer over 1AC Shin – the line about “no detrimental effect” is a cherry-picked European study – 1NC Bradley is about the US while Shin isa bout Germany and the UK.

#### AT Kuo – 1] The internal link is not US winning the Tech Race – its China getting access to US genomic data sets – nothing in the Status Quo does that and the Plan definitely doesn’t prevent it and 2] The I/L is about “malicious actors” NOT China forcefully using it

#### China Tech is Peaceful.

Allen 19 (, G., 2019. Understanding China's AI Strategy. [online] Cnas.org. Available at: <https://www.cnas.org/publications/reports/understanding-chinas-ai-strategy> [Accessed 6 September 2021]. Gregory C. Allen is a former Adjunct Senior Fellow at the Center for a New American Security (CNAS) Technology and National Security Program. Mr. Allen focuses on the intersection of Artificial Intelligence, cybersecurity, robotics, space, and national security. His writing and analysis has appeared in the New York Times, The Washington Post, The Economist, Nature, CNN, Foreign Policy, WIRED, and Vox. His report, “Artificial Intelligence and National Security,” a study conducted on behalf of the U.S. Intelligence Advanced Research Projects Activity (IARPA), was published through the Harvard Belfer Center for Science and International Affairs.)-rahulpenu

Chinese Views on the Importance of AI 1. China’s leadership – including President Xi Jinping – believes that being at the forefront in AI technology is critical to the future of global military and economic power competition. In July 2017, China’s State Council issued the New Generation Artificial Intelligence Development Plan (AIDP).1 This document – along with Made in China 2025,2 released in May 2015 – form the core of China’s AI strategy. Both documents, as well as the issue of AI more generally, have received significant and sustained attention from the highest levels of China’s leadership, including Xi Jinping. Total Chinese national and local government spending on AI to implement these plans is not publicly disclosed, but it is clearly in the tens of billions of dollars. At least two3 Chinese regional governments have each committed to investing 100 billion yuan (~$14.7 billion USD).4 The opening paragraphs of the AIDP exemplify mainstream Chinese views regarding AI: **AI** has become a **new** **focus** **of** international **competition**. AI is a strategic technology that will lead in the future; the world’s major developed countries are taking the development of AI as a major strategy to enhance national competitiveness and protect national security.5 The above quote also reflects how China’s AI policy community6 is paying close attention to the AI industries and policies of other countries, particularly the United States. Chinese government organizations routinely translate, disseminate, and analyze U.S. government and think tank reports about AI. In my conversations with Chinese officials and my reading of Chinese government AI reports, they demonstrated substantive and timely knowledge of AI developments in the United States and elsewhere. Chinese government AI reports frequently cite U.S. national security think tank publications.7 The U.S. policymaking community ought to make it a priority to be equally effective at translating, analyzing, and disseminating Chinese publications on AI for the insights they provide into Chinese thinking.8 2. China’s leadership – including Xi Jinping – believes that **China** should **pursue** global **leadership** **in** **AI** technology and **reduce** its **vulnerable** **dependence** **on** imports of **international** **technology**. In October 2018, Xi Jinping led a Politburo study session on AI. Such sessions are reserved for the high-priority policy issues where leaders need the benefit of outside expertise. Xi’s publicly reported comments during and after the study session reiterated the main conclusions of both the AIDP and Made in China 2025, which were that China should “achieve world-leading levels”9 in AI technology and reduce its vulnerable “external [foreign] dependence for key technologies and advanced equipment.”10 In his speech during the study session, Xi said that China must “ensure that our country marches in the front ranks where it comes to theoretical research in this important area of AI, and occupies the high ground in critical and AI core technologies.”11 Xi further said that China must “pay firm attention to the structure of our shortcomings, ensure that critical and core AI technologies are firmly grasped in our own hands.” Xi’s speech demonstrates that China’s leadership continues to subscribe to AIDP’s and Made in China 2025’s two major conclusions that China should pursue both world leadership and self-reliance in AI technology. The Chinese AI sector’s dependence on foreign technology is discussed further in point nine. Chinese Views on AI's International Security Implications 3. Recently, Chinese officials and government reports have begun to express concern in multiple diplomatic forums about arms race dynamics associated with AI and the need for international cooperation on new norms and potentially arms control. In a keynote speech during China’s largest international relations conference on July 15, 2018, Fu Ying,12 the Vice-Chair of the Foreign Affairs Committee of the National People’s Congress, said that **Chinese** **technologists** **and** **policymakers** **agree** regarding the “**threat** of the new [**AI**] **technology** to mankind.” She further stated that “We believe that **we** **should** **cooperate** to preemptively prevent the threat of AI.” Madam Fu’s depiction of AI as posing a shared threat to international security was echoed by many other Chinese diplomats and PLA think tank scholars in my private meetings with them. For instance, one official told me he was concerned that **AI** “will **lower** the **threshold** **of** **military** **action**,” because states may be more willing to attack each other with AI military systems due to the lack of casualty risk. Chinese officials also expressed concern that increased used of AI systems would make misperceptions and unintentional conflict escalation more likely due to the lack of well-defined norms regarding the use of such systems. Additionally, Chinese officials displayed substantive knowledge of the cybersecurity risks associated with AI sytems, as well as their implications for Chinese and international security. Madam Fu said that **China** was **interested** **in** **playing** a **leading** **role** **in** **creating** **norms** **to** **mitigate** these **risks**. At the World Peace Forum private roundtable on AI, one senior PLA think tank scholar privately expressed support for “mechanisms that are similar to arms control” for AI systems in cybersecurity and military robotics. However, he also said that AI-related arms control would be uniquely difficult since “AI is low-cost and can be disseminated easily and cannot be monitored easily.” Notably, the recent “Artificial Intelligence Security White Paper,” published in September 2018 by the China Academy of Information and Communications Technology (CAICT), an influential Chinese government think tank, calls upon the Chinese government to “avoid Artificial Intelligence arms races among countries.”13 The AIDP does not address arms races but does state that China will “deepen international cooperation on AI laws and regulations, international rules and so on, and jointly cope with global challenges.” Such concerns extend to the China’s private sector. Jack Ma, the chairman of Alibaba, said explicitly in a speech at the 2019 Davos World Economic Forum that he was concerned that global competition over AI could lead to war.14