### Neg Case

#### I negate:

#### My value is promoting the best outcomes by saving lives, the standard should be utilitarianism

Ricci, Valentina, 2016, Dissertation, Ontology and Ethics of Violence: A Theory UC Irvine Electronic Theses and Dissertations Ph.D., PhilosophyUC Irvine http://escholarship.org/uc/item/4jv4f919, /Kent Denver-MB (21.30)

For Nussbaum, thus, a just society should not (have to) decide which capabilities to develop – thereby neglecting some of them – but would value all of them equally and would ensure the development of each one of them. This idea, however, may pose a problem, or perhaps simply emphasize a methodological difference between Nussbaum’s articulation of the capabilities approach and my proposal here. I certainly agree that a just society – what I have called a balanced living community – requires that all capabilities be developed, and it is also quite clear that our current social arrangement is anything but a just one, that is, one that ensures the development of all the capabilities in Nussbaum’s list in such a way that they support each other. I also agree with Nussbaum that prioritizing certain capabilities over others is necessary to achieve a just society. I do not believe, however, that it is meaningful to even talk about an ideal situation in which all capabilities will be developed, and about the need to consider all of them as equally important. Even if we assumed that such a just society were possible, however, it would be necessary to keep the hierarchy of capabilities in place in order to maintain justice within that society: otherwise, should a conflict arise over some kind of resource needed for the actualization of an individual’s potential, we would not have a criterion for deciding how to proceed about it.34 I believe, thus, that prioritizing some capabilities over others is necessary both to achieve and to maintain a just society. The first principle for guiding our actions, thus, will require that we establish and maintain a hierarchy between kinds of potentials. Basic capabilities – for example, bodily health and integrity –constitute the condition of possibility for the higher, more complex capabilities. Nussbaum concedes this point, but does not think that a different normative force follows from it. I believe, on the contrary, that the primary criterion that should guide us is that we – both at the individual and at the collective level – prioritize actions which ensure the development of basic capabilities for all members of the community. Only once those capabilities have been developed will we be fully justified in choosing actions that support the development of higher, more complex capabilities.

#### There are multiple tangible benefits to the private appropriation of space that outweigh any negative outcomes

#### Water scarcity is on the brink --- this causes water conflicts, and threatens nuclear war as a threat multiplier

Jamail 19 [Dahr Jamail, a Truthout contributing writer, Board of Advisers member and former staff reporter, is the author of The End of Ice: Bearing Witness and Finding Meaning in the Path of Climate Disruption (The New Press, 2019), The Will to Resist: Soldiers Who Refuse to Fight in Iraq and Afghanistan (Haymarket Books, 2009), and Beyond the Green Zone: Dispatches From an Unembedded Journalist in Occupied Iraq (Haymarket Books, 2007). “The World Is on the Brink of Widespread Water Wars.” February 11, 2019. Truthout. https://truthout.org/articles/the-world-is-on-the-brink-of-widespread-water-wars/]

Mark’s words should be a call to attention, and a call to action. The plight of farmers in Australia illustrates a larger reality: As planetary temperatures continue to increase and rainfall patterns shift due to human-caused climate disruption, our ability to grow crops and have enough drinking water will become increasingly challenged, and the outlook is only going to worsen. The most recent United Nations Intergovernmental Panel on Climate Change report warned of increasingly intense droughts and mass water shortages around large swaths of the globe. But even more conservative organizations have been sounding the alarm. “Water insecurity could multiply the risk of conflict,” warns one of the World Bank’s reports on the issue. “Food price spikes caused by droughts can inflame latent conflicts and drive migration. Where economic growth is impacted by rainfall, episodes of droughts and floods have generated waves of migration and spikes in violence within countries.” In some places conflict is practically guaranteed. Meanwhile, a study published in the journal Global Environmental Change, looked at how “hydro-political issues” — including tensions and potential conflicts — could play out in countries expected to experience water shortages coupled with high populations and pre-existing geopolitical tensions. The study warned that these factors could combine to increase the likelihood of water-related tensions — potentially escalating into armed conflict in cross-boundary river basins in places around the world by 74.9 to 95 percent. This means that in some places conflict is practically guaranteed. These areas include regions situated around primary rivers in Asia and North Africa. Noted rivers include the Tigris and Euphrates, the Indus, the Nile, and the Ganges-Brahmaputra. Consider the fact that 11 countries share the Nile River basin: Egypt, Burundi, Kenya, Eritrea, Ethiopia, Uganda, Rwanda, Sudan, South Sudan, Tanzania and the Democratic Republic of Congo. All told, more than 300 million people already live in these countries, — a number that is projected to double in the coming decades, while the amount of available water will continue to shrink due to climate change. For those in the US thinking these potential conflicts will only occur in distant lands — think again. The study also warned of a very high chance of these “hydro-political interactions” in portions of the southwestern US and northern Mexico, around the Colorado River. India and Pakistan Potential tensions are particularly worrisome in India and Pakistan, which are already rivals when it comes to water resources. For now, these two countries have an agreement, albeit a strained one, over the Indus River and the sharing of its water, by way of the 1960 Indus Water Treaty. However, water claims have been central to their ongoing, burning dispute over the Kashmir region, a flashpoint area there for more than 60 years and counting. The aforementioned treaty is now more strained than ever, as Pakistan accuses India of limiting its water supply and violating the treaty by placing dams over various rivers that flow from Kashmir into Pakistan. In fact, a 2018 report from the International Monetary Fund ranked Pakistan third among countries facing severe water shortages, This is largely due to the rapid melting of glaciers in the Himalaya that are the source of much of the water for the Indus. To provide an idea of how quickly water resources are diminishing in both countries, statistics from Pakistan’s Islamabad Chamber of Commerce and Industry from 2018 show that water availability (per capita in cubic meters per year) shrank from 5,260 in 1951, to 940 in 2015, and are projected to shrink to 860 by just 2025. In India, the crisis is hardly better. According to that country’s Ministry of Statistics (2016) and the Indian Ministry of Water Resources (2010), the per capita available water in cubic meters per year was 5,177 in 1951, and 1,474 in 2015, and is projected to shrink to 1,341 in 2025. Both of these countries are nuclear powers. Given the dire projections of water availability as climate change progresses, nightmare scenarios of water wars that could spark nuclear exchanges are now becoming possible. As if to underscore all of this, even the US military recently warned that climate change is a worldwide threat. The military’s Worldwide Threat Assessment report warned that climate change and other types of environmental degradation threatened global stability because they are “likely to fuel competition for resources, economic distress, and social discontent through 2019 and beyond.”

#### Asteroid mining singlehandedly solves this scarcity

Kean 15 [Sam Kean is an American writer. He has written for The New York Times Magazine, Mental Floss, Slate, Psychology Today, and The New Scientist, and has published 6 books on scientific discoveries. “The End of Thirst.” December 2015. *The Atlantic.* https://www.theatlantic.com/magazine/archive/2015/12/the-end-of-thirst/413176/]

If Earth does run dry, we might be able to save ourselves by mining water from asteroids and comets. Scientists have landed probes on these space rocks to study them. Future landers could mine them in deep space or possibly even drag them back toward Earth. Though the idea sounds far-fetched, space-mining companies already exist, and one of them, Planetary Resources, expects to start harvesting resources from asteroids in about a decade. According to Planetary Resources, a single 1,600-foot-wide asteroid could yield more platinum than has ever been mined in human history. But water could prove to be the real prize for space-mining companies. Some astronomers believe that the asteroid Ceres, which sits between Jupiter and Mars, may contain more freshwater (as ice) than all of Earth does. In addition to quenching people’s thirst, this water could be turned into fuel for interplanetary spaceships. In that case, an ample supply of water would be the key to a happy future not just down here on the ground, but up among the stars as well.

#### Commercial space manufacturing is booming and solves disease, but the plan kills it --- private launch and appropriation is key

Giulianotti et. al 21 [Marc A. Giulianotti1\*, Arun Sharma2,3, Rachel A. Clemens4 , Orquidea Garcia5 , D. Lancing Taylor6, Nicole L. Wagner7 , Kelly A. Shepard8 , Anjali Gupta4, Siobhan Malany9 , Alan J. Grodzinsky10, Mary Kearns‐Jonker11, Devin B. Mair12, Deok‐Ho Kim12,13, Michael S. Roberts1, Jeanne F. Loring14, Jianying Hu15, Lara E. Warren1 , Sven Eenmaa1, Joe Bozada16, Eric Paljug16, Mark Roth17, Donald P. Taylor18, Gary Rodrigue1, Patrick Cantini19, Amelia W. Smith1, William R. Wagner19,20\* 1 Center for the Advancement of Science in Space, Melbourne, FL, USA 2 Board of Governors Regenerative Medicine Institute, Cedars‐Sinai Medical Center, Los Angeles, CA, USA 3 Smidt Heart Institute, Cedars‐Sinai Medical Center, Los Angeles, CA, USA 4 Axiom Space, Inc., Houston, TX, USA 5 Johnson & Johnson 3D Printing Innovation & Customer Solutions, Johnson & Johnson Services, Inc., Irvine, CA , USA. 6 University of Pittsburgh Drug Discovery Institute and Department of Computational and Systems Biology, University of Pittsburgh, Pittsburgh, PA, USA 7 LambdaVision Inc., Farmington, CT, USA 8 California Institute for Regenerative Medicine, Oakland, California, USA 9 Department of Pharmacodynamics, College of Pharmacy, University of Florida, Gainesville, FL USA 10 Departments of Biological Engineering, Mechanical Engineering and Electrical Engineering and Computer Science, Massachusetts Institute of Technology, Cambridge, MA, USA 11 Department of Pathology and Human Anatomy, Loma Linda University School of Medicine, Loma Linda, CA, USA 12 Department of Biomedical Engineering, Johns Hopkins University School of Medicine, Baltimore, MD, USA 13 Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD, USA 14 Scripps Research Institute, San Diego, CA, USA 15 Center for Computational Health IBM Research, Yorktown Heights, NY, USA 16 Joseph M. Katz Graduate School of Business, University of Pittsburgh, Pittsburgh, PA, USA 17 Pittsburgh, PA, USA 18 The Ohio State University, Columbus, OH, USA 19 McGowan Institute for Regenerative Medicine, Pittsburgh, PA, USA 20 Departments of Surgery, Bioengineering, Chemical Engineering, University of Pittsburgh, Pittsburgh, PA, USA. “Opportunities for Biomanufacturing in Low Earth Orbit: Current Status and Future Directions.” August 2, 2021. https://www.preprints.org/manuscript/202108.0044/v1/download]

The use of LEO by governments and commercial enterprises is a complex ecosystem for providing opportunities and financing. In the last two decades, governments around the world, led by the U.S. and China, have heavily supported private space companies (2019 Report). These investments have focused on launch technologies, as high launch costs are perceived to be the greatest limiting factor to expanded space exploration and utilization (Werzt et al., 1996) and have led to recent reductions in the cost of transporting cargo to LEO by a factor of more than 20. Between 1970 and 2020, the average cost to launch a kilogram of payload into LEO on the space shuttle remained constant at about $54,500. Now, the cost per kilogram is $2,720 on a SpaceX Falcon 9 rocket (Figure 1) (Jones, H. W. et al., 2020). Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 2 August 2021 doi:10.20944/preprints202108.0044.v1 4 Figure 1: The cost of launching payloads to LEO has dropped considerably over the last 50 years. Note: Data is not to scale. Additionally, several private companies are now pursuing commercial space stations. Axiom Space, headquartered in Houston, is currently developing what promises to be the first‐ever privately operated space station, with the initial module scheduled to launch to the ISS in 2024. Axiom plans to dock multiple modules to the ISS that will eventually detach to become a standalone station. As the cost of transport to LEO has decreased—and is expected to decrease further—and plans for new platforms in LEO continue to advance (Dinkin S., 2019), opportunities in areas such as satellite deployment, biomedical research, in‐space manufacturing, and space tourism increase. Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 2 August 2021 doi:10.20944/preprints202108.0044.v1 5 As the past half century has witnessed the opening of space for exploration and commercial opportunities, in this same period, we have experienced exponential growth in our understanding of biology and physiology. This knowledge has been translated and commercialized for the benefit of human health and continues to accelerate as new technologies create additional tools to explore and cure. One aspect of this biomedical revolution is in the field of regenerative medicine, built upon advances in stem cell biology, biomaterials, and bioengineering. Remarkable advancements have been made in the design of MPS, also called tissue chips or organs‐on‐chips, and organoids that can mimic complex organ systems outside of the body for drug development or potential implantation to restore function. Stem cell isolation, characterization, and manipulation is advancing, with target applications broadly spread across tissues impacted by disease, trauma, and congenital conditions. Biomaterials and bioengineering advances have created new medical devices, targeted drug delivery platforms, biosensors and new imaging modalities, and the bioprinting of tissue constructs. To take advantage of these significant advances—more frequent and more affordable access to LEO and exponential progress in biomedical technology—the question is: How do these intersect, and what new opportunities arise as both advance? How can the unique LEO environment be leveraged to further advance biomanufacturing? Compelling answers to these questions will introduce economic drivers for investment in space‐based R&D that extend beyond the initial focus on pure discovery and into the expansion of commercial development in LEO. Over the past decade, the ISS National Lab has supported important space‐based research in the areas of tissue engineering and regenerative medicine that lays the groundwork for more complex studies and future investment. This critical research addressed fundamental questions such as: How does the LEO environment affect the organ function mimicked by tissue chips, and how do these changes relate to human disease? How does microgravity affect stem cell proliferation and differentiation? And how might 3D bioprinting benefit from the absence of gravity? Continued access to LEO through the ISS National Lab provides a unique opportunity for R&D that enables the jump from this initial work to the development of a sustainable market for biomanufacturing in space. The ISS is a powerful platform with a limited lifetime and thus limited time left for utilization; therefore, now is the time to leverage this invaluable orbiting laboratory to conduct R&D that demonstrates the value of biomanufacturing in space. This work will set the stage for increased private investment and the transition to larger and more numerous platforms in LEO that can support further discovery and development in the coming decades

#### Extinction

Yaneer Bar-Yam 16, Founding President of the New England Complex Systems Institute, “Transition to extinction: Pandemics in a connected world,” NECSI (July 3, 2016), http://necsi.edu/research/social/pandemics/transition

Watch as one of the more aggressive—brighter red — strains rapidly expands. After a time it goes extinct leaving a black region. Why does it go extinct? The answer is that it spreads so rapidly that it kills the hosts around it. Without new hosts to infect it then dies out itself. That the rapidly spreading pathogens die out has important implications for evolutionary research which we have talked about elsewhere [1–7].¶ In the research I want to discuss here, what we were interested in is the effect of adding long range transportation [8]. This includes natural means of dispersal as well as unintentional dispersal by humans, like adding airplane routes, which is being done by real world airlines (Figure 2).¶ When we introduce long range transportation into the model, the success of more aggressive strains changes. They can use the long range transportation to find new hosts and escape local extinction. Figure 3 shows that the more transportation routes introduced into the model, the more higher aggressive pathogens are able to survive and spread.¶ As we add more long range transportation, there is a critical point at which pathogens become so aggressive that the entire host population dies. The pathogens die at the same time, but that is not exactly a consolation to the hosts. We call this the phase transition to extinction (Figure 4). With increasing levels of global transportation, human civilization may be approaching such a critical threshold.¶ In the paper we wrote in 2006 about the dangers of global transportation for pathogen evolution and pandemics [8], we mentioned the risk from Ebola. Ebola is a horrendous disease that was present only in isolated villages in Africa. It was far away from the rest of the world only because of that isolation. Since Africa was developing, it was only a matter of time before it reached population centers and airports. While the model is about evolution, it is really about which pathogens will be found in a system that is highly connected, and Ebola can spread in a highly connected world.¶ The traditional approach to public health uses historical evidence analyzed statistically to assess the potential impacts of a disease. As a result, many were surprised by the spread of Ebola through West Africa in 2014. As the connectivity of the world increases, past experience is not a good guide to future events.¶ A key point about the phase transition to extinction is its suddenness. Even a system that seems stable, can be destabilized by a few more long-range connections, and connectivity is continuing to increase.¶ So how close are we to the tipping point? We don’t know but it would be good to find out before it happens.¶ While Ebola ravaged three countries in West Africa, it only resulted in a handful of cases outside that region. One possible reason is that many of the airlines that fly to west Africa stopped or reduced flights during the epidemic [9]. In the absence of a clear connection, public health authorities who downplayed the dangers of the epidemic spreading to the West might seem to be vindicated.¶ As with the choice of airlines to stop flying to west Africa, our analysis didn’t take into consideration how people respond to epidemics. It does tell us what the outcome will be unless we respond fast enough and well enough to stop the spread of future diseases, which may not be the same as the ones we saw in the past. As the world becomes more connected, the dangers increase.¶ Are people in western countries safe because of higher quality health systems? Countries like the U.S. have highly skewed networks of social interactions with some very highly connected individuals that can be “superspreaders.” The chances of such an individual becoming infected may be low but events like a mass outbreak pose a much greater risk if they do happen. If a sick food service worker in an airport infects 100 passengers, or a contagion event happens in mass transportation, an outbreak could very well prove unstoppable.

#### Privatization is key to mining

Jamie Carter, 10-19-2021, "Space Mining: Scientists Discover Two Asteroids Whose Precious Metals Would Exceed Global Reserves," Forbes, <https://www.forbes.com/sites/jamiecartereurope/2021/10/19/the-age-of-space-mining-just-got-closer-as-scientists-discover-two-asteroids-whose-precious-metals-would-exceed-global-reserves/?sh=5b99ecf6713b> /kds-ch

We know the age of private space travel is here, but what about the wider commercial space industry? “Space mining” has been talked-up in recent years, but the hype-cycle has peaked with the realization that the technology to fetch rare-Earth metals from distant asteroids is some way off.

That’s not stopped NASA’s plans to launch, in 2022, its “Psyche” mission to a large metallic asteroid called 16 Psyche that’s thought to be largely metallic—and so ideal for space mining.

However, the NASA plans to merely orbit and document 16 Psyche, and in any case won’t reach the asteroid—situated in the asteroid belt between Mars and Jupiter—until 2026.

Now researchers have uncovered two metal-rich near-Earth asteroids (NEAs) that could one day be mined for iron, nickel and cobalt could for use on Earth or in space.

#### AND, Privitization expands economic growth and tech development. Public space companies, such as NASA, have looked to privatized companies for funding and new developments

Chris **Young**, 6-3-**2020**, "Space, The Private Frontier," **Medium**, <https://medium.com/swlh/space-the-private-frontier-dbd2f2d0a09b> /kds-ch

In 2014**,** in reaction to the government’s continued de-prioritization of space exploration and the corresponding erosion in the financing**, NASA turned to the private sector to help make up the difference.** That year it began its Tipping Point program. In a nutshell**, a company or project chosen by NASA for this award receives a fixed dollar amount** plus NASA resources up to a certain point while committing to cover 25% of the total cost themselves**.** This was designed to allow NASA to retain a measure of control over development and help them address budget shortfalls. In the past 5 years, NASA has awarded more than $120 million in Tipping Point awards to several private enterprises. Then there is NASA’s relationship with SpaceX and Boeing. Since 2014, NASA has awarded each company $3.1 and $4.8 billion dollars, respectively, to help with the development of what we saw over the weekend.

#### Specifically they are key to growth of the space economy

Matt **Weinzierl**, 2-12-**2021**, "The Commercial Space Age Is Here**," Harvard Business Review,** <https://hbr.org/2021/02/the-commercial-space-age-is-here> /kds-ch

There’s no shortage of hype surrounding the commercial space industry. But while tech leaders promise us moon bases and settlements on Mars, the space economy has thus far remained distinctly local — at least in a cosmic sense**. Last year**, however, we crossed an important threshold: **For the first time in human history, humans accessed space via a vehicle built and owned not by any government, but by a private corporation with its sights set on affordable space settlement.** It was the first significant step towards building an economy both in space and for space. The implications — for business, policy, and society at large — are hard to overstate.

**In 2019, 95% of the estimated $366 billion in revenue earned in the space sector was from the space-for-earth economy:** that is, goods or services produced in space for use on earth. The space-for-earth economy includes telecommunications and internet infrastructure, earth observation capabilities, national security satellites, and more. **This economy is booming, and though research shows that it faces the challenges of overcrowding and monopolization that tend to arise whenever companies compete for a scarce natural resource, projections for its future are optimistic. Decreasing costs for launch and space hardware in general have enticed new entrants into this market, and companies in a variety of industries have already begun leveraging satellite technology and access to space to drive innovation and efficiency in their earthbound products and services.**

In contrast, the **space-for-space economy** — that is, goods and services produced in space for use in space, such as mining the Moon or asteroids for material with which to construct in-space habitats or supply refueling depots — **has struggled to get off the ground.** As far back as the 1970s, research commissioned by NASA predicted the rise of a space-based economy that would supply the demands of hundreds, thousands, even millions of humans living in space, dwarfing the space-for-earth economy (and, eventually, the entire terrestrial economy as well). The realization of such a vision would change how all of us do business, live our lives, and govern our societies — **but to date, we’ve never even had more than 13 people in space at one time, leaving that dream as little more than science fiction**.

Today, however, there is reason to think that we may finally be reaching the first stages of a true space-for-space economy. **SpaceX’s recent achievements** (in cooperation with NASA), as well as upcoming efforts by Boeing, Blue Origin, and Virgin Galactic to put people in space sustainably and at scale, **mark the opening of a new chapter of spaceflight led by private firms.** These firms have both the intention and capability to bring private citizens to space as passengers, tourists, and — eventually — settlers, opening the door for businesses to start meeting the demand those people create over the next several decades with an array of space-for-space goods and services.

Welcome to the (Commercial) Space Age

**In our recent research, we examined how the model of centralized, government-directed human space activity born in the 1960s** **has**, over the last two decades, **made way for a new model, in which public initiatives in space increasingly share the stage with private priorities**. Centralized, government-led space programs will inevitably focus on space-for-earth activities that are in the public interest, such as national security, basic science, and national pride. This is only natural, as expenditures for these programs must be justified by demonstrating benefits for citizens — and the citizens these governments represent are (nearly) all on earth.

In contrast to governments**, the private sector is eager to put people in space to pursue their own personal interests**, not the state’s — and then supply the demand they create. **This is** the vision driving SpaceX, which in its first twenty years has entirely upended the rocket launch industry, securing 60% of the global commercial launch market and building ever-larger spacecraft designed to ferry passengers not just to the International Space Station (ISS), but also to its own promised settlement on Mars.

Today, the space-for-space market is limited to supplying the people who are already in space: that is, the handful of astronauts employed by NASA and other government programs. **While SpaceX has grand visions of supporting large numbers of private space travelers, their current space-for-space activities have all been in response to demand from government customers (i.e., NASA).** But as decreasing launch costs enable companies like SpaceX to leverage economies of scale and put more people into space, growing private sector demand (that is, tourists and settlers, rather than government employees) could turn these proof-of-concept initiatives into a sustainable, large-scale industry.

This model — of selling to NASA with the hopes of eventually creating and expanding into a larger private market — is exemplified by SpaceX, but the company is by no means the only player taking this approach. For instance, while SpaceX is focused on space-for-space transportation, another key component of this burgeoning industry will be manufacturing.

Made In Space, Inc. has been at the forefront of manufacturing “in space, for space” since 2014, when it 3D-printed a wrench onboard the ISS. Today, the company is exploring other products, such as high-quality fiber-optic cable, that terrestrial customers may be willing to pay to have manufactured in zero-gravity. But the company also recently received a $74 million contract to 3D-print large metal beams in space for use on NASA spacecraft, and future private sector spacecraft will certainly have similar manufacturing needs which Made In Space hopes to be well-positioned to fulfill. Just as SpaceX has begun by supplying NASA but hopes to eventually serve a much larger, private-sector market, Made In Space’s current work with NASA could be the first step along a path towards supporting a variety of private-sector manufacturing applications for which the costs of manufacturing on earth and transporting into space would be prohibitive.

#### And The advancement of technology in space is necessary to innovation on earth because similar machineries can be used for medical and economic fields. Furthermore, the advantages of economic growth will

Tejvan Pettinger, 12-14-2019, "Benefits of economic growth," Economics Help, https://www.economicshelp.org/macroeconomics/economic-growth/benefits-growth/

The benefits of economic growth include

Higher average incomes. Economic growth enables consumers to consume more goods and services and enjoy better standards of living. Economic growth during the Twentieth Century was a major factor in reducing absolute levels of poverty and enabling a rise in life expectancy.

Lower unemployment. With higher output and positive economic growth, firms tend to employ more workers creating more employment.

us-unemployment-2001-2021-markings 3.31

Lower government borrowing. Economic growth creates higher tax revenues, and there is less need to spend money on benefits such as unemployment benefit. Therefore economic growth helps to reduce government borrowing. Economic growth also plays a role in reducing debt to GDP ratios.

A long period of economic growth in the post-war period helped reduce the UK debt to GDP ratio.

Improved public services. Higher economic growth leads to higher tax revenues and this enables the government can spend more on public services, such as health care and education e.t.c. This can enable higher living standards, such as increased life expectancy, higher rates of literacy and a greater understanding of civic and political issues.

Money can be spent on protecting the environment. With higher economic growth a society can devote more resources to promoting recycling and the use of renewable resources. The Kuznets curve suggests that initially economic growth worsens the environment, but after a certain point of growth, the damage to the environment will fall. This theory is controversial. But, it is possible for higher growth to be consistent with improved environmental outcomes.

Investment. Economic growth encourages firms to invest, in order to meet future demand. Higher investment increases the scope for future economic growth – creating a virtuous cycle of economic growth/investment.

Increased research and development. High economic growth leads to increased profitability for firms, enabling more spending on research and development. This can lead to technological breakthroughs, such as improved medicine and greener technology. Also, sustained economic growth increases confidence and encourages firms to take risks and innovate.

Economic development. The biggest factor for promoting economic development is sustained economic growth. Economic growth in south-east Asia over the past few decades has played a major role in reducing levels of poverty, increasing life expectancy and enabling more economic prosperity.

More choice. In less developed economies, a large proportion of the population work in agriculture/subsistence farming, economic growth enables a more diverse economy with people able to work in service sector, manufacturing and having a greater choice of lifestyles.

Decline in absolute poverty. Economic growth has played a crucial role in reducing absolute poverty (people with insufficient income to meet basic needs)

#### Economic collapse causes extinction

Zoë Baird20, A.B. Phi Beta Kappa and J.D. from the University of California, Berkeley, Member of the Aspen Strategy Group, CEO and President of the Markle Foundation, Former Trustee at the Council on Foreign Relations and Partner in the law firm of O’Melveny & Myers, “Equitable Economic Recovery Is a National Security Imperative”, in Domestic and International (Dis)Order: A Strategic Response, Ed. Bitounis and King, October 2020, p. 89-90

Broadly shared economic prosperity is a bedrock of America’s economic and political strength—both domestically and in the international arena. A strong and equitable recovery from the economic crisis created by COVID-19 would be a powerful testament to the resilience of the American system and its ability to create prosperity at a time of seismic change and persistent global crisis. Such a recovery could attack the profound economic inequities that have developed over the past several decades. Without bold action to help all workers access good jobs as the economy returns, the United States risks undermining the legitimacy of its institutions and its international standing. The outcome will be a key determinant of America’s national security for years to come.

An equitable recovery requires a national commitment to help all workers obtain good jobs—particularly the two-thirds of adults without a bachelor’s degree and people of color who have been most affected by the crisis and were denied opportunity before it. As the nation engages in a historic debate about how to accelerate economic recovery, ambitious public investment is necessary to put Americans back to work with dignity and opportunity. We need an intentional effort to make sure that the jobs that come back are good jobs with decent wages, benefits, and mobility and to empower workers to access these opportunities in a profoundly changed labor market.

‘

Shared Economic Prosperity Is a National Security Asset

A strong economy is essential to America’s security and diplomatic strategy. Economic strength increases our influence on the global stage, expands markets, and funds a strong and agile military and national defense. Yet it is not enough for America’s economy to be strong for some—prosperity must be broadly shared. Widespread belief in the ability of the American economic system to create economic security and mobility for all—the American Dream— creates credibility and legitimacy for America’s values, governance, and alliances around the world.

After World War II, the United States grew the middle class to historic size and strength. This achievement made America the model of the free world—setting the stage for decades of American political and economic leadership. Domestically, broad participation in the economy is core to the legitimacy of our democracy and the strength of our political institutions. A belief that the economic system works for millions is an important part of creating trust in a democratic government’s ability to meet the needs of the people.

The COVID-19 Crisis Puts Millions of American Workers at Risk

For the last several decades, the American Dream has been on the wane. Opportunity has been increasingly concentrated in the hands of a small share of workers able to access the knowledge economy. Too many Americans, particularly those without four-year degrees, experienced stagnant wages, less stability, and fewer opportunities for advancement.

Since COVID-19 hit, millions have lost their jobs or income and are struggling to meet their basic needs—including food, housing, and medical care.1 The crisis has impacted sectors like hospitality, leisure, and retail, which employ a large share of America’s most economically vulnerable workers, resulting in alarming disparities in unemployment rates along education and racial lines. In August, the unemployment rate for those with a high school degree or less was more than double the rate for those with a bachelor’s degree.2 Black and Hispanic Americans are experiencing disproportionately high unemployment, with the gulf widening as the crisis continues.3

The experience of the Great Recession shows that without intentional effort to drive an inclusive recovery, inequality may get worse: while workers with a high school education or less experienced the majority of job losses, nearly all new jobs went to workers with postsecondary education. Inequalities across racial lines also increased as workers of color worked in the hardest-hit sectors and were slower to recover earnings and income than White workers.4

The Case for an Inclusive Recovery

A recovery that promotes broad economic participation, renewed opportunity, and equity will strengthen American moral and political authority around the world. It will send a strong message about the strength and resilience of democratic government and the American people’s ability to adapt to a changing global economic landscape. An inclusive recovery will reaffirm American leadership as core to the success of our most critical international alliances, which are rooted in the notion of shared destiny and interdependence. For example, NATO, which has been a cornerstone of U.S. foreign policy and a force of global stability for decades, has suffered from American disengagement in recent years. A strong American recovery—coupled with a renewed openness to international collaboration—is core to NATO’s ability to solve shared geopolitical and security challenges. A renewed partnership with our European allies from a position of economic strength will enable us to address global crises such as climate change, global pandemics, and refugees. Together, the United States and Europe can pursue a commitment to investing in workers for shared economic competitiveness, innovation, and long-term prosperity.

The U.S. has unique advantages that give it the tools to emerge from the crisis with tremendous economic strength— including an entrepreneurial spirit and the technological and scientific infrastructure to lead global efforts in developing industries like green energy and biosciences that will shape the international economy for decades to come.