The UConn Undergraduate Political Review

Edition XV: Governance in an Increasingly Polarized World

UConn Department of Political Science

Fall 2022

Editorial Board

Editor-in-Chief

Kempton Campbell

Assistant Editor-in-Chief

Sofia DiNatale

Assistant Editors

Mohammed Hussain

Kieler Langemo

Hallie LeTendre

Devin O'Brien

Advising Professor

Dr. Oksan Bayulgen

With the Support of the Department of Political Science

Table of Contents

Letter to the Editor	4
Kempton B. Campbell	4
Reconstructing the Pharmaceutical Industry through Mark Cuban's "Cost Plus Drugs"	" 5
Lauren Baskin	5
Food Safety and Security in the United States	8
Sara Bedigian	8
Creationism in the Classroom	11
Adam Benitez	11
Why is the World Not Moving Forward with Renewable Energy?	18
Kanika Chaturvedi	18
Social Media as a Catalyst for Increased Political Extremism and Violence in the United States	d 22
Kayleigh Collins	22
Child Allowance: Uniting Progressive Economics with Conservatism	26
Matthew Koleszar	26
Economic Sanctions Against Russia:	30
An Analysis of its Efficacy on Ending the War in Ukraine	30
Hideto Cole Kurokawa	30
Road, Plague, and Revolution: The Recipe for European Economic Power	35
Joseph Miller	35
Becoming the Porcupine: An Analysis of Potential Changes to Defend Taiwan	39
Devin O'Brien	39
The Importance of the 2022 Midterm Elections	43
Jacob Sondik	43

Letter to the Editor

Kempton B. Campbell

12/11/2022

Dear Readers,

It is my privilege to write to you as the Editor-in-Chief of the University of Connecticut's Undergraduate Political Review. This semester we are proud to publish our fifteenth edition of the journal. With each publication, we strive to challenge UConn undergraduate students to explore complex and topical political issues that affect the world in which we live.

All articles included in this edition were written by undergraduate students and have undergone a rigorous peer-reviewed drafting process overseen by our student-run editorial board. Some of our past publications have confined our staff writers to a specific theme. While we did not limit our writers to a particular theme in this edition, we have observed an overwhelming focus on U.S. domestic and foreign policy in an increasingly partisan political climate. For this reason, we have entitled our fifteenth edition of the Undergraduate Political Review "Governance in an Increasingly Polarized World".

This publication would not have been possible without the support of several individuals. I would like to thank all of our editors and writers for their hard work and dedication this semester. We could not have published such a high-quality, though-provoking, edition without a dedicated group of undergraduate students. Additionally, I would like to thank Dr. Oksan Bayulgen and the University of Connecticut's Political Science Department for their continued support of this publication.

Finally, our readers should note that we accept new writers each semester. We welcome and encourage you to apply. Any University of Connecticut student may find out more information by emailing uconnpoliticalreview@gmail.com .

Sincerely,

Kempton B. Campbell | Editor-in-Chief

Reconstructing the Pharmaceutical Industry through Mark Cuban's "Cost Plus Drugs"

Lauren Baskin

Mark Cuban, American entrepreneur, and philanthropist, obtains a net worth of approximately \$4.6 billion. Despite the magnitude of this wealth, Cuban represents only a fraction of the top 1% of American net worth. Many individuals within the top 1% claim to invest in philanthropic organizations and causes, yet it is very rare to find individuals within this financial bracket fully investing their time and effort into their entrepreneurial endeavors. Cuban is an investor on the hit show Shark Tank and has been the owner of the Dallas Mavericks professional basketball team for over two decades. In regard to Cuban's successful enterprise with the Dallas Mavericks, Tom Huddleston of CNBC writes, "From prioritizing marketing the team's best players to recruiting stars and always being an outspoken advocate and courtside cheerleader for the Mavericks, Cuban helped turn the team into one of the NBA's top franchises".¹

Despite his many well-known and praised business deals, one of Cuban's most interesting investments to date is his new corporation Cost Plus Drugs, a pharmaceutical enterprise that cuts out the middleman of insurance and high deductible plans. In the company's mission statement, Cuban reiterates, "We started this company as an effort to disrupt the drug industry and to do our best to end ridiculous drug prices".² The history of medical care in America has been both complicated and controversial—despite the many economically powerful countries with universal healthcare, the United States faces an epidemic of healthcare disparities. As of 2021, 50 million people (16% of the country's population) lack any form of insurance coverage, meaning that all medical appointments, medications, and procedures need to be paid for out of pocket.³ As insurance companies become increasingly more influential in the American healthcare system, more people are facing deficits and discrimination as they seek medical services. In response to this effort, Cost Plus Drugs eliminates insurance by charging consumers with the exact cost of the drug plus a 15% markup, and then a pharmacy fee, if necessary. This drastically alters the prices of essential medications that American citizens have gotten used to paying. For example, Sertraline, a generic for the selective serotonin reuptake inhibitors (SSRI) Zoloft, which helps treat depression, obsessive compulsive disorder (OCD), and post-traumatic stress disorder (PTSD), has a retail price of \$22.50 for one month supply. Through Cost Plus Drugs, the price per month is only \$4.20.

¹ Jr., Tom Huddleston. "Mark Cuban Says He Bought the Dallas Mavericks 6 Weeks after Attending a Game and Thinking, 'I Can Do Better than This'." CNBC. CNBC, April 25, 2022

² Cost Plus Drugs. "Our Mission", 2022.

³ Chemweno, Johonniuss. "The U.S. Healthcare System IS BROKEN: A National Perspective." Managed Healthcare Executive, July 27, 2021.

The implications of Cost Plus Drugs are unrecognizable to a society that has been conditioned to believe that insurance is a necessary means of healthcare; however, the company's eradication of health insurance on a larger scale could be enticing to many citizens in America that have been struggling to have access to sufficient and effective medical care. Since the second World War, health insurance has been prevalent for every citizen in America. Its quality and access varies greatly with income and socioeconomic status. During the second World War, health insurance was used as an incentive to attract workers since many necessary jobs were short-staffed.⁴ In turn, "the current US healthcare system has a cruel tendency to delay or deny high-quality care to those who are most in need of it but can least afford its high cost. This contributes to avoidable healthcare disparities for people of color and other disadvantaged groups".⁵ In an experiment that compares 11 countries and their healthcare systems using criteria such as administrative efficiency, access to care, and equity, the United States is ranked eleventh. "On nine of the 10 component measures, U.S. performance is lowest among the countries, including having the highest infant mortality rate (5.7 deaths per 1,000 live births) and lowest life expectancy at age 60 (23.1 years)".⁶ The United States is among the top five richest countries in the world, yet there is a severe deficiency in our healthcare system: are companies like Cost Plus Drugs capable of changing the game?

The government heavily influences our healthcare system, whether it be through government regulated healthcare or lobbying with private corporations. University of Pennsylvania economist states that "government policies, ranging from regulatory interventions to tax policies, directly affect how Americans spend their money on health care; and this "government-affected" spending, as opposed to "market-like" spending, reached "close to 80 percent" in 2016 alone".⁷ Not only does the government have the capacity to control certain healthcare institutions such as Medicare, Medicaid, and Obamacare, which are often primarily provided for low-income individuals, but many members of Congress actually invest in big pharma and health insurance companies. Using information from members' personal financial investments, "researchers found that while members of health care-focused committees and subcommittees in the House of Representatives and Senate held health care-related assets at the same rate as other members of Congress, multiple members of these committees and subcommittees held hundreds of thousands of dollars of health care-related assets during their committee service".⁸ Especially in the midst of the on-going Coronavirus pandemic, many bureaucrats, particularly House members, are under fire for their own investments and how they may conflict with their own political ideologies and constituencies. Through research conducted by the New York Times this past September, "At least 97 current members of Congress bought

⁴ Robert H. Shmerling, MD. "Is Our Healthcare System Broken?" Harvard Health, July 13, 2021.
5 Ibid.

⁶ Schneider, Eric. "Mirror, Mirror 2021: Reflecting Poorly." Commonwealth Fund, August 4, 2021. https://www.commonwealthfund.org/publications/fund-reports/2021/aug/mirror-mirror-2021-reflecting-poorly

⁷ Moffit, Robert. "The Truth about Government-Controlled Health Care ." The Heritage Foundation. Accessed October 20, 2022. https://www.heritage.org/article/the-truth-about-government-controlled-health-care.

⁸ Penn Medicine.org. Accessed October 20, 2022.

or sold stock, bonds or other financial assets that intersected with their congressional work or reported similar transactions by their spouse or a dependent child."⁹ While investing is not prohibited for government officials, it is clear that specific investments not only encourage ties between the government and corporations, but it also perpetuates a sense of loyalty between the two. As a result, these loyalties may influence a House member's decisions in session, and the specific legislation that they propose. In effect, this invokes a complicated relationship between the government, insurance companies, and the consumer. How can American consumers feel comfortable in their healthcare if it has been proven that there is a distinct alliance between the government and insurance corporations, two institutions that are meant to protect and serve the citizenry?

Cost Plus Drugs has the potential to shift the entire public healthcare industry. While it's important to recognize that the corporation is still quite novel and certain factors such as supply and distribution may lack in comparison with pre-existing healthcare companies, it's fair to say that Cost Plus Drugs has the ability to provide affordable healthcare for everyday medications, particularly for people who lack insurance or a healthcare provider. It's important to recognize the potential for affordable medicine in American society, and in turn, how it can positively impact our own health and well-being on a larger scale. There is a significant deficit of wealth amongst the United States population, and it's imperative for the most powerful individuals to put their resources to use. Billionaires have the power to invest and influence positive change in our society, and Mark Cuban's investments in healthcare may encourage a new sense of hope in our imbalanced, capitalist society.

⁹ Parlapiano, Alicia, Adam Playford, Kate Kelly, and Ege Uz. "These 97 Members of Congress Reported Trades in Companies Influenced by Their Committees." The New York Times. The New York Times, September 13, 2022.

Food Safety and Security in the United States

Sara Bedigian

Food is essential to human survival. There are multiple government organizations and programs which have been implemented in the United States to ensure the safety and security of food. The U.S. Department of Agriculture, is committed to protecting and regulating food security and safety in the U.S. In addition, other initiatives such as Feed the Future have been created to combat food insecurity nationally as well as internationally. The U.S. government is greatly responsible for food security and safety, as it is necessary for the health and safety of Americans.¹⁰

Food security can be composed of multiple categories including: access, availability, and stability of food. The USDA is committed to address current issues of food security, "USDA introduced new language to describe ranges of severity of food insecurity. USDA made these changes in response to recommendations of an expert panel convened at USDA's request by the Committee on National Statistics (CNSTAT) of the National Academies."¹¹ The U.S. government's concern with food security goes beyond America, "since 2010, USDA has aligned appropriate programs to Feed the Future plans to support agriculture development in target countries and regions: Ghana, Kenya, East Africa, Bangladesh, Haiti, Guatemala and Central America."¹² The U.S. is a leader for global food security, not only to feed hundreds of millions of hungry people, but also to the "sustainable economic growth" and "long-term economic prosperity of the U.S."¹³

Many people around the world do not have adequate access to food because they cannot afford it, "the defining characteristic of very low food security is that—at times during the year—food intake of household members is reduced and their normal eating patterns are disrupted because the household lacks money and other resources for food."¹⁴ As a solution, the Feed the Future initiative was created by the U.S. government to combat global hunger and ensure food security around the world. According to Feed the Future, the initiative so far has helped farmers and farms generate more than \$17.9 billion in agricultural sales and leveraged more than \$2.6 billion in private sector investment for food security and nutrition.¹⁵ There have been many positive stories that have come from this initiative as it has reached families all over

¹⁰ Arohi Pathak, Ryan Richards, Marc Jarsulic, "The United States Can End Hunger and Food Insecurity for Millions of People." Center for American Progress, November 4, 2022, accessed Dec. 8, 2022, https://www.americanprogress.org/article/the-united-states-can-end-hunger-and-food-insecurity-for-millions-of-people/

^{11 &}quot;Food Security," USDA, accessed December 8, 2022, https://www.usda.gov/topics/food-and-nutrition/food-security.

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

^{15 &}quot;Building a Stronger Tomorrow." Feed the Future, October 31, 2022, https://www.feedthefuture.gov/building-a-stronger-tomorrow/

the world.¹⁶ In Bangladesh, "Feed the Future, through USAID's Bangladesh Nutrition Activity, is working with Konica Seed Company, a major seed supplier in southern Bangladesh, to connect homestead farmers with the quality ingredients they need to grow nutritious crops and optimize their current agricultural practices."¹⁷ Initiatives like Feed the Future, are slowly combating global hunger one meal at a time.

With a growing population, climate change and rising food prices, it is now more important than ever to further address elements of food insecurity. The International Food Policy Research Institute has urged nations to create more in-depth strategies and policies in regards to global change, handling water, land use, food trade, food processing and food prices. The IFPRI has done a lot of work on food security including "analysis of cash transfers, promotion of sustainable agricultural technologies, building resilience to shocks, and managing trade-offs in food security."¹⁸ Furthermore, researchers have been investigating how the Covid-19 pandemic has affected food security. The research found a correlation between food insecurity and the pandemic, "We apply a linear regression model to estimate whether food insecurity is positively correlated with the perceived presence of COVID-19 in personal networks."¹⁹ In Bangladesh, "households with elevated Covid-19 risk were more likely to report not having enough financial resources to buy food in the last seven days." And in Kenya, the trends were also similar.²⁰ As the world regroups after the pandemic, research suggests how food security, among many things, was impacted by the Covid-19.

Food safety ensures that the food being provided to a community is safe to eat. The Food and Drug Administration (FDA) is tasked with "protecting consumers against impure, unsafe and fraudulently labeled products and regulates foods other than the meat, poultry and egg products regulated by FSIS."²¹ In addition, the Food Safety Inspection Service, works with the USDA to publish food recalls, provide data and information to inform the public on the best ways to prevent food borne illness and protect public health.²² The New Era of Smarter Food Safety was created by the FDA to "enhance traceability, improve predictive analytics, respond more rapidly to outbreaks, address new business models, reduce contamination of food, and foster the

^{16 &}quot;Building a Stronger Tomorrow." Feed the Future, October 31, 2022, https://www.feedthefuture.gov/building-a-stronger-tomorrow/

^{17 &}quot;Improving Food Security & Nutrition around the World," Feed the Future, November 29, 2022, https://www.feedthefuture.gov/

^{18 &}quot;International Food Policy Research Institute, accessed December 8, 2022, https://www.ifpri.org/about

¹⁹ Valerie Mueller, Karen A. Grépin, Atonu Rabbani, Bianca Navia, Anne S. W. Ngunjiri, Nicole Wu, "Food Insecurity and Covid-19 Risk in Low ... - Wiley Online Library." accessed December 8, 2022, https://onlinelibrary.wiley.com/doi/10.1002/aepp.13200

²⁰ Ibid.

²¹ Office of the Commissioner, "U.S. Food and Drug Administration," U.S. Food and Drug Administration (FDA), accessed December 8, 2022, https://fda.gov/.

^{22 &}quot;Food Safety and Inspection Service," Home | Food Safety and Inspection Service, accessed December 8, 2022, https://www.fsis.usda.gov/.

10

development of stronger food safety cultures."²³ This suggests that the government is creating new organizations and adding to existing protocols to further prevent food illnesses.

The U.S. government has a pivotal role in conducting extensive research and providing information to the public to decrease the rates of food insecurity and food borne illnesses. However, the federal programs are not enough, as "more than 7 million households were food insecure despite receiving federal food and nutrition benefits through the Supplemental Nutrition Assistance Program (SNAP)."²⁴ The USDA reported that "given population growth and rising incomes, it is estimated that the demand for food will rise by 70 to 100 percent by 2050."²⁵ This suggests that it will be harder to implement food safety and security measures as time goes on. Although the U.S. has already taken some initiatives, further action is required to implement food security and safety, as food is a necessity for all human beings.²⁶

²³ Office of the Commissioner, "U.S. Food and Drug Administration," U.S. Food and Drug Administration (FDA), accessed December 8, 2022, https://fda.gov/.

²⁴ Arohi Pathak, Ryan Richards, Marc Jarsulic, "The United States Can End Hunger and Food Insecurity for Millions of People." Center for American Progress, November 4, 2022, accessed Dec. 8, 2022,

https://www.american progress.org/article/the-united-states-can-end-hunger-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-for-millions-of-people/linear-and-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-food-insecurity-foo

^{25 &}quot;Food Security," USDA, accessed December 8, 2022, https://www.usda.gov/topics/food-and-nutrition/food-security.

₂₆ Arohi Pathak, Ryan Richards, Marc Jarsulic, "The United States Can End Hunger and Food Insecurity for Millions of People." Center for American Progress, November 4, 2022, accessed Dec. 8, 2022,

https://www.americanprogress.org/article/the-united-states-can-end-hunger-and-food-insecurity-for-millions-of-people/

Creationism in the Classroom

Adam Benitez

In December of 2005, Judge John Jones III, presiding over the landmark case Kitzmiller v. Dover Area School District, ruled that the teaching of "intelligent design" in public schools was unconstitutional.²⁷ His decision settled a legal debate between creationism and evolution that had been raging since the early 1920's.²⁸ As we have seen in recent months, however, legal precedent that was once considered "settled" is no longer safe from being overturned. The precedent established by Kitzmiller v. Dover is no exception, as the number of challenges to the public teaching of evolution, whether they be overt or discreet, has risen in recent years. Take for example, the Arkansas House of Representatives, which in April of 2021, passed a bill that would have allowed "teachers in the state's public and open-enrollment schools" to teach creationism.²⁹ While the bill was eventually defeated in the Senate, it can be viewed as just one of many recent efforts by lawmakers, especially Republican lawmakers, to increasingly blur the boundary between Church and State. ^{30 31} This article traces the history of Christian creationism in public school curriculum, highlights the attempts to prevent or invalidate the teaching of evolution.

Creationism

According to Dr. Robert T. Pennock, an expert witness in the aforementioned Kitzmiller v. Dover Area School District case, "creationism refers to any view that rejects evolution in favor of some personal, supernatural creator."³² While creationism is not solely a Christian belief, it is extremely present in Christianity, the predominant religion in the United States. Additionally, most active antievolutionists are Christian.³³ For these reasons, this article will only focus on Christian creationism.

With this in mind, a distinction should be made between "young-earth" and "old earth" creationists. Young-earth creationists stress a literal interpretation of the Bible and the Genesis

²⁷ DelFattore, Joan. "Speaking of Evolution: The Historical Context of Kitzmiller v. Dover Area School District." *Rutgers J. L. & Religion*, vol. 9, no. 1, 2007, pp, 1-81

²⁸ Moore, Randy. "The Revival of Creationism in the United States." *Journal of Biological Education*, vol. 35, no. 1, 2000, pp. 17-21., https://doi.org/10.1080/00219266.2000.9655730.

²⁹ Branch, Glenn. "Creationism Bill Introduced in Arkansas." *National Center for Science Education*, 12 Mar. 2021, https://ncse.ngo/creationism-bill-introduced-arkansas.

³⁰ Branch, Glenn. "Creationism Bill Narrowly Defeated in Arkansas." *National Center for Science Education*, 21 Apr. 2021, https://ncse.ngo/creationism-bill-narrowly-defeated-arkansas.

³¹ Rouse, Stella, and Shibley Telhami. "Most Republicans Support Declaring the United States a Christian Nation." *Politico*, 21 Sept. 2022, https://www.politico.com/news/magazine/2022/09/21/most-republicans-support-declaring-the-united-states-a-christian-nation-00057736.

³² Pennock, Robert T. "Creationism and Intelligent Design." *Annual Review of Genomics and Human Genetics*, vol. 4, no. 1, 2003, pp. 143–163., https://doi.org/10.1146/annurev.genom.4.070802.110400.

³³ Scott, Eugenie C. "Antievolution and Creationism in the United States." *Annual Review of Anthropology*, vol. 26, no. 1, 1997, pp. 263–289., https://doi.org/10.1146/annurev.anthro.26.1.263.

creation narrative. That is to say, young-earth creationists believe that the Earth is between 6,000 to 10,000 years old, was created by God over a six day period, and all human lineage can be traced back to Adam and Eve.³⁴ In contrast, old-earth creationists (through varying interpretations of the Bible) concede that the Earth is billions of years old, and may even accept that evolution occurs on a small scale.³⁵ However, both young and old-earth creationists refute the existence of macroevolution, which is "evolution above the species level."³⁶ Prior to the 1960s, creationists largely subscribed to the old-earth interpretation of the Bible.³⁷ It was not until 1961, when John Whitcomb and Henry M. Morris published their book The Genesis Flood, that young-earth creationism began to emerge as a popular alternative.³⁸

Evolution

In 1836, British naturalist Charles Darwin returned to England after having spent five years exploring several South American islands. During his voyage, he made countless observations on local wildlife, and began developing a theory to explain the diversity of life he encountered.³⁹ He intermittently refined this theory of evolution until 1859, when he published it in his groundbreaking book, On the Origin of Species. Broadly speaking, evolution is "a gradual process in which something changes into a different and usually more complex or better form."⁴⁰ In biology, this involves an organism adapting to its environment and passing changes onto its offspring. Over the course of thousands or millions of years, these changes can accumulate and result in the development of wholly new species.

Creationism, which had been the "prevailing view of the Western world in the Middle Ages and up to the middle of the nineteenth century,"⁴¹ was supplanted "overnight" by Darwin's theory of evolution and natural selection.⁴² Today, after numerous developments, scientists consider evolution to be a fundamental principle of biology. Famed biologist Theodosius Dobzhansky summarized this notion in his 1973 article, *Nothing in Biology Makes Sense Except in the Light of Evolution*, in which he wrote that without evolution, biology "becomes a pile of sundry facts—some of them interesting or curious but making no meaningful picture as a whole."⁴³

³⁴ Pennock, Robert T. "Creationism and Intelligent Design." *Annual Review of Genomics and Human Genetics*, vol. 4, no. 1, 2003, pp. 143–163., https://doi.org/10.1146/annurev.genom.4.070802.110400.

³⁵ Scott, Eugenie C. "Antievolution and Creationism in the United States." *Annual Review of Anthropology*, vol. 26, no. 1, 1997, pp. 263–289., https://doi.org/10.1146/annurev.anthro.26.1.263.

³⁶ Ibid.

³⁷ Young, Matt, and Taner Edis. *Why Intelligent Design Fails: A Scientific Critique of the New Creationism*, Rutgers University Press, New Brunswick, NJ, 2006.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Evarts, Charles M. "Arthroscopy and Evolution." *The Journal of Arthroscopic & Related Surgery*, vol. 3, no. 3, 1987, pp. 209–212., https://doi.org/10.1016/s0749-8063(87)80069-5.

⁴¹ Mayr, Ernst. *What Evolution Is*, Basic Books, New York, NY, 2001.

⁴² Ibid.

⁴³ Dobzhansky, Theodosius. "Nothing in Biology Makes Sense Except in the Light of Evolution." *The American Biology Teacher*, vol. 35, no. 3, 1 Mar. 1973, pp. 125–129., https://doi.org/10.2307/4444260.

History of Creationism in Public School Curriculum

In the early 1900s, evolution was taught in some, but not all biology textbooks.⁴⁴ Oftentimes, the concept was thought to be too advanced for high school students and was thus omitted.⁴⁵ Particular attention was not given to the teaching of evolution until July of 1925, during the famous Scopes trial. Earlier that year, the Governor of Tennessee signed into law a bill that "prohibited the teaching of evolution in state supported schools."⁴⁶ In response, the American Civil Liberties Union (ACLU) publicized an offer to defend any schoolteacher who defied the law and was then prosecuted.⁴⁷ John Scopes, a high school science teacher from Dayton, took up the offer and openly taught evolution in his class. He was subsequently arrested and brought to trial.⁴⁸ The case became a national sensation when two high-profile lawyers volunteered to prosecute and defend Scopes respectively.⁴⁹ Ultimately, Scopes lost the case and was fined one hundred dollars, although his conviction was later overturned on a technicality.⁵⁰

Following the Scopes trial, states such as Mississippi and Arkansas introduced their own bans on the teaching of evolution^{51 52} Textbook publishers around the country, likely fearing a potential loss of business, then began omitting any mention of evolution.⁵³ For the textbooks that were already in use, states such as Texas began physically cutting out the pages that mentioned evolution.54

In 1958, the Biological Sciences Curriculum Study, an arm of the American Institute of Biological Sciences, began publishing a series of standardized textbooks which included evolution as a core element of biology.⁵⁵ One of these textbooks was adopted by the administrators of Little Rock Central High School in 1965.⁵⁶ However, the teaching of evolution

⁴⁴ Moore, Randy. "The Lingering Impact of the Scopes Trial on High School Biology Textbooks." *BioScience*, vol. 51, no. 9, Sept. 2001, pp. 790–796., https://doi.org/10.1641/0006-3568(2001)051[0790:tliots]2.0.co;2. ⁴⁵ Ibid.

⁴⁶ Szasz, Ferenc M. "The Scopes Trial in Perspective." *Tennessee Historical Quarterly*, vol. 30, no. 3, 1971, pp. 288–298.,

⁴⁷ "ACLU History: The Scopes 'Monkey Trial'." American Civil Liberties Union, 1 Sept. 2010, https://www.aclu.org/other/acluhistory-scopes-monkey-trial.

⁴⁸ Szasz, Ferenc M. "The Scopes Trial in Perspective." *Tennessee Historical Quarterly*, vol. 30, no. 3, 1971, pp. 288–298., ⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ "Anti-Evolution Law Is Adopted in Mississippi." Calexico Chronicle, 24 Feb. 1926. California Digital Newspaper Collection, https://cdnc.ucr.edu/?a=d&d=CC19260224.2.48&e=-----en--20--1--txt-txIN------1.

⁵² "BANS BOOK ON EVOLUTION; Arkansas Takes First Step Under Law Approved at Election." *The New York Times*, 12 Nov. 1928. The New York Times Archives, https://www.nytimes.com/1928/11/12/archives/bans-book-on-evolution-arkansastakes-first-step-under-law-approved.html.

⁵³ Moore, Randy. "The Lingering Impact of the Scopes Trial on High School Biology Textbooks." *BioScience*, vol. 51, no. 9, Sept. 2001, pp. 790-796., https://doi.org/10.1641/0006-3568(2001)051[0790:tliots]2.0.co;2. ⁵⁴ Ibid.

⁵⁵ "Biological Sciences Curriculum Study (1971)." National Center for Science Education, 24 Nov. 2008, https://ncse.ngo/biological-sciences-curriculum-study-1971.

⁵⁶ Shaver, Scott. "The Debate over the Teaching of Evolution in Public Schools." *The Journal of Law and Education*, vol. 32, no. 3, 1 July 2003, pp. 399-404., https://www.semanticscholar.org/paper/Chalk-Talk-The-Debate-over-the-Teaching-of-in-Shaver/5b3c27569cf2956f3c8b26246054f5fdb2c857da.

was still prohibited by a 1928 law passed in the wake of the Scopes trial. Susan Epperson, a biology teacher at the school, "sought a declaratory judgment contending that the statute violated the First Amendment."⁵⁷ Her efforts resulted in a 1968 decision (Epperson v Arkansas) in which the Supreme Court ruled that the Arkansas law was in violation of the Establishment Clause of the First Amendment.⁵⁸ The ruling effectively "outlawed legislative bans on teaching evolution."⁵⁹

Unable to outright ban the teaching of evolution, proponents of creationism began advocating for the adoption of "equal time" laws. These statutes "required that [public] schools provide balanced treatment for evolution and creationism emphasizing that both were theories."⁶⁰ In 1981, Louisiana passed the Balanced Treatment for Creation-Science and Evolution-Science Act, which required public school boards to develop creation science curriculum with the assistance of a panel of creation scientists appointed by the governor.⁶¹ Donald Aguillard, a high school biology teacher, challenged the law with the help of the ACLU. His case (Edwards v. Aguillard) reached the Supreme Court in 1987. The Supreme Court, like in Epperson v. Arkansas, ruled that the Balanced Treatment Act was in violation of the Establishment Clause of the First Amendment.⁶²

Edwards v. Aguillard "signaled the end of creation science as a force in the public schools."⁶³ However, proponents of creationism did not stop advocating for its adoption in public school curriculum. Instead, they rebranded creationism as "intelligent design". Intelligent design (ID) is the belief that "mere chance and necessity fall short of accounting for our world."⁶⁴ Like creationism, ID credits the diversity and complexity of life on Earth to the "design" of a deity but abandons any specific reference to Christianity. Proponents of ID advertise it as an "alternative" theory that should not replace evolution but be taught alongside it.⁶⁵ The Alabama State Board of Education typified this notion in November of 1995, when it mandated that Biology textbooks be

⁵⁷ Shaver, Scott. "The Debate over the Teaching of Evolution in Public Schools." *The Journal of Law and Education*, vol. 32, no. 3, 1 July 2003, pp. 399–404., https://www.semanticscholar.org/paper/Chalk-Talk-The-Debate-over-the-Teaching-of-in-Shaver/5b3c27569cf2956f3c8b26246054f5fdb2c857da.

⁵⁸ Ibid.

⁵⁹ Pennock, Robert T. "Creationism and Intelligent Design." *Annual Review of Genomics and Human Genetics*, vol. 4, no. 1, 2003, pp. 143–163., https://doi.org/10.1146/annurev.genom.4.070802.110400.

⁶⁰Aguillard, Donald. "Evolution Education in Louisiana Public Schools: A Decade Following: Edwards v Aguillard." *The American Biology Teacher*, vol. 61, no. 3, Mar. 1999, pp. 182–188., https://doi.org/10.2307/4450650.

⁶¹"Text of Louisiana Balanced Treatment for Creation-Science and Evolution-Science Act." *Rational Wiki*, 10 June 2016, https://rationalwiki.org/wiki/Text_of_Louisiana_Balanced_Treatment_for_Creation-Science_and_Evolution-Science_Act#cite_note-1.

⁶² Aguillard, Donald. "Evolution Education in Louisiana Public Schools: A Decade Following: Edwards v Aguillard." *The American Biology Teacher*, vol. 61, no. 3, Mar. 1999, pp. 182–188., https://doi.org/10.2307/4450650.

⁶³Young, Matt, and Taner Edis. *Why Intelligent Design Fails: A Scientific Critique of the New Creationism*, Rutgers University Press, New Brunswick, NJ, 2006.

⁶⁴ Ibid.

⁶⁵ Scott, Eugenie C. "Antievolution and Creationism in the United States." *Annual Review of Anthropology*, vol. 26, no. 1, 1997, pp. 263–289., https://doi.org/10.1146/annurev.anthro.26.1.263.

published with a disclaimer that branded evolution a "controversial theory," and claimed that macroevolution "has never been observed and should be considered a theory."⁶⁶

In 2004, the school board of Dover, York County, Pennsylvania approved the following amendment to the district's biology curriculum: "Students will be made aware of gaps/problems in Darwin's theory and of other theories of evolution including, but not limited to, intelligent design."67 The board cited the textbook Of Pandas and People, as a good reference for interested students to learn about ID. It should be noted that Pandas was published by the Foundation for Thoughts and Ethics, an organization that described itself as a "Christian think tank."⁶⁸ In response to the amendment, eleven concerned parents, represented by the ACLU and the Americans United for the Separation of Church and State (AU), sued the school district for endorsing religion.⁶⁹ Their case (Kitzmiller v. Dover) was heard by Judge John Jones III of the U.S. District Court for the Middle District of Pennsylvania. He ruled in favor of the parents and concluded that "a reasonable student or adult in the Dover community would interpret the board's actions as an endorsement of religion."⁷⁰ He further wrote that "the overwhelming evidence at trial established that ID is a religious view, a mere re-labeling of creationism, and not a scientific theory."⁷¹ Jones' ruling proved a major blow to intelligent design's adoption in public education. It established that, legally speaking, intelligent design is not science, and would likely be struck down as unconstitutional in future cases. However, proponents of ID have remained active since Kitzmiller v Dover. Louisiana, Mississippi, and Tennessee have all passed discreetly creationist laws in the wake of Jones' decision. They have managed to elude legal challenges through "strategic vagueness in avoiding mention of the bills' religious motivations and by only permitting, rather than requiring, disparagement of evolution."72

The Future

In the years since Kitzmiller v. Dover, issues of public education have surged to the forefront of national debate. Perhaps the most striking recent controversy is that of Critical Race Theory (CRT), an "academic legal theory developed... to examine how race and racism have shaped American institutions, culture, politics, economics, and education."⁷³ CRT was developed

⁶⁶ "Information About the Alabama 'Evolution Warning Label.'" *Alabama Citizens for Science Education*, Feb. 2005, https://web.archive.org/web/20090103060946/http://www.alscience.org/disclaimer.html#pictures

⁶⁷ Kitzmiller v. Dover, 400 F. Supp. 2d 707 (M.D. Pa. 2005)

⁶⁸ Scott, Eugenie C., and Nicholas J. Matzke. "Biological Design in Science Classrooms." *Proceedings of the National Academy of Sciences*, vol. 104, no. 1, 15 May 2007, pp. 8669–8676., https://doi.org/10.1073/pnas.0701505104.

⁶⁹ DelFattore, Joan. "Speaking of Evolution: The Historical Context of Kitzmiller v. Dover Area School District." *Rutgers J. L.* & *Religion*, vol. 9, no. 1, 2007, pp, 1-81., chrome-

extension://efaidnbmnnnibpcajpcglclefindmkaj/https://lawandreligion.com/lawandreligion/wp-interval and the statement of the

content/uploads/sites/4/2017/03/Speaking-Evolution-DelFattore.pdf

⁷⁰ Ibid.

⁷¹ Kitzmiller v. Dover, 400 F. Supp. 2d 707 (M.D. Pa. 2005)

⁷² Matzke, Nicholas J. "The Evolution of Antievolution Policies After Kitzmiller v. Dover." *Science*, vol. 351, no. 6268, 1 Jan. 2016, pp. 28–30., https://doi.org/10.1126/science.aad4057.

⁷³ López, Francesa, et al. "Understanding the attacks on Critical Race Theory." *National Education Policy Center*, Sep. 2021, http://nepc.colorado.edu/publication/crt.

by and for academics, and is not a framework commonly used by public K-12 schools.⁷⁴ Despite this, CRT has become a lightning rod for conservative politicians and pundits, who warn of "indoctrinating" public school children with curriculum that is "un-American, divisive, and itself racist."⁷⁵ In response to this made-up threat, Republican lawmakers have, since January 2021, introduced at least 137 bills "limiting what schools can teach in regards to race, American history, politics, and sexual orientation and gender identity."⁷⁶

With this recent wave of anti-academic freedom legislation, it should come as no surprise that several anti-evolution bills have slipped in as well. Measures in Arkansas, South Dakota, and Florida have been introduced in recent years, all under the guise of promoting academic freedom.^{77 78 79} While only the Florida bill was signed into law, all three play a small part in the larger surge in Christian nationalism. Defined as a "cultural framework that insists upon a fusion of American civic life and a particular vision of Christianity,"⁸⁰ Christian nationalism is an ideology traditionally relegated to fringe political candidates. However, recent years have seen the election of openly Christian nationalist politicians such as Marjorie Taylor Greene and Kris Kobach. While those politicians are still on the periphery of the Republican party, Christian nationalist ideas have begun to take root among general voters and mainstream politicians. Take, for example, Florida Governor Ron DeSantis, considered a potential frontrunner for the 2024 Republican presidential nomination. He has recently championed a new education initiative which is "infused with a Christian and conservative ideology" and has been derided as

⁷⁴ López, Francesa, et al. "Understanding the attacks on Critical Race Theory." *National Education Policy Center*, Sep. 2021, http://nepc.colorado.edu/publication/crt.

⁷⁵ Ibid.

⁷⁶ Gross, Terry. "From Slavery to Socialism, New Legislation Restricts What Teachers Can Discuss." *NPR*, 3 Feb. 2022, https://www.npr.org/2022/02/03/1077878538/legislation-restricts-what-teachers-can-discuss.

⁷⁷ Branch, Glenn. "Creationism Bill Introduced in Arkansas." *National Center for Science Education*, 12 Mar. 2021, https://ncse.ngo/creationism-bill-introduced-arkansas.

⁷⁸ Branch, Glenn. "Antiscience Legislation Resurfaces in South Dakota." *National Center for Science Education*, 22 Jan. 2020, https://ncse.ngo/antiscience-legislation-resurfaces-south-dakota.

⁷⁹ "Bill Encouraging Discussion of Creationism in Science Class Introduced in Florida." *Columbia Law School*, https://climate.law.columbia.edu/content/bill-encouraging-discussion-creationism-science-class-introduced-florida.

⁸⁰ Baker, Joseph O., et al. "Crusading for Moral Authority: Christian Nationalism and Opposition to Science." *Sociological Forum*, vol. 35, no. 3, 6 Aug. 2020, pp. 587–607., https://doi.org/10.1111/socf.12619.

"propaganda."⁸¹ Despite this, DeSantis's initiatives have remained popular, and have been touted as a model of Republican governance.^{82 83 84 85}

With all of this in mind, it seems inevitable that concerns over public education and Christianity will soon collide. Proponents of creationism and intelligent design, despite many legal defeats, have never stopped advocating for their adoption in public schools. For decades, their attempts were foiled by politicians who understood the sanctity of separation of church and state. However, many of today's Republican politicians do not seem to have that same understanding. For now, evolution in the public classroom is still protected by legal precedent. Yet, with a firmly conservative Supreme Court that is willing to overturn popular precedent, it is certainly possible that creationism and intelligent design will soon seep their way back in.

⁸¹ Benen, Steve. "DeSantis' Education Initiative in Florida Derided as 'Propaganda'." MSNBC, 1 July 2022,

https://www.msnbc.com/rachel-maddow-show/maddowblog/desantis-education-initiative-florida-derided-propaganda-rcna36327. ⁸² Brelje, Beth. "Mastriano Says He'd Model Desantis-Style Governorship for Pennsylvania." *The Epoch Times*, 20 Aug. 2022, https://www.theepochtimes.com/mastriano-says-hed-model-desantis-style-governorship-for-

pennsylvania_4676470.html?utm_medium=social&utm_source=twitter&utm_campaign=digitalsub.

⁸³ "Florida Governor Election Results." *The New York Times*, 8 Nov. 2022,

https://www.nytimes.com/interactive/2022/11/08/us/elections/results-florida-governor.html.

⁸⁴ Hawley-Bates, Savannah. "Derek Schmidt Pledges to Model Kansas Immigration and School Policies off Ron DeSantis." NPR, 19 Sept. 2022, https://www.kcur.org/news/2022-09-18/derek-schmidt-pledges-to-model-kansas-immigration-and-school-policies-off-ron-desantis.

⁸⁵ "What Pivot? Ganahl Bashes Media, Says She'll Be Like Desantis." Colorado Pols, 29 June 2022,

https://www.coloradopols.com/diary/176639/what-pivot-ganahl-bashes-media-says-shell-be-like-desantis.

Why is the World Not Moving Forward with Renewable Energy?

Kanika Chaturvedi

The basis of our world's economy depends on fossil fuels. The excess greenhouse gasses that are being trapped in the atmosphere are causing significant damage to our Mother Earth. However, the costs and efficiency of burning fossil fuels take precedence over other technologies that can preserve the climate and nature of our planet; a point often made by politicians across the world. It helps the economy thrive, but ethically is it worth the harm that we do to our environment? Fossil fuels are the leading cause of anthropogenic climate change. From the preindustrial era, we have raised the Earth's temperature by an entire centigrade. Renewable energy could be so advantageous to the prevention of further climate warming if it were to be globalized. Developing countries find themselves in a tough position because their dependency on fossil fuels is extremely heightened and the high upfront cost of renewable energy. Clean energy requires a significant amount of investment to ensure its cost-efficiency. This can be tough in developing countries. For example, in South Africa 80% of their economy is run on coal, which is why the transition becomes so difficult.⁸⁶ However, transitions into clean energy prove to be difficult in rich countries as well. Misinformation over climate change and environmental policy takes the United States by a storm. This makes policy change difficult when millions of people are opposing it. It is with no doubt that fossil fuel production will continue to grow before reductions are put in place. This is mainly due to the dependency that developing countries have on fossil fuels, and with limited resources they cannot afford to rebuild their entire infrastructure and economy around renewable energy. There needs to be increased government intervention when it comes to renewable energy. Developing countries need to take the small steps towards green energy and the standards of combating misinformation need to be raised. These are a few ways that we can ensure being sustainable through presenting a potentially new infrastructure.

Despite the belief of many politicians, renewable energy is far better economically than fossil fuels. Politicians have been arguing for years that using fossil fuels is just cheaper for the economy, so the shift to green energy would negatively impact the financial systems. This is inherently untrue, especially because renewable energy is now cheaper than fossil fuel production due to the recent rapid decline in prices. So, why has renewable energy only recently become cheaper than fossil fuel production? Well, renewable energy requires a lot of investment. There needs to be "significant up-front capital investment for equipment and project construction" which is why renewable energy used to be more expensive than fossil fuels; there simply was not enough production or investment for it.⁸⁷ People did not want to invest in renewable energy because they were not guaranteed how well it would work in the industry.

⁸⁶ Vumani Mkhize, "COP26: South Africa Hails Deal to End Reliance on Coal," BBC News (BBC, November 2, 2021), https://www.bbc.com/news/world-africa-59135169.

⁸⁷ Bruce Usher, *Renewable energy: A Primer for the twenty-first century* (Columbia University Press), 55.

Government incentives and policies can encourage capital investment towards renewable energy. There are two ways the government can incentivize renewable energy: 1) command control and 2) market mechanisms. Command control comes from the idea of direct subsidies and/or tax incentives. On the other hand, market mechanism techniques that are being used by the United States government are through the 'Renewable Portfolio Standard' (RPS). This system allows state governments to regulate the usage of renewable energy and, if the requirements are not met, they have the authority to punish for "noncompliance".⁸⁸ Both of these methods are extremely effective in boosting the production and investment aspect of renewable energy. Once the high upfront investment has been made, green energy becomes more cost-efficient because the rest is dependent on wind and solar energy. In fact, using electricity from renewable energy would only cost the economy around 1.1 to 3 cents per kWh. On a global scale, over 800 GW of existing coal power is more expensive than new solar PV or onshore wind projects. If we stopped using these coal power plants, we would save up to \$32.3 billion annually and prevent the creation of around 3 gigatonnes of CO2 every year.⁸⁹ This solution is not only economically beneficial to us, but also environmentally, proving that we need to take more steps towards renewable energy.

Developing countries face a significant amount of inner turmoil as they decide how they can make a more sustainable future for themselves and the world. For example, South Africa is one of the most perfect places to install solar or wind powered energy because of how significant their solar and wind reserves are.⁹⁰ South Africa relies very heavily on coal as its primary source of power. The government's subsidies are more focused on fossil fuels as opposed to renewable energy. South Africa averages up to 2,500 hours of sunlight in one year, in comparison to the 1,500 hours of sunlight the UK receives.⁹¹ For nearly half of the year, they are receiving enough sunshine to generate power and electricity. Not only this, but wind energy is also extremely reliable in South Africa because the coastal areas of Western and Eastern Cape have good wind energy potential as the speed of wind annually averages over 4 m/s at 10 m above the ground level. This is beneficial because this means that about 7 TWh/year is being produced.⁹² There is a lot of potential for wind and solar energy consumption in South Africa, and the government realizes this which is why there is more effort being put into renewable energy.

Many people are employed in coal-mining jobs, which helps sustain their economy. The step towards renewable energy makes the employment situation in South Africa difficult. As an impoverished nation, getting rid of jobs is only going to further hurt the economy. However, renewable energy can provide more employment opportunities for South African citizens and

⁸⁸ Bruce Usher, *Renewable energy: A Primer for the twenty-first century* (Columbia University Press), 55.

⁸⁹ "Majority of New Renewables Undercut Cheapest Fossil Fuel on Cost." IRENA, June 22, 2021.

https://www.irena.org/news/pressreleases/2021/Jun/Majority-of-New-Renewables-Undercut-Cheapest-Fossil-Fuel-on-Cost.

⁹⁰ "Making Renewable Energy Affordable: The South African Renewables Initiative: NDC Partnership." Accelerating Climate Action & amp; NDC Implementation : NDC Partnership, 2012. https://ndcpartnership.org/case-study/making-renewable-energy-affordable-south-african-renewables-initiative.

⁹¹ Preyser, Jesse. "Can South Africa Embrace Renewable Energy from the Sun?" BBC News. BBC, November 23, 2021. https://www.bbc.com/news/business-58971281.

⁹² Olusola M. Akinbami, Samuel R. Oke, and Michael O. Bodunrin. "The State of Renewable Energy Development in South Africa: An Overview," *Alexandria Engineering Journal* 60, 60, no. 6 (2021): 5077–93.

potentially increase socio-economic stability in the country. According to South Africa's Department of Energy, they have placed policies that ensure the transition to green energy occurs. To become more energy efficient, building emissions need to decrease by 34%. This policy was put into effect by the government through the Carbon Trust & GBCSA., 2021:4. An Energy Performance Certificate (EPC) must be displayed and submitted by building owners and accounting officers. The EPC lists the energy consumption per square meter of the building and based on the findings they are given a grade.⁹³ This incentivizes building owners to be more cautious of how much fossil fuels they are burning in comparison to how much renewable energy they are using. Not only this, but if an EPC is not submitted to the government, there are consequences set in place. In the most extreme measure, it can lead to imprisonment and fines.⁹⁴ The government is also using command control to incentivize its public to use more renewable energy. They established Feed-in Tariffs that guarantee prices for electricity supply, which ensures a reasonable profit to get developers to invest in renewable energy.⁹⁵ This ensures that the high investment in renewable energy will eventually make it cost-efficient to make it more sustainable for the economy and the environment. South Africa has certainly taken huge action through policy change regarding renewable energy. Although there is change that is starting to be made, there are a lot more changes that need to occur.

The continuous spread of misinformation that surrounds climate change and renewable energy is another obstacle preventing policy change being made in favor of clean energy. This comes from the extreme polarization of climate change between the two political parties in the United States. President Joseph R. Biden's Build Back Better Plan outlined policies to enact renewable energy transition within the United States. Unfortunately, this plan has been blocked in the Senate. The Biden Administration wants to hit a target of being an electricity sector free of fossil fuels by 2035.⁹⁶ It is economically feasible and perhaps even better for this transition to occur, however, these plans face a lot of controversy which is perpetuated by climate change deniers. They hold traditionalistic values and use unscientific claims to support their reasoning. Unfortunately, this allows the spread of misinformation which impacts how policies are being implemented in society. For example, Jeremy Kitson, a science teacher in Ohio, was extremely opposed to the idea of having wind turbines near him. He gathered other community members in his area and created a Facebook community page to "advocate" for the opposition of local wind projects. The page grew popular, and they posted stories about how wind turbines prompted health effects, birth defects in Portuguese horses, and that wind energy does not reduce CO2 emissions. They also posted pictures of wind turbines breaking and causing damage in its surrounding area, which the Department of Energy proved that the likelihood of that happening

⁹³ "Department of Energy." Department Of Energy. Accessed November 27, 2022. https://www.energy.gov.za/.
⁹⁴ Ibid.

⁹⁵ "National Energy Regulator of South Africa: South Africa Renewable ... - Gov." Accessed November 28, 2022. https://www.gov.za/sites/default/files/gcis_document/201409/32122382.pdf.

⁹⁶ Simon, Julia. "Misinformation Is Derailing Renewable Energy Projects across the United States." NPR. NPR, March 28, 2022. https://www.npr.org/2022/03/28/1086790531/renewable-energy-projects-wind-energy-solar-energy-climate-change-misinformation.

is a 0.1% chance.⁹⁷ This entire situation led to a series of setbacks regarding renewable energy projects, which eventually led to Apex's Clean Energy project to back out of his county.⁹⁸ Through the power of misinformation he was able to push out an entire project that would have been beneficial for his town both in terms of economy and the environment. All of this misinformation is harmful because Kitson's group is only one of many. The more this continues, the more people doubt the credibility of renewable energy, which is slowing down the projects that are put in place to achieve the goals of the Biden Administration. The easiest way to put an end to the continuous spread of misinformation is holding those people accountable. The justice system can ensure that people are being held responsible for the lies and misleading information they post online for other people to read, see, and potentially believe. If more educational resources regarding the impacts of climate change are provided in school from a younger age, people will develop the skills to combat the amount of misinformation that spreads.

We have the means to use renewable energy around the world, but the lack of policies and leadership to move towards this sustainable way of living is frightening. One of the main concerns for many politicians and world leaders is the transition. The fear of potentially losing big corporations that build a lot of revenue for the country is daunting and may be a reason why there has not been active progress taken towards renewable energy. There are solutions to this problem. This solution also works for developing countries who are in the midst of transitioning into using clean energy like South Africa. For a country that is so dependent on coal, they have been implementing policies and investments to ensure that they are working towards a more sustainable future. While we see South Africa putting forth legislation that takes action regarding renewable energy, we see a slight pushback in this regard in the United States. The spread of misinformation and opposition from people who are not ready for change is preventing goals that have been put forth by the current administration. A balance can be created during the transition from fossil fuels to clean energy. We need the international community to come together to responsibly allocate its resources and power to ensure the people and the environment are benefitting. Ultimately, we as global citizens have the power to push our legislators and national leaders to enact change.

⁹⁷ Simon, Julia. "Misinformation Is Derailing Renewable Energy Projects across the United States." NPR. NPR, March 28, 2022. https://www.npr.org/2022/03/28/1086790531/renewable-energy-projects-wind-energy-solar-energy-climate-change-misinformation.

⁹⁸ Julia Simon, "In the Misinformation Wars, Renewable Energy Is the Latest to Be Attacked," WUSF Public Media (WUSF, February 15, 2022), https://wusfnews.wusf.usf.edu/2022-02-15/in-the-misinformation-wars-renewable-energy-is-the-latest-to-be-attacked.

Social Media as a Catalyst for Increased Political Extremism and Violence in the United States

Kayleigh Collins

Political polarization, extremism, misinformation, and political violence are not new developments in the United States. However, social media has created a new platform to facilitate the spread of "fake news," radicalization, and domestic terrorism. Conspiracy theories run rampant on online platforms, spewing misinformation and distrust towards the government. Social media also provides a method through which extremist groups such as QAnon, Proud Boys, and Oath Keepers can communicate and coordinate with each other. This increases the opportunity for individuals and groups to engage in political violence, manifesting itself into acts of terror such as "Pizzagate" and the insurrection on the United States Capitol.

Disinformation, or the intentional spread of false information, compounded with divisive social media algorithms, has increased political polarization in the United States.⁹⁹ Social media creates "filter bubbles" or "echo chambers" that limit and narrow the kinds of political information that consumers are exposed to, which, in turn, divides people into incompatible groups. Consumers of social media are less likely to be exposed to opposing viewpoints that could challenge their existing political beliefs and prejudices. Instead, they are only shown information that confirms their beliefs and places them with like-minded individuals. Additionally, the political news environment itself has become polarized. The media is fragmented along ideological lines and many of the quality control functions of traditional media have been broken down, as misinformation is quickly spread and hard to contain. As a result, moderation and compromise become impossible. The other side is dehumanized and demonized, posing an existential threat to them.¹⁰⁰ The spread of misinformation about the other side only increases these feelings of animosity and polarization.

Social media additionally provides a platform for individuals to become radicalized through propaganda and recruitment. Individuals become radicalized as their group grievances, whether ethnic, racial, partisan, or social, are reinforced and enhanced. Opposing communities are vilified through disinformation and conspiracy theories, forging community and camaraderie between members of the group. Political actors can use social media to communicate their message and goals to a wider audience through conspiracies and attention-grabbing claims.¹⁰¹ Social media facilitates these discussions through Facebook groups, chatrooms, Reddit threads, and other sites. Posts on social media become a call to action with many individuals becoming hungry for direct, perhaps violent, action.

⁹⁹ "Misinformation and Disinformation." American Psychological Association. American Psychological Association. Accessed October 16, 2022. https://www.apa.org/topics/journalism-facts/misinformation-disinformation.

¹⁰⁰ Piazza, James A. "Fake news: the effects of social media disinformation on domestic terrorism." *Dynamics of Asymmetric Conflict* 15, no. 1 (2022): 55-77.

¹⁰¹ Ibid.

With heightened polarization and disinformation, the probability of political violence and terrorism is increased. Polarization is associated with increases of anger and belligerence, as well as verbal aggression and verbal attacks against political enemies. Individuals are more likely to use dehumanizing language towards rival groups. The inability to cooperate or resolve differences peacefully creates an environment where political violence is more likely. At the same time, violent actors can use social media to recruit and mobilize individuals into direct action. Social media itself becomes a place where terrorism can be planned and communicated.¹⁰²

The culmination of these factors has manifested into several violent scenes. During the 2016 presidential election, fake news ran rampant, with the average American being exposed to one to three pieces of "fake news" per month on the internet.¹⁰³ This exposure to misinformation creates more opportunity for people to fall susceptible to conspiracy. One especially incendiary conspiracy theory is "Pizzagate." This conspiracy claimed that Democratic Party leaders, including Hillary Clinton and her campaign chair John Podesta, ran a human trafficking and child sex ring in restaurants in Washington, D.C., such as Comet Ping Pong. Conspiracy theories and misinformation are not just ideas that circulate on Facebook, Reddit, and alt-right websites; they can also have consequences that go beyond the screen. On December 4, 2016, Edgar Maddison Welch fired a gun at the Comet Ping Pong pizzeria in an attempt to "save" the children that he thought were being trafficked.¹⁰⁴ Welch's dissolution demonstrates how misinformation and radicalized ideology leads to violence and terror.

Ideologically adjacent to the Pizzagate conspiracy is the QAnon movement that propagated out of the website 4chan in 2017.¹⁰⁵ Similarly, this conspiracy rests on the belief that supporters of the movement are trying to save children from sex trafficking rings. However, QAnon embodies more core beliefs than Pizzagate. QAnon supporters believe that Donald Trump is fighting to take down the network of Satan-worshiping pedophiles, known as the "Deep State," who allegedly control the world. Its core tenets incorrectly affirm that the 2020 presidential election results are fraudulent, promote anti-vax and Covid-19 conspiracies, and are rooted in antisemitism and racism.¹⁰⁶ The QAnon movement is largely ill-defined, and its beliefs can be molded to accommodate new circumstances and evidence.¹⁰⁷ The people who follow these conspiracy theories often have antisocial personality traits and are self-defined strong

¹⁰⁵ "QAnon." ADL, September 24, 2020. https://www.adl.org/resources/backgrounder/qanon.

¹⁰² Piazza, James A. "Fake news: the effects of social media disinformation on domestic terrorism." *Dynamics of Asymmetric Conflict* 15, no. 1 (2022): 55-77.

¹⁰³ Ibid.

¹⁰⁴ Bleakley, Paul. "Panic, Pizza and Mainstreaming the Alt-Right: A Social Media Analysis of Pizzagate and the Rise of the Qanon Conspiracy." *Current Sociology*, 2021, 001139212110348. https://doi.org/10.1177/00113921211034896.

¹⁰⁶ Ibid.

¹⁰⁷ Enders, Adam M., Joseph E. Uscinski, Casey A. Klofstad, Stefan Wuchty, Michelle I. Seelig, John R. Funchion, Manohar N. Murthi, Kamal Premaratne, and Justin Stoler. "Who supports qanon? A case study in political extremism." *The Journal of Politics* 84, no. 3 (2022): 000-000.

partisans with extreme ideologues. Partisanship is less important than the extent to their extremity of self-identification.¹⁰⁸

The attacks on the U.S. Capitol on January 6, 2021, were directly facilitated by social media. Since November of 2020, Trump's angry supporters had been mobilized as he spread the false claim that he was the true winner of the 2020 presidential election. On November 5, 2020, Trump tweeted "STOP THE COUNT!" in reference to votes still being counted that would confirm Joe Biden as the president-elect. On the same day, crowds and QAnon supporters attempted to enter and stop the vote count in Detroit's ballot counting center, and Tea Party Activist Amy Kremer created the "Stop the Steal" Facebook group. From that point forward, the #StopTheSteal movement continued to spread online with Oath Keepers and Proud Boys leaders making calls to action. On November 14, 2020, thousands gathered for a "Stop the Steal D.C." rally organized by right-wing group leaders, including Women for America First, the Proud Boys, and conspiracy theorist Alex Jones as other right-wing rallies were organized throughout the country. Trump and his supporters had planned to protest the certification of the election results weeks in advance. On December 19, 2020, Trump tweeted "Big protest in D.C. on January 6th. Be there, will be wild!" Oath Keeper leaders posted on social media as well to promote going to Washington, D.C. in the days and weeks leading up to the attack.¹⁰⁹ The plans made on social media turned into a violent insurrection on the United States Capitol. Trump's "Save America" rally led to an attempted coup that culminated into breaching, vandalizing, and looting, with five people dead, over 140 injured, and \$30 million in damages.¹¹⁰

Aside from violence, distrust in information and in our political institutions is the most dangerous outcome of disinformation. It shakes the foundation of our democracy when people no longer believe in its most fundamental process – elections. More and more people are willing to claim an election was rigged if the candidate of their choice loses. When elections are no longer trusted and seen as free and fair, the rest of our democratic institutions are subject to fall in unison. We must raise the question of what happens if, or when, Americans stop trusting Congress, their representatives, and the Constitution. Will Supreme Court decisions be trusted? Will executive orders be trusted? What does this mean for future elections? What does this mean for future candidates? Candidates can spew disinformation and mobilize their supporters to riot and incite violence. What happened on January 6 could be repeated in the future. If people want to support a leader who was not elected fairly, we move from democracy to dictatorship. Democracy is only as strong as the people who are willing to uphold it. The rise of political extremism and violence in this country must be addressed and taken seriously. What is being

¹⁰⁸ Enders, Adam M., Joseph E. Uscinski, Casey A. Klofstad, Stefan Wuchty, Michelle I. Seelig, John R. Funchion, Manohar N. Murthi, Kamal Premaratne, and Justin Stoler. "Who supports qanon? A case study in political extremism." *The Journal of Politics* 84, no. 3 (2022): 000-000.

¹⁰⁹ "The Road to Jan. 6: A Year of Extremist Mobilization." Southern Poverty Law Center, December 30, 2021. https://www.splcenter.org/news/2021/12/30/road-jan-6-year-extremist-mobilization.

¹¹⁰ Kulper, Amy Catania, Lucy Siyao Liu, and Matthew Bohne. "A Day in the Life of the U.S. Capitol Building: January 6, 2021 in Seven Scenes." *Journal of architectural education (1984)* 75, no. 2 (2021): 249–262.

said online has extreme power: our words have the potential to become demonstrations that produce disastrous results.

Child Allowance: Uniting Progressive Economics with Conservatism

Matthew Koleszar

Introduction

"Family values." Politicians on the left and the right proudly champion this vague phrase, but they rarely agree on family policy. So, despite resounding bipartisan agreement on their "value," American families are deteriorating structurally and financially. Increasing rates of single parenthood show that the nuclear family structure is a relic of the previous century, while rising child poverty indicates that modern families often struggle to cover the cost of raising children. Although Republicans and Democrats often struggle to reach agreements on welfare policy, a monthly child allowance program should receive bipartisan support because it can unite progressive economics with Christian ethics and socially conservative goals.

Background

Compared with other industrialized nations, American families struggle to provide basic necessities for their children. In the U.S., 22% of all children live in poverty – the Organization for Economic Co-operation and Development (OECD) average is 13%.¹¹¹ The reason for this discrepancy is clear: raising a child to adulthood poses a daunting financial burden, usually costing \$222,000 per child, and the U.S. government does little to aid parents and lessen that burden.¹¹² The burden is so heavy that "half of poor adults who live with children are only poor because of the expenses of raising children."¹¹³

Child poverty has devastating and far-reaching consequences at every stage of a child's life. For babies, it leads to a higher chance of infant mortality.¹¹⁴ For toddlers, it leads to a smaller vocabulary and less gray matter development.^{115 116} In adolescence, it leads to increased rates of delinquency.¹¹⁷ Once they become adults, it leads to lower income.¹¹⁸

¹¹⁸ Ratcliffe, Caroline. "Child Poverty and Adult Success." Urban Institute, Sept. 2015,

¹¹¹ "OECD Family Database - Child Outcomes 2.2: Child Poverty." OECD, Aug. 2021,

https://www.oecd.org/els/CO_2_2_Child_Poverty.pdf.

¹¹² Lino, M., Kuczynski, K., Rodriguez, N., and Schap, T. (2017). Expenditures on Children by Families, 2015. Miscellaneous Publication No. 1528-2015. U.S. Department of Agriculture, Center for Nutrition Policy and Promotion.

¹¹³ Bruenig, Matt. "Family Fun Pack - People's Policy Project." *People's Policy Project*, 15 Feb. 2019, https://www.peoplespolicyproject.org/projects/family-fun-pack/.

¹¹⁴ Chen, Alice, et al. "Why Is Infant Mortality Higher in the United States Than in Europe?" *American Economic Journal: Economic Policy*, vol. 8, no. 2, 2016, pp. 89–124., https://doi.org/10.1257/pol.20140224.

¹¹⁵ Carey, Bjorn. "Language Gap between Rich and Poor Children Begins in Infancy." *Stanford University*, 25 Sept. 2013, https://news.stanford.edu/news/2013/september/toddler-language-gap-091213.html.

¹¹⁶ Hanson, Jamie L., et al. "Family Poverty Affects the Rate of Human Infant Brain Growth." *PLoS ONE*, vol. 8, no. 12, 2013, https://doi.org/10.1371/journal.pone.0080954.

¹¹⁷ Jarjoura, G. Roger, et al. "Examining the Link Between Persistent Childhood Poverty and Delinquency." *Journal of Quantitative Criminology*, vol. 18, no. 2, 2002, pp. 159–187., https://doi.org/10.1023/a:1015206715838.

https://www.urban.org/sites/default/files/publication/65766/2000369-Child-Poverty-and-Adult-Success.pdf.

Progressives argue the government should help alleviate child poverty, allowing parents to invest more time and resources into a child's development and ultimately promoting a less stressful household environment. The U.S. needs family welfare because of a fundamental mismatch between peak childbirth years and peak income years. Childbirths peak around age thirty when adults typically work entry-level jobs. Earnings peak in their late forties and fifties after they established themselves in their careers. Parents with young children, who need money the most, have the least. By the time adults earn enough to support children, they have passed childbearing age. The government must account for this mismatch by redistributing resources from older, richer families to poorer, younger families. As a recent example of progressive family policy, President Biden's 2021 Child Tax Credit (CTC) expansion increased the tax deduction from \$2,000 to \$3,600 for children under 6 or \$3,000 for children under 17. The expansion provided temporary relief for families struggling during the COVID pandemic by keeping 3.7 million children out of poverty, but it only lasted for one year.¹¹⁹

Conservatives argue that single-parenting, not just child poverty, causes America's family issues. America has the world's highest rate of single parenthood at one in five families, a sharp rise from one in ten in 1960.^{120 121} Two-parent households can raise children more effectively because they have more income, so they can more easily raise children without relying on government aid. Two-parent households have a 15% poverty rate, whereas single-parent households have a 46% poverty rate. But beyond financial considerations, two parents can spend more time with their children and nurture their psychological development. When compared with married families, single-parenting leads to low grades, alcohol and drug use, early sex, and out-of-wedlock births.^{122 123} Therefore, conservatives claim the government should actively encourage marriage so our children grow up in two-parent families.

Progressives view child poverty as the central problem, while conservatives identify single parenthood as the root cause. If the two cannot agree on the fundamental problem, can they agree on the solution?

Convergence

Since the repeal of Roe v. Wade, Republicans in Congress have been increasingly tempted by welfare as the remedy for America's struggling families. One National Review took a decidedly progressive stance, arguing, "now is the time to increase our commitment and,

¹¹⁹ Parolin, Zachary, Sophie Collyer, and MeganA. Curran. 2022."Child Tax Credit Kept 3.7 Million Children Out of Poverty." Poverty and Social Policy Brief. Vol. 6, No.1. Center on Poverty and Social Policy, Columbia University. Access at: https://www.povertycenter.columbia.edu/news-internal/monthly-poverty-december-2021

¹²⁰ Kramer, Stephanie. "U.S. Has World's Highest Rate of Single-Parent Households." *Pew Research Center*, 12 Dec. 2019, https://www.pewresearch.org/fact-tank/2019/12/12/u-s-children-more-likely-than-children-in-other-countries-to-live-with-just-one-parent/.

¹²¹ Livingston, Gretchen. "The Changing Profile of Unmarried Parents." *Pew Research Center*, 25 Apr. 2018, https://www.pewresearch.org/social-trends/2018/04/25/the-changing-profile-of-unmarried-parents/.

¹²² Musick, Kelly, and Ann Meier. "Are both parents always better than one?" Social science research vol. 39,5 (2010): 814-30. https://doi.org/10.1016/j.ssresearch.2010.03.002

¹²³ Parke, Mary. "Are Married Parents Really Better?" *Center for Law and Social Policy*, May 2003, https://clasp.org/sites/default/files/public/resources-and-publications/states/0086.pdf.

through public resources, help carry the load that we are asking many women to bear."¹²⁴ Bipartisan compromise on family policy should be easier than ever, but Democrats have not seized the opportunity. This past summer, Marco Rubio proposed a policy package that would expand the CTC and Women, Infants, and Children (WIC).¹²⁵ However, Democrats did not attempt to negotiate with Rubio because of some regressive elements of his plan, so Biden's CTC expansion expired without a replacement.

Months before the passage of the American Rescue Plan, Senator Mitt Romney proposed a child allowance that went even further than Biden's CTC. Romney's Family Security Act (FSA) would have provided \$62,600 in total lifetime benefits per child compared to Biden's \$57,600.¹²⁶ Romney's child allowance would have been more widespread and impactful too, with the Social Security Administration (SSA) automatically paying out benefits monthly. Biden's tax credit pays out annually, which creates difficulties for families on a tight month-tomonth budget. Additionally, Biden's tax credit must be claimed through the IRS, which neglects families that don't file taxes or don't claim credits. However, Democrats rejected Romney's plan because it would have eliminated the regressive State and Local Taxes (SALT) deduction, which "disproportionately directs money to [blue] districts and states."

Reconciliation

Even though Republicans and Democrats have proposed similar policies, they have both stubbornly refused to cooperate. Going forward, Democrats should embrace Republican proposals when their interests align – even if it means less money funneled into blue states or compromising on some specifics. Any CTC expansion or child allowance would be better than nothing at all.

Additionally, Democrats should change the way they market family welfare policy to Republicans. Progressive policies like a child allowance have the ultimate goal of constructing a moral economy that serves human well-being rather than letting families suffer in service of the economy. This goal of a moral economy also appeals to Christian conservatives. Last year, a coalition of Christian leaders representing organizations like the National Association of Evangelicals and Catholic Charities USA sent an open letter to Biden to make the CTC expansion permanent, to no avail.¹²⁷ When Democrats tried to extend the CTC, their ultimate obstacle was Senator Joe Manchin, a business conservative, who wouldn't vote yes without a work requirement. Unlike business conservatives, many Christian conservatives favor "government intervention" to uphold Christian ethics. Accordingly, progressives should appeal to the Christian right by speaking in ethical terms. They should cite child poverty statistics

¹²⁴ Rodgers, Mark, and Kiki Bradley. "A Marshall Plan for the pro-Life Cause." *National Review*, 28 June 2022, https://www.nationalreview.com/2022/06/a-marshall-plan-for-the-pro-life-cause/.

¹²⁵ "Rubio Releases Pro-Family Framework." U.S. Senator for Florida, Marco Rubio, 24 June 2022,

 $https://www.rubio.senate.gov/public/index.cfm/press-releases?id=\!EE5F77FA-68D0-4B2D-B27A-D23B710161B4.$

¹²⁶ Bruenig, Matt. "Romney's Child Allowance Improves on Biden Proposal." People's Policy Project, 4 Feb. 2021,

https://www.peoplespolicyproject.org/2021/02/04/romneys-child-allowance-improves-on-biden-proposal/.

¹²⁷ "Christians Call on Congress." *Center on Faith +Justice*, Georgetown University, 26 May 2022,

https://faithandjustice.georgetown.edu/media/prominent-christians-call-on-congress-to-protect-the-poor-through-child-tax-credit/.

alongside Bible passages like Matthew 25:31–46, where Jesus identifies himself with the poor. Democrats should not lose sight of why child poverty is a problem: society has committed a moral injustice against any child going to school hungry. Some of America's most effective progressive movements, like the civil rights movement, were laden with a spiritual significance Democrats could use today.

Social conservatives may approve of government intervention to preserve two traditional social structures at risk of extinction: marriage and the nuclear family. Therefore, progressives should emphasize to conservatives how their policy proposals could support modern, stable families. In the US, birth rates have long been on the decline. When surveyed, young adults cite childcare expenses as the main obstacle to having their desired number of children.¹²⁸ Similarly, women who receive abortions identify financial difficulties as the most common motivation.¹²⁹ If conservatives want to reduce abortions and encourage married couples to have children, they should support a child allowance to give prospective parents a needed financial boost.

Conclusion

The Republican Party's stance on family policy is filled with contradictions because of the divide between three brands of conservatism: Christian, social, and business. For these three competing groups to form a united position on family welfare, they must decide at what point they permit government intervention to help families. Christian conservatives may permit intervention to uphold their religious ethics and social conservatives to uphold traditional family structures. Business or libertarian conservatives prioritize a minimalist government and oppose intervention altogether. In the aftermath of Dobbs v. Jackson, Progressives should try to form a coalition that includes Christian and social conservatives and supports a government that actively helps America's families through a monthly child allowance.

¹²⁸ Miller, Claire Cain. "Americans Are Having Fewer Babies. They Told Us Why." *The New York Times*, 5 July 2018, https://www.nytimes.com/2018/07/05/upshot/americans-are-having-fewer-babies-they-told-us-why.html.

¹²⁹ Biggs, M.A., Gould, H. & Foster, D.G. Understanding why women seek abortions. BMC Women's Health 13, 29 (2013). https://doi.org/10.1186/1472-6874-13-29

Economic Sanctions Against Russia: An Analysis of its Efficacy on Ending the War in Ukraine

Hideto Cole Kurokawa

Introduction

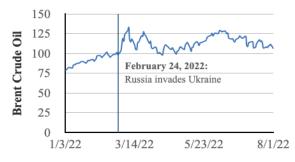
This past February, the President of Russia, Vladimir Putin, unleashed a full-scale invasion of Ukraine, in what is the largest attack on a European nation since the beginning of the Second World War. In the following days and weeks, the international community, led by the United States, the North Atlantic Treaty Organization (NATO), and the European Union (EU), condemned the invasion and declared a different type of war: economic warfare.

Both Russia's stock market and currency, the Ruble, plummeted following the West's announcement and imposition of economic sanctions. Through multiple angles, in its attempt end the war in Ukraine by undermining Russia's energy markets and subsequently their economy, the West's sanctions seem to be generally ineffective. As seen in some of its short-term impacts, these economic sanctions have exclusively had no significant effect on changing the course of Putin's war.

Background

Putin declared his invasion of Ukraine as a "special military operation," comparing it to the NATO bombing of Yugoslavia in 1999 and the invasion of Iraq in 2003 by U.S. forces. Ukraine's aspiration to join NATO and the "plea for assistance" by the leaders of Russian-backed separatist territories formed in eastern Ukraine in 2014, were pretexts for the invasion.¹³⁰

Following the invasion of Ukraine, shockwaves were sent throughout global financial markets. An orchestrated response of severe economic sanctions against Russia significantly limited the country's access to capital markets. Subsequently, as shown in Figures 1 and 2, Brent





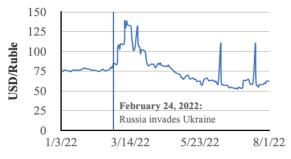


Figure 2. Time-series of USD/Ruble exchange rate after the Russian invasion of Ukraine. Source: Federal Reserve St. Louis (FRED).

¹³⁰ MacFarquhar, Neil and Troianovski, Anton. 2022. "Large Explosions in Ukrainian Cities – Moscow Says Not to Interfere." The New York Times.

Crude oil prices and the USD-Ruble exchange rate, respectively, increased drastically and continued to exhibit volatility throughout spring and summer.

Sanctions have a lasting, significant role in foreign policy decisions and in the geopolitical arena. More than ever, sanctions have been used as an alternative to the use of force. For its versatility, in coercing and reprimanding governments, leaders, and 'offenders' of international law, sanctions have become the "Swiss Army knife" of foreign policy.¹³¹ Economic sanctions are covered extensively throughout this article. They are designed to undermine the aggregate economic welfare of a state by reducing its trade, thus forcing the government to change its political behavior.¹³²

Avoiding direct conflict with Russia, world powers have designed and implemented economic sanctions against one of the Russian economy's main sources of income: its energy sector. As such, in this report, in addition to sanctions on financial transactions, measures on energy are investigated. Although it is beyond the scope of the analysis in this report, sanctions on certain Russian individuals such as oligarchs and government officials also bare some discussion.

Sanctions Against Russia – Energy Sector

In global energy markets, as one of the largest producer and exporter of oil and gas (O&G), Russia is a major player. In 2021, nearly 40 percent of the gas consumed by the European Union came from Russia. Two-thirds of total exports and more than 50% of budget revenues depend on O&G; therefore, Russia's reliance on energy exports makes the country's economy susceptible to shifts in global prices.¹³³

Earlier this year, President Biden halted the import of Russian oil; however, due to its significant dependence on gas from Russia, the EU stopped short from completely banning the resource–although by 2023, the EU and the United Kingdom plans to completely or partially phase out its reliance on energy from Russia. In May, as part of a six-round, energy-focused list of economic sanctions, the EU levied a 90% embargo on Russian crude oil and petroleum products.¹³⁴ To counter these sanctions, President Putin ordered payments of gas deliveries in exclusively rubles.¹³⁵

Europe's dependence on Russian oil is reciprocal; Russia's economy depends on European consumption of its energy exports. As of March 2022, Russia earns approximately \$720 million per day from Europe for gas alone5. With higher gas prices, even with decreased purchases on Russian exports due to sanctions, Russian natural gas companies are yielding mass revenue. Although their sanctions were designed to harm the Russian economy and pressure the

¹³¹ Khan, Robert. 2017. "Have Sanctions Become the Swiss Army Knife of US Foreign Policy?"

¹³² Pape, Robert A. 1997. "Why Economic Sanctions Do Not Work."

¹³³ Dreger et al. 2015. "Between the hammer and the anvil: The impact of economic sanctions and oil prices on Russia's ruble."

¹³⁴ Lambert et al. 2022. "The EU's natural gas Cold War and diversification challenges."

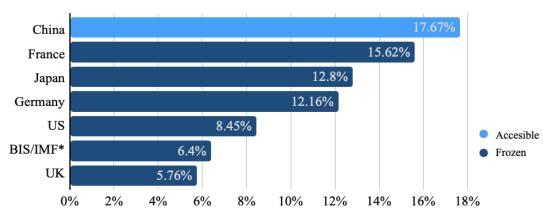
¹³⁵ Ibid.

government to withdraw their military from Ukraine, the EU is indirectly contributing to their economy, and funding military efforts.

To combat the Russian government and energy companies from making significant profits from high O&G prices, the Group of Seven (G7) agreed to impose a cap on Russian energy exports.¹³⁶ Specifically, the price would be set below the world price but slightly above Russia's cost of production–such measure would pressure Russia to comply, since it is preferable than a complete embargo on Russia O&G. Although this plan would be a formidable solution, it is only limited to countries, broadly the allies of G7, who adopt the measure. Russian energy companies can shift a portion of its exports to Asian countries such as China and India to continue to make profits. According to a report from the Centre for Research on Energy and Clean Air (CREA), in the first 100 days of the Ukraine-Russia war, China was the largest importer of fossil fuels from Russia at 12.5 billion Euros; additionally, of the top ten importers, six are EU member nations.¹³⁷

If Western Europe were to completely free itself from Russian energy exports, they would have to find another source, such as the United States and/or member nations apart of the Organization of the Petroleum Exporting Countries (OPEC), of which some are adversaries. The tarnished credibility of Russia in the world community, as a result of a near-worldwide condemnation of the invasion of Ukraine, has given Russia a "one-way ticket" to isolation.

Brief Overview of Economy



Along with sweeping trade sanctions on Russian O&G, economic sanctions such as asset freezes and especially the delisting of major Russian financial institutions from the Society for

Figure 3. Location of Russian Central Bank's foreign exchange reserves.*Encompasses smaller international financial institutions.

Source: Atlantic Council, GeoEconomics Center Calculations, Bank of Russia.

¹³⁶ The Post's View. Editorial. 2022. "A promising plan to stanch Russia's gusher of oil money." The Washington Post. https://www.washingtonpost.com/opinions/2022/09/05/g7-oil-cap-russia-sanctions-promising/

¹³⁷ Myllyvirta et al. 2022. "Financing Putin's war: Fossil fuel imports from Russia in the first 100 days of the invasion." Centre for Research on Energy and Clear Air. https://energyandcleanair.org/publication/russian-fossil-exports-first-100-days

Worldwide Interbank Financial Telecommunication (SWIFT) payments system has severely impacted Russia's presence in financial markets across the world. Such sanctions have also induced a minor recession in Russia and interrupted transactions with the nation.¹³⁸

The West's economic sanctions have crippled the operations of major Russian bank's operations. As shown in Figure 3, with approximately 61% of the Russian Central Bank's foreign exchange reserves frozen and with the ban of SWIFT, Russia's major financial institutions, and its economy, risks failure as their accessible overseas reserves slowly dwindle over time.¹³⁹ Interruptions in transactions from outside sources would affect financing the war effort in Ukraine; however, given that the Russian economy still has a 'stable' source of income from the energy sector, as discussed previously, the sanctions see a minor shortfall.

The Efficacy of Sanctions

Throughout international relations literature, the deployment of sanctions and its effectiveness is widely debate. Robert Pape, a political scientist and professor at the University of Chicago, hypothesized three main points about the efficacy of economic sanctions. First, they are most effective in disputes involving issues that are independent from the target country's territory, security, or wealth. Second, it is plausible that sanctions would be more effective against states whose trade is entirely dependent on the coercer. Lastly, economic sanctions may be more effective against societies with relatively significant income inequality.¹⁴⁰

The war in Ukraine is the largest conflict on European soil since the end of the Second World War. Declaring it a "special military operation," President Putin's invasion of Ukraine cost the lives of thousands of lives, both civilian and military personnel. The war itself is multifaceted, extending beyond a geopolitical dispute, with a broad discussion of economics and national security. According to Pape, the outcome of such a conflict would be relatively resistant to economic sanctions.

It is theorized that dependent trade between two nations is a factor that would influence the effectiveness of economic sanctions. Given that Russia is one of the largest producers and exporters of O&G, if Western powers were to restrict trade–which they have–Russia still could shift its exports to other states. Russia's energy trade is not entirely dependent on NATO, the EU, or its allies; hence, as noted, the measures placed on Russian O&G exports faces a shortfall.

Countries with high income inequality are more prone to be coerced by economic sanctions, as hypothesized by Pape. According to the Organization for Economic Cooperation and Development (OECD) in 2017, the United States, United Kingdom, France, and Germany for instance had Gini income inequality coefficients of 0.39, 0.36, 0.29, and 0.29, respectively,

¹³⁸ Belton et al. "Analysis: SWIFT block deals crippling blow to Russia; leaves room to tighten." Reuters.

https://www.reuters.com/markets/europe/swift-block-deals-crippling-blow-russia-leaves-room-tighten-2022-02-27/

¹³⁹ Friedlander et al. 2022. "Global Sanctions Dashboard: Special Russia edition." Atlantic Council.

https://www.atlanticcouncil.org/blogs/econographics/global-sanctions-dashboard-special-russia-edition/

¹⁴⁰ Pape, Robert A. 1997. "Why Economic Sanctions Do Not Work."

whereas Russia had a Gini coefficient of 0.32.¹⁴¹ Where a 0 is complete equality and 1 is complete inequality, Russia has a comparable income inequality coefficient with some of the key players of NATO and the EU. As such, the effectiveness of economic sanctions imposed by the West on Russia is contentious.

Conclusion

With respect to ending the war in Ukraine, economic sanctions have been ineffective. For instance, asset freezes on Russian oligarchs-members of the State that are influential and close to the Kremlin-and Putin himself have not resulted in the ordering of Russian forces to withdraw from Ukraine. Economic sanctions are effective against relatively small world powers regarding minor issues; generally, nations with economies and militaries that are within the caliber of the Russian Federation are not susceptible to the effects of modern sanctions.

Sanctions targeted against the Russian energy sector, one of the major sources of income for the government, has reached its shortcoming. The Kremlin's ability to shift exports from the allies of the G7 and NATO to its adversaries, such as China, has allowed them to profit off historically high energy prices. It is a matter of time, in the long-term, to show the true outcome of the West's sanctions on Russia, due to implementation and effect lags involved. However, in the short-term, the measures generally imposed on Russia are ineffective.

¹⁴¹ Organization for Economic Cooperation and Development. 2017. "Income inequality." https://data.oecd.org/inequality/income-inequality.htm

Road, Plague, and Revolution: The Recipe for European Economic Power

Joseph Miller

Eurocentric conceptions of the West's economic development are common, but hopelessly compromised. While they waste no detail in exploring the exploitation and colonization of various populations, sometimes implicitly lauding Spanish, Portuguese and English explorers, much of our common understanding tapers off at Columbus. This indirectly paints the countries from which these figures hail as timeless titans of power and progress, having *always* existed in their elevated status. Both fanciful and incomplete, the tradition of selective curiosity neglects the Eastern origins of Western power- specifically the *Pax Mongolica*, or "Mongolian Peace."

Stability and prosperity often go hand-in-hand. The Mongol empire witnessed vast expansion in the 13th century which brought about unprecedented economic and geopolitical vitality to European countries eager to trade with Eastern nomads. Existing in a state of relative developmental inferiority to the rest of the world, medieval western European societies were a far cry from their stereotypical depictions in modern thought.¹⁴² Although the path to Mongol hegemony was paved with conquest and meteoric expansion, a similar fervor was dedicated to the opening of trade throughout Eurasia via the *Silk Road*. The ensuing stability gave rise to a deep symbiosis between the two regions, formed in order to supplant the Mongols' sprawling dominion. Indeed, this became the *Pax Mongolica*. It was the Silk Road's cultural and material diffusion that positioned western Europe for their historic economic and geopolitical ascent. The resulting trade and enrichment, as well as the transfer of the Black Death, decimated the tenets of feudalism and opened the door for the state paragons of capitalism in western Europe today.

Further, the *Pax Mongolica's* transformation of western European society is not only certain, but best analyzed through the dual lenses of Marxist and Constructivist ideologies. Both ideologies, respectively, explain the death of feudal economic systems and the revolutionary roots of thought for the transition.

The Marxist Approach

While normative in its critiques of contemporary economic structures, Marxist theory provides a retrospective and predictive blueprint for the evolutions of international economies, past and present. At its core, the theory posits that the predominance of economic systems are inequitable and exploitative in nature: early iterations of an inevitable global socialism.¹⁴³ In

¹⁴² Anievas, Alexander, and Kerem Nisancioglu. How the West Came to Rule. (Pluto Press, 2015), pp. 67.

¹⁴³ Balaam and Veseth, Introduction to International Political Economy, Parts of Chapter 4 ('Economic Determinism and Exploitation'), pp. 79.

order to achieve such an end, a "united" global economy unified on the basis of equity and the elimination of class would assemble as the ultimate collective action. As the world's population collectively rejected exploitation, they would theoretically band together to usher in a new world order. Such a transformation would entail an indefinite age of freedom and the abandonment of the "hostilit[ies] that brought despair to the world's workers, or *proletariat*."¹⁴⁴ The consideration of economic world history as a series of consequent steps is defined as *historical realism*. Historical realism introduces the concept of five distinct economic stages in human history (and future) and sets the stage for a structural conception of the *Pax Mongolica's* role in Western Europe's capitalist rise. ¹⁴⁵

A primitive form of communism existed at humanity's inception within hunter-gatherer societies. In these societies, subjugation did not broadly exist and cooperation was essential to survival. Unfortunately, as humans developed in their technological capacity, they regressed in compassion. Following the first stage, the predominant economic structures changed and introduced distinct ruling and subordinate classes with the creation of slavery. From the advent of sophisticated agricultural processes arose feudal economic systems, wherein designated lords held ownership over large plots of land, which subordinate surfs tended to and farmed in exchange for protection. It is from this third stage that the *Pax Mongolica* imposed its capitalistic shift.

In order to transition between the stages of historical materialism, Marxist theory provides a unique but key predication: on the path to pure socialism, the fundamental instability of each economic system ultimately leads to its collapse. It predicts the actualization of crises that bring about each stage's termination. While the resulting shortage of labor led serfs to revolt, one could also argue that feudalism's systemic flaws were laid bare and leveraged by the extenuating circumstances of the Black Death.

To be sure, the unification of Eurasia through Mongol trade routes along with the Plague's Eastern origins set the course for its western arrival. While it is still debated what exactly brought about the demise of the medieval economic system, the *Pax Mongolica* undoubtedly facilitated the transfer of the revolutionary illness. The labor shortage that followed from the high mortality rate placed extraordinary strain on a system that (Marxist theory would argue) exercised near-unchallenged exploitation of its lower classes who were most susceptible to the vermin-spread illness.¹⁴⁶

The times grew so strenuous, in fact, that members of upper classes, and unskilled nobility, often performed their own work. As a chronicle from 1348 observed:

¹⁴⁴ Marx and Engels, 'Excerpt from: The Communist Manifesto', in Chris Brown et al., eds., International Relations in Political Thought: Texts from Ancient Greeks to the First World War (Cambridge: Cambridge University, 2002): pp. 590.

¹⁴⁵ Balaam, Introduction to International Political Economy, 80.

¹⁴⁶ Clay, Maren. "Drop Dead, Feudalism: How the Black Death Led to Peasants' Triumph Over the Feudal System" (University of Denver, 2019), pp. 5.

"there was such a shortage of servants, craftsmen, and workmen, and of agricultural workers and labourers...[that] churchmen, knights and other worthies have been forced to thresh their corn, plough the land and perform every other unskilled task if they are to make their own bread."¹⁴⁷

Because virtually all serfs were offered only protection for their services, additional financial incentives were necessitated as labor demand and shortages grew in tandem. Compensated work thus appeared and became the norm in the aftermath of the disease's devastation. Thus, following considerable turmoil, the horizon of Western capitalism brightened and the chapter of feudalism entered twilight.

As such, the Marxist perspective would assert that the foundations of exploitation upon which feudalism was built were untenable both normatively and circumstantially. Such a system was incapable of withstanding the seismic shocks of a disease that not only altered European society but would go on to change the course of history forever. Underlying this change was a fundamental shift in political and economic ideologies, the origins of which are best explained through a constructivist approach.

The Constructivist Approach

As applied, the constructivist lens easily disambiguates the shift in self-perception and sense of identity among many individuals in lower classes towards the end of feudalism. This helps explain their sociological ascent and the resulting economic shifts. Constructivist theory holds that the world is nothing more than an analytical mosaic, constructed of facts and norms created by actors. These facts only exist as the actors perceive and execute them within their surroundings.¹⁴⁸ In essence, the world is what actors make of it.

As John Roberts, the former editor of The English Historical Review, once observed, the dual fundamental elements within a state's modern political structure are sovereignty and a sense of national community.¹⁴⁹ Feudal systems possessed neither. Instead, they existed as a disjointed collection of independent territories populated by disgruntled and largely illiterate exploitees under the predatory supervision of their lords. Such an arrangement could not be accused of fostering organized, unilateral sovereignty or enthusiastic integrative propensities within its members. The absence of a sense of integration was continually reinforced by a noble class that would only stand to lose from a unified, more-numerous peasantry collectively aware of their exploitation. As such, constructivism can reasonably explain the status quo of early feudalism

¹⁴⁷ Dene, William. "History of Rochester." AD 1315–1350. MS. British Library. British Library Collections. 13 Jan. 2019.

¹⁴⁸ Abdelal, Rawi. 'Constructivism as an Approach to International Political Economy', in Mark Blythe, ed., Routledge Handbook of International Political Economy (London: Routledge, 2009), pp. 63

¹⁴⁹ Chengdan, Qian. "Transformation of European States: From Feudal to Modern." Procedia - Social and Behavioral Sciences, vol. 2, no. 5, 2010, pp. 6684.

with the perceptions of the upper class guiding their subjugation of the lower. However, this framework does not account for the deaths of 25 million.¹⁵⁰

In the wake of one of the most formidable diseases in human history, introduced via the Pax Mongolica and associated trade routes, traditional power structures were entirely upended as scales tipped in the favor of the European peasantry. With the relative material well-being that Eurasian trade routes provided, as well as the drastic labor shortage, the lowest classes of European society began to develop a new sense of self-identity and bargaining capability. This in turn allowed many serfs to leverage *en masse* the utility that they truly provided by forcibly exercising unprecedented influence through labor-bargaining.¹⁵¹ Such agency among the peasants was as novel as it was empowering, and further bolstered the precursing tenets of the free-market system that the Pax Mongolica helped introduce to the feudal lands. In England, for instance, across cults of personality, royal intervention, and considerable tumult among the classes, the increased economic power of the peasantry allowed them to successfully revolt for the status they broadly felt deserving of - thus paving the way for a new system.¹⁵² Without this shift in agency, many scholars argue that the shift to European capitalism would have taken a much different shape. However, whether structurally (through the influence of the Mongolian free market), circumstantially (through the Pax's introduction of the Plague), or a mixture of both, the consequences of the Mongolian Peace altered the capacity for self-perception and influence among the peasantry, which in turn affected the nature of their economic participation.

Eurocentrism and its many (however unintentional) parrots may neglect the role of the East in the West's rise to geopolitical and economic prominence, and in doing so make a critical error. Without the trade and early globalization of the *Pax Mongolica*, the transformative illness that reset Europe's economic stage would have never positioned the continent for unparalleled dominance in the ensuing centuries, as constructivist and Marxist theory would rightly indicate. The exposure of free market principles and economic weight to lowly serfs would not have transpired in the same time or manner, and to assert otherwise may be in line with popular tradition, but would be inconsistent with history.

¹⁵⁰ Clay, Maren. "Drop Dead, Feudalism: How the Black Death Led to Peasants' Triumph Over the Feudal System" (University of Denver, 2019), pp. 6.

¹⁵¹ Clay, Maren. "Drop Dead, Feudalism: How the Black Death Led to Peasants' Triumph Over the Feudal System" (University of Denver, 2019), pp. 6.

¹⁵² Ibid., 8.

Becoming the Porcupine: An Analysis of Potential Changes to Defend Taiwan

Devin O'Brien

Introduction

The war in Ukraine is challenging the world order as it stands, and it threatens to create a new, dangerous era of uncertainty. If the west allows Ukraine to fall, it shows it cannot uphold its promise of maintaining world order and preventing war. A burning question has since emerged: will Taiwan be the next victim of an unprovoked invasion? The media cycle has been swirling with United States provocations, Chinese threats, and competition in the Indo-Pacific between regional powers. Many analysts warn that a clash between the United States and China could result from tensions over Taiwan. This prompts two main questions. Firstly, how is the U.S. planning to defend Taiwan? And secondly, does this plan need to be changed? This essay will explore these complex questions and address what a modern defense of Taiwan may entail from both the policymaker's and military planner's perspectives.

The Current Plan to Defend Taiwan

Political analysts, government officials, and military experts alike are confused by exactly what is the plan to defend Taiwan. Yet, this confusion is an intentional and practical tool to defend Taiwan. The official defense policy is outlined in the 1979 Taiwan Relations Act, which states the U.S. can provide weapons "of a defensive character." Also, the U.S. must "maintain the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan."¹⁵³ Notably absent from this law is any specific and binding commitment to provide troops or other direct military support in the event of a conflict. Still, this law forces the question of what threats could jeopardize the security of Taiwan.

The answers to this question are engulfed by the frustratingly amorphous concept of strategic ambiguity. The U.S. relies on strategic ambiguity because the uncertainty it generates provides a powerful deterrent. If China does not know where the red line is that will trigger U.S. intervention, the logic follows that they will be less likely to test it. It also benefits the U.S. because in the event of an attack they are not forced to enter a conflict. Yuan-kang Wang, a U.S.-China relations scholar, explains "strategic ambiguity gives the United States maximal policy flexibility and capacity to preserve peace."¹⁵⁴ Wang also posits that the absence of an explicit security guarantee creates a "dual deterrence effect," as Taiwan is less likely to take provocative actions that risk China responding with force.¹⁵⁵ It may be helpful to contrast strategic ambiguity with strategic clarity. Strategic clarity communicates red lines to set clear expectations for the

¹⁵³ U.S. Congress, *Taiwan Relations Act.* H.R.2479. April 10, 1979, https://www.congress.gov/bill/96th-congress/house-bill/2479/text

¹⁵⁴ Wang, Yuan-kang. "Taiwan Public Opinion on Cross-Strait Security Issues: Implications for US Foreign Policy." *Strategic Studies Quarterly* 7, no. 2 (2013): 93–113. http://www.jstor.org/stable/26270767, 96.

¹⁵⁵ Ibid, 98, 110.

behavior of all parties. In this application, it could be a guarantee that the U.S. will provide troops in the event of a Chinese invasion of Taiwan. All things considered, the current plan to defend Taiwan consists of selling arms and continued messages of support– without clear guarantees.

Is it Time to Abandon Strategic Ambiguity?

Strategic ambiguity has worked for decades, but military planners and policymakers alike are beginning to question its future. In the last decade, China has made major improvements to its military. The intelligence community has identified threats posed by an improved missile force and plans for a historic expansion of nuclear weapons.¹⁵⁶ The Chinese navy is now the world's largest and recently launched its first domestically designed aircraft carrier.¹⁵⁷ China has also been sending increasingly large squadrons of aircraft and ships in what appears to be mock invasions, upsetting Taiwan.¹⁵⁸ Strategic ambiguity works only when the uncertainties of escalation make an opponent perceive the risks as intolerable. But now China has the military capabilities to alter the balance of power and may no longer see an invasion of Taiwan as too risky. Essentially, vague threats from the U.S. may no longer be a strong enough deterrent.

Policymakers are not blind to this issue, and many are beginning to signal the possibility of a policy shift. Senator Chris Murphy authored an article featured in The Economist, where he argued in favor of shifting to strategic clarity in response to growing Chinese aggression.¹⁵⁹ President Biden himself has made multiple comments that seem to insinuate a change may be coming. One such incident came in an interview with 60 Minutes, in which the President claimed U.S. forces would defend Taiwan if there was "an unprecedented attack," forcing White House officials to clarify that the U.S. still maintains strategic ambiguity.¹⁶⁰ The 2022 National Defense Strategy unveiled a new tagline of "integrated deterrence" as a solution to past "lack of clarity regarding the specific competitor actions we seek to deter."¹⁶¹ This all seems to hint that senior policymakers and military planners are considering moving away from strategic ambiguity. This creates a new question, however. What things must the U.S. do to make its commitments to defend Taiwan a powerful enough deterrent to make China abandon any plans for invasion?

Become the Porcupine

¹⁵⁶ Annual Threat Assessment of the U.S. Intelligence Community. odni.gov. ODNI, February 7, 2022. https://www.odni.gov/files/ODNI/documents/assessments/ATA-2021-Unclassified-Report.pdf, 7.

¹⁵⁷ Rising, David. "China Using Civilian Ships to Enhance Navy Capability, Reach." AP NEWS. Associated Press, September 24, 2022. https://apnews.com/article/space-launches-taiwan-science-technology-asia-e8b45f49d3d29851210983d0a399ccba.

¹⁵⁸ Wang, Ann, and Raffaele Huang. "Taiwan Warns of Counterattack If China Violates Territorial Waters, Airspace." The Wall Street Journal. The Wall Street Journal, August 31, 2022.

¹⁵⁹ Murphy, Chris. "Now China Has Changed Its Policy towards Taiwan, America Should Too: Senator Chris Murphy." The Economist. The Economist Newspaper, September 1, 2022.

¹⁶⁰ "Biden Tells 60 Minutes U.S. Troops Would Defend Taiwan, but White House Says This Is Not Official U.S. Policy." CBS News. CBS, September 19, 2022.

 ¹⁶¹ 2022 National Defense Strategy of the United States of America. media.defense.gov. Department of Defense, October 27, 2022. https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF, 8.

A conflict between Taiwan and China would be unlike any the world has seen before, and it could usher in a new age of warfare dominated by high-tech weaponry. Constructing a proper deterrent for this new era is difficult as nobody truly knows what combat may look like. Amongst military analysts, there does appear to be a growing agreement that a "porcupine strategy" may be the best way to defend Taiwan. Defense experts James Timbie and Admiral James O. Ellis Jr. describe the porcupine strategy in its most basic terms as being "a large number of small things". A more detailed understanding is that it requires "distributed, mobile, and affordable anti-air and anti-ship defenses could be deployed in sufficiently large numbers that most would survive the initial air and missile strikes."¹⁶² They also explain the porcupine strategy is desirable for policymakers because it works under both strategic ambiguity and strategic clarity.¹⁶³ The strategy does not fundamentally change the political relationship between the U.S., China, and Taiwan. Rather, the U.S. and Taiwan would effectively adopt this strategy by agreeing to arms deals sending weapons adhering to the "large number of small things" theory to Taiwan. This would still comply with the Taiwan Relations Act.

The porcupine strategy is important because it represents a massive shift in how nations fight wars. Military innovation advocate Christian Brose warns that "legacy platforms" are being rendered obsolete by "attritable platforms."¹⁶⁴ What is meant by this is that the fighter jets, aircraft carriers, and tanks used today may not be so effective if Taiwan needed to defend itself even a few years from now. This is largely because of improvements the Chinese have made in their missile program. For example, many missiles now pose a legitimate threat to surface vessels that Taiwan relies upon for its defense.¹⁶⁵ If Taiwan is unable to deploy its navy due to these missiles, it becomes much harder to prevent an invasion. This is where military planners see attritable platforms as a potential response to challenges presented by the proliferation of advanced missile technology.

A perfect example of the value of attritable platforms can be seen in theories of how drones could be deployed en masse to defend Taiwan. The defense think tank RAND Corporation published an analysis of this theory, and emphasized that there could be incredible benefits by deploying a "mesh" of 500 drones to provide high quality targeting data that can be used to make Taiwan's defenses far more effective.¹⁶⁶ RAND also adds that anti-radiation missiles could be added to some of the drones giving them the ability to destroy enemy radar sites.¹⁶⁷ Deciding how to counter attritable platforms is a tough challenge. Drone warfare expert

¹⁶² Timbie, James, and James O Ellis. "A Large Number of Small Things: A Porcupine Strategy for Taiwan." Texas National Security Review. Texas National Security Review, February 8, 2022, 84, 89.

¹⁶³ Ibid, 93.

¹⁶⁴ Brose, Christian. *The Kill Chain: Defending America in the Future of High-Tech Warfare*. New York, NY: Hachette Books, Hachette Book Group, 2022, 142.

¹⁶⁵ Farley, Robert. "The Real Risk Posed by China's 'Carrier-Killer' Missiles." Business Insider. Business Insider, January 4, 2022. https://www.businessinsider.com/could-chinese-missiles-really-sink-a-us-navy-aircraft-carrier-2022-1.

¹⁶⁶ Hamilton, Thomas and David A. Ochmanek, Operating Low-Cost, Reusable Unmanned Aerial Vehicles in Contested Environments: Preliminary Evaluation of Operational Concepts. Santa Monica, CA: RAND Corporation, 2020. <u>https://www.rand.org/pubs/research_reports/RR4407.html</u>, 12.

¹⁶⁷ Ibid, 14.

Paul Scharre warns that using a limited amount of multi-million dollar missiles to shoot down drones that cost a fraction as much is simply not a viable strategy.¹⁶⁸ This perfectly captures the value of attritable platforms; their expendability makes fighting them an expensive exercise. Furthermore, Scharre also writes that a mass of drones could be programmed to become a swarm that exhibits complex, intelligent behavior.¹⁶⁹ Equipping this swarm with offensive weapons instead of sensors to gather data would be relatively easy and could be a viable option to hunt targets.

Again, drones and drone swarms are just one example of how the porcupine strategy could be realized in arms sales to Taiwan. A far less experimental approach could involve investing more heavily into using naval mines, an old technology, to make a naval breakout more difficult for China than merely relying on ships to defend the island.¹⁷⁰ This strategy is effective because mines can be used in great quantities at low costs and have the potential to destroy ships many times more expensive without risking Taiwanese sailors. Building the ideal porcupine will combine those older and more familiar systems with the untested systems of the future. Under this vision, China will look across the strait to Taiwan and see a nation bristling with arms that do not pack much punch individually, yet when amassed are difficult to defeat without substantial pain. Hopefully, this proves an effective deterrent to a serious conflict.

Conclusion

Defending Taiwan presents a unique challenge to policymakers and military planners alike. Policymakers have a tough choice to make in regard to passing legislation that may change the strategic stance of the U.S. towards Taiwan and China. It appears there is some support to abandon the policy that has worked for decades in favor of one that more clearly defines red lines to deter a more powerful China. Regardless of their policy choice, they can begin arming Taiwan following the porcupine strategy. This would please the more forward-thinking military planners who are keen to begin replacing the legacy platforms with more survivable attritable platforms. For example, massive fleets of drones could be key to overwhelming enemy defenses and providing crucial targeting data. The decisions made on defending Taiwan have the potential to ensure stability across the Indo-Pacific or fail to prepare Taiwan for a fight that could permanently upend the balance of power in the region.

¹⁶⁸ Scharre, Paul. "Counter-Swarm: A Guide to Defeating Robotic Swarms." War on the Rocks. Texas National Security Review, August 10, 2015. https://warontherocks.com/2015/03/counter-swarm-a-guide-to-defeating-robotic-swarms/.

¹⁶⁹ Scharre, Paul. "Unleash the Swarm: The Future of Warfare." War on the Rocks. Texas National Security Review, August 10, 2015. https://warontherocks.com/2015/03/unleash-the-swarm-the-future-of-warfare/.

¹⁷⁰ Murray, William S. "Revisiting Taiwan's Defense Strategy." *Naval War College Review* 61, no. 3 (2008): 19–44. https://digital-commons.usnwc.edu/cgi/viewcontent.cgi?article=1829&context=nwc-review, 9.

The Importance of the 2022 Midterm Elections

Jacob Sondik

Election Day in the United States is an important day for voters to fulfill their civic duty and cast their ballots for those they believe represent the interest of the American people. The Presidential Election takes center stage every four years, with constant media coverage, and partisan leanings to try and influence the vote. However, the presidential election is not as important as the more frequent midterm elections. This coming November, the midterm elections served as a referendum on President Joe Biden and the Democratic party, as voters evaluated what the 46th president and his staff have accomplished in their first two years.

Biden's lack of popularity and historical election trends understandably gave Republicans hope that they could wrestle both the House and Senate away from Democratic control. In 22 midterm elections from 1934-2018, the party of the incumbent president lost an average of 28 House seats and four Senate seats. However, the GOP and its electoral strategy were not a united one. Former President Trump still has a significant amount of control in the party, and there are Republicans that have openly criticized the 45th president, moving their stance in a more moderate direction. The party has not achieved success in shifting the GOP and its voters, with pro-Trump candidates continuing to perform well in the polls, a trend that was not followed in the 2022 Midterm elections. Candidates like Mehmet Oz, and Herschel Walker, both endorsed by Trump, failed to win their respective elections, both races that this paper will explore in-depth. This year's midterm elections were much more important than the next two years. The two major political parties have completely different visions for the future of the country. Biden and the Democrats look to achieve success in a more methodically increasing government spending on health care, fighting against climate change, and "building back better" the American manufacturing sector. The GOP has its vision, taking a reactionary approach to the Biden administration, highlighting the increasing levels of inflation that have occurred under Biden and continuing to push traditional values. The most significant part of the Republican platform is rolling back more protections for abortion, looking to build on Roe v. Wade being overturned. Out of all the issues that are on the ballot in this election cycle, abortion is the most important issue on the ballot this election cycle, as the overturning of Roe v. Wade in the Dobbs Supreme Court case has opened the door for Republicans try to enact legislative restrictions on abortions. On the other side, Democrats have discussed codifying Roe vs. Wade through Congress, a law that would be binding for all states. Despite losing control of the House, Democrats retained control of the Senate, combatting the expectations of a "red wave" in 2022, making it difficult for Republicans to pass restrictive abortion legislation.

This article will address the lasting impacts of the 2022 midterm elections, and the significance of abortion laws across the country. Midterm elections are more frequent and impact the effectiveness of a presidential administration. The president's policy initiatives and their chances of actually being implemented have been altered by the midterm elections, as Republicans have regained control of the House of Representatives, creating a divided

government. It will be difficult for Biden to pursue his agenda due to this Republican control. In turn, this will create gridlock and a lack of government productivity. The issues of climate change, health care, and most importantly, abortion, are all on the ballot in the 2022 midterm elections. The elections in states that have been known to vote for both Democrats and Republicans, like Pennsylvania, Georgia, Ohio, and Michigan, have played a crucial role in these midterm election results.

Before the midterm elections, the Democrats held a slim edge in the House of Representatives at 220-217 with 3 vacancies due to resignations and the death of Republican Jackie Walorski in August of this year. All of the House seats were up for grabs in this election cycle but in some races there were races that should have more attention on them than others, specifically in states that are classified as 'Solid' Democrat or Republican. Many states that have been solidified as blue or red, due to their voting history and specific voting populations. Swing states are more important because they have a history of voting for both candidates. It is interesting to see some states evolving from swing states to becoming footholds for one party. Florida, often thought of as a swing state, has consistently voted for Republicans in the last six years, while Georgia has become a state to watch, due to both parties securing victories in the same time frame. Republicans fulfilled the projections of the party taking control of the House in November, but what once looked like a "red wave" months ago became more of a mixed bag, due to the salient issue of abortion.¹⁷¹ Republicans had this projected edge due to many factors, including manipulation of congressional maps that, in some states like Florida, added GOP seats that did not previously exist. Additionally, thirty-six open seats are being left by Democrats who would rather retire than risk having to exist in the House minority and not have the ability to accomplish their legislative goals. According to the Cook Political Report, 31 House races were classified as toss-ups, races that deserve further analysis to see the implications of their respective results.¹⁷²

As mentioned earlier in this paper, there were specific states, Ohio, Michigan, and even Colorado, that are key in deciding which party takes control of both Congressional chambers. The issues of abortion rights and health care are important in these races, but the party platforms are not limited to those issues specifically. An example of this can be exhibited in the contested state of Ohio. Representative Marcy Kaptur is one of the longest-serving women in Congress, representing the 9th district of Ohio. Her opponent, J.R. Majewski followed the farther right, Trump-backed ideology to garner the GOP primary vote and faced off against Kaptur in the November election. Majewski, who has notably mentioned that he was at the Capitol on January 6th, built his platform on conservative values, like protecting gun rights, building a border wall

¹⁷¹ Wasserman, David. "The Six Types of Races That Will Decide Control of the House in 2022." NBCNews.com. NBCUniversal News Group, September 21, 2022. https://www.nbcnews.com/politics/2022-election/six-types-races-will-decide-control-house-2022-rcna47412.

¹⁷² Cook Report. "2022 House Race Ratings." Cook Political Report, November 7, 2022. https://www.cookpolitical.com/ratings/house-race-ratings.

to curb illegal immigration, and limiting government involvement.¹⁷³ Kaptur was able to retain her seat in Northwest Ohio, obtaining 57% of the vote, and remaining the longest-serving woman in Congress. This Democratic victory can be attributed to different factors, including Majewski's false claims of being involved in combat in Afghanistan, or voters disapproving of Majewski's allegiance to Trump two years after January 6th, disagreeing with many Republicans who are actively attempting to distance themselves from the former President.

Related to the discussion of states that were important in the 2020 Presidential Election, the 7th district of Michigan has significant implications for which party will wrestle control from one another. Incumbent Representative Elissa Slotkin was able to secure a third term against GOP challenger state senator Tom Barrett. Barrett champions his independence through his voting history, going against his party 300 times while ripping Slotkin for voting with President Biden and the Democrats 100% of the time. Portraying Slotkin as a progressive and not an independent was a reputable strategy in a state like Michigan, with Biden winning the state in 2020 and Trump doing so in 2016. Historically, moderate Michigan voters have been less likely to vote for someone viewed as radical on either side of the aisle, voting for President Biden because he was viewed as the less extreme option. The issue of gerrymandering is not reserved for the Republicans, potentially having an impact on Slotkin's reelection. The Michigan Democrats adopted new boundary lines for state and federal offices, showing a key advantage of being an incumbent member of Congress. Slotkin and Barrett disagreed on issues like abortion and how to best address inequalities. The closeness of this race, with Slotkin securing a victory 51% to 47%, shows that Michigan voters also disagree on these issues. For the time being, Democrats have a slim majority in the Michigan House delegation. However, the narrow Slotkin victory has created a significant amount of attention. This race will be key in gauging what direction Michigan voters want their district to go in for the next two years, potentially setting the stage for the swing state's vote in the Presidential Election in 2024.

The third House race that should be focused on is in Colorado, in a brand new voting district that was added due to redistricting. The 8th district of Colorado saw Democrat state representative Yadira Caraveo go up against Republican state senator Barbara Kirkmeyer. The two candidates, like the race in Michigan, positioned themselves on either side of the abortion issue. Caraveo emphasized her desire to codify abortion rights into Colorado state law, and Kirkmeyer explicitly states that she would support a federal abortion ban after 15 weeks of pregnancy.¹⁷⁴ Republicans were able to flip the House, but Caraveo was able to secure a victory for the Democrats, defeating Kirkmeyer by less than 2,000 votes. The importance of the midterm elections is not only reserved for the House, as multiple contested Senate races showed which direction the country will be heading in the next two years, and potentially beyond.

¹⁷³ "Events Search and Views Navigation - jrmajewski4congress.Com." Accessed December 9, 2022. https://jrmajewski4congress.com/events/today/.

¹⁷⁴ Tran, Ken, and Dylan Wells. "Here Are the House Races to Watch in Tuesday's Midterm Election." USA Today. Gannett Satellite Information Network, November 4, 2022. https://www.usatoday.com/story/news/politics/elections/2022/09/03/house-of-representatives-midterm-election-races-to-watch-updates/7894769001/.

The importance of the Senate races in Pennsylvania and Georgia cannot be understated. Both states had a key role in getting President Biden elected in 2020, with the presidential race being so close in each state that it took days to count and confirm that Biden secured their electoral votes. Pennsylvania and Georgia have 20 and 16 electoral votes, respectively, with both states instrumental in getting Biden to the 270 electoral vote threshold needed to secure the presidency. Two years later, both states were in the spotlight again. Pennsylvania Senator Pat Toomey announced his retirement, and despite his long Republican affiliation, he still voted to convict former President Trump of inciting the January 6th insurrection. His party and his actions symbolize the battleground state of Pennsylvania, not always voting with his party, in a state that is similarly independently minded as a swing state. making the race to replace him as senator one to watch. John Fetterman, the lieutenant governor of PA, was the Democratic candidate in this Senate race. Fetterman positioned himself in the more progressive wing of the party on the issues, fighting for a fair tax code that makes wealthy corporations pay their fair share, and common-sense gun safety measures, owning a firearm himself.¹⁷⁵ Mehmet Oz, the Republican candidate backed by Trump, was looking to keep this seat for the GOP, backing private sector health care plans and criticizing President Biden for "reckless spending."¹⁷⁶ While Fetterman has had a significant lead in the polls during the election cycle, the lieutenant governor suffered a stroke in May of this year, bringing his health into question. Despite talks from Republicans that Fetterman's debate performance negatively impacted the polls, a Monmouth University poll released less than a week before Election Day showed no changes in the minds of Pennsylvania voters. Forty-eight percent of voters said they will definitely or probably vote for Fetterman, while 49% said the opposite. This was only a one percent difference from the poll conducted before the debate for both will vote and won't vote. Similarly, Oz's will/won't be was 44/54%, slightly different from the pre-debate figure of 43/53%.¹⁷⁷ These poll numbers ended up projecting this race accurately, as Fetterman fought back talks of his poor health, ultimately flipping the Republican seat, defeating Oz 51.25% to 46.33%. This race was crucial for both

parties. In a state that Biden took in 2020, flipping it blue from the GOP that took its electoral votes in 2016, may serve as a strong indicator for 2024 to see where Pennsylvanians stand and which direction they want the country to go in.

The other Senate race on the radar of Americans across the country was the heavily contested battle between Senator Raphael Warnock and Herschel Walker. Warnock defeated incumbent Kelly Loeffler in 2020, and after the closest race in the country that triggered a runoff, kept Georgia blue. The pastor from Savannah secured a full term earlier this week in the December 6th run-off, taking down Walker, a pro-Trump conservative and former professional football player. Before the election, Walker's popularity took a hit after coming under fire for things that occurred in his personal life that conflicted with his policy positions. Throughout the

¹⁷⁵ "On the Issues: Oz and Fetterman." WGAL, November 8, 2022. https://www.wgal.com/article/pennsylvania-us-senate-race-oz-fetterman-stances-on-the-issues/41295099.

¹⁷⁶ Ibid.

¹⁷⁷ Murray, Mark. "New Poll Finds Pa.. Senate Race Hasn't Changed since Debate." NBCNews.com. NBCUniversal News Group, November 2, 2022. https://www.nbcnews.com/meet-the-press/meetthepressblog/new-poll-finds-pa-senate-race-hasnt-changed-debate-rcna55255.

campaign, Walker emphasized his support for a total ban on abortion without any exceptions, but it became public in October that he paid for his girlfriend in 2009 to get an abortion.¹⁷⁸ The polls before the election indicated that this news may have cost Walker some support, with the average lead margin shifting 3 points in Warnock's favor. In a debate between the two, Walker shifted his stance on abortion, from no exceptions to backing the six-week bill that includes rape, incest, and life of mother exceptions.¹⁷⁹ Despite winning the runoff election in 2020, Warnock was motivated, and successful in his mission to keep his state blue and win another election, this time to serve a full term. Walker was unable to overcome controversy, failing to shift Georgia back towards conservative values.

The unpredictable nature of election season was present again in the 2022 midterms. A country that is as divided as ever, led by an unpopular president who just two years ago had the support of 81 million people shows how quickly voters shift their minds. Whether this is due to the COVID-19 pandemic, rising inflation, or the Supreme Court's decision to reverse abortion measures, the 2022 midterm elections put voters back in control over which direction they want the country to follow. Despite historical trends pointing towards Republicans sweeping through Congress as a part of a "red wave," the Democrats outperformed expectations. While Republicans secured control of the House, the margin of victory was smaller than anticipated. The Democrats secured a 51-49 majority in the Senate, an accomplishment crucial for a party that continues to face intra-party divisions. The salience of abortion protections, along with the lack of popularity in candidates backed by former President Trump both played a part in these election results. The 2022 midterm elections have ramifications far beyond this year and the 2024 Presidential elections. The races in contested, swing states, like Ohio, Pennsylvania, and Georgia have Democratic and Republican candidates with opposing views on the issue of abortion rights. These races were and will continue to be important in deciding the future of abortion protections, and their existence at the federal level. American politics have been especially divisive in the last decade and will continue to be in the aftermath of these elections. Members of Congress have significant power over what occurs in this country, but in this election, and future contests, the power remains in the hands of the American people to fulfill their civic duty, make their voices heard at the polls, and choose the direction the United States will follow for years to come.

¹⁷⁸ Baseballot. "How Have the Georgia Polls Moved since Herschel Walker's Abortion Controversy?" FiveThirtyEight. FiveThirtyEight, October 18, 2022. https://fivethirtyeight.com/features/herschel-walker-polls/.

¹⁷⁹ Lerer, Lisa, and Maya King. "Five Key Moments from the Walker-Warnock Debate in Georgia." The New York Times. The New York Times, October 15, 2022. https://www.nytimes.com/2022/10/14/us/politics/georgia-debate-badge-key-moments.html.