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Brave New World

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Editor's Note

In 1932, Aldous Huxley wrote his famous novel about a futuristic dystopia called Brave New World. Whereas Orwell depicted dystopia in 1984 as an ever-watchful surveillance state, Huxley saw that humanity could be so consumed with its pursuit of happiness that it would give away its freedoms for pleasure. In his book, Huxley envisioned a society advanced in reproductive technology, narcotics, and psychology which kept most humans docile and bound to their pleasures while the truly free individuals were exiled from society. Orwell's future, despite the hyperbole in our political discourse, is only present in a handful of countries that are ostracized from the world. Huxley's vision, however, is even more present in our societies.

Our own fast-changing world seems in peril. From the urgency of the climate crisis to the war outbreak in Ukraine against the backdrop of a sticky Covid-19 pandemic, symptoms continue to roam. Other noteworthy risks have reached unprecedented magnitude: widespread disinformation, the resulting collapse in public trust, and the retreat of democracy whilst authoritarian ideas take up more space.

We can meet these complex issues with fearful prudence, impatience, or helplessness. Nevertheless, we have called this 22nd edition of *The Kennedy School Review* "Brave New World" (an echo of Huxley's dystopian work) to remind us of the unabated force of policymaking in combining analysis with imagination to fix today's most challenging issues with braver ideas.

You are about to read a curation of engaging articles written by policymakers, observers, and researchers from political, military, and NGO backgrounds on diverse topics like the new geopolitics of renewable energy, inclusive economic development, the role of social media in influencing elections, or curbing violence in Latin America. Drawing on their experiences, engagements, and research findings, the authors of this 22nd edition, are laying their recommendations with one point in common: to build a realistic yet ambitious action plan to move away from an undesirable status quo.

By preluding a totalitarian world, Huxley showed us that rather than turning a blind eye on the sufferings of our societies, we owe ourselves to see them, endure them and confront them. The disruptions we have experienced over the past 20 years both advanced and regressed humanity, but the next 20 years can be an era where we avoid Huxley's world. We invite you to read these diverse viewpoints so you can reflect on how we can remain human.

Khadija Saleh Editor-In-Chief

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Profit Over Planet? Crypto's Climate Question

By Aily Zhang

The cryptocurrency industry is the tech sector's current darling, with venture capitalists pouring over \$27 billion globally into the sector in 2021 alone—an eightfold increase in investment yearon-year.1 Cryptocurrency, more commonly known as crypto, is any form of currency that exists digitally and uses strong cryptography to secure peer-to-peer transactions. While many forms of digital currencies exist, cryptocurrencies are typically decentralized and operate outside of formal government structures and central banking authorities. Instead, they rely on distributed ledger technology, such as a blockchain, to authenticate and keep track of transactions. Bitcoin, first released in 2009, is widely considered the first decentralized cryptocurrency, although other notable cryptocurrencies are in circulation, such as Ether, Binance Coins, and Tether (USDT).2 The total value of cryptocurrencies is exploding-from less than \$500 billion to nearly \$3 trillion over the course of 16 months (July 2020 to October 2021), which is equivalent to more than the roughly \$2 trillion in circulation.3

Yet as investors and founders imagine a future where cryptocurrencies and blockchain technology could lead to the next evolution of the internet that will displace existing tech giants and gatekeepers in traditional finance (i.e., Web3.0), few are seriously weighing the climate impact of the crypto sector, both in the US and internationally.

For something that is wholly digital in nature, it is hard to fathom how energy-intensive cryptocurrencies are. Since cryptocurrencies are designed to bypass traditional spoke-and-wheel financial systems and are not issued by central banks, coins enter circulation and are verified as legitimate stores of value through consensus mechanisms. There are two main consensus

sus mechanisms that are the backbone of many crypto networks today: proof of work and proof of stake.⁵

Bitcoin relies on proof of work, which requires a significant amount of computational power to issue additional coins through mining, the process of validating and recording new transactions in the blockchain through solving complex mathematical puzzles. And with the total supply of Bitcoin capped at 21 million, mining becomes more energy intensive as the number of Bitcoin yet to be discovered diminishes. In 2021 alone, Bitcoin mining consumed 121 Terawatt-hours of electricity each year, more than the entire country of Argentina or the energy consumption of Google, Apple, Facebook (now Meta), and Microsoft combined.⁶

Ether, the second most-popular cryptocurrency globally, is gradually transitioning from a proof-of-work consensus mechanism to a proof-of-stake mechanism. In colloquial terms, this is known as the Ethereum 2.0 update. The proof-of-stake model relies on a crypto miner having buy-in, or a stake, in a particular cryptocurrency and specifically attributes mining power to the proportion of coins that a particular miner has. The more existing coins you stake, the more new coins you can mine—although staking more and more coins gets increasingly expensive. In short, with the proof-of-stake model, wealth creates wealth.7 Ether coins are used within the Ethereum network, which is also popular for its capacity to build decentralized applications (dApps), such as smart contracts—a defining feature of this network. However, the sheer number of new dApps on the Ethereum network is growing too fast for developers to replicate them all on the new proof-of-stake system, so completing the Ethereum 2.0 update may take much longer than its projected deadline of July 2022.

With the Ethereum network consuming about 23 terawatt hours (TWh/year) in 2021—almost as high as Ecuador's total annual power consumption (26 TWh/year)—the environmental benefits of a widely accepted proof-of-stake cryptocurrency have yet to be fully proven.⁸

The Ethereum network is also the most widely used hosting space for non-fungible tokens (NFTs), or cryptographically unique tokens that are typically linked to digital content, which proponents describe as an undeniable proof of ownership of that content. Like mining coins, creating NFTs is energy intensive, with each NFT artwork contributing an average of 440 pounds of carbon, producing emissions 10 times higher than the average Ethereum transaction. 9.10 And, with NFTs as one of the fastest-growing sectors in the crypto industry—total sales of NFTs surged past \$4 billion in January 2022, up from \$2.5 billion in July 2021—demand for cryptocurrencies to purchase NFTs will continue to grow, along with the energy required to bring these coins into existence. 11

As more mainstream businesses—most notably large financial institutions ranging from JP Morgan and Goldman Sachs to HSBC—are increasingly exploring cryptocurrencies as a highly lucrative investment asset class, many are also concerned about balancing their desire to capitalize on the financial upside of crypto against the environmental, social, and governance commitments they have made to their shareholders.¹²

Increasing scrutiny over the industry from consumers and entrepreneurs alike has led to some meaningful initiatives to reduce the environmental impact of crypto. The Crypto Climate Accord is a private sector-led initiative focused on decarbonizing the crypto industry and blockchain with over 200 signatories. Modeled after the Paris Climate Accord, this specific initiative aims to have all blockchains run on 100 percent renewable energy by 2025 and to have the entire cryptocurrency industry achieve net-zero emissions by 2040. Specifically, it aims to accelerate the development of proof-of-green mining operations that would incentivize proof-of-work

crypto mining operations to be located near wind farms or hydroelectric power plants and tap into excess renewable energy or purchase renewable energy certificates that would offset the emissions generated while mining.

Some have argued that China's ban on mining and using cryptocurrencies has led to an instant shift in the climate impact of the sector—the country accounted for 75 percent of all Bitcoin mining, with the majority of it powered by coal-generated and hydropower-generated electricity.¹⁴ With mining operations in China now offline, many miners have had to find sources of electricity in countries with a cleaner, more diverse energy mix that is less reliant on coal, such as the US, which now accounts for 32 percent of the world's Bitcoin mining operations. 15 The recently established Bitcoin Mining Council, while a less overtly green entity, is committed to promoting transparency around the energy usage and the energy sources used in Bitcoin mining amongst its members. 16 Crypto miners have also turned to digital flare migration technology, or technology that allows crypto mining operations to run on methane gas that would otherwise be flared into the atmosphere. Some of the earliest companies in the space, such as Crusoe Energy, are experimenting with this model in Texas and aim to launch 100 Bitcoin mining data centers by early 2022, in addition to the 65 centers already in operation.¹⁷

Despite these changes, fears of greenwashing within the crypto sector abound, with many skeptics positing that pushing mining operations toward more renewable energy sources will inevitably displace access to these same renewable sources from other parts of society, such as transportation and/or in heating and cooling. Concerns about the increasing volume of electronic waste (e-Waste) generated from crypto mining—and the inability to recycle the rare earth minerals used in this equipment—are also garnering greater attention. Debate on how to decarbonize the crypto industry is far from settled. And, with the majority of legislative and regulatory responses centered on ensuring investor protections,

it is imperative that policymakers have a clear-eyed view of the impact that climate change can have on financial stability writ large. After all, as demand for crypto—as an asset, an investment vehicle, and the building block of the next iteration of the internet—grows, it is increasingly important for industry stakeholders, policymakers, and consumers to not get swept up in the hype for the future of money and a decentralized economy while trading off the future and viability of our planet.

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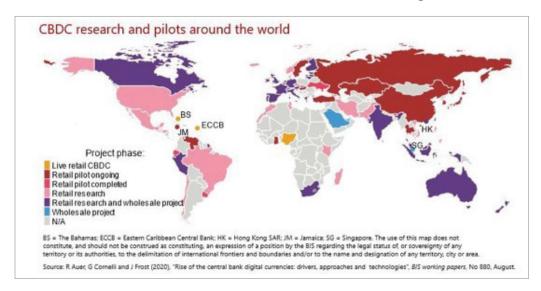
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Does the World Need Central Bank Digital Currencies?

By Nico Maffey

Central Bank Digital Currencies (CBDCs), a new digital form of money backed directly by central banks, have recently taken the financial world by storm. At this point, the question is not *whether* CBDCs will be issued, but *when*. As of January 2022, the Bank of International Settlement shows that between 2018 and 2021, the number of central

banks actively working on CBDC issues more than doubled, with 28 pilot projects currently underway and an additional 68 countries expressing interest in exploring CBDCs.¹ Most recently, China used the 2022 Winter Olympic Games in Beijing as an opportunity to debut the trials of its digital yuans (eCNY) to athletes and foreign visitors.



If you're wondering how CBDCs work, you're not alone. The reality is that the term can mean different things, and it's unlikely that any two CBDCs will be exactly the same. Formally, CBDCs can be classified in many ways, but broadly, they can be divided into retail/general purpose (i.e., designed for public, day-to-day payments) and wholesale (i.e., accessible only to financial institutions). Concretely, retail CBDCs will largely be accessed from a mobile wallet in your phone, either through a commercial partner or directly managed by the central bank—not very different from the experience you might have with a banking app or mobile wallet.

But in an age where we pay with a credit card, send money with Venmo, and use our phones to access our bank account, many may wonder how CBDCs are different from what already exists. Today, central banks issue two types of money: physical cash and electronic central bank deposits, also known as reserves or settlement balances. While the former is widely accessible and peer-to-peer, the latter is electronic and typically only accessible to qualifying financial institutions. The third type of money that is most familiar is private money, available through widely accessible and electronic commercial bank deposits. Central banks support commercial bank

money by (1) allowing commercial banks to settle interbank payments using central bank money; (2) enabling convertibility between commercial and central bank money through banknote provision; and (3) offering contingent liquidity through a lender of last resort function.³ However, while cash and reserves are a liability of the central bank, commercial bank deposits are not. CBDCs would constitute a new type of central bank money and, just like cash, are a direct liability of the central bank.

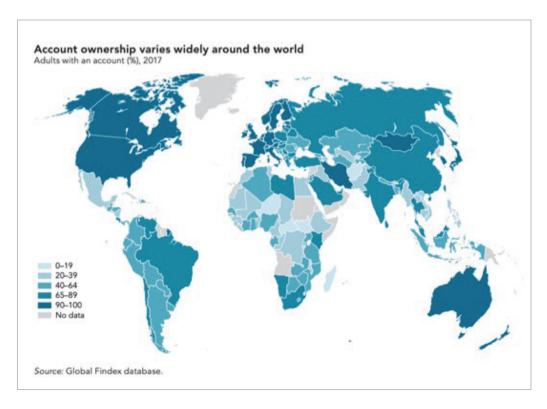
The need for CBDCs

The reasons underpinning the growing interest in retail CBDCs vary widely among nations, reflecting the different nature of their inherent financial and payment systems. While most advanced economies are focused on payment safety and efficiency, emerging economies are exploring CBDCs for reasons related to financial inclusion (mitigating accessibility barriers) and payment efficiency (making payments cheaper and more transparent). Some of these claims are explored below.

1. Could CBDCs help foster financial inclusion?

Access to financial services is deeply intertwined with economic development and can help people escape poverty by facilitating investments in their health, education, and businesses. Financial services can also improve financial decision-making and alleviate emergencies that can push families into destitution, such as job loss or crop failure. Many low-income individuals around the world lack access to basic financial services and instead rely on cash, which can be both hard to manage and unsafe.⁴

The financial inclusion gap in the developing world remains a significant challenge. In 2017, for example, 94% of adults in high-income economies had a savings or checking account. In contrast, in emerging economies, only 63% had such accounts. This gap resulted in 1.7 billion people lacking access to a bank account or mobile money provider. While these numbers have improved in recent years, it will take innovative solutions to close the financial inclusion gap.



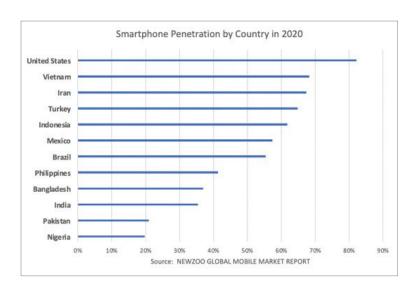
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CBDCs have the ability to impact financial inclusion in a number of ways. First, CBDCs provide consumers with free digital wallets connected to trusted financial institutions, as is the case with Eastern Caribbean Central Bank's DCash or the Bahamas Sand Dollar. 6,7 Second, they enable fast and convenient domestic and cross-border peer-to-peer money transfers. Third, they stimulate greater credit intermediation by encouraging increased liquidity flows within the formal financial system. Finally, CBDCs incentivize the digitization of merchant and agricultural value chains through more efficient person-to-business and business-to-business transactions.8 This has the potential to streamline payment systems by removing unnecessary third-party intermediaries from payment procedures, thereby reducing the complexity of payment settlement and clearance. In doing so, CBDCs could help enhance the affordability and convenience of financial transactions.

Despite these opportunities, the ultimate relationship between CBDCs and financial inclusion remains yet to be determined. In particular, the value proposition of CBDCs beyond currently existing and widely available mobile money services remains unclear and will likely vary significantly from country to country. Much like CBDCs, mobile money services do not require consumers to have formal accounts as a prerequisite for transactions and have

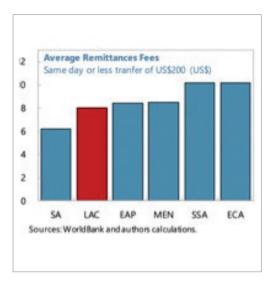
helped circumvent constraints related to distance, costs, and accessibility. This has resulted in millions of people who were previously unbanked gaining access to affordable and reliable financial services. For example, by providing financial transaction services through no more than a SIM card, M-Pesa is considered today the most successful financial inclusion initiative in the world, responsible for lifting 194,000 Kenyan households out of poverty. Functionally, it's unclear what a CBDC in Kenya would offer that substantially differs from current and well-established mobile money operators. Thus, penetration of mobile money services should be a key factor guiding the cost-effectiveness of launching and administering a retail CBDC.

For all the possible benefits associated with CBDCs, they may also exacerbate digital inequality by introducing an unintentional layer of complexity to mobile money usage. Most retail CBDCs require the use of smartphones to access digital wallets, which add a new constraint to those marginalized individuals who do not yet have access to smartphones. ¹⁰ Despite significant year-on-year increases in smartphone ownership, emerging economies still lag significantly behind the developed world. Thus, CBDC-linked mobile money may risk worsening digital inequality among the most vulnerable populations.



2.Could CBDCs simplify, increase speed, and reduce costs of cross-border payments?

Improving the cost, speed, and transparency of cross-border payments is one of the most commonly cited potential benefits of CBDCs. Remittances represent a significant source of income and a key macroeconomic determinant in many developing countries. Remittance flows to low- and middle-income countries climbed to USD 589 billion in 2021, which is more than the sum of FDI and overseas development assistance combined, and a 7.3% increase over 2020.11 On average, migrant inflows account for more than 6% of GDP for developing market economies. In some countries, such as El Salvador or Somalia, these figures increase to over 20% of GDP.¹² Despite dramatic reductions over the past five years, remittance fees remain high. The global average cost of sending US\$200 was 6.4% in the first quarter of 2021, which is more than double the Sustainable Development Goal target of 3% by 2030.13 These high costs are also the result of remittances still remaining cash based in some regions. For example, in the Caribbean, where the average fee for the transfer of US\$200 is approximately 8%, 80% of migrants send their remittances through agent-based interactions and pay with cash. In that sense, CBDCs could offer a significant advantage.14



CBDCs could increase the speed and reduce costs of cross-border payments by replacing long chains of banking relationships, which tend to make cross-border payments expensive and slow. Interoperable CBDCs arrangements are being explored that involve the creation of multilateral payment platforms based on a single set of rules, a single technical system, and a single set of participants. For instance, under Project Dunbar, the Bank of International Settlement's Innovation Hub is helping the central banks of Australia, Malaysia, Singapore, and South Africa develop prototype shared platforms for cross-border transactions with no intermediaries. This single, common platform connects the countries' four central banks, allowing them to issue CBDCs to make faster and cheaper payments to each other, bank to bank.15 While central banks continue to explore opportunities presented by CBDCs for enhancing efficiency of cross-border payments, many risks still remain. Firstly, there is a governance risk. A shared common platform means that central banks will need to exchange critical infrastructure with each other. Secondly, this platform would require central banks to provide access to and trust unsupervised foreign banks to critical payments infrastructure. Finally, there is the issue of different payment regulations across countries. A coherent system will need to integrate an efficient flow while respecting such differences.

3. CBDCs can improve the efficiency of monetary transmission.

CBDCs can allow central banks to transmit monetary policy actions more directly to the economy, especially if more households are exposed to interest rate-sensitive instruments. CBDCs can further be designed to increase traceability of spending, offered by blockchain technology, and the programmability of smart contracts embedded on blockchain. As an example, central banks could program CBDCs to limit spending for designated purposes, thus controlling the amount, direction, and intensity of liquidity or money supply flowing to desired industries. This would allow for more intelligent and deliberate

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monetary policy transmission mechanisms that would impact the velocity of money circulation, stability of money multipliers, and the willingness to spend from final users.

Nevertheless, the financial and monetary implications of CBDCs still present many potential challenges. Domestic use of foreign CBDCs could impair monetary policy transmission by increasing currency substitution. The cross-border use of CBDCs could also complicate the conduct of monetary policy in the issuing country if external demand for CBDCs results in large capital flows. Design issues such as monthly limits for retail CBDC holdings and interest-bearing are some of the most relevant design choices central banks must address before embarking on CBDCs.¹⁶

It is still premature at this point to evaluate the central banks' experiences with CBDCs. Yet, one thing is certain: the financial system in general and the way humans interact with money in particular are shifting rapidly. Stablecoins, cryptocurrencies, decentralized finance platforms, and fintech ventures are not going away any time soon. The pandemic has catalyzed digital payments, bringing about change and, to a large extent, solutions to antiquated paradigms. If central banks around the world wish to continue safeguarding monetary and financial stability for the public good, CBDCs may be their best bet to remain relevant. The time to act is today.

Nico Maffey is is a student at the Harvard John F. Kennedy School of Government pursuing a Master's in Public Administration in international development, where he focuses on emerging technologies, financial inclusion, and economic development. He is also the President of the Digital Innovation and Fintech Club, as well as a Yard Ventures fellow. Most recently he served as a Digital Development Consultant for the World Bank. He holds an A.B. from Harvard College and an M.S. in applied economics from Di Tella University in Buenos Aires.

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Microprocessors & Organic Kombucha: Designing Productive Institutions for More-Inclusive Development Outcomes

By Federico Apéstegui and Andres Valenciano

Step into any supermarket or store in Costa Rica, and if you are lucky, you'll find it: Kombucha Culture's organic kombucha. Its CBD-infused "Island Roots" blend, with curcuma, lime, black pepper, and ginger, is the fastest to go off the shelves, and its sleek brand design hints at its phenomenal taste. Yet, the product is produced in a small community nested in the mountains surrounding the Valle del General in the country's south. Its founder, David, started the business three years ago and has since grown it into a successful venture, employing more than 30 people, and a new equity round led by a local family office will soon drive its international expansion. However, David's success hasn't come without major obstacles.

Small and medium companies like Kombucha Culture, which operate in sectors of the economy that are traditionally less knowledge intensive, might lack the flare and glare of tech startups or the permanence and scale of multinational corporations. However, they are crucial for nations that find themselves in need to generate lower-skilled jobs, reduce inequality, and promote a more-inclusive model of economic development. However, these companies often lack the support that is necessary to accelerate their growth.

This is the case in Costa Rica, where three decades of an economic development strategy that has prioritized foreign direct investment and trade has led to the development of institutions that are not designed to support entrepreneurs like David. This article discusses the design of productive development institutions, why and how they are built, and their role in diversifying a country's productive base in an way that leads to more inclusive development outcomes.

From Bananas to Microchips: The Role of Institutions and the Challenges of the Present

Costa Rica provides a textbook example of the role that institutional design can play in shaping a nation's productive landscape. In the aftermath of the 1980s debt crisis in Latin America, the small and peaceful Central American nation gained recognition for its policies geared toward revitalizing the economy following the well-known agenda of economic liberalization, free trade, and foreign direct investment. Behind the effort was the vision to transition from being predominantly a banana and coffee exporting country to one capable of producing high-value products, such as electronical devices and microchips. The efforts paid off. By 2014, the country had one of the most diverse economies in the region, and electronics, integrated circuits, medical devices, and services made up more than 64 percent of its total exports, making it the fourth nation in the world in terms of high-tech industrial goods exports as a percentage of GDP.

Costa Rica's successful leap from bananas to microchips can be directly attributed to the development of a series of institutions that supported this economic diversification agenda. Between the mid-1980s and early 2000s, the country developed free-trade zones, introduced tax incentives and subsidies, created the Ministry of Foreign Trade to lead ambitious market integration policies, and established CINDE and PROCOMER—the country's investment and export promotion agencies, which consistently rank amongst the most effective investment and export promotion agencies in the world. This institutional architecture

remains the cornerstone of the country's growth strategy today.

However, despite the country's recognizable success in diversifying its economy and attracting over 400 multinational corporations, this institutional arrangement is not well geared to support small and medium enterprises and entrepreneurs like David or promote a more-inclusive model of economic growth. This has led to a widening divide amongst skilled and unskilled labor and between the productivity levels of multinational corporations and local firms that are not connected to global value chains.

Reigniting growth in the current context in a way that leads to more inclusive development outcomes will demand new capabilities from both institutions and firms. However, how should policymakers approach the development of new institutions to promote inclusive growth? Two recommendations can help tackle this question: Set and share a vision that's bold yet deeply rooted in local context and play the role of orchestrator.

Set and share a vision that's bold yet deeply rooted in local context:

Economic and political institutions are designed in response to a specific challenge and offer a solution that is influenced by a specific vision of the future. Articulating the challenge and solution in the form of a bold vision can help policymakers identify capability gaps, determine a course of action, map out relevant stakeholders, and lay out a blueprint for the development of new institutions to address them.

In the late '80s and early '90s, the challenge came from the country's urgency to diversify a largely agricultural economy and the ambition to attract large sums of foreign investment from multinational corporations. Few concrete examples of a bold vision are as emblematic as the mid-1990s announcement of the government's intention to become a center for offshore high-tech manufacturing and the project to attract semiconductor company Intel to establish a microprocessor manufacturing plant in the country. This project revealed a series of gaps, from the devel-

opment of infrastructure to the approval of a free-trade zone law, that needed to be addressed for Intel to open its first plant in the country in 1998, generating a blueprint for institutional capacity building.

Let us think once again about David, his company, and the broader food sector within the country. For a small open economy like Costa Rica, there are only a limited number of clusters in which firms can develop the knowledge, skills, value chain integration, and competitiveness to compete on a global scale. Today, Costa Rica's food industry lags in the region in terms of both productivity and innovation, and only a few staple crops and commodity products (coffee, banana, pineapple) are grown competitively. There are big gaps between the productivity levels of small and large-scale producers, and few high-value products compete in international markets.

At the same time, Costa Rica's weather and land allow it to grow a multitude of crops and produce; the country has a well-positioned global brand that is allusive to concepts of health, sustainability, and wellness; and it has developed the infrastructure required to become a top exporter of staple fruits such as pineapple and bananas. Let us imagine that the country would set on a mission to reduce inequality and increase productivity by transforming its land use through the development of regenerative and sustainable farming and the promotion of high-value health and wellness nutritional goods, such as the CBD-infused kombucha. What skills, capabilities, and enabling conditions would other entrepreneurs require to upgrade their productive activities in alignment with this vision? What can this vision reveal about the roadmap needed for institutional development?

Once priorities have been identified, it is important for policymakers to consider extensively the context of their implementation. Generic problems and solutions are often not enough to drive institutional innovation. Avoiding the widening gap on income distribution and the impact on labor markets, increasing the rate of innovation and productivity gains, or transferring labor from low- to high-productivity areas, are all problems that are present in most economies around

the world. Truly innovative institutional arrangements will emerge only from thinking about solutions to those problems within the context-specific realities each country is facing.

Orchestrating institutional development:

Transforming land use and diversifying high-value exports in a country requires not a single agenda but many different initiatives of institutional capacity building. From increasing access to technology to grow ingredients more efficiently and come up with new food products; providing access to capital and financing for production facilities, building up skills amongst the labor force; and investing in distribution channels and infrastructure, a multiplicity of private and public stakeholders must collaborate in unison to meet such objectives. These institutions often depend on one another and cannot therefore operate in isolation.

This leads to the second recommendation: to redefine the role of the state as a facilitator to bring these stakeholders together in a way that allows them to cooperate around the same mission more effectively. Policymakers often think of institutions as the state's vehicle to intervene in or regulate markets. As a result, the state ends up playing the limited role of identifying the winning sectors and firms and providing incentives to them. Often, in this limited and shortsighted role, institutions end up becoming barriers, rather than enablers of collaboration. To facilitate collaboration and interaction between private and public actors in the economy toward a common goal, institutions should instead play the role of setting clear but ambitious goals, ensuring that the right feedback mechanisms are in place, aligning incentives, and allocating risks. Policymakers should think about institutions as vehicles to participate in and co-create the market—for example, by subsidizing research and development in sectors to encourage innovation and competition by private actors.

When trying to get the license to import CBD for his kombucha, David had to navigate the challenges of dealing with narrow-focused institutions with little incentives for innovation. After partnering with a group of interested parties and organizations, David was finally able to get the permits that he needed to import the ingredient and commercialize his drinks as value-add products. Under a different set of institutional arrangements, a government-sponsored innovation and productivity agency could have facilitated the interaction between the regulatory entities at the Ministries of Agriculture and Health to expediate such process or even share the risk of product development by investing in or supporting the company's activities.

To play the role of orchestrator effectively, policymakers should prioritize action and learning. Firms and individuals around the world are acknowledging the need to shift toward a lifelong learning approach, in which the ability to adapt to change is paramount to thrive in a complex and uncertain environment. In a similar way, policymakers need to recognize that an experimental form of governance is critical for the undertaking of a mission like the one proposed illustratively in this article. Institutions are often designed and built following a strict set of guidelines to later realize the challenge changed or the solution was not fit for purpose, rendering such institution obsolete. Building state capabilities for a greater degree of experimentation, and the right incentives for public administrators to take such risks, is thus critical.

Microchips, Yes, But Also Organic Kombucha

The economic crisis of the 1980s offered an opportunity for countries like Costa Rica to question the development model of the day that no longer fit the country's objectives. The challenges of the time, and the bold mission articulated by policymakers to transition from an agriculture-based economy to one with the capacity to export microprocessors, led to a decade of institutional building that has not been replicated since. The current challenges of productivity and inequality have once again generated an oppor-

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tunity to think about the institutional arrangements that will better serve the country's current inclusive growth and sustainability objectives.

As governments across the world begin to recognize the need to bridge the widening skill and capability gaps generated by globalization and the transition toward a knowledge economy, the relevance of internal markets and of industries and sectors that are less knowledge intensive will begin to take a more central place in the stage. Yes, countries like Costa Rica should continue to deepen capabilities in high-value clusters and sectors. However, products like David's organic kombucha offer an opportunity to think about challenges and solutions that can inspire an equally transformational mission and ignite a new cycle of institutional building to drive a more inclusive model of economic development. Here, a certain degree of institutional redesign will be needed to remain competitive in a global market undergoing so many structural changes.

Federico Apéstegui MPA 2022 **Andres Valenciano**, Minister of Foreign Trade of Costa Rica.

Antitrust Blues:

The European Union's Industrial Problem

By Quentin Gollier

"The choice is simple when it comes to industrial policy," proclaims the governmental Franco-German Manifesto for a European Industrial Policy. 1 "[U]nite our forces or allow our industrial base and capacity to gradually disappear."2 Still a much-debated document today, as Europe still shakes in the aftermath of disastrous COVID-19 waves, this document was put on the table as a roaring responder to the pivotal decision by European Commissioner Margarethe Vestager to prevent the merger of the railroad activities of industrial giants Alstom and Siemens on 6 February 2019. Reaffirming her unshakeable trust in the principles of healthy competition, she claimed the merger "would have resulted in higher prices for the signaling systems that keep passengers safe and for the next generations of very high-speed trains."3 On the other side of the table, Bruno Le Maire, the French Minister for the Economy and Finances, said, "The current EU rules are obsolete."4

Though COVID, and its subsequent supply chain woes, have consistently forced industrial policy back on the policymaking table in Brussels, it has been clear since Commissioner Vestager's 6 February announcement that the Member States and the Commission could expect to find themselves on opposite sides of the table in formulating proposals to re-shore Europe's industrial basis. Two years into the pandemic, the Union still clings to its commitment to a level playing field and inflexible antitrust regulation, whereas other major powers have showered billions on their strategic industrial infrastructure, running the risk of plunging Europe into increasing irrelevance.

The Commission's Siemens-Alstom decision took place just as Europe's economic engine started finding its footing after a decade of difficulties following the Great Recession and the Euro Crisis. As Member States got increasingly aggressive in the defense of the economic interests of their assertive national champions, the Commission—starting with the Directorate-General for Competition (DG COMP)—conceived itself as the protector of the European consumer against the ills of corporate consolidation. Where France and Germany saw the potential for an unassailable Airbus of the rail, the DG COMP saw an unacceptable threat for the quality and consumer welfare of European citizens. This made rather explicit the growing gap between the industrial voluntarism of the two largest Member States and the classical conception of the free market defended by the Commission.

The concerto of outrage in the blocking of the Alstom-Siemens merger, however, would indicate that it took this event for European governments to realize that unilateral disarmament in the face of long-lasting Colbertism in the US and China was no longer a realistic option. This increasing disgruntlement with the EU's status as a model pupil of the 20th century's antitrust ethos was turbocharged when met with the realization that the EU was dependent on the rest of the world for its basic industrial needs from the onset of COVID.

From American shores, this debate seems laughably quaint, following decades of antitrust neglect, culminating in the Obama administration—notably with the giga-mergers Bayer-Monsanto and Anheuer-Busch—SABMiller in 2016. Since the triumph of the Chicago school of thought in the 1980s, US antitrust policy seems to have been guided by an unwritten compact between government and businesses that the pain of the US consumer was not, on its face, a major issue when balanced with the aggressiveness it afforded American giants abroad.

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The frustration with this growing impression from European shores that Member States were fighting with their hands tied was expressed in multiple ways: French President Emmanuel Macron launching a massive, €30 billion investment vehicle for equity investment in industrial ventures in November 2021; Italian PM Mario Draghi blocking three Chinese takeovers in innovative industrial startups across 2021, a power that had been used only twice between 2012 and 2021; and the European Commission relaxing its severe anti-subsidy regime for Member States seeking to invest in semiconductor capacity. This is, of course, dwarfed by initiatives taken abroad, with the United States discussing a \$52 billion package in support of its domestic chipmakers and South Korea making accessible \$65 billion to its market leaders. China, on its end, is rolling out a \$160 billion to build local capacity across the value chain.

It is clear at first glance that an all-out war of words will occur again between ambitious Member States seeking to create industrial capacity through broad investment programs and a conservative DG COMP, as the limit of what is possible under European rules gets tested repeatedly over 2022. Traditional EU policy has focused on stringently limiting state support to basic research and development support and first industrial deployment. This has been historically unsignificant when compared to the massive industrial support apparatuses that were deployed in the US and East Asia (from the Ministry of International Trade and Industry onwards), leading to the creation of global giants coveted by the European States but looked down upon by the DG COMP.

That the EU citizen has massively benefited from the DG COMP's approach is to be applauded, while billions worldwide have reaped the benefits of landmark decisions (starting with Microsoft Corp. v. Commission). While Mr. Le Maire's claim of "obsolete" is probably too strong a word, there is an increasingly clear risk that being the only Brandeisian power left will expose Europe even further to uneven business practices from other major economic powers. It may also prevent the constitution of competitive global

companies, thus restricting consumer choice but having the ability to protect Europe's ability to provide goods for its citizens in times of crisis.

Though there were tenuous hopes at the beginning of President Biden's administration that antitrust would be revived, it is now clear that the institutional paralysis of the US Congress will prevent, for the foreseeable future, a more expansive use of the Sherman Act. The EU has clung to this hope long enough for it to realize that it was now in a perilous situation industrially, with fundamental dependencies on foreign companies for basic and essential goods. That the controlling dam of industrial intervention set up by the DG COMP is starting to wither is to be applauded, but it is increasingly doubtful that it will crumble fast enough for EU States to credibly re-arm their industrial engines.

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Do We Need Multilateral Trading Rules on E-commerce?

By Alwin Adityo

Updating multilateral trading rules to include E-commerce would be a challenging but big leap forward.

Why E-commerce Is Important for the World Trade Organization

The original World Trade Organization (WTO) texts need to be updated. When they were negotiated three decades ago, floppy disks were ubiquitous, and the word *unicom* had nothing to do with businesses. Since then, WTO members negotiated their own free trade agreements, often referred to as Preferential Trade Agreements (PTAs), which include more in-depth provisions compared to the WTO text. Recent PTAs concluded by global economic heavyweights, such as the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP) agreements, include not just E-commerce but also issues regarding sustainability, state-owned enterprises, and investor-to-state dispute settlement.

Concluding the E-commerce negotiations would be a significant milestone for the WTO and push it back into the global trade spotlight. E-commerce accounts for about 17% of global retail trade in 2020.¹ COVID-19 has accelerated the annual growth of E-commerce in countries such as the UK, the US, and Spain, where the year-over-year growth as share of total retail sales in 2020 exceeded the average from 2015 to 2019 by nearly five times.² To achieve reforms on E-commerce, the WTO could use a plurilateral approach to negotiate before the rules can be multilaterally applied.

The WTO has retreated from the global trade spotlight after the failure to conclude the Doha Round negotiations in the early 21st century. The Doha Round was the WTO's most ambitious reform agenda, including all its members. It failed because both developed and developing countries couldn't make concessions on issues such as greater market access for services and agricultural subsidies.³ This failure undermined the credibility of the multilateral trading system and led to WTO members creating their own trade agreements.

WTO's Role in Regulating E-commerce

The WTO has worked on e-commerce since 1998 when ministers adopted the Declaration on Global Electronic Commerce, calling for the establishment of "a comprehensive work program to examine all trade-related issues relating to global electronic commerce, including those identified by Members."4 E-commerce provisions found in PTAs started to find their way into the WTO. During the 11th WTO Ministerial Conference in 2017, the WTO established the Joint Statement Initiative (JSI) on E-commerce, which started negotiations in 2019.5 Any member at any point is welcome to join and contribute to drafting the agreement, with 86 WTO members now participating in the e-commerce JSI. JSIs could be the WTO's path forward in concluding future negotiations.

How Can the WTO Write Its E-commerce Rules?

The WTO could look into e-commerce provisions found in existing trade agreements as a benchmark to draft its e-commerce rules. As of June 2019, 84 trade agreements included e-commerce provisions either as standalone chapters or dedicated articles, with most of them entering into force between 2014 and 2016.⁶ Rules on e-commerce in trade agreements

typically include provisions on source code disclosure, customs duties, personal data protection, location of computing facilities, and cross-border data flows. Proponents such as the US have argued for the free flow of information across borders because it would stimulate economic growth and level the playing field between foreign and domestic businesses.⁷ Supporters of extending the moratorium on customs duties on electronic transmission also argue the economic damages inflicted on developing countries would dwarf the gains obtained from imposing customs duties.8 Opponents, on the other hand, have argued the need to store and process data locally because there is a threat to national sovereignty if they are unable to fully control data stored in servers outside of their border.9

To balance these diverging views, exceptions and carve-outs are commonly included. For example, even though generally members of a trade agreement agree to not require data centers to be located in a particular location, some exceptions may be granted for a legitimate public policy objective. ¹⁰ Trade agreements also prohibit governments from requiring software owners to share mass-market software or products containing software source code as a condition for entering its market. However, exceptions can be granted for software used for critical infrastructure.

Navigating Challenges of Implementing Multilateral Rules on E-commerce

The WTO acts as the sheriff of global trade. Having a strong, rules-based framework in e-commerce agreed upon by countries, jurisdictions, and territories around the world who represent 90% of global trade would minimize disruptions to business and trade related to e-commerce.

The co-convenors of WTO's JSI on E-commerce, Australia, Japan, and Singapore, stated that WTO members are committed to achieving an ambitious agreement on e-commerce. However, several challenges must be overcome. The first is engaging members with significant populations to endorse the

e-commerce agreement. India and South Africa are the most notable holdouts. Both countries are proponents on ending the moratorium on customs duties as they view net importers of digital products as set to lose out on tariff revenues from digital products, which is estimated to be as much as \$10 billion a year for WTO developing members. 11 Excluding India would mean excluding the third-largest startup system in the world that is home to 21 unicorns with a total value of USD 73.2 billion. 12

The second challenge is the issue of cross-border data flows and the location of computing facilities. Some members may not feel comfortable in including sensitive sectors such as financial services. The US has argued that onshoring requirements are not necessary provided that foreign authorities sign bilateral treaties with US authorities to access data in American servers.¹³ A middle ground would be to introduce exceptions or carve-outs, despite it weakening the main reason for introducing data localization provisions. But the need for such exceptions is also valid because no country wants to be figuratively held hostage and not have access to sensitive data of their citizens if the data servers containing them is in a country whose political and economic relation has turned sour.

The third challenge is the extent that the WTO would tackle additional responsibilities, especially cybersecurity. Countries could also use trade and investment restrictions as a preferred tool for addressing cybersecurity threats. The US, for example, once considered the popular app TikTok and the Chinese instant messaging app WeChat as threats to its national security. ¹⁴ Consequently, both apps were banned from the US version of the Apple App Store and Google Play Store. Such decisions could be disputed by both companies through the WTO if it were to write cybersecurity rules for trade. The body also might need to engage with cybersecurity experts in the negotiations.

The fourth challenge would be the situation where some members will seek improved market access commitments from other members for services sectors

that are related to e-commerce. This situation would likely make the task more difficult and complicated, which may prolong the negotiations or even cause members to not join the joint initiative altogether.

The Way Forward for Multilateral Rules on E-commerce

First, the e-commerce rules should be subject to the WTO's dispute settlement system, which sets procedures for panels to rule on disputes brought by its member states and establishes an Appellate Body in the event panel decisions are appealed. The WTO fortunately has committed that e-commerce rules would be subject to the dispute settlement system.15 Despite the recent weakening of the dispute settlement system by the lack of the minimum number of members in its Appellate Body, the system is considered as one of the hallmarks of global trade because of its effectiveness in solving disputes. Since its inception in 1994, the WTO made decisions on 350 disputes. The US is even a major beneficiary by bringing up and winning more than 90% of the 100 dispute settlement cases it has brought.16

Second, Special and Differential Treatment (SDT) that give developing countries special rights for certain provisions might need to be considered. This makes it possible for developing countries at varying levels of e-commerce readiness and ambition to assume commitments at different speeds. SDT may be needed in fraught issues, such as the location of computing facilities, the disclosure of source code, and the moratorium on customs duties. Transition periods could be used on provisions for certain members. The agreement might also want to look at how support for small and mid-size enterprises may be given for certain countries aiming to grow e-commerce and digital trade.

Third, the WTO should avoid agreeing on a specific standard related to e-commerce, especially on data protection and cybersecurity. Many countries in the world have different standards on data protection, such as the EU with its GDPR and China with its PRC Personal Information Protection Law. There are

also certain cybersecurity standards and principles already established, such as ISO/IEC 27032 and the NIST Cybersecurity Framework. The WTO could recognize the importance of adhering to international standards but should not push for members to adopt a particular standard.

Pulling off the e-commerce negotiations would make the WTO a step closer to being relevant again in global trade. Although agreeing to e-commerce provisions could mean the WTO would need to deviate from its multilateral and consensus-based approach of negotiations, formatting the negotiations so that not all members are forced to join would be the difference in ensuring that the e-commerce negotiations won't suffer the same fate as the Doha Round negotiations.

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The Green New Competition: How Geopolitics Is Returning Within Renewable Energy

By Heberto Limas-Villers

The growing crisis in Ukraine provides a reminder of how hydrocarbons are essential to geopolitics. From the foundation of the Anglo-Persian Oil Company to Saddam's disastrous invasion of Kuwait, the pursuit of energy provided several hydrocarbon producing nations a generous—albeit, at times, unsteady—income stream. At times, their centrality to the energy markets allows them to exert collective bargaining power for political ends as the Organization of Arab Petroleum Exporting Countries (OAPEC) did in 1973. Such dependence on fossil fuels has long been a concern for the United States as it became dangerously exposed to unstable and, at times, hostile nations, prompting both the Carter Doctrine—which declared the free flow of oil in the Persian Gulf an American interest—and the elusive search for energy independence. With renewable energy, there was a belief that being less reliant on hydrocarbons would allow the country to be less exposed to the geopolitics of fuel sources. Now, that belief is being shown as a mirage as the transition shows that geopolitics remains essential even as we transition to renewable energy.

Until recently, American consumers have enjoyed lower energy prices after the surge seen before the 2008 financial crisis. Despite disappointment surrounding the Glasgow COP26 Summit, renewable energy now makes a fifth of total US energy production.^{1,2} Much of this addition in renewable energy has been due to improving learning curves by the private sector.³ Solar energy, which used to cost as much as \$360 per megawatt hour (MWH) in 2009, has significantly decreased to \$37/MWH by 2020—considerably cheaper than coal, natural gas, and oil.⁴ Utilities and multinationals are also transitioning away from fossil

fuels, though criticism has been given for utilities moving too slowly in the transition.⁵ It's safe to say that after several decades of false starts, renewable energy is enjoying its moment in the sun.

However, the outlook for renewable energy isn't as sunny as one would expect. For starters, the transition will still involve fossil fuels as economies make the switch, which isn't going to be simple because the IEA projects that, even in 2050, oil will still be used even under the most aggressive net-zero scenario.6 This can be seen in Europe, where low wind speeds in the North Sea reduced the energy available for Northern Europe, causing demand and prices for natural gas, coal, and oil to increase. This increase in prices provided leverage that likely emboldened Russia, Europe's largest supplier of gas, to rattle its saber toward Ukraine and demand extreme concessions, like a rollback of NATO to its pre-1990s membership. Many European nations seem hesitant in confronting Russia, as Italy's prime minister stated that economic sanctions would be the only "deterrence" given, though Europe is in no position to give up their Russian gas.⁸ Recently, Meghan O'Sullivan and Jason Bordoff stated in Foreign Affairs that this transition would concentrate market power to the "lowest cost producers" reducing a diverse supply for oil.9 Such exposure to nations like Saudi Arabia, Iran, and Russia will diminish as oil becomes less necessary to the global economy, though with renewables, the exposure will remain with different, and possibly more hostile, countries.

The difficulty of transitioning towards renewables is compounded by the minerals needed to make the switch. The parts needed to create solar panels, en-

riched uranium, and wind turbines are largely based on cobalt, copper, lithium, nickel, and rare earth metals. As electrification of transportation and renewable energy production proceeds, the IEA estimates that demand for these minerals will far outstrip current supply. This can harm the transition if such high prices render solar and wind uncompetitive, leaving Americans with high energy bills. 11

Yet what is more concerning is that these minerals are highly concentrated within a few supplier countries, ranging from Australia (the top producer for lithium) to China (the largest supplier for rare earth minerals). 12 The United States, in contrast, has few reserves and, in some cases, is wholly dependent on foreign sources. While some countries enjoy close relations with the US, others, like China, are fully willing to embargo nations for political purposes—as it did to Japan with rare earths in 2010 because of the Senkaku islands dispute. 13 In the long term, China's market power would decline as there are several mineral deposits that can be mined worldwide, though the country is taking steps to strengthen its market share.

China is significantly reliant on foreign sources of cobalt, copper, and other minerals to continue growing its economy. To that end, Chinese firms have been ahead in developing or acquiring mines throughout the global South, even outpacing the United States. One fantastic example of such geopolitical maneuvering can be found in the Democratic Republic of the Congo. The DRC has long been a crucial partner for the United States, receiving millions in aid and military equipment going back to the Eisenhower administration. Yet thanks to negligence in recent years, the Chinese have been able to purchase mines with significant cobalt reserves without so much as a diplomatic protest from Washington. This episode is the latest indication that the United States is falling behind Chinese firms for essential minerals despite the government officially stating that "any shortage of these resources constitutes a strategic vulnerability for the security and prosperity of the United States."14 If conflict were to break out between the two countries. the US will find itself economically cut off from the very resources needed to fuel its economy and power its defense base.

To believe that a world powered by renewable energy will mean an end to geopolitical struggle is pure fantasy. This is not to discourage the US from pursuing renewable energy as an affordable and clean electricity source, but the government must prepare for how the transition will shift geopolitics and American interests. To safeguard American security interests and establish leadership in the clean energy revolution, the US must obtain unrestricted access to essential minerals worldwide. Domestically, the Biden administration must establish a strategic mineral reserve that provides a lifeline to essential industries in a crisis. It should also encourage American mining companies, partly through concessions and even outright support, to explore, develop, and mine these ore deposits worldwide. This cannot go toward a neo-colonialism and provide a carte blanche to corporate exploitations, so the US should encourage these projects to develop these deposits ethically and with minimal harm to transparency or local welfare. The next energy revolution will shape the global markets and power structure for the 21st century. If the United States wishes to keep its global position as a superpower, it must bring this revolution to life.

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The Arsenal of Climate Adaptation: Why the Defense Department Must Innovate in the Fight Against Climate Change

By Bethan Saunders

The US Department of Defense has a history of funding revolutionary dual-use technology. As the existential threat posed by climate change grows, the DoD must invest in innovative climate technology. US national security depends on it.

In 2018, Hurricane Michael severely damaged or destroyed 95 percent of Florida's Tyndall Air Force Base. As one of the strongest recorded hurricanes to ever hit the continental United States, Michael cost the US federal government \$5 billion for repairs to the base alone. However, Tyndall Air Force Base is not an exceptional case. Hurricanes, storms, and other climate-related damages to at least 10 US military installations have cost American taxpayers over \$13 billion since 2017.

Climate change radically alters the tactical, operational, and strategic environments the US military faces, posing new challenges for American national security. The 2014 Department of Defense Climate Change Adaptation Roadmap first defined climate change as a "threat multiplier" for US national security.3 The rising severity of climate risks, such as extreme weather and droughts, intensifies political instability and exacerbates terrorism. Climate change also undermines critical US military infrastructure: The US Department of Defense (DoD) estimates that over 1,700 installations worldwide are at risk from rising sea levels. 4 These dynamics create an unpredictable threat landscape that requires new equipment, force structure, and operational demands for the US military.5 Despite the national security implications of climate change, the DoD still emits more carbon dioxide than many industrialized nations. As the 55th largest producer of greenhouse gases globally, DoD emissions top those of Sweden, Portugal, or Denmark.6

Climate Technology Is the Key

The DoD has identified climate change as a critical national security challenge in its new Climate Adaptation Plan, published in September 2021.⁷ This plan outlines a roadmap for operating and evolving the DoD under changing climate conditions. Increased investments in cutting-edge climate technologies are fundamental to the Plan's success. However, commercial climate innovation in the US far outpaces the military's technological sophistication. Significant investments in innovative commercial and dual-use technologies are necessary to meet the plan's goals and strategic priorities.

Technology Promotes Military Readiness and Lethality

Securing the armed services' energy supplies through alternative energy sources and technologies is critical for creating an adaptive and capable climate change-ready force. Navy Secretary Ray Mabus testified in 2012 that "we would be irresponsible if we did not reduce our dependence on foreign oil."

Electric vehicles (EVs) are a vital solution to reducing this dependency on liquid fuels. On the battlefield, EVs' quieter engines and low heat signature make vehicles easier to conceal. Furthermore, EV technology can minimize the need for fuel transport, which is one of the most dangerous tasks for deployed forces in active combat. From 2003 and 2007, enemy combatants killed or injured nearly 3,000 American contractors as they were transporting oil to military bases in Iraq. Senior military leadership has recognized these tactical advantages and efficiencies. In a historic step for the US military's readiness, the US Army's new Climate Strategy has committed to building a fleet of field hybrid-drive tactical vehicles by 2035. 12

Machine learning and AI can help create more effective energy supply systems on military installations and climate risk modeling, which are critical as the severity of natural disasters increases.¹³ Technologies like advanced solar-powered drones, electric powertrains, fuel-cell technology, and more efficient microgrids present more options to build a climate change-ready force.

Climate Innovation Supports US Geopolitical Influence

Prioritizing climate technology within security policy is critical for securing US geopolitical influence in strategic competition with the People's Republic of China (PRC). Beijing frequently leverages work to address climate change impacts as a tool of soft power.

In particular, Pacific Island nations on the frontlines of climate change impacts have turned to China. Despite strong historical connections to Taiwan, the Solomon Islands renormalized its diplomatic relations with Beijing after PRC's commitments to providing climate change mitigation resources.

If the US is to maintain its influence and legitimacy in strategically vital regions like the South Pacific, support for climate change mitigation efforts through improved technology and infrastructure must be a priority.

Furthermore, competition is growing to acquire and process minerals for renewable energy technologies. ¹⁶ China is the top global producer of rare earth metals used in specialized magnets for weaponry and EVs. In the race to a decarbonized future, reliance on overseas supply chains, especially from peer competitors like China, puts the US and its armed forces at a strategic disadvantage. ¹⁷ Investing in cutting-edge climate technologies will increase US national security and secure US geopolitical influence as climate change threats grow.

Providing Instrumental Capital to the Domestic Economy

DoD investments can spur growth for the climate technology industry. The DoD has previously driven dual-use technologies' development and broad commercial adoption. ARPANET (the Internet's predecessor), digital cameras, and GPS received critical startup capital from the DoD.¹⁸ In 2007, the Pentagon also helped launch the US solar industry by constructing the largest solar plant in the US (at the time) at Nellis Air Force Base.¹⁹

Today, electrifying military vehicles could offer an essential foothold in the market for commercial EV companies. The US Army is already prototyping Electrification Light Reconnaissance Vehicles and has 200,000 tactical wheeled vehicles in service, valued at \$3 billion.²⁰ That's roughly half of 2018's total funding in the US for clean-tech and "green" startups (\$6.8 billion).²¹ General Motors sees an even larger potential market of \$25 billion for EVs and adjacent military technologies²². As green startup funding has fallen over the past decade, DoD investments could provide crucial capital for newer companies and nontraditional defense contractors to develop nascent technology for affordable, commercial use.23 As different services make strategic commitments to adapting EVs for frontline use, a vibrant US climate technology sector is vital to the DoD's mission of equipping warfighters with the most advanced technology and preparing for a changing climate.

Bridging the Private-Sector Gap

Closing the gap between private sector innovators, startups, and the DoD's purchasing power is the next step for increasing climate technology within the US military. Some notable initiatives within the DoD are bridging this divide. For example, the Defense Innovation Unit (DIU) is a crucial entity within the DoD that can drive critical investments in climate technology.24 The DIU has a unique mandate of "accelerating the adoption of commercial technology" and can award contracts to companies in under three months. In contrast, many traditional DoD contracts can take up to six times longer. 25 The DIU's procurement agility is a critical opportunity to accelerate the adoption of commercial climate technologies that can improve force resiliency against the national security threats presented by climate change.26

However, the DIU is not alone in building connectivity between the DoD and the private sector. Innovation efforts across the different services such as AFWERX, NavalX, the Army Futures Commands, and the National Security Innovation Network also focus on identifying technologies that support the modernization and adaptability of each service.²⁷ Given there is no "one-size-fits-all" solution for integrating and adopting climate technology across the DoD, these innovation efforts are integral to addressing the broad goals of the Climate Adaptation Plan.

What's Next? A Budget for Climate Tech

The successful adoption of climate technology requires institutional changes across the Defense Department. The DoD's Climate Adaption Plan is the first step toward institutional recognition and accountability. However, entities like the DIU and other innovation centers must have new climate technology mandates to collaborate and leverage the massive spending power of the DoD. Leadership from the re-established Defense Innovation Board, the Office of the Undersecretary of Defense (OUSD) for Acquisition and Sustainment, and OUSD for Policy are critical to institutionalizing funding and mandates for climate technology.

The next iteration of the Climate Adaption Plan should call for increased funding dedicated to climate technology investments in the upcoming defense budget. President Biden's FY 2022 Defense Budget only allocated \$617 million for "preparing for, adapting to and mitigating climate change."28 Although there was a substantial budget investment for "innovation and modernization," there was no allocation for climate-adapting technology. "Renewable Energy Generation and Storage" technologies are even on White House's 2022 Critical and Emerging Technologies list and need to be prioritized in the DoD budget going forward.²⁹ Without a specific line item in the FY23 budget, the DoD will be left behind by the commercial sector and other nations (both allies and adversaries) in climate technology innovation and adoption.

As Secretary of Defense Lloyd Austin said in an

April 2021 statement, "No nation can find lasting security without addressing the climate crisis." DoD investments in climate technology will not only improve military resiliency and readiness in the face of new climate threats but support US geopolitical leadership and grow the domestic climate technology economy.

Climate change is a rapidly evolving, existential threat. The US cannot afford to wait for our military's technology to catch up. When the next storm comes, America's forces must be ready. Through the power of innovation, they can be.

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What To Do When The World Burns?

By Sara Amish

One fundamental tenet of the American dream is land ownership. 1 The land enclosed in the proverbial white picket fence was supposed to ensure stability and wealth for one's future generations. Yet, as climate change begins to create frequent extreme weather conditions, it threatens the land and insurance of future wealth that lie at the core of American society. And while the United States is considering potential alternatives to land ownership,2 the fact remains that many have invested their life savings into their land and the promised dream, putting them at greater risk to suffer the consequences of the climate disaster. One of many increasing threats is the risk of wildfire. Increasing temperatures and drought from climate change are ramping up the intensity and risk of wildfires; they dry out the forest, making each spark a potential flame.3 Incorrect historical fire management, increased wildfire risk due to climate change, and increased house building in forested regions have created communities at severe risk of wildfire.

As remote working becomes a mainstream option, thousands are flocking to wooded suburbs, known as the Wildland Urban Interface (WUI).4 The WUI is defined as the overlap between the forest edge and human habitation,5 and represents one-third of all housing in the US.6 Researchers have found that new houses in these wooded areas are facing increased wildfire risk. While this is partially due to building location, the major factor driving this increased risk is climate change impacts.7 These vulnerable homes are interspersed between forested segments, creating wooded corridors for wildfire to spread into neighborhoods. The dispersed nature of this housing also makes fighting these fires costlier and more difficult. One example is the December 2021 Marshall Fire that ripped through the suburbs of Boulder, Colorado. With over 1,000 homes destroyed, this fire is the most destructive in Colorado's history, and it serves as a grim omen.⁸

In addition to climate change, there are also historical factors that dictate the severity and frequency of wildfires. The WUI is made up of wooded suburbs that were built when the Forest Service was suppressing all wildfire. This policy of total fire suppression allowed an increasing concentration of small trees and shrubs to thrive, creating a ladder for fires to climb into the crowns of mature trees creating a more intense wildfire.9 Current fire policy, by contrast, reflects a more balanced approach to approximating the natural fire cycle by allowing forest fires to burn freely in the wilderness. Wildfire is the natural reset for the ecological time cycle of burn and regrowth. However, with the growing presence of homes in the WUI, it is becoming increasingly difficult to allow for natural burning, thus maintaining preexisting unhealthy forest conditions.

As a result of this growing wildfire risk, communities are now facing increasing threat. Soon they will have to decide. These communities must decide between adaptation or migration. Rebuild or move? Will this happen again? Is it worth it to stay?

The first option is to shelter in place and learn to adapt. This means facing and understanding the increased risk of wildfire across the board as well as increasingly unpredictable weather, like the combination of strong winds and a dry winter that fueled the Marshall fire. To do this, communities would need to change both the location and materials of the homes they build.¹⁰

Changing where homes are built has several difficulties. First, determining new housing locations typically lies within the purview of the local town zoning board with very little regional planning support. Towns can create a Community Wildfire Protection

Plan (CWPP) to access federal funds for hazard mitigation, but these plans do not provide support for siting new housing, nor have they been shown to increase recovery. 11 On the state level, states have struggled to implement building codes to ensure that homes built (and rebuilt) in the WUI are wildfire resistant. 12 Either way, this approach requires significant effort on behalf of municipal and state governments to plan and implement strategies. Additionally, sheltering in place will not solve the problems related to routine strategies of evacuation during fire season and the health implications of wildfire smoke.

The second option is to move communities, a strategy under consideration by coastal cities and towns as they face rising seas. Known as managed retreat, this strategy requires a massive amount of collective effort, including significant government involvement and funding to support the process. Even with funding, communities have struggled to determine where and how to leave. Previous community retreats have cost 150% to 200% more than estimated and struggled to recreate the community. This option, while feasible, would likely only work well for tight knit communities that work together well and have a strong collective identity. The factors are less likely in the sprawled WUI suburbs.

However, there is a version of managed retreat that has potential. As in the case of the Marshall fire, sprawled suburbs provide an ideal environment for a self-sustaining wildland conflagration as sparks jumped from home to home. Therefore, instead of moving entirely, residential areas could contract around the more urban areas and densify. Traditionally, it was the prairie and ranchland of plains surrounding Denver that provided a buffer against wildfires; this option would create recreate that space through land conservation and management. However, this option would likely require expensive home buyouts as well as aggressive local zoning restrictions.

As fires rage though the summer and communities evacuate year after year, clearly the dream of owning a white picket-fenced house only works in a world of climate control. However, such a world no longer exists. This means that a decision point is approaching for these communities. Both adaptation and migration have their strengths and weaknesses as mitigation strategies, and what works for one community may not work for another, as each faces different risks based on the specific ecology of their location. For states, this could mean providing support and incentives for communities to plan for and mitigate wildfire risk. For communities, it's about facing this threat to their longevity and deciding to resist or relocate. In sum, this means facing wildfire risk as a present danger and incorporating that risk into all future housing decisions.

Sara Amish grew up in the Bitterroot Valley, on the border of the Selway-Bitterroot Wilderness. Shaped by access to wilderness from a young age, she has worked to protect the landscapes that are home to her adventures. She has studied conservation biology, guided in national parks, and worked in private land conservation. Most recently, she has finished her Masters in Public Policy from the Harvard Kennedy School of Government, and is currently a policy associate at the Western Governor's Association.

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It's Time To Recognize Big Tech's Role As A Foreign Policy Player

By Martin Luginbühl

Large technology actors have a lot in common with mercantile empires who governed the world in the 18th century—except how we perceive them.

In October 2021, former Facebook Product Manager-turned-whistleblower Frances Haugen made headlines when she provided shocking new evidence around the dangers of the platform's algorithms to the Senate Committee on Commerce, Science, and Transportation. This unfiltered hearing came as a milestone in the tech governance debate. The documents leaked by Haugen pointed to issues related to democracy, misinformation, and counter-espionage, and the organization's inadequate response to such concerns.

This was another sign that the role of Big Tech goes beyond commerce. To be sure, it increasingly has to do with foreign policy. Its scale, aptness to acquire complementary entities or neutralize competition like traditional and local media, and its responsibility vis-à-vis human rights provides Big Tech with more influence on the international stage than many sovereign nations. In various ways, it is similar to vast mercantile empires that went from trading goods to ruling the world, such as the Dutch East India Company—Vereenigde Oost Indische Compagnie (VOC) in Dutch—which rose to prominence between 1602 and 1800. It should thus be seen and dealt with as such.

The five most valuable US tech companies — Apple, Microsoft, Amazon, Alphabet, and Facebook (now Meta) — were worth over \$8 trillion in late 2021. For reference, this is more than a third of the GDP of the US in 2021.² These organizations can now reach billions of users across continents, and their growth is accelerating.³ Similarly, at its peak, VOC was worth 78 million Dutch guilders, which translates to \$7.9

trillion in modern dollars. Its coverage included the Middle East, India, China, and Japan. It had 70,000 employees—an incredible number four centuries ago. It is still believed to be the largest company to ever have existed.

Major digital media platforms have been aggressively acquiring competitors or entities that would complement their offering, often for astronomical amounts.⁶ Apple bought Beats, Microsoft bought Linkedin, Amazon acquired Whole Foods, Alphabet bought YouTube, Meta acquired Whatsapp, and the list goes on. An interesting parallel can be drawn with VOC, which would take over vast surrounding territory to safeguard its interests. Ports, for instance, seemed like a relevant extension to channel its products, and many were acquired for that purpose.⁷

Social media is becoming the preferred alternative to traditional media, and local media has suffered the most. In the US, more than one in five papers closed between 2004 and 2019. This is worrying because social networks often lack local knowledgeable employees, like translators or moderators, who are critical to help communities face mis- and disinformation in crises contexts. The tensions between Muslims and Buddhists in Sri Lanka leading to terrifying outcomes illustrate this point. Social media has acted as a catalyst in building anger between ethnicities, its algorithm boosting posts that tap into negativity and tribalism. Early signs of violence were flagged to the platform's reporting tool but barely addressed.

There are countless such examples: New Zealand's Christchurch terrorist attack, the oppression of the Rohingya Muslim minority, or the brutal killing of a French teacher in 2020. 11,12,13 Passivity on some of the digital platforms' side has also impacted democratic processes—for instance, enabling foreign

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interferences in the 2016 US elections or the Capitol insurrection. ^{14,15} In its era, VOC engaged in brutal conquests that involved mass killings, exploitation, slave trade, and environmental destruction. Although less directly, Big Tech has been an enabling factor in large-scale human rights violations too.

Some would claim that the platforms and the content posted on them are unrelated, using freedom of speech as an argument against more accountability. Meta CEO Mark Zuckerberg himself likely never imagined having to deal with such issues when he created Facebook. But the fact of the matter is that these corporations have garnered an unpreceded level of agency. They must accept the responsibilities linked to that powerful position. Some of them, such as Twitter, have started making meaningful steps toward that. ¹⁶ Much more can be done though.

Over time, VOC transformed itself from a corporate entity—trading textile, spices, and other goods—into a *CorporNation*, a term coined by *Huffington Post's* Adam Hanft to describe an entity with a vast global influence enabling it to function simultaneously in two realms: a for-profit company and a force that can shape the geopolitical landscape. ¹⁷ Big Tech seems to be following in its footsteps.

Several factors, including external trade market dynamics, diseases among colonies, costly wars, and internal governance weaknesses and corruption, led VOC to decline.¹⁸ It was eventually nationalized in 1976 by the newly established Batavian Republic. As highlighted by Frances Haugen's testimony last year, Meta suffers from internal governance weaknesses too, but is far from collapsing. Same for its peers.

Besides VOC, history provides another interesting and more recent example through The Standard Oil Company of New Jersey, owned by the Rockefeller family, the largest oil refiner at its height. Finding it guilty of monopolizing the petroleum industry through a series of abusive and anticompetitive actions, the US Supreme Court ruled to divide it into several geographically separate and eventually competing firms. ¹⁹ Efforts have been made by the US Federal Trade Commission to apply a similar approach to

Big Tech but so far unsuccessfully.²⁰ Interestingly, Mark Zuckerberg announced the restructuring and rebranding of the various Facebook entities under the umbrella of Meta in October 2021. This points to his ambition to further explore the metaverse, as well as potentially thinking that some self-imposed measures will calm down the pro-antitrust voices and some novelty will distract the attention from Hauser's testimony.^{21,22}

Other initiatives aiming at regulating Big Tech are worth mentioning. The EU Commission has shown vision with GDPR and has been increasing the pressure on the industry in the past years.^{23,24} In the US, some advocate for eliminating Section 230 protections for social media platforms that use algorithms, implying the latter should be treated as the publisher or speaker of any information they curate.^{25,26} However, so far, large technology actors have managed to keep some leeway.²⁷

While there is no one single final solution, it is crucial that governments, civil society, their users, and the broader public see Big Tech for what it is beyond a commercial entity: foreign policy players. With this in mind, such companies should be held accountable to similar standards as nations—if not more demanding ones. It is, for instance, not acceptable that Meta currently does not consider itself bound by international human rights law. For such changes to materialize, governments will need to step up.

In a bilateral context, they should ensure they have the right structures in place to monitor and work with the technology actors domestically, such as the eSafety Commission in New Zealand. 28 They could appoint ambassadors to the technology industry, as Denmark first did in 2018, in order to deepen the relationship with their leadership abroad. 29 In a multilateral context, the United Nations could elevate the issue to senior bodies—including the UN General Assembly, as it might face a veto at the UN Security Council—and mandate the ITU to develop adequate measures involving all relevant parties and having human rights at the core. 30 Only such pressure, linked to penalties for non-compliance,

will make Big Tech embrace its new role. Frances Haugen might agree.

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The Role of Social Media in Spreading Information and Influencing Elections

By Nagela Nukuna and Brooke Bernstein

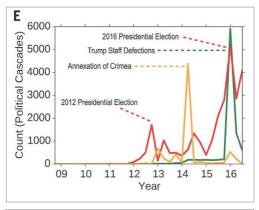
Social media platforms play an integral role in spreading information, shaping political discourse, and influencing elections. Given this role, governments and the public should place a burden of responsibility on these companies to act as responsible stewards of the propagation of information on their platforms.

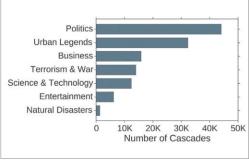
Executive Summary

Propagating misinformation and disinformation—the acts of spreading false information, the latter with the intent to deceive—have existed long before digital platforms were developed. Sensationalism has pervaded traditional media since the 19th and 20th centuries. Nazi propaganda stirred anti-Semitic sentiments in written, oral, and visual forms. Today, misleading content has become ubiquitous on social media platforms, as measured through user interaction with false content. This can be attributed to an increase in networked groups, community engagement, and speed of content delivery on these platforms.

The scale and speed at which information travels today is a double-edged sword. The magnitude of disinformation spread can have damaging effects on our democracy, including increased polarization and decreased trust in media sources. 3,4 Research conducted by Soroush Vosoughi, Deb Roy, and Sinan Aral found that from 2006 to 2017, the number of false rumors spread peaked at its highest during the 2016 United States presidential election—a time when there was a significant development in how citizens, candidates and their campaigns, and governments utilized the power of social media platforms to disseminate information. 5 Vosoughi, Roy, and Aral used Twitter as a proxy to understand how much false information reaches individuals and how quickly

false information diffuses, in comparison to the truth. The most frequent topical areas of misinformation and disinformation spread online between 2006 and 2017 took the form of political rhetoric, with about 45,000 false statements shared.⁶





During Russian interference in the 2016 United States presidential election, the use of social media platforms to threaten democracy was regarded primarily as a foreign threat. Today, however, it has become a heightened issue domestically. The United States has expanded its focus inward as opposed to exclusively looking at aggressive foreign actors to evaluate threats to democracy, as seen in the call for an investigation into the role social media platforms had in the 6 January 2021 attack on the United States Capitol

Complex in proposed legislation. The increase in citizens' engagement with disinformation campaigns and declining public trust in government, fueled by an increased reliance on social media platforms for sustaining human connection during the COVID-19 global pandemic, has increased political and cultural polarization in the United States.

As the world explores this increasingly prevalent digital frontier wherein disinformation on social media platforms is becoming more pervasive, it is imperative for citizens, candidates and their campaigns, and lawmakers to become media literate, use digital platforms responsibly, and take into consideration technology policies that balance competition in the global marketplace, moderation of harmful content, and protect free speech. To do this, users must also understand how algorithms influence the content they see and read online. In this article, we aim to examine two key questions:

- 1) How do social media algorithms spread information, shape political discourse, and influence elections? To understand this, we examine the algorithms of Twitter, the Facebook platform, and YouTube. 10
- 2) As it relates to influencing company operations, what does regulatory policy in the social media space look like both now and in the future?

The Evolution of Algorithms

Algorithms used by social media companies have evolved since the conception of their platforms and the increase in the number of their users. Organic reach peaked in the late 2000s; platforms would display content in reverse chronological order—putting the newest content first. But the influx of users in the last two decades has made it virtually impossible to see all of the content. The top five social networks today have over 1.73 billion monthly active users or views. This influx initiated a shift in how social media companies ensured that users could engage with quality content that enriched their online experience.

The evolution of these algorithms shape what information users consume on their feed, what information is highlighted, and at any one time, can shape the rhetoric of at least 22 percent to 37 percent of the global population currently engaged on the platforms (non-inclusive of the non-digital communities they engage in)^{11,12} Organic reach—the number of people a specific post can reach without paid distribution—has continued to decline on social media platforms like Facebook with changes to their algorithms.¹³ A study from October 2013 to February 2014 found that Facebook had the largest decline in organic reach—of about 25 percent—in December 2013, when the company announced changes in the algorithms that determined which content displayed in the News Feeds of users.¹⁴

Social networking companies have an obligation to their user base and a fiduciary responsibility to their shareholders. Given their significant (and increasing) impact, we assert that they now have another mission: to act as responsible stewards of the propagation of information on their platforms.

Whether through public pressure or threats of government oversight and/or regulation, social media companies should feel a responsibility to moderate harmful conspiracy theories and disinformation content on their platforms.¹⁵ In the past couple of years, this burden of responsibility on social media companies has been particularly evident in the evolution of the algorithms that companies utilize on their sites in response to problems that emerge and are amplified on their platforms. Following the 2016 election, Meta tweaked its Facebook platform's algorithm after it received increased scrutiny on its role in the dissemination of "political misinformation and hate speech." Mark Zuckerberg noted that the Newsfeed changes served to "encourage meaningful interactions between people" and to "see more from your friends, family, and groups."

The Facebook, YouTube, and Twitter Algorithms & How They Spread Information

Facebook

For many years, Facebook's news feed algorithm utilized EdgeRank, a machine learning ranking

system with multiple algorithms performing different functions that ultimately came together as one. 16,17 Meta described three key components of EdgeRank at its 2010 F8 conference: (1) Affinity Score, how connected a viewer of a post is to the content creator themselves; (2) Edge Weight, where different engagements (likes, shares, comments) are weighted differently; and (3) Time Decay, where the longer a post is up, the lower it ranks on the feed. However, as of August 2011, Facebook no longer utilized EdgeRank and instead switched to an algorithm assessing approximately 100,000 factors when ranking content. As the data inputs on the platform continue to increase, the algorithm correspondingly assesses more factors. Nonetheless, the latest algorithm still mirrors EdgeRank, utilizing many of the same ranking mechanisms. For example, the latest algorithm still utilizes the Edge Weight component to understand user engagement with content, considers the Affinity Score to put value on more genuine engagement with users, and factors time into what is visible on the news feed.

A Deep Dive into What Facebook EdgeRank Encompasses:

(1) The first algorithm begins by analyzing information on a specific user's feed to understand interests and predict what an individual may want to see in the future. This is why an avid jogger may be recommended marathon videos or someone who enjoys vegan recipes may be recommended pages that share plant-based meat foods.

(2) In tandem, another algorithm ranks the content by analyzing posts' comments from individuals or pages, engagement through likes or shares, individual re-shares through Facebook Messenger, tags on pages, etc. Videos that are unlikely to be engaging for the user—posts that the user has scrolled past, indicated as "not interested," or reported as "clickbait, misinformation, spam, etc."—are demoted in the ranking system.

(3) Lastly, Facebook presents this curated content, aligned with a user's interests or previous behavior to

their News Feed in as many forms as possible: videos, suggested pages, etc. More information around the likes and dislikes of a user are constantly collected through multiple features, such as "Why am I seeing this ad?" prompts aimed to personalize advertising for a user, surveys in the News Feed of a user, and a "Manage Activity" page where users can remove or choose to keep specific personal activity shared with the platform. 18,19,20 Facebook recently has also taken concerted efforts to address what they refer to as "sensational claims," specifically to combat health misinformation during the COVID-19 pandemic. 21

Twitter

Twitter uses deep learning, a process that learns the relationship between multiple variables and the knowledge that governs and makes sense of that relationship. 22,23 Twitter uses this process to rank content based on: (1) how recently a tweet was published; (2) how much engagement the tweet has based on retweets, hearts, comments, and impressions; (3) personal user activity (proxies include the length of user time spent on the site, number of followers, etc.); and (4) the amount of rich media (e.g., images, videos, emojis, GIFs) used in a tweet.²⁴ Like Facebook, Twitter also collects behavioral data from users, as demonstrated in its "In Case You Missed It" feature, which presents older Tweets similar to those that the individual has engaged with before. At the bottom of the feed, Twitter presents the reverse-chronological order tweets from accounts a user follows.

YouTube

Before 2012, YouTube attributed video success to the number of views or the number of "clicks" a video received. But, later that year, it began to take into account the duration of views a video received to combat clickbait, or false content designed to attract a user to "click" on a video and watch it, on its platform.²⁵ As YouTube often markets, the job of the creator is to "make videos they [users] are most likely to watch and enjoy," indicating the large extent to which longer-viewed videos are emphasized in

video-ranking algorithms.26

As YouTube's algorithm has continued to change, its model has begun to more closely resemble models employed by an amalgamation of other social media platforms. The algorithm also utilizes machine learning and artificial intelligence to learn user behavior on past likes and dislikes to inform future recommendations. The most recent algorithm change(s) focus on content performance, or engagement; user viewing duration; video viewing rate of growth, popularity, and user preferences, or what a user watched and liked previously; how many impressions a video has had for that individual; video dislikes, etc.

In this way, YouTube, Twitter, and Facebook all exemplify a posit from Jonah Berger, a social influencing expert: "Social media isn't a utility. It's not like power or water where all people care about is whether it works [. . .] It adjusts based on your preferences and behaviors." Based on current algorithmic models on social media platforms, it is incumbent on the user to change their behavior to change what they see.

A Deep-Dive into What YouTube's Algorithm Encompasses:

YouTube's algorithm model is based on an internally developed 2016 research paper, which provides a breakdown of the metrics used to rank videos and recommend them to a user:

- 1) user's click-through rate (whether or not a user clicks on a video after it's recommended);
- 2) the duration a user watches a video for;
- number of active views of the specific content (alluding to current audience retention and how consistently users watch a creator's videos);
 - 4) previous user searches;
 - 5) previous user views; and
- 6) information regarding user demographics, regional location, etc.²⁷

These rankings shape recommendations for each viewer via search results and recommendation streams on a user home page, constituting more than 70 percent of viewer-watching time, as reported by Neal Mohan, YouTube's Chief Product Officer.²⁸

How Algorithms Shape Political Discourse and Influence Elections

A study in 2015 estimated the ideological preferences of 3.8 million Twitter users and explored a dataset of 150 million tweets concerning 12 political and nonpolitical issues. It found that information about political issues was primarily exchanged among individuals with similar ideological preferences.²⁹ Another study in 2016 performed a quantitative analysis of Facebook using a sample size of 67 public pages and found that information related to distinct narratives, like conspiracy theories, generated homogeneous and polarized communities, known as echo chambers.³⁰

This aggregation of content among similar individuals leads to different narratives being presented to different groups and communities. This natural avoidance of differing content, subtly aided by social media platform algorithms, leads to information gerrymandering—when information no longer flows freely between subgroups—and collective decision-making, such as following or voting for a particular candidate.³¹

When a zealot, an automated bot, or a candidate with views traditionally outside the mainstream (known formally as the Overton Window) joins a social media platform, information gerrymandering is exacerbated, and individuals on either political side lean heavily toward a particular viewpoint.³² This then precipitates similar actions from the opposing side. Similar to the two-player prisoner's dilemma in game theory, where each network is incentivized to "increase their own influence assortment" (i.e., indicating a bias toward isolation or internal group coordination, rather than overall cooperation), this ultimately creates a deadlock in expressing views.33 Consequently, the resulting online environment disincentivizes political or cultural defection and endangers the cooperative action and mutual dependence that undergirds a democratic society.34

Existing and Future United States Policies Governing Social Media Platforms

In comparison to other governments around the world, like the EU, which has developed a 10-item action plan to regulate disinformation spread through social media, the United States has governed platforms with the "twenty-six words that created the internet," known formally as Section 230 of the Communications Decency Act, for over 25 years. Section 230 states that "No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider."

The issue of content liability emerged in two court cases in the 1990s. In one case, *Cubby*, *Inc. v. CompuServe Inc*, a federal court ruled that the defendant was not liable for its users' content because it hosted but did not moderate users' content. In another case, *Stratton Oakmont*, *Inc. v. Prodigy Services Co.*, a state court ruled that the defendant could be held liable because it moderated some users' content. Section 230 was authored by lawmakers who wanted to encourage internet companies to moderate content without fear of being held liable for third-party content.

This United States law protects social media companies from assuming liability for the content of their users' posts and gives companies the ability to moderate content in good faith. Although companies enjoy broad protections under Section 230, there are some limits. A company can still be held liable for the content that it publishes if it relates to federal crimes, intellectual property claims, or violations of sex trafficking laws.

There is an active debate between social media giants like Meta and Google, and public-sector leaders on whether Section 230 is necessary for the United States to maintain a competitive lead in the global marketplace, leading to enough moderation of harmful content, and infringing on free speech. Efforts to repeal Section 230 by the previous Trump administration failed, although the Biden administration continues to call for its repeal.³⁷

Looking forward to the future of domestic policy, the current and future administrations can take various actions to regulate social media platforms' role in spreading information. During his 2020 presidential campaign, Biden proposed a new national task force around online abuse, which might also yield results for disinformation.³⁸ Additionally, a couple of dozen pieces of legislation seeking to reform Section 230 have been introduced during the 117th session of Congress, like the Safeguarding Against Fraud, Exploitation, Threats, Extremism, and Consumer Harms (SAFE TECH) Act.

As technology continues to advance and lawmakers call for legislative actions targeting disinformation amidst events like the ones that occurred on 6 January 2021 in the United States Capitol and, more recently, the Trucker protests in Canada, the global landscape of the governance of social media platforms—how and to what extent they may be regulated—will likely look much different in the coming years. Governments and the public should continue to place a burden of responsibility on social media companies to fulfill their mission of being responsible stewards of the propagation of information on their platforms.

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Facebook's Oversight Board Needs a Public Advocate

By Kevin Frazier

Facebook and Instagram users seeking to resolve a dispute with Meta content moderators should not get their hopes up. The Oversight Board, which adjudicates appeals from users regarding decisions made about content on Facebook and Instagram, recently selected only one content case (https://about. fb.com/wp-content/uploads/2021/11/Meta-Q2-and-Q3-2021-Quarterly-Update-on-the-Oversight-Board. pdf) in six months. In that same time period, the Board accepted one such policy advisory opinion request, which provide non-binding policy guidance when Meta asks for assistance on tricky issues. So those users and non-users hoping for robust policy changes through the Board should also look elsewhere for ways to influence Meta's policies. The stats don't lie. The Board offers little recourse to users and little promise to society in general. Meta should re-evaluate its content moderation system to create more accessible ways for users to affect policy changes. As a first step, Meta ought to establish an Office of the Public Advocate.

Prior to diving into what a Public Advocate could do to improve the Oversight Board, it's worth applauding the efforts of Meta. Despite being a private company, Meta has recognized impact on the society at large by creating institutions and processes typically associated with public entities. The efficacy of these institutions, though, will always be constrained by Meta's private status. There are some things that Meta simply cannot do because of its various legal obligations, such as prioritizing the interests of its shareholders. Still, Meta has shown a willingness to alter its institutions when they fall short of their aspirations. This iterative process should continue. The Board's means for hearing cases prioritizes resolving individual grievances rather than analyzing content

moderation policy with respect to a community of users that may share a common concern. The Office of the Public Advocate - or whatever title would sound most Meta-could bring cases on behalf of a few, a dozen, or a billion users. These cases would empower the Board to issue decisions on broader content moderation questions, such as when nudity should be permissible or what types of posts from political advertisers can run on Facebook and Instagram. By aggregating the interests and preferences of users passionate about and affected by these issues, the Office of the Public Advocate can submit information to the Board and serve as a compelling advocate on behalf of these users, none of whom are likely to see their individual gripe come before the Board in its current iteration. This Office would also supplant and potentially replace-Meta's internal efforts to have the Board resolve broadly applicable cases, such as cases related to public health messages from government officials.

Meta has worked hard to build out a team of experts on the company's internal policies and external regulations to assist with the Board's adjudicatory and policy work. Still, those efforts don't change the fact that the system currently operates on a case-by-case basis, with no means for groups of individuals to contest Meta policies. Those efforts also rely too much on Meta workers guessing the aims of users and the preferences of society at large.

A Board-appointed Public Advocate (or Advocates) would serve as a more accessible and independent means for multiple users to coordinate a case. The Office of the Public Advocate could create simplified processes for users to submit their comments on cases brought by other users and proactively reach out to user groups likely to be interested in joining

another group's case. In this way, users would feel as though the Board could serve as a mechanism for policy change, rather than just an arbiter of what politicians can say and do, or other one-off cases related to only the most influential users. Meta's efforts to brief the Board prior to its rulings should continue, but users deserve an independent advocate who is explicitly focused on bringing the best version of their case forward.

For the Office to have real impact, the Board must receive greater power to change Meta policy. Like a car with no gas, the Board can currently steer Meta in the right direction but lacks the authoritative fuel to move the company that way. With the creation of the Office of the Public Advocate should come greater authority for the Board to set Meta policy.

Some may argue that the federal government, rather than some quasi-public office, should step up and resolve content moderation issues through reforms to Section 230 of the Communications Decency Act. The highly contested law protects providers from liability for their decisions to moderate content or to transmit that content without moderation. Reforms to the Section, though, may come with significant unintended consequences—such as reinforcing the might of Big Tech at the expense of startups—and will inevitably bring legal challenges because the First Amendment places major restraints on any government-enforced limits on speech.

The Office of the Public Advocate is the proper middle path between too much self-policing by Meta and heavy-handed intervention by the government. The current Board has too little authority. Big changes by the government may not appear for decades. An Office of the Public Advocate can bring new, user-backed cases as circumstances and context change. That will result in a better Facebook and Instagram for all users.

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Public by Design: The Need for Human-Centered Services

By Alina Clough

Public trust in governmental institutions has remained at or near historic lows for over a decade, not surpassing 30 percent in National Election Study polling since 2007. Most Americans see this low trust in the federal government as trending downward and believe it is negatively impacting problem solving. While a number of political, social, and economic trends affect perceptions of trustworthiness, over a third of respondents see poor performance as the cause of declining trust in government.²

The public sector frequently borrows ideas from the private sector, allowing the commercial sector to innovate and test program and service strategies before they are applied to public service delivery. For-profit entities possess the greater risk tolerance, capital, and bureaucratic agility necessary to experiment and fail. In this way, research and development in the private sector develop the proofs of concept that evolve into best practices applicable to public institutions. Formally or informally, the government relies on the private sector as a sandbox for innovation it cannot afford to test with taxpayer dollars and bureaucratic restrictions.

Public institutions have long treated public trust as a random walk. Many have resigned themselves to accepting the result of a seemingly inaccessible equation of media, politics, and legislative success, rather than proactively improving the way they are perceived by the public. Meanwhile, the world's largest for-profit brands have had the profit incentive necessary to successfully formalize effective services that build trust from their customers. Customer experience (CX) is a field incorporating the "holistic perception of a brand, including all their interactions with your products and services as the output of human centered design." Since for-profit entities have honed CX to win customers from their competitors, it is tempting

to view customer service as irrelevant to the captive audiences of public service arenas that serve captive audiences. Short of emigration, citizens lack options to compare. Similarly, the federal budget is not structured to incentivize cost cutting, and tax revenue does not increase with public service improvement.

The need for human-centered services has thus gone overlooked. Yet while the public sector's bottom line is not denominated in dollars, declining public trust has highlighted that service delivery outcomes are denominated in public confidence and mission effectiveness. In addition to the public sentiment that poor government performance is helping drive the negative trends in institutional trust, poor performance is directly exacerbated by constituents' negative experiences with their public services. According to research by McKinsey, dissatisfied constituents are nine times less likely to trust an agency or agree that it is meeting its stated mission objectives. Relatedly, public agencies' employee morale and operational capacity are decreased by dissatisfaction, ultimately placing greater strain on their ability to provide public services.⁴

Many US agencies—specifically those with digital focuses, like 18F and USDS—have successfully embraced and utilized design methodologies. These efforts have primarily been undertaken on a project-by-project basis, serving as proof points for a federal model of design success but also leaving room for government-wide action. Legislation is increasingly reflecting the need for better public service experiences but not what is required to achieve them. The Biden administration's latest Presidential Management Agenda, as well as bipartisan CX legislation, focuses heavily on tracking and reporting public satisfaction outcomes. Federal agencies have struggled to comply with the Integrated Digital Experience (IDEA)

Act since it passed in 2018, which consists of a list of reporting requirements, reiterates accessibility compliance guidelines, and features requirements like digital forms and signatures.⁵ None of these guidelines are harmful to the customer experience, but they dictate success criteria without change management for agency processes. While this emphasis is directionally correct, by legislating outcomes without incorporating design thinking into the policymaking process, we are setting our agencies up for failure.

Incorporating sophisticated design methodologies need not mean reinventing the wheel. Service design—or the discipline for applying design thinking to a combination of people, products, and technologies—has been effectively embraced by the private sector in ways from which the public sector can benefit even more greatly. The success of programs like 18F, USDS, and many agencies' offices provide a methodological framework on which to build legislative action:⁶

1. User Research: Supporting the capacity for agencies to conduct constituent research and stakeholder discovery to proactively seek input from the end users of a service.

Ex) Conducting interviews with Social Security recipients to understand their access to online banking, checks, or mobile devices.

Prototyping: Encouraging prototyping of services' digital and non-digital components on a small scale prior to rollout.

Ex) Conducting a walk-through of a proposed information chain in which participants mimic how their offices would send, receive, and process Trusted Traveler applications to better understand contingencies.

User Testing: Requiring demonstrated comprehension of forms, language, and other content constituents might be required to navigate on their own.

Ex) Usability testing a DMV form to understand what percentage of drivers are able to successfully complete it on the first try without relying on a help desk or explanations from department workers.

Your morning latte came from more sophisticated

design than most of your public services. The private sector prototypes, tests, and intentionally designs the interactions between mobile apps, cashiers, drive-thru windows, and pumpkin spiced lattes, while most of the touchpoints through which constituents experience their public services are rolled out because they are logistically convenient-not effective. There exists a significant opportunity to reverse negative trends in public trust by implementing some of the best practices of the private sector and successful initiatives already operating within the government. The implementation of these best practices through government-wide legislation, and not just reporting requirements, is long overdue has the capacity to increase trust, satisfaction, and operational capacity of our public institutions in a time when it is needed most.

Alina Clough is a public service technologist focusing on user centered design. She has previously worked as a UX designer and developer in nonprofit, elections, and healthcare spaces, and currently serves as a senior UX Consultant at REI Systems serving SBA and NASA SBIR programs.

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Truth, Lies, and Consequences:Unpacking the US Government's Role in Addressing Mis/Disinformation

By Michaela Lee

Mis/disinformation came to the forefront of American discourse in 2016 around the presidential election and again in 2020 with COVID-19 and the election. In both contexts, the threats mis/disinformation posed to our democratic and health care systems were felt by many across the country, but especially by vulnerable and marginalized populations. In situations where mis/disinformation poses a direct threat to the security of the United States and our communities, the US government plays a role in countering the threat and mitigating its harms. However, the traditional approach to countering information operations is rooted in a Cold War mindset with a single adversary and known tactics.

There are three reasons why this emerging threat requires a new strategic approach. First, there is an expanding set of narratives and actors in the information environment-social media makes mis/disinformation easy and cheap to spread but difficult to detect and counter, making these tactics increasingly attractive.1 Second, the use of technology platforms enables mis/ disinformation to spread rapidly and evolve dynamically. This level of scale fundamentally changes the threat landscape and undermines attempts to understand the breadth and depth of mis/disinformation's impacts.2 A general lack of transparency into social media platforms also makes it difficult to understand the differentiated impacts of mis/disinformation across various communities and populations. Third, we are unprepared for the convergence of mis/disinformation with emerging technologies like encrypted messaging platforms and augmented reality/virtual reality (AR/ VR).3,4 Artificial intelligence (AI) will also continue to improve the scale, precision, and persistence of mis/ disinformation.⁵ These three factors—an expanding set of narratives and actors, the changing speed and opacity of the threat landscape, and the convergence with emerging technologies—illustrate how the traditional approach to countering information operations is not sufficient to handle the evolving threat of mis/disinformation.

Despite the clear and present disruption of mis/ disinformation to US elections and public health, the US government has not yet developed a strategic approach to countering mis/disinformation. Various government entities across the country's 100+ agencies and departments have sought to tackle pieces of the issue, but inflexible government structures and jurisdictional boundaries fracture mis/disinformation policymaking processes, limit opportunities for government action, and impede the creation and rollout of interventions. Furthermore, inconsistent communication and coordination undermine the government's ability to proactively anticipate and build resilience to future threats. There is a demonstrated need for clear authorities and coordinated action across all levels of government to combat the threat of mis/disinformation.

Three different actions are appropriate in order to strengthen the United States' capabilities to address mis/disinformation threats. The Biden administration should issue an Executive Order directing the following:

1. Establish a senior official position within the White House to serve as a central voice empowered to harmonize the executive branch's policies, budgets, and responsibilities on the topic of mis/disinformation. This position would serve as a principal advisor to the president on mis/disinformation and act as a single

point of engagement with industry and international stakeholders.

Establish a Mis/Disinformation Center of Excellence within the Cybersecurity and Infrastructure Security Agency (CISA) to serve as a single federal center to coordinate counter-disinformation and resilience efforts.6 While other initiatives exist, such as the State Department's Global Engagement Center and ODNI's proposed Foreign Malign Influence Response Center, there is still a need for a single federal center with the expertise, mission, authorities, and budget to coordinate the government's response to mis/disinformation.^{7,8} Furthermore, this Center should be well positioned to analyze and understand the differentiated impacts mis/disinformation has on vulnerable and marginalized populations. This work will require collaboration with civil society and private sector partners, as well as investment in public research, as part of a whole-of-society approach.

3. Launch an international task force with allied countries with the goal of coordinating efforts to identify, understand, attribute, and respond to foreign malign influence operations. This task force should be led by the State Department in conjunction with the Global Engagement Center and include opportunities for best-practice sharing as well as the coordination of counter-disinformation and resilience efforts.

The Biden administration must rise to the challenge of confronting and mitigating the threat of mis/disinformation before its harms become more severe and widespread or even threaten to cause irreparable damage to our society. While these actions do not address other components of information disorder (e.g., the role of digital advertising, underinvestment in local media, and lack of platform transparency), they represent the necessary first steps in galvanizing a coordinated response to the threat of mis/disinformation.

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cybersecurity for the Belfer Center for Science and International Affairs and on election security for the Cybersecurity and Infrastructure Security Agency (CISA). Prior to joining the Kennedy School, Michaela served as a Tech and Human Rights Manager at BSR, where she managed a \$1.2 million portfolio of over 20 projects on responsible AI, end-to-end encryption, disinformation and hate speech, and platform governance. She was an Assembly Fellow on disinformation with the Berkman Klein Center for Internet & Society at Harvard and a Coro Fellow in Public Affairs.

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Why "Move Fast and Break Things" is Dangerous

By Jesse Lin

"Move fast and break things," Mark Zuckerberg remarked in an interview with Business Insider three years before Facebook went public. "Unless you are breaking stuff, you are not moving fast enough."

Since then, Facebook has broken plenty. It has aided Russian's foreign influence campaigns, exposed the sensitive user data of millions, and refused to take down false information on its platform. With Zuckerberg at the helm, it could be argued that Facebook broke democracy in less than a decade. Is that fast enough?

Zuckerberg's mantra lives on, not just for Facebook but for other tech giants like Amazon and Tesla. Entrepreneur published a piece in 2016 affirming "Speed is the key to entrepreneurial success. [. . .] there's a tradeoff: move fast and break things, or move slow and don't break things. There is no 'move fast and don't break things."2 This obsession with careless destruction shows how toxic tech culture has become. Amazon violates employees' privacy and safety by mandating wristbands that track their every movement, discouraging them from taking restroom breaks.3 During the pandemic, Elon Musk defied shelter-in-place orders and forced Tesla factories open, putting workers' health at risk and blatantly violating the law.4 Clearly, Silicon Valley continues to champion this risk-loving mentality as its foundational ethos.5

So, it is unsurprising that technology platforms today build societal disruption into their core business models. Take Uber, the poster child of the gig economy, which spearheaded the exploitation of cheap labor and abused the relationship between employer, employees, and contractors. Many others followed suit, including Instacart, DoorDash, and Amazon Flex. The promise of the technological revolution was to improve people's lives. Instead, it is destroying livelihoods, communities, and democratic norms.

The other real promise, of course, was handsome

earnings, but many technology platforms today are falling short. Uber, Instacart, and DoorDash are losing billions by subsidizing either users or service providers with no clear path to profit. Only the trailblazers—Google, Apple, and Microsoft—remain steadfast in profitability. Nonetheless, investors hope to emulate the success of dominant platforms by betting on startups that have potential to grow into behemoths. But platformizing a low-margin business like food delivery does not make it a good business. Platforms work best when they fix market failures with good products or services that lower transactions costs—think Google by indexing search—not when they're creating more market failures or offering subsidies.

Beyond practicing sound business fundamentals, technology companies must rethink user experience with a whole-of-technology approach through platform, product, and service design. This requires understanding prior design decisions and incorporating nudges, or behavioral interventions, for users. For example, Zuckerberg originally created a website to rate the attractiveness of undergraduate girls on campus. This inspired the founding of Facebook as we know it today.

But such early decisions built the architecture for discriminatory features from marketing tools that give preference to men to job advertisements that reinforce gender stereotypes. § 9 Acknowledging structural biases can help technology companies build nudges that counteract discrimination and manipulation on the platform. For example, news articles with added contexts reduce the spread of false information by encouraging users to think twice before sharing. ¹⁰

Yet biased technology development will continue if companies remain mostly White and male. Safiya Noble in *Algorithms of Oppression* challenges the notion that the lack of Black programmers stems from

a pipeline problem as increasing numbers of Blacks, Latinos, and women are graduating with computer science degrees. She argues that "we need people designing technologies for society to have training and an education on the histories of marginalized people."¹¹

This is unlikely to happen until jobs require awareness of racist and sexist stereotypes and misrepresentation. Technology companies must reform the hiring process to include roles for individuals with expertise in ethnic and gender studies. Designing technology without consideration of people and their lived experiences comes at the expense of minority communities.

Entrepreneurs who adopt Zuckerberg's advice insist on a steep tradeoff between efficiency and thoroughness of the product design. The thought goes something like this: "Since resources are scarce, if I choose to be thorough with one product, I will fall behind those who decide to launch multiple products that are less polished." There is validity in the tradeoff. But we have seen the damage when companies move fast for profitability and scale instead of considering societal impact.

We now recognize the harm technology platforms can do as reckless giants whose clumsy movements tear social contracts and cripple democratic systems. It's time to abandon this mentality. We can repair this destructive culture and realize the benefits of technologies to solve market inefficiencies, connect communities, and strengthen democratic values.

Instead of moving fast and breaking things, we ought to move fast and fix things.

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Re-radicalizing the Center

By Mitchel Peterman

The rigidity of America's two-party system is a problem. American politics feels like a zero-sum game, and to an extent, it is. One party wins, the other party loses. One neighbor says, "I told you so," the other neighbor says, "People like you are the problem." Voices on the fringe of both sides dominate the conversation, spotlighting the growing distance between our beliefs and desires. This game, with all its current rules, players, and conflicts, continues to pull us apart rather than bring us together.

As if this game of American politics wasn't difficult enough on its own, a global pandemic and hotly contested election have only deepened our divide. Sixty-nine percent of Americans say divisions between Republicans and Democrats are increasing, 77 percent say America is more divided than it was before the pandemic, and only 21 percent believe these relations will improve.^{1,2} We are like two ends of a seesaw, unable to find our balance. What we have lost is our center of gravity.

So how do we get it back? How do we find balance in a system that encourages choosing sides and puts a megaphone at the mouth of extreme viewpoints on either end? The answer is straightforward yet inherently contradictory: We re-radicalize the center.

Radical centrism has roots as early as the mid-1900s when writers and sociologists like Renata Adler and Donald Warren began bringing the concept of activated centrism into the mainstream. Early characterizations of the middle were centered around pragmatism, reason, and creative policy development. Toward the end of the 20th century and early 21st century, the concept gained steam as prominent writers like Thomas Friedman and Joe Klein began to use the term to describe overt frustration with the political process and polarization from those who shared ideological beliefs with both the left and the right.3,4

Yet, this building frustration has not been effectively channeled. For too long, the center of the ideological spectrum has failed to capitalize, allowing those who are most partisan to dominate our primaries. Meanwhile, those with centrist viewpoints apathetically wait to select from the lesser of two evils. This vicious cycle of helplessness and disinterest further worsens the problem, making the voice and vote of those who choose sides and stubbornly stick with them all the more valuable.

What we need now is a new centrist movement to throw a wrench in the gears of this cycle—a movement of extreme passion, activism, and engagement for common sense reform.

Active passion and participation are often associated with radical policy solutions or visions for the future, but are these radical policies a requirement for extreme engagement? I would argue no. People, when given proper motivation, will fight for anything relative to the degree with which they have been made to care. And while focused development on a more-compelling centrist policy platform for people to rally behind will still be important, the next wave of radical centrism will need to focus more on how to create this motivation for centrists in areas other than policies themselves.

Centrists have traditionally suffered from an over-reliance on pragmatism and assumed rationality. The belief was "We will win Americans over with reason. We will bring people together through our practicality and level-headedness." This approach has resulted in a lack of inspiration and a lack of conviction around centrist policy. Meanwhile, this void of passion and creative ideas has been filled by more radical groups on both ends of the political spectrum. US Representative Alexandria Ocasio-

Cortez may have summed up this belief best when she said, "Moderate is not a stance. It's just an attitude towards life of, like, 'meh."⁵

But that perception doesn't need to be reality. We need louder voices in the center. We need more personality. We need to be more brash and bold, more confrontational and confident. We need a willingness to grab the mic and take back control of the conversation.

What does it look like to have radical passion for seemingly non-radical ideas? Where are the marches on Washington for common sense tax reform? Where are the organized protests for reasonable increases to infrastructure investment? Radicalism doesn't need to come from the proposed policies themselves but from the advocacy and promotion of the policies. While there may be an oxymoron of radical centrist policies not being overly radical in the first place, that's okay. Common-sense policy that draws from the left and right can still be the best path forward. We just need to fight harder for it.

Re-radicalizing the center will mean thinking through some difficult questions: How do you stoke the fire of those who sit on the sidelines and complain? How do you engage the politically apathetic to feel as though they finally have a cause worth fighting for?

We can start with a more compelling and inspired platform. Unified campaigns at both the local and national level should pair more-energized candidates with a clearly outlined set of centrist policies. More creative policy solutions should be encouraged and explored. Traditional and social media campaigns should be embraced to help ignite passion and give the movement a sense of identity that people can rally behind. These efforts should aim to target independents and pull more moderate candidates through party primaries. While a new moderate party would serve as an ideal vehicle for this, an independent national movement that supports and promotes candidates from both parties would allow for more centrist activation in the current two-party system.

Second, we should channel frustration toward congressional ineffectiveness into support for political

process reform. Congressional approval typically hovers around 20 percent, some of the lowest marks in decades.⁶ This frustration is largely driven by a perceived lack of bipartisan cooperation and reluctance to find common ground. Radical centrism can capitalize on this shared frustration by focusing on policies that attempt to weaken two-party dynamics, like ranked-choice voting, while others are busy defending party performance.

Finally, radical centrism should help inspire activism by unifying around a singular common enemy: party extremes. Rather than treating the far left and right as two separate ends of the political spectrum, centrists should think of extremism as the singular point of contention. Providing centrists and moderates with a unified cause can help overcome ideological differences that still exist among moderates and provide a sense of belonging to a team that doesn't exist today.

Moths, like voters, are attracted to a flame, and for centrists right now, that flame is barely visible. In order to help bring America together and regain our center of gravity, it's time to get out the lighter fluid. We need more than a feebly flickering candle—we need a bonfire.

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Economic vs. Cultural Factors: What Drives Right-Wing Populism?

By Ethan Gauvin

We are living in an age of resurgent populism around the world. Populism can be understood as the simple notion that legitimate power rests with the people rather than the political, academic, and media elites. At first glance, this is a straightforward, democratic, and noncontroversial idea. Populism can even be a powerful force for good. For example, Dr. Martin Luther King, Jr., can be viewed as a populist who channeled Black Americans' pain, frustration, and anger through peaceful means to fight oppression and achieve progress on racial justice.

Yet while populism can be an empowering force for positive change, it can also be used as a weapon by unscrupulous demagogues. Some of the most-reviled figures in history have been elected through populist movements on the promise of helping regular folks at the expense of the political and economic establishment. For example, millions of Germans were willing to overlook Adolf Hitler's antisemitic views because he passionately argued for policies designed to lift them out of poverty during a brutal economic recession, all while the ruling parties embraced austerity. Hitler promised bold action, and the Weimar Republic looked corrupt and feckless in comparison.

When people are desperate, they embrace desperate solutions, and democracy and rule of law may become less important than the people's will (or whatever the leader interprets as the people's will). This noxious combination of antidemocratic impulses and populist energy leads to what many experts refer to as authoritarian-populism, which inevitably erodes democratic institutions, norms, and values.

Authoritarian-populism is not the exclusive domain of the right or left side of the political spectrum—both are susceptible. In recent decades, it has been common to see right-wing authoritarian-populists (e.g.,

Hungary's Victor Orbán) seize upon cultural issues, such as immigration and religion, to motivate their supporters, whereas left-wing authoritarian-populists (e.g., Venezuela's Hugo Chavez) typically champion economic issues, such as wealth inequality and corporate greed.

However, while no political ideology has a monopoly on authoritarian-populism, the evidence shows that today's authoritarian revival is overwhelmingly dominated by right-wing populist movements and figures. The Pew Research Center classifies the vast majority of European populist parties as either "Radical Right" or "Conservative." The rise of right-wing populists with authoritarian tendencies in India, Brazil, Japan, the Philippines, and the United States suggests a similar picture in other parts of the world.

Why is this the case? A number of possible explanations for this have been put forward, starting with economic conditions. For example, extensive studies of right-wing populist movements in the 20th century clearly demonstrate that weak economic conditions and high-income inequality are almost always present before right-wing populists assume power and erode democracy.⁴

Yet if economic factors explained everything, one would expect to see a similar growth in contemporary left-wing populist movements. This is simply not the case. To reconcile this disparity, other scholars maintain that while economic factors are important, they do not tell the whole story.

To prove this point, Pippa Norris and Ronald Inglehart, authors of *Cultural Backlash: Trump*, *Brexit, and Authoritarian Populism*, analyzed a decade's worth of European voter data through a regression model to demonstrate that cultural attitudes (e.g., anti-immigrant, distrust for global governance) have

a much stronger and more consistent relationship with right-wing populist voting behavior than indicators of economic insecurity. The analysis also shows how the petty bourgeoisie—the middle class, in other words—are actually more likely to vote for right-wing populist candidates than poor, low-wage, and unskilled workers.⁵

The importance of cultural identity also helps explain why right-wing populists have historically found more electoral success than left-wing populists, especially in the 21st century. In the age of rapid globalization, it appears fundamentally much easier for right-wing populists to scapegoat immigrants, foreigners, and international elites than it is for left-wing populists to blame long-term abstract economic trends like growing inequality. Nowhere is this truer than in the United States, a nation that has long struggled with endemic racism and whose citizens hold a more positive view of the private sector than citizens in other countries.

Right-wing populism in America has a long tradition, personified by the likes of George Wallace, of dividing Americans by race and nurturing hostility towards immigrants. While it has had its moments, left-wing populism has struggled to find a permanent foothold in America. This is because challenges to the economic status quo are easily mischaracterized as challenges to the quintessential American dream of hard work and free enterprise. It is no coincidence that movements like Occupy Wall Street fail to translate to electoral success, while racial animus endures as a seemingly endless source of voter motivation.

Yet it is patently obvious that economic conditions are crucial to understanding America's right-wing populist malaise. As is well documented, wages for the middle class have stagnated over the last several decades (while productivity has continued to grow), which economists widely agree is due to some combination of globalization, the decline of unions, and new technologies. Meanwhile, deregulation and tax breaks under successive Republican administrations since the 1980s have allowed the richest 10 percent of Americans to accrue 70 percent of the nation's wealth.

The United States now faces the highest level of wealth inequality since the Great Depression, and the highest level of inequality among all advanced economies (measured by the Gini coefficient). Yet at the same time, America invests less in its education, health, and welfare systems than nearly every other developed country. Social mobility has dropped precipitously in recent decades and is now among the lowest in the world.

What is more, political trends have made America uniquely vulnerable to populist crusaders. Decades of rising polarization—driven by, among other things, gerrymandered districts, partisan cable news, digital misinformation, and relaxed campaign finance rules—have made it more likely for ideologically extreme candidates to win elections. ¹⁰ It is now all but impossible for the two parties to work together and deliver for Americans who have been on the losing end of economic changes.

Yet, despite many years of organizing by left-wing populists, economic issues are not commonly viewed as the reason for the country's woes. Communism, socialism, immigration, the media, and international cabals conspiring against America all represent more visceral and galvanizing targets. For years, right-wing populist politicians have cleverly channeled the intense populist anger of their base toward cultural identity issues without offering solutions to the very real economic problems their supporters face. The result is an astonishing level of division, distrust, and antipathy between different ages, races, faiths, education levels, and regions of the country.¹¹

However, none of this is to say that cultural issues are irrelevant. A fraying connection to local community, dwindling church membership, fewer close friends, social media echo chambers, massive generational gaps, and shifting attitudes on race, gender, and marriage all contribute to a feeling among some that society has moved on without them. Deindustrialization and the loss of jobs to global trade have hollowed out countless small-town communities across the Midwest, leaving in its place what psychological experts call an epidemic

of loneliness and isolation (made much worse by the COVID-19 pandemic).¹²

These trends have added fuel to the long-running opioid epidemic, which recently hit a grim record of more than 100,000 deaths in a single year.¹³ Since 2010, life expectancy for white men in America stopped improving and even recently declined as deaths of despair—suicides and overdoses—claim ever more victims. Life expectancy for minorities, especially Black men, continues to lag even further behind.¹⁴

With this context in mind, it is no surprise that a figure like Donald Trump was able to exploit American cultural grievances for electoral gain. Yet, once in office, and like other right-wing populists before him, Trump maintained the economic status quo and used the power of the presidency to enrich himself and his allies. It is no wonder that right-wing populism continues to rage in post-Trump America. Not only were the underlying economic and social causes never addressed by the Trump Administration, they were in fact made worse.

In the final analysis, both cultural and economic factors play an important role in the resurgence of right-wing populism in the 21st century. However, what is often overlooked is the ease and frequency with which politicians blame cultural issues for problems caused by decades of unfair and exploitative economic conditions. Those who wish to challenge right-wing populist leaders must relentlessly emphasize this point.

The critical question for the coming decades is whether populism can again be harnessed for positive change—for example, galvanizing people to push for bold climate action and equitable adjustments to global capitalism—or whether it is destined to feed on humanity's worst impulses, empowering autocrats and undermining freedom and democracy around the world.

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Insider Trading Trends Among US Senators

By Chester Haner

On 24 January 2020, the Senate Committees on Health and Foreign Relations held their first closed-door session for senators on the potential for widespread impact on the US from COVID-19. In attendance was Senator Richard Burr, and over the next three weeks, Senator Burr conducted 36 stock sales, totaling up to \$1.92 million, while only purchasing two stocks worth up to \$65,000. Coincidentally, during that same period, Senator Burr's brother-in-law sold up to \$280,000 worth of stock.1 These actions directly contradicted the op-ed for FoxNews.com that Senator Burr co-authored on 7 February 2020, which reassured the public that "the United States today is better prepared than ever before to face emerging public health threats, like the coronavirus."2 February 20 marked the beginning of one of the worst stock market crashes in US history, resulting in a 33% decline in the stock market indices over a 33-day period. Senator Burr beat the market.

Public trust in the federal government has fallen greatly. Polls for 2020 show that the legislators are the least trusted branch of government, hovering around 33% trust and confidence with the public.³ Recent high-profile insider trading investigations among legislators with knowledge of the financial implications from the COVID-19 pandemic highlights a major issue at the heart of trust: politicians' propensity to use their positions for personal gain. This underscores many questions: Do senators actually benefit from insider stock trading? Do politicians suffer politically for corrupt actions? What can be done?

Understanding political corruption

Why would senators engage in insider trading in the first place? One explanation is the relatively low risk of suffering any consequences. Over the past century, 35 members of the House of Representatives and four senators were convicted on various charges of

corruption.⁴ While this demonstrates a slight increase in overall congressional corruption convictions (Figure 1), only one congressman in either the House or Senate has ever been convicted of insider trading: Representative Chris Collins in 2019. This is likely due to the inability to prosecute insider trading before the Stop Trading On Congressional Knowledge Act of 2012. The STOCK Act, which President Obama signed into law on 4 April 2012, received massive bilateral support, passing by 96-3 in the Senate—Senator Burr notably in opposition—and 417-2 in the House of Representatives. This law prohibited the use of non-public information, specifically "political intelligence," for private profit and also created specific reporting intervals for financial transactions.⁵

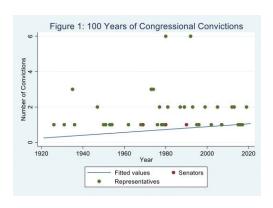


Figure 1 depicts congressional convictions from 1920-2020.

The STOCK Act was necessary because the Securities and Exchange Commission (SEC) previously lacked the authority to prosecute members of Congress for using non-public information gained from official proceedings for insider trading. The SEC defines insider trading as "the buying or selling of securities or commodities based on non-public information in violation of confidentiality—either to the issuing company or the source of information." Since federal officials do not have confidentiality to

the federal government, they are not liable for insider trading as defined before the STOCK Act.

The Senate has always maintained the ability to self-regulate; unfortunately, this authority has not manifested into stringent internal policing. Article I, Section 5 of the Constitution gives the Senate the ability to "punish its members for disorderly behavior, and with the concurrence of two-thirds, expel a member." The Senate has expelled 15 members, 14 of which were during the Civil War. The Senate has begun expulsion proceedings on 14 other cases—six for corruption, three for election fraud, two for disloyalty, one conflict of interest, one for sexual misconduct, and one for Mormonism-that either resulted in non-expulsion or the senator resigning before a decision.7 The Senate also has the option to censure its members, resulting in a formal statement of disapproval. Since 1789, this has only happened to nine senators, of which three were corruption related.8

Corruption rarely leads to major political repercussions. Studies show that if a politician is publicly demonstrated to be corrupt, there are minimal negative affects to their reelection chances. A study of US elections by Susan Welch and John Hibbing showed that 75% of incumbents charged with corruption won subsequent elections anyway.9 Information on corrupt officials slightly decreases support for the incumbent party but also decreases voter turnout as the citizens lose faith in the political system. 10 For example, after the 2009 UK parliamentary expenses scandal, British Members of Parliament who were implicated received 1.5% fewer votes than non-implicated MPs.11 These low margins of change bolster the argument that a lack of electoral punishment makes candidates and politicians more likely to engage in corrupt activities.

Stock Trades

To test the current theory that politicians use insider information when conducting stock trades, I collated data for all senator stock trades after the STOCK Act in 2012 until February 2021. ^{12,13} During these nine years, US senators and their families conducted 8,268 financial trades. After the removal of bonds, municipal

securities, and non-public stocks, there are 4,973 stock trades for this analysis. Trades totaled between \$328 million and \$909 million, and they are reported in brackets such as \$1,001-15,000...500,000-1,000,000, etc. For weighting these trades, the average of the two values is used for all amounts up to \$250,000, above which \$250,000 is substituted.

$$Mean \ Weighted \ Return = \frac{\displaystyle \sum_{l=1}^{n} \binom{\left(R_{mt} - R_{lt}\right)}{R_{lt}} - \frac{\left(C_{mt} - C_{lt}\right)}{C_{lt}} \right) * w}{\sum_{l=1}^{n} w}$$

Where is the stock price on the initial trade, is the stock price on the date of comparison, is the price of Vanguard Total Stock Market Index Fund (VTSAX) on the same initial trade day, is VTSAX on the same date of comparison, and w is the weight of the traded amount. All values will be compared to the growth of VTSAX, the largest mutual fund that is benchmarked to the common stock index, over the same dates. This is referred to as *market adjusted* in the tables. Due to variability across different stocks and investment types, purchases will be compared to value one year after transaction. Stock sales will be compared one month after the trade as information of the downward trend of a company results in faster market reactions.

Overall, the US senators' purchases beat the common stock index by an average of 2.6% annually for the past nine years, increased to 4.5% when weighted for size of transaction—both statistically significant (Table 1).

It is worth noting that while the Republican party conducted vastly more financial transactions between 2012 and 2021 (3,948 Republican vs. 997 Democratic), this is largely due to Republican Senator David Perdue. Perdue alone conducted 36% of all senator stock trades. Perdue's 888 stock purchases and 886 stock sales during this period are greater than the entire Democratic party's trading activity. Moreover, Senator Perdue did extremely well on his stock purchases, beating the common stock index by an average 5.0%, or 8.7% when weighted. His trades alone bring the entire Senate weighted average up 1.5% on stock purchases.

Senator stock sales dropped below the market by 0.6% one month after the sell-off. The weighted sale lag was 0.1% and was not statistically significant. When Senator Perdue's stock sales are removed, the

rest of the Senate's stock sales are no longer statistically significant and both weighted and non-weighted analysis actually increase in value, +0.03% and +0.10% respectfully.

Table 1: Robust regressions of senators vs David Perdue, 2012-2021, market adjusted to VTSAX

| One year percent growth on stock purchases | Mean | Std Err | P value | Obs |
|--|--------|---------|---------|-------|
| All senators | 2.63% | 0.73% | <0.001 | 2,385 |
| All senators, weighted | 4.46% | 1.75% | <0.001 | 2,385 |
| All senators minus Perdue | 1.25% | 0.83% | 0.134 | 1,497 |
| All senators minus Perdue, weighted | 2.93% | 1.55% | 0.058 | 1,497 |
| Perdue only | 4.97% | 1.37% | <0.001 | 888 |
| Perdue only, weighted | 8.70% | 4.98% | 0.081 | 888 |
| One month percent growth on stock sales | Mean | Std Err | P value | Obs |
| All senators | -0.61% | 0.20% | 0.003 | 2,588 |
| All senators, weighted | -0.12% | 0.35% | 0.723 | 2,588 |
| All senators minus Perdue | 0.03% | 0.20% | 0.897 | 1702 |
| All senators minus Perdue, weighted | 0.10% | 0.44% | 0.815 | 1702 |
| Perdue only | -1.82% | 0.43% | <0.001 | 886 |
| Perdue only, weighted | -0.80% | 0.46% | 0.086 | 886 |

One may theorize that if a senator is confident they have an informational advantage on the market, they would attempt to maximize their profits through larger transactions. In Table 2, we see that stock purchases >\$100,000 cause a sharp increase in performance. Table 3 shows them cumulatively outperforming the market by a statistically significant 12.7%, a stark increase from the previously noted 4.5% average annual stock outperformance for all purchases. Once

again, we see Perdue dominate the trades, with 21 of the 80 top end trades, and beat the market by 24.8% (though this number is not statistically significant due to the low sample size). These massive abnormal gains among high transactions represent only the top 3.4% of stock purchases, potentially indicating insider information that is reliable enough to invest large sums of money is rare. Conversely, stock sales do not perform as irregularly at high values.

Table 2: Robust regressions senator stock trades from 2012-2021, market adjusted to VTSAX

| Transaction value | Purchases | P value | Obs | Sales | P value | Obs |
|---------------------------|-----------|---------|-------|--------|---------|-------|
| \$1,001 to \$15,000 | 2.55% | 0.002 | 1,835 | -1.01% | < 0.001 | 1,723 |
| \$15,001 to \$50,000 | 2.53% | 0.230 | 323 | 0.29% | 0.474 | 539 |
| \$50,001 to \$100,000, | -1.54% | 0.519 | 147 | 0.42% | 0.499 | 171 |
| \$100,001 to \$250,000 | 13.80% | 0.033 | 72 | -1.18% | 0.127 | 117 |
| \$250,001 to \$500,000 | 4.40% | 0.520 | 4 | 0.58% | 0.819 | 23 |
| \$500,001 to \$1,000,000 | 0.19% | 0.694 | 3 | 9.12% | 0.329 | 4 |
| \$1,000,000-\$5,000,000 | | | | 3.00% | 0.282 | 5 |
| \$5,000,000-\$25,000,000 | | | | 1.23% | 0.543 | 5 |
| \$25,000,000-\$50,000,000 | 4.02% | NA | 1 | | | |

Table 3: Robust regression of senator stock purchases > \$100,000, non-weighted, market adjusted to VTSAX

| One year percent growth on stock purchases | Mean | Std Err | P value | Obs |
|--|--------|---------|---------|-----|
| All Senators | 12.70% | 5.72% | 0.029 | 80 |
| All Senators minus Perdue | 8.40% | 4.40% | 0.061 | 61 |
| Perdue only | 26.5% | 19.6% | 0.193 | 19 |

Abnormal stock trading pre-pandemic

One example of suspicious trading was seen in the wake of the COVID-19 stock market crash. The period from the COVID-19 briefing on 24 January

2020 to the first day of the stock market crash on 20 February 2020 provides a unique window of time in which senators had non-publicly available information that they could act on for financial gain.

Table 4: Stock trades immediately before COVID-19 (24 January to 20 February 2020)

| | Party | Purchases | Max Purchase Amount | Sales | Max Sale Amount |
|--------------------|------------|-----------|---------------------|-------|------------------|
| Kelly Loeffler | Republican | 4 | \$ 800,000.00 | 34 | \$ 28,190,000.00 |
| Diane Feinstein | Democrat | 0 | | 2 | \$ 6,000,000.00 |
| Richard Burr | Republican | 2 | \$ 65,000.00 | 36 | \$ 1,920,000.00 |
| James Inhofe | Republican | 0 | | 5 | \$ 400,000.00 |
| David Perdue | Republican | 9 | \$ 170,000.00 | 22 | \$ 400,000.00 |
| Thomas Carper | Democrat | 1 | \$ 50,000.00 | 2 | \$ 100,000.00 |
| Sheldon Whitehouse | Democrat | 1 | \$ 50,000.00 | 1 | \$ 50,000.00 |
| Mark Warner | Democrat | 1 | \$ 500,000.00 | 0 | |
| John Hoeven | Republican | 1 | \$ 250,000.00 | 0 | |
| Pat Roberts | Republican | 3 | \$ 115,000.00 | 0 | |
| Gary Peters | Democrat | 2 | \$ 30,000.00 | 0 | |
| | | | | | |
| | Republican | 19 | \$ 1,400,000.00 | 97 | \$ 30,910,000.00 |
| | Democrat | 5 | \$ 630,000.00 | 5 | \$ 6,150,000.00 |
| | | | | | |
| | Total | 24 | \$ 2,030,000.00 | 102 | \$ 37,060,000.00 |

Bolded are the four senators investigated for insider trading during this period.

Instantly we can see that the wide variance between stock sale and purchases during this period, with 102 sales compared to only 24 purchases. Normally there is less than a 1% difference between number of sale and purchases in a year, but before the pandemic there was a fourfold greater number of sales. The value of stock sold is also abnormal, showing senators sold off 18 times the value of stock purchased during

this period. This table also shows that, aside from Senator Perdue, who has a record of consistent high trade volume, most of the pre-pandemic trades were conducted by four senators: Kelly Loeffler, Diane Feinstein, Richard Burr, and James Inhofe. All four of these senators were investigated by the FBI and Department of Justice for insider trading. All cases were eventually closed without charges. 14

Abnormal stock growth post-pandemic

A second unique period to analyze is immediately following the onset of the pandemic. In the 40 days after the start of the market crash, senators' stock purchases were unusually profitable. Weighted stock purchases on average outperformed the market by almost 24%, while Senator Perdue

once again led at an astonishing 73%. Weighted stock sales during this period were not statistically significant. During this period, the two most purchased stocks were DuPont de Nemours, Inc., and Pfizer Inc., both pharmaceutical-based companies that were heavily involved in COVID-19 vaccine production.

Table 5: Robust regressions of senator stock trades from 20 February to 2 April 2020, market adjusted

| One year percent growth on stock purchases | Mean | Std Err | P value | Obs |
|--|--------|---------|---------|-----|
| All Senators | 15.21% | 3.65% | <0.001 | 205 |
| All Senators, weighted | 23.51% | 11.60% | 0.035 | 205 |
| All Senators minus Perdue | 4.79% | 4.07% | 0.242 | 100 |
| All Senators minus Perdue, weighted | 7.48% | 5.11% | 0.146 | 100 |
| Perdue only | 25.14% | 5.83% | <0.001 | 105 |
| Perdue only, weighted | 73.46% | 33.84% | 0.032 | 105 |

Table 6: Most purchased stocks from 20 February to 2 April 2020

| Stock | Business type | # Purchases | Total Traded Value (Max) |
|-------------------------|----------------------------|-------------|--------------------------|
| DuPont de Nemours, Inc. | Pharmaceutical | 12 | \$ 535,000 |
| Pfizer Inc. | Pharmaceutical | 8 | \$ 260,000 |
| Micron Technology, Inc. | Computer technology | 7 | \$ 140,000 |
| Starbucks Corporation | Coffee chain | 6 | \$ 125,000 |
| Berkshire Hathaway Inc. | Multinational conglomerate | 6 | \$ 195,000 |

Why were senators able to outperform the market so vastly during this period? Perhaps they had intelligence briefings related to the nation's timing to recover from the recent market crash. They may have had early information on vaccine progressions leading to investments in relevant companies. Maybe they are just superb stock pickers. Regardless of what inspired their stock trades, once again senators were one step ahead of the American people, resulting in substantial financial gain.

Legislation

While the STOCK Act was a successful legislative step forward in combating insider trading, there are other legislature that have been proposed to tighten the rules. One method to mitigate ambiguities in insider

trading is the Political Intelligence Transparency Act, introduced by Rep. Louise Slaughter (D-NY).15 This act would add requirements such as the disclosure of political intelligence activities, particularly relating to information useful for analyzing securities (stocks and bonds) and commodities (natural resources, metals, oil, etc.). The Lobbying Disclosure Act (LDA) currently does not adequately address political intelligence collection.16 The LDA does not restrict, require registration, or demand disclosure of information gathered as political intelligence as it is considered separate from lobbying. There are no federal laws that govern this issue either. Unfortunately, the Political Intelligence Transparency Act has been stymied in the Subcommittee on the Constitution and Civil Justice since July 2017.

Another attempt to address insider trading was introduced into the House by Representative Jim Himes (D-Conn) in March 2015 called the Insider Trading Prohibition Act as H.R. 1625. This was later re-introduced in 2019 as H.R. 2534 and again in 2021 as H.R. 2655. This bill is considered an expansion of the Securities Exchange Act of 1934 and would make it "unlawful for any person, directly or indirectly, to purchase, sell, or enter into, or cause the purchase or sale or entry into, any security, security-based swap, or security-based swap agreement, while aware of material nonpublic information." This would broadly close loopholes that are not already covered under the STOCK Act and Securities Exchange Act.

Lastly, and most drastically, is the Ban Congressional Stock Trading Act introduced by Senators Jon Ossoff and Mark Kelly on 12 January 2022. This bill would force Congress members and their families to place stock portfolios into blind trusts for the duration of their time in office. ¹⁸ This type of legislature has large public support. A poll from the Convention of States Action in November 2021 reported 70% of Democrats and 78% of Republicans support halting lawmakers from trading stocks. ¹⁹ Speaker of the House of Representatives Nancy Pelosi originally opposed this notion noting "We're a free-market economy, [Congress] should be able to participate in that." ²⁰ She has recently softened her stance, greenlighting a pathway for this legislature be voted on. ²¹

Conclusion

We have seen that US senators have benefited from abnormal stock market gains over the past nine years. Their purchases beat the common stock index by an average of 4.5% and increased to 12.7% for larger trades, especially with Senator David Perdue, whose prolific trading patterns generated statistically abnormal returns. A small group of senators demonstrated early knowledge of the COVID-19 market crash, selling off 18 times more stock than they purchased. Immediately following the start of the market crash, senators keenly invested in stocks that outperformed the market by 25%. Insider trading likely continues

due to the low rate of prosecution and minimal effect on reelection. Without major legislation, trends of abnormally profitably stock returns for senators are likely to continue.

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The War on Drugs and Violence in Latin America: Time to Hit Reset

By Pedro Ossa Guzmán

Latin America is the most violent region in the world, with only 8 percent of the global population accounting for 38 percent of the global share of murder. That is 140,000 homicides per year, more than have been lost in wars around the world in almost all of the years this century. This intense violence is intimately related to drug-trafficking organizations (DTOs). 2

There are different drugs constituting the market of illegal drugs being manufactured and distributed around the world—cocaine and heroin representing around 66 percent of the market, with annual sales of around \$240 billion.³ Based on acres dedicated for cultivation, less than 26 percent of opium is produced in Latin America, leaving cocaine as the main drug to be taken into account for drug-trafficking related violence and policy review considerations in the region.⁴

The way we have kept the use of (some) harmful drugs from increasing is what we call The War on Drugs, a set of policies, spearheaded by the United States of America, intended to minimize their distribution and consumption. Fifty years after this approach was first implemented, and in light of evidence and addressing various dimensions of this issue, the objective of this article is to reflect on whether this approach is working and how we could deal with this problem in a more effective way.

The War on Drugs: Origins and Fundamental Mechanics

In 1971, President Richard Nixon officially declared the War on Drugs, though the real drivers behind this is not exactly clear as of today. Nixon's domestic policy chief, John Ehrlichman, has been quoted as saying:

"We knew we couldn't make it illegal to be either against the war or Black, but by getting the public to associate the hippies with marijuana and Blacks with heroin, and then criminalizing both heavily, we could disrupt those communities. We could arrest their leaders, raid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about the drugs? Of course, we did."5

During the Reagan administration, "possession of five grams of crack led to an automatic five-year sentence while it took the possession of 500 grams of powder cocaine to trigger that sentence. Since approximately 80% of crack users were African American, mandatory minimums led to an unequal increase of incarceration rates for nonviolent black drug offenders, as well as claims that the War on Drugs was a racist institution."

Whatever the original ends of this policy were, history suggests that the way this approach was conceived and implemented didn't respond only to public health motivations, but to a group of other external factors—particularly those related to politics.

One of the main components of the War on Drugs is the enforcement against supply. The rationale and mechanics of this are simple: the illegal drug market is a business rooted on risk. The higher the risk of participating, the higher the risk premium that drug cartels will incorporate in prices. This way, penalizing drug trafficking makes this business a riskier one to do, driving prices up and consumption down.

Since this war was officially declared, most of us alive today grew up under the strong paradigm that because some drugs are harmful, the best public policy is to make them illegal. However, because of significant negative externalities arising from penalization that we will review in the next section,

this logically flawed reasoning has resulted in a deeply held anchor about the way we think we should address this problem, which is not supported by evidence but has not been seriously questioned or reviewed by policy decisionmakers. It is the objective of this article to leave this anchoring bias aside and review some telling available evidence in order to challenge this conception, exploring new approaches from which we could more effectively address this problem.

Good intentions, terrible outcomes: Why a drug policy paradigm shift is urgent

Reason #1: Counterintuitively, drug law enforcement boosts drug revenue

An extensive amount of research indicates that the demand for illegal drugs is solidly inelastic. An example of this is a literature survey that found that 1 percent increase in the price of cocaine leads to a consumption reduction within the range of 0.51-0.73 percent. This is a key premise that significantly affects the outcomes of the War on Drugs, and one of the main reasons why it has failed.

Demand being inelastic means that driving prices up through law enforcement drives consumption down, but proportionally *less* than the increase in price. Thus, enforcement efforts directed against suppliers to increase the risk of the business and drive prices up actually help them earn a higher revenue. This in turn means more resources are available for them to spend on countering drug trafficking enforcement, as explained by Nobel Prize-awarded economist Gary Becker in his famous work *The Market for Illegal Goods: The Case of Drugs.*⁹

In other words, cartels either make more profits and increase their power as a result of law enforcement or, if needed, spend the extra revenues on efforts to counter it, such as salaries for "thugs who guard shipments and shoot anyone in the way, bribes to officials on both sides of the border, and pay and equipment for more thugs who are assigned to inter-gang warfare, with innocent victims caught in the crossfire," which is even worse. ¹⁰ Either way, the overall size of the

organized crime machinery, the power of drug-related organized crime and the resulting violence increase.

This is a self-defeating strategy—the same way that alcohol prohibition was during the 1920s, thanks to which some of the biggest crime organizations in the US were born. For example, by 1929, the organization led by Al Capone derived more than an estimated 60 percent of its income on illegal alcohol trafficking. ^{11,12}

Reason #2: Taking down cartel leaders drives competition for power, which unleashes the worst spikes in homicides

An important part of the strategy of the War on Drugs has focused on the beheading of big criminal organizations (i.e., capturing their leader). The first reason for this is to take power away from them through making their own internal organization more difficult as they face a lack of a leader. The second is to show exemplary measures and make the career of war lord visibly less attractive.

However, evidence has shown a substantially harmful effect of this strategy. Whenever any of these organizations is beheaded, violence (i.e., homicide rates) peaks significantly, affecting hundreds of thousands of innocent people on the way.

This issue is further examined by Gabriela Calderón et al. in their work *The Beheading of Criminal Organizations and the Dynamics of Violence in Mexico*. In the study, the authors show that captures or killings of drug cartel leaders increase both DTO-related homicides and homicides that affect the general population, the latter being more enduring. ¹³

The evidence they show is daunting: between 2006 and 2012, when a governmental high-leadership crackdown strategy was implemented in Mexico, 25 capos (i.e., top ranks) and 160 DTO lieutenants (i.e., middle ranks) were captured or killed, but at the same time drug-related violence escalated by almost 300 percent. Violence not only increased in the treated municipalities, but also on the neighboring ones.

The prospect of violence escalation as a result of combating drug-trafficking organizations has made it common to see entire regions in Latin America

where there is a *de facto* acceptance of defeat: the state has no choice but to subdue its power and the rule of law to DTOs, who even impose their own taxes. The state doesn't have the monopoly of the use of the force to guarantee basic rights anymore. This weakens its authority in areas different than drugs as well; the general population can see that it is possible to openly and shamelessly break the law and get away with it. Again, in this particular strategy, the medicine seems worse than the disease itself.

Reason #3: In practice, this is a form of civil war that corrupts and destroys democracy

We can also see how these dynamics destroy the practice of democracy itself. As Andreas Schedler puts it in his study *The Criminal Subversion of Mexican Democracy*, "When confrontations between armed groups within a state cause more than a thousand 'battle-related deaths' per year, academics speak of 'civil war." This way, certain areas in Latin America have been, in practice, in a form of civil war throughout the years. As the author describes, this not only means that there is violence coming from DTOs against the state and the civil society—seeking profit from everything they can to support their activities, from kidnapping to human trafficking—but also from the state itself which, in a state of pseudo-war, commits notorious human rights abuses.

Being that drugs are illegal, big-time suppliers already face decades in prison if caught, so they have little incentive to avoid committing other crimes that allow them to protect their tremendous sources of wealth—and themselves from going to jail. As Schedler points out, DTOs push for distortions to democracy in which their wealth sustains their violence, which in turn sustains their wealth. They shape politics to make their most suitable candidates win. For them, "the best candidates are those who offer the prospect of discriminatory law enforcement, tolerating the group while combating its competitors. Naturally, the best candidates for one criminal group are the worst for its adversaries. Criminal competition is thus likely

to translate into political competition."15

The author describes six different ways in which drug cartels undermine electoral competition and democracy as a whole: fielding friendly candidates, driving candidates out of politics through intimidation and violence, silencing candidates without criminal ties through intimidation (setting their agenda), deterring voters from participation and/or intimidating them to vote for a specific candidate, removing certain policy areas from the effective decision-making power of already elected authorities, and preventing winners from taking office or dislodging elected officials from office.

The War on Drugs: Two alternatives at a glance

Even though the aim of this article is to spark a productive discussion rather than to offer a definitive solution, we will broadly review two potential alternatives to the status quo at a high level. Their serious consideration, research, and public discussion are critical work to be done in light of 50 years of a drug policy that has had questionable effects on consumption, but nevertheless has boosted unfair violence against innocent people.

The first, still in the early phases of public discussion, implies shifting the current paradigm around harmful drug use from a criminalization and punishment to a public health one, implementing reforms in which some drugs are legalized-most notably cocaine, considering its illegal market size-and instilling a package of measures oriented toward prevention and education. This would also entail a cultural and media prevention strategy that treats users as people who need help, instead of glorifying drug use. These accompanying measures could critically differentiate success from failure. As a reference, even though tobacco is a highly addictive substance, an effective preventive campaign has driven its use among youth in the US to less than one-fourth its level in 1997.16

Legalizing drugs such as cocaine would dismantle the tremendous business over which DTOs carry out

their illegal trafficking activities, which powers others, such as kidnapping, arms and human trafficking, and bribing. Such is the approach that Nobel Laureate economist Gary Becker advocates for, arguing that "taxes have a major advantage over quantity reductions when either demand for or supply of the product being taxed is not very elastic." There are a number of studies from different disciplines, ranging from sociology to medicine, sharing a similar position on this issue on the grounds of additional arguments, such as the prevention of infectious disease.

A second and less controversial alternative—which could be implemented independently or in addition to the first strategy, though it is still to be reviewed in terms of cost feasibility—is to orient law enforcement toward demand. For example, this can include minimizing the market size of illegal drugs via lower willingness to pay per unit per person or via fewer people who are willing to use drugs at all. This could also turn demand for drugs into an elastic one, causing revenue to shrink rather than to go up as a result of law enforcement against cartels.

This would be done in a way that does not put users into jail with a mix of non-incarcerating penalization measures, such as carrying out community work for several weeks or months—a common sentence for other misdemeanors—in addition to strong education and prevention measures. This is a more conservative alternative, but probably a less effective one in terms of violence reduction.

A final note: The urgency for US leadership

A serious reassessment of drug policy cannot be undertaken by any country unilaterally. Even though several high-profile political leaders have manifested the need for fundamental change, the reality is that, except for the US, countries in the Americas don't have the political power to start this change. The first reason for this is the fear of their political relations with the US suffering as a result; there is a chance of being penalized on the way, depending on who is occupying the US's highest seat. The second is

that the US is the biggest funder of the global illegal drug market and all of its negative externalities we just described.¹⁸

If the US government leads this change with the same proactiveness it spearheaded the implementation of the current failed War on Drugs, a brighter future can await, especially for the millions of innocent victims of violence who have nothing to do with drugs and are unfairly affected by such a large social problem being addressed from a wrong policy approach year after year.

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A Formula to Start Curbing Violence in Latin America

By Pablo Uribe

In the last two decades, violence in Latin America has taken three times more human lives than the wars in Afghanistan and Iraq. According to the Igarapé Institute, from 2000 to 2016, more than 2.5 million Latin Americans were violently killed. ¹ Crime rates, particularly driven by drug cartels and organized crime, are rising in the region and will continue to do so if nothing is done to stop that trend.

This critical level of violence has enormous costs for the region. Beyond the psychological and physical trauma that millions have suffered, violence damages Latin America's social and economic development, also reinforcing and amplifying inequality in the region.² The Inter-American Development Bank calculated the enormous adverse effects of violence on the region's welfare, representing 5.5 percent of Central America's GDP in 2006, while Colombia was losing 11.4 percent of its GDP because of violence in the 1990s.³

But how to tackle this challenge? Latin America needs a general recipe that orients efforts to curve violence across the region while preserving breathing space to adjust to the local realities. Thomas Abt's book *Bleeding Out* could be a critical part of this recipe. He recommends focusing attention and resources on the most dangerous people, places, and things. Concretely, he advises using a combination of gun violence reduction strategy, hot spots policing, cognitive behavioral therapy, and re-building trust and cooperation between communities and criminal justice authorities.

There is ample evidence that backs Mr. Abt's recommendations, with policies that have shown significant results in developing and developed countries. Moreover, I can attest the effectiveness of these recommendations because, as a public

servant, I was part of a collective effort to implement a similar recipe in Cali, Colombia, well known for its violence since the 1990s.

Before Mr. Abt's book, Cali's local government achieved remarkable results between 2011 and 2019 by implementing a comprehensive set of crime policies to tackle its high levels of violence. The approach consisted of six key elements:

- 1) Data of high quality to orient efforts: This was the building block of Cali's strategy. The local government put all the information from different sources (police reports, agencies' databases, coroner's office documents, etc.) into one centralized database and hired data scientists to propose input for decision-making and orient crime-prevention strategies.⁸
- 2) Focused provision of public services: Because "peace in the streets requires cooperation between communities and criminal justice authorities," this cooperation is even more important to achieve in Latin America, where violence affects disproportionately the most disadvantaged and vulnerable populations. 9,10 Recognizing this, Cali's local government focalized and synchronized public investment, goods, and services in the city's most violent and poor areas. Libraries, hospitals, schools, and daycare centers were built in the most vulnerable neighborhoods, restoring social capital in these communities, and increasing the state's legitimacy, an indispensable step to tackle violence.

3) Hot spots policing and prosecution: 50 percent of crimes are concentrated in 3 to 7.5 percent of street segments in Latin America. ¹² The logical conclusion is to focus policing efforts on these hot spots of crime. Cali concentrated the bulk of the police force and law enforcement resources in the city's most violent areas to proactively patrol these places, prevent possible

crimes, and effectively investigate the crimes that happened there, especially homicides and femicides.

- 4) Social work with at-risk populations: As with places, crime is also concentrated in people. A small number of persons, often involved in gangs and criminally active groups, are responsible for a disproportionate amount of crimes.¹³ In light of this fact and considering Colombian recent history, the city launched a program of urban peace and reconciliation with former guerrilla members and paramilitaries, former gang members, victims of the civil war, and convicted juveniles.¹⁴ This program included financial help, education, psychosocial services, and pushed them to community service, and job opportunities.¹⁵
- 5) Strengthening law enforcement and the judiciary: State capacity is deficient in Latin America, with states struggling to provide public services and consolidate a monopoly over violence. 16,17 Tackling crime requires strengthening the capabilities of law enforcement and judicial agencies, and that's why Cali's local government implemented an ambitious investment plan over eight years. It quadrupled its yearly budget for security and upgraded its security agencies' technological, logistical, and physical infrastructure.
- 6) Community-based crime prevention: Using the problem-oriented policing principles, the city's officials worked alongside communities, civil society organizations, government agencies, and businesses to develop collective interventions to tackle concrete crime and disorder problems. ¹⁸ The solutions emerged locally and used a different array of nontraditional interventions, such as illuminating parks to stop robberies or using cultural events to change violent dynamics in public spaces. These collective efforts helped to lower crime rates, but they also rebuilt trust between inhabitants and government agencies, an essential task to prevent violence.

With this approach, Cali's local government lowered its homicides from 1,817 in 2011 to 1,115 in 2019—a 38.6 percent drop. Cali went from being one of the top five most-violent cities globally to the

26th rank in 2019.19

Cali's successful case shows that a combination of focused deterrence, hot spots policing, problem-oriented policing, cognitive behavioral therapy, and efforts to rebuild trust with vulnerable communities can produce good results in Latin America. Other public leaders across the region can use these policies to curve violence in their countries. However, it is essential to clarify that these policies were appropriate to Cali's context—namely, a city with high levels of violence due to its high levels of poverty, inequality, discrimination, gang activity, criminal dynamics, and drug trafficking, among other factors. These policies could not work in all contexts.

Still, using reliable data to focus attention and resources on the most dangerous people, places, and things is a promising formula for Latin America. It is also vital to notice that implementing these policies requires flexibility; solutions must be designed to solve each society's particular problems. Moreover, flexibility also means having a multidisciplinary approach to deal with all the different causes and facets of this problem. Nonetheless, these ideas and principles can guide those who want to tackle violence and crime. We face a complex and wicked problem, but the city of Cali shows that there is hope for our region.

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2020 Redistricting Is Impacted by America's History of Racism:

The Exploitation of Florida's Prison Population

By Clare C. Fisher

In response to the results of the 2020 Census, most American states are undergoing redistricting processes to ensure that representation in Congress and state legislatures accurately reflects population changes. The American redistricting process has received critiques for decades, the most familiar of which is the gerrymandering of districts. The goal of gerrymandering is to draw district lines that group together a specific portion of the population to concentrate their voting power and benefit a particular party. Intentional gerrymandering based on the racial demographics has been declared unconstitutional by the Supreme Court, but racism is still inherent in the redistricting process today—especially in Florida.

Florida's redistricting deadline is 13 June 2022.⁴ It is imperative that legislation is passed to make redistricting more equitable and anti-racist. Florida Republicans benefit from increased legislative representation of their primarily White voting base and Black voter disenfranchisement. Florida's redistricting policies allow politicians in power to protect their party's interests for another decade. One fundamental issue that needs to be resolved in Florida is counting incarcerated persons in the redistricting process.

Florida has the third-largest prison system in the country, with about 80,000 inmates.⁵ Three of the largest prisons within this system are Florida State Prison, New River Correctional Institution, and Union Correctional Institution, located in Florida's third congressional district.⁶ This is a Republican district, with a population that is 80% White.⁷

In Florida, incarcerated individuals are counted as residents of the county in which they are imprisoned for redistricting purposes. 8 As is true throughout most of the United States, the plurality of Florida's prison

population is Black. This redistricting policy has eerily similar intentions to that of the three-fifths compromise, which counted enslaved people as three-fifths of a person for the purpose of representation. That clause of the United States Constitution has since been nullified, but new policies to uphold White power have taken its place. Like those enslaved people, incarcerated individuals held captive by the state do not have the right to vote, yet their numbers count toward local political representation. This parallel is not a coincidence; it is by design.

Due to racist policing practices and sentencing laws, the Black inmate population in Florida has consistently risen over many years. This increase will be reflected accordingly in redistricting this predominantly White part of Florida. This dynamic benefits one party by taking advantage of another.

Potential changes to congressional and state districts would have huge ramifications on the political landscape in Florida and even in the United States at large. If the Florida legislature is successful in gerrymandering its districts to include more representation of Republican voters, the 2020 redistricting process could solidify Florida as a red state, directly influencing the outcomes of US presidential elections moving forward. This is because the allocation of electoral college votes is reflective of state representation.¹¹ Florida already has the third-highest number of votes in the electoral college, and all of those votes are allocated toward the presidential candidate that wins a majority or plurality of the vote in the state. 12 Presidential election results in Florida historically have a significant impact on who will win the presidency; more electors in a Republican-led state will further solidify Florida as a GOP stronghold on the national stage.

This issue is just one aspect of the disenfranchisement of Black voters that has existed in America since 1965, when Black voting rights were protected by the Voting Rights Act.¹³ White American control over politics and economics was, and still is, threatened by the power of the Black voting populace. Mass incarceration and racist gerrymandering are 21st-century tools of control and management that the White majority utilizes to justify its power.¹⁴

Americans need to reckon with the reality that racism still shapes democratic institutions in a way that contradicts the notion that these systems are in fact democratic. Instead, many White people choose to ignore the understanding that history repeats itself. Slavery, segregation, Jim Crow laws, and now mass incarceration represent phases of American history that deprived Black Americans of their humanity and rights in distinct but interrelated ways. In 2022, utilizing Black prisoners as a means to gain greater political power in the legislative system is undoubtedly racist. Martin Luther King, Jr.'s words from over 50 years ago still ring true: "[F]or the good of America, it is necessary to refute the idea that the dominant ideology in our country even today is freedom and equality while racism is just an occasional departure from the norm on the part of a few bigoted extremists."15

So, what is the solution to this problem of inequitable and racist redistricting in states like Florida? How can White Americans work to address racism in our institutions? It would be most equitable to give incarcerated people the right to vote in an ideal world. Upholding voting rights would respect and recognize incarcerated people as members of our country who will hopefully re-enter Floridian society and have a say in how policy impacts them and their families. But currently, only Maine, Vermont, and the District of Columbia place no restrictions on voting rights, which allows all incarcerated individuals to vote while in prison or jail. 16 There are measures that Florida's legislature can take to push for more equity and build momentum toward an objective of no voting right restrictions for incarcerated individuals.

Some states have mandated that incarcerated

persons should be counted as residents of their previous address.¹⁷ This approach to redistricting policy is reasonable and feasible to implement in Florida. If the Florida state legislature is unable to pass meaningful legislation before the redistricting deadline passes, it is essential to pressure representatives to revise redistricting procedures for the 2030 Census. Ensuring that prisoners are not counted as residents of the counties in which they are imprisoned is one step of many in the process of dismantling inequitable American policies.

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Extreme Risk Protection Orders

Opportunity for bipartisan action to reduce gun violence in the United States

By Kelly Mallon

The United States has a gun violence problem.

While mass shootings dominate national headlines, nearly two-thirds of all gun deaths in the United States are a result of suicide. In 2020, 24,000 Americans died by gun suicide, and over 2,000 people were killed in a domestic violence-related shooting. 2

Studies show that suicide is often an impulsive act, and access to firearms are much more likely to make that impulsive act deadly. While guns are used in only 5 percent of suicide attempts, they are responsible for 50 percent of suicide deaths.³

The number of firearm deaths in the United States would be even higher if it weren't for laws in 19 states and the District of Columbia that allow members of law enforcement to temporarily take guns away from individuals who are at an imminent risk to themselves or others because they are going through a crisis. These laws, called Extreme Risk Protection Orders (ERPOs), previously referred to as red flag laws, have made important progress in reducing both mass shootings and gun suicide.

Despite the highly partisan nature of the gun control debate in the United States today, these laws have passed both Democrat- and Republican-controlled legislatures with bipartisan support in recent years.

What are ERPOs?

Modeled off of existing domestic violence laws, an ERPO is a type of civil restraining order that allows law enforcement or, in some states, family members and medical professionals to petition a judge to temporarily remove guns from an individual. The main aim of an ERPO is to temporarily remove guns from the hands of individuals who are exhibiting observable signs of distress or potential violence and preventing

them from taking any drastic action.

This can have a significant impact in preventing of all types of gun-related death. Studies show that 80 percent of people considering suicide show some sign of their intentions, and an FBI study of pre-attack behavior of shooters found that an average shooter displays four out of five observable and concerning behaviors that relate to violence or interpersonal interactions before a shooting.⁴

There are two types of ERPOs. The first, called an ex-parte ERPO, authorizes a judge to issue an order without notifying the respondent (the person of concern) in an emergency. In this type of ERPO, a petitioner—depending on the state, usually a member of law enforcement or a family member—must provide proof that the respondent is at an imminent risk of harming themselves or others with their firearm.⁵ In order for this type of ERPO to become a final ERPO, there must be an additional hearing where the respondent has the opportunity to appear before the judge and provide proof as to why they do not think their firearms should have been taken away. If granted by the judge, a final ERPO in most states lasts for one year.⁶

The first ERPO was passed by the Connecticut legislature in 1999 after a shooting.⁷ Since then, ERPOs have become law through multiple different processes. In Washington, ERPOs passed on the ballot with 69 percent of voters voting in support.⁸ In Vermont, the governor signed an ERPO into law after concerns about an individual who was threatening violent action.⁹ In Florida, an ERPO was signed into law by Governor Rick Scott after 17 people were killed at a high school in Parkland. The shooter in Parkland had been known to law enforcement and

the school due to his history of violence and mental health issues. Had the law been in effect before the shooting in Parkland, the police potentially would have been able to take the legally bought assault rifle away from the shooter temporarily.

Not only did the Parkland shooting lead to the passage of an ERPO in Florida, it also led to the consideration and passage of them in many other states, including in Massachusetts.

ERPOs as a Tool in Behavioral Threat Assessment

An ERPO is a tool that makes sense through the lense of behavioral threat assessment, an approach to targeted violence that mental health and law enforcement professionals have been developing and using since the 1980's to prevent violence. Mark Follman, the National Affairs Editor at Mother Jones who has covered gun violence for many years, explores the approach of behavioral threat assessment in his upcoming book *Trigger Points: Inside the Mission to Stop School Shootings in America:*

Most cases are about trying to give troubled people constructive help, whether that's through mental health treatment, counseling, or other tools of monitoring and support. In its ideal form, threat assessment and management is about early intervention, though detecting worrisome behavior at early stages can be challenging. The fundamental idea is to respond to people who are showing behavioral warning signs by steering them away from thinking about violence, before they get anywhere near the point of planning and carrying out an attack.¹⁰

Mark sees ERPOs as an important factor in this approach:

Whether a person of concern has access to guns or other weapons is a key question for threat assessment practitioners. In that regard, I think ERPOs have growing potential for the field. This is a policy with bipartisan support, and initial research has shown that it can be effective for helping prevent both suicide and homicide.

Studies show that individuals considering mass violence often confide in someone before they act, or they have observable behaviors that may signal the potential for violence. ERPOs provide law enforcement with a tool to take action when there is evidence that someone could be an imminent threat to themselves or others.

In Indiana, ERPOs were actually championed by members of law enforcement after one of their own was killed. Called the "Jake Laird law," Officer Jake Laird was killed in 2004 while responding to a call that someone was walking around with a rifle. The shooter had previously had his firearms seized, but law enforcement was forced to return them because they had no authorization under the existing law to hold them.¹¹

While legislative calendars vary from state to state, ERPOs have been filed or will be filed by legislators in upcoming legislative sessions in states around the country, including in Pennsylvania, Utah, Texas, Michigan, and more. In many of these states, ERPOs have bipartisan support, but pressure from highly coordinated and well-funded gun rights groups are preventing movement.

Even in heavily Republican states, these laws are overwhelmingly popular among the general public. In Texas, for example, a March 2019 poll found that 72 percent of voters "strongly" or "somewhat" supported red flag laws, with only 18 percent outright opposed. 12 According to Josh Blank, manager of polling and research for the Texas Politics Project at the University of Texas at Austin: "Reflexively, there is this Second Amendment culture that you would expect here in Texas. But when we ask about specific policy proposals—whether that's universal background checks, limiting the ability to buy high-capacity magazines or, in this case, a red flag law—you

find much more support than you do for new gun restrictions writ large."¹³

In Michigan, while the House Judiciary chairman has failed to hold a hearing on the bill, 71 percent of voters support ERPOs. ¹⁴ In many states, it's the very vocal minority that prevents these laws from moving forward.

Pushback

Despite the fact that ERPOs are modeled after existing laws on domestic violence, pushback from pro-gun groups has been strong. In 2018, the NRA's top lobbyist, Chris Cox, came out in support of Congress providing funding for ERPOs. He was quoted saying that ERPOs could "help prevent violent behavior before it turns into a tragedy." However, the NRA has continued to lobby against these laws at the state level, riling up members with misleading information. In Utah, for example, ERPOs have been characterized as a "gun grab," and the Republican sponsor of the bill was barraged with phone calls, emails, and death threats on social media after filing an ERPO bill. 16

The most common concerns about ERPOs are about adequate due process protection—the protection of a citizen's life, liberty, and property from the state until they are given the right to be heard—as provided by the due process clause of the 14th Amendment. 17 However, due process protections are incorporated into ERPOs in many steps of the process. Ex-parte ERPOs are only temporary, and the respondent has the opportunity to go before a judge to plead their case before a final ERPO is issued. Additionally, even after an ERPO is issued, the individual has the opportunity to go before a judge and present proof as to why the ERPO should be terminated early. ERPOs are also time limited, and in order for one to be renewed, there must be an additional hearing. Finally, and most importantly, ERPOs have been in place in at least one state in the United States since 1999, and no court has ever ruled them to be unconstitutional.18

Support from law enforcement is a helpful counterargument to some of this pushback. In Florida, members of law enforcement were involved with the

drafting and passing of ERPO language. ¹⁹ According to Representative Steven Handy, who has filed an ERPO bill in multiple sessions in the Utah House of Representatives: "[E]ven law enforcement, they were so angry that it wouldn't get a hearing because law enforcement wanted this tool. They wanted to be in a hearing where they were able to talk about the necessity and the need for an ERPO, but I could never get it there." ²⁰ Despite this support from law enforcement and others, the committee chairman has not held a hearing on the bill in the past two legislative sessions, a trend that can be seen in many states across the country. ²¹

Effectiveness of ERPOs

States that have these laws in place have used them to prevent acts of violence on numerous occasions. Research done by the Giffords Law Center to Prevent Gun Violence in 2020 examined the use of ERPOs in Broward County, Florida, in the one year since the law had taken effect. The studies found that in Broward County alone, law enforcement officials had used ERPOs to intervene before violence occurred in more than 200 instances.²²

Studies also show that ERPOs reduce the rates of gun suicide. A 2019 study using data from the CDC and the Giffords Law Center to Prevent Gun Violence showed that states with stronger gun laws have lower rates of gun suicide as compared to states without them.²³ Additionally, analysis on usage of the law in Connecticut between 1999 and 2013 found that one suicide-related death was avoided for every 10 to 20 firearms removed under the authorization of an ERPO.²⁴

ERPOs as a Proactive Policy Tool

ERPOs offer an opportunity to reduce gun deaths in the United States without infringing on the right of responsible gun owners to bear arms. Pressure from supporters of ERPOs on key decision-makers, including committee chairpeople and party leaders, can help these bills move forward. In Florida, the March for Our Lives movement was instrumental in keeping pressure on legislators to take action after

the Parkland shooting.25

Almost all of the ERPOs that are currently in effect were filed in response to tragic acts of violence. In Connecticut, it was after a shooting at the state's lottery headquarters; in California, after a mass shooting in Isla Vista. ^{26,27} States that are currently considering these bills must not wait for a tragedy to take action and instead must take the proactive effort to save lives by passing ERPOs today.

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Easing tensions in the South China Sea is in the interest of all, including China

By Hendrik Garcia

For years, the South China Sea has been a source of escalating tensions and conflict. It has divided the Asia Pacific region and remains one of the world's most volatile flashpoints.

Expansive claims coupled with militarization, gray zone tactics, coercive measures, and artificial island-building increase risks of miscalculation, leading to crises, mistrust, and unease. Great power competition between China and the United States adds complexity that claimant states and the international community must navigate. Arriving at peaceful resolution remains elusive and out of reach.

In such an insecure environment, there is a need to ease tensions. This should be top of the agenda for the region's leaders and diplomats, as it serves the interests of all, including China. A sustainable approach cannot be forged without considering the underlying interests of all claimant states and stakeholders involved. I proffer three main reasons why easing tensions will be beneficial for all concerned:

1. It would improve China's international image

As the world adapts to China's meteoric rise, a pervasive concern is the type of great power China is becoming. Its actions in the South China Sea project an image of an aggressive revisionist power, determined to become the regional hegemon at all costs. Relations with neighboring countries like the Philippines, Vietnam, and Malaysia have been adversely affected in this regard. Likewise, global perceptions of China remain tainted, among others, by its behavior in the South China Sea.

By refraining from coercive measures and eschewing militarization, China would reduce the threat perception and calculations against it, including through internal and external balancing of claimant states and extra-regional powers. There would be less dissonance between what China says—that it is a friendly neighbor and wants good relations with the region—and how it acts.

In addition, lowering tensions promotes the spirit of the Declaration on the Conduct of Parties in the South China Sea concluded by the Association of Southeast Asian Nations (ASEAN) and China in 2002. It also allows for more conducive dynamics as ASEAN and China continue talks on a Code of Conduct in the South China Sea.

On the 30th anniversary of ASEAN-China relations, Chinese President Xi Jinping stated last 22 November 2021 that "China was, is, and will always be ASEAN's good neighbor, good friend and good partner [...] China will never seek hegemony, still less bully smaller countries." This statement was made a few days after Chinese Coast Guard vessels prevented Filipino supply boats from delivering provisions to personnel on Ayungin or Second Thomas Shoal, a feature recognized as part of the Philippines' continental shelf and within its exclusive economic zone in accordance with the United Nations Convention on the Law of the Sea and the 2016 Arbitral Tribunal Award. By refraining from such provocations, the gap between perceptions and reality would be diminished, and much would be done to assuage growing fears about China's rise and its intentions.

2. It would pave the way for constructive dialogue and cooperation

Easing tensions would help leaders in claimant states pursue more constructive dialogue and cooperation with China, rather than cast it in a menacing light. China is, by far, the most important trading partner

of claimant states and ASEAN. However, under current conditions, it is costly for political leaders to appear susceptible to Chinese pressure and influence. Consistent incidents in the South China Sea result in hardening of hawkish positions, which is detrimental for peaceful resolution of the issues at hand.

None of the ASEAN claimant states pose a serious threat to China's security. Nevertheless, they are being treated as such, and this creates deep misgivings in ASEAN societies that harm relations with China. While Chinese historical memory and strategists view the South China Sea as a crucial perimeter to prevent another "century of humiliation" —when China was invaded by Western powers and Japan — Southeast Asian claimant countries regard China as the harbinger of an era when their sovereignty and rights are being disregarded also.

Hence, less-threatening behavior would create circumstances under which domestic constituencies might more openly support dialogue and cooperation with China. This would bolster existing bilateral dialogue mechanisms. It would also contribute to a sense of a shared future between partners in the region, whereby strong economic relations with China need not be hampered by overriding security concerns.² ASEAN claimant states want to maintain positive relations with China, and do not want to feel coerced.

3. It would help avoid confrontation between the US and China

With the ratcheting up of rhetoric in US-China relations, calming tensions in the South China Sea can reduce the possibility of direct confrontation between the two powers. This can bring predictability to complex and tumultuous relations. It also allows the two competitors to focus on other areas, such as trade issues, technology, and cyber. Establishing productive relations and credible communication channels is a shared interest.

The South China Sea has been a theater in which China can flex growing maritime security capabilities without risking major reprisals from the US and other powers. It has been doing so because it can get away with it. But these conditions are not sustainable. Other claimant states will inevitably upgrade military and law enforcement capabilities that will increase tensions. They will also look to the US and other powers to balance China's actions and threats, real or perceived. Increasing freedom of navigation operations and the recent AUKUS nuclear submarine deal are only the tip of the iceberg.

Moves in the South China Sea are largely motivated by threat calculations. None of the ASEAN claimant states wants to choose sides, unless absolutely forced. As China and the US both seek to "be great again," the South China Sea should not become just another piece in their global chessboard. This approach limits flexibility, casting each move as a win or loss for either side. It reduces other actors to minor roles, rather than treating them as legitimate agents with their own capabilities and interests.

During a virtual bilateral meeting on 16 November 2021, US President Biden "underscored the importance of managing strategic risks [...] and the need for common-sense guardrails to ensure that competition does not veer into conflict and to keep lines of communication open."4 Reducing tensions in the South China Sea benefits US-China relations and promotes Chinese and US strategic interests, as it would contribute to avoiding catastrophic conflict that could be sparked by an incident at sea. At some point in the current trajectory, either side may be prompted to respond more potently than it has before, likely egged on by domestic calls for more resolute action. This could be a dangerous tipping point that will lead to higher levels of escalation, possibly drawing in other countries into a major conflict.

With the world still reeling from the COVID-19 pandemic, the global economy might not be able to withstand such a shock.

Critics say no hope

Many might say this is all wishful thinking. The South China Sea will always be an intractable source of tensions. A new Cold War between the US and China is already taking place; it can be noted, however, that

the US and USSR agreed on strategic arms reduction and averted nuclear war during the Cuban Missile Crisis. Realists state China will never be detracted from its desire for regional and global domination, which requires control of the South China Sea. China has no incentives to come to the table nor change its behavior, short of a strong balancing coalition and military deterrence.

Pundits might ultimately be proven right. But it is difficult to predict the future. What is important is to keep exploring pathways to peace, especially if the foundations of peace cannot yet be built. If we stop trying, the likelihood of conflicts will increase like a self-fulfilling prophecy.

Time for imagination

At the John F. Kennedy School of Government at Harvard University, we are asked to analyze the feasibility of a policy by looking at how it holds up to political, administrative, and financial criteria.

Politically, reducing tensions will be challenging. Yet, there is opportunity for leaders in the region to take the initiative and make good-faith measures that can open the door for reciprocity and negotiation. This can be done by halting military construction activities and coercive measures, such as harassment of fishermen and supply ships, for a designated amount of time to allow for a cooling-down period.

Administratively, confidence-building measures under the ASEAN-China Declaration on the Conduct of Parties in the South China Sea could be explored. These could include an informal retreat among leaders of claimant states; exchanges between local and regional governments and relevant agencies; good offices of the UN Secretary-General; a youth peace forum; and establishment of disaster or crisis management networks. The understanding would be that these measures would not prejudice existing territorial and maritime claims and positions thereon to establish an initial minimum comfort level between claimant states.

Financially, a preventive approach cuts the costs of arms competition and associated risks. Viewing the

South China Sea only through the lens of security and law enforcement can lead to confrontation and missed possibilities for widening the pie and cooperation. There is a chance to change the game if parties move away from tit-for-tat reactivity and aggressive power projection to value creation and problem solving.

A common interest among claimants is the desire for access to marine resources, while upholding national sovereignty and territorial integrity. As a start, could tentative frameworks for fishing, marine environmental protection, scientific cooperation, and crisis management be discussed in areas of the South China Sea? A balanced and inclusive approach is needed. Claimant states can establish mechanisms and modalities—compliant with UNCLOS and principles of international law—to pursue cooperation and manage differences peacefully. Restraint can be difficult for the powerful, yet it is more effective than force for cultivating trust and mutually beneficial relations.

Despite the temptation to draw lines and demonize, it is time for imagination, curiosity, and understanding. This is the only way to move from conflict to cooperation. It will take courage, patience, and empathy from all sides to listen and comprehend each other. There are no guarantees of success. But it is worth the attempt because our common future depends on it.

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Why Policymakers Should Care About Religion

By Tara Burchmore

American policymakers live in a country that is becoming less religious. A December 2021 Pew Research Center study found that 29 percent of US adults consider themselves atheists, agnostics, or "nothing in particular," up from only 16 percent in 2007.¹ Religious "Nones" are a diverse group across racial, gender, and regional lines but are predominantly composed by younger people who lean more Democrat.² American millennials and Gen Zs self-report record lows in regard to participation in organized religion, suggesting that American religiosity will continue to decrease over the next several decades.

Despite the marked decrease in religiosity, it's important to care about religion. Religion has played a unique role in the formation of the American identity. The origin story of pilgrims fleeing England in search of religious freedom continues to influence the zeitgeist of the country, and when polled today, 53 percent of US respondents say that religion is very important to them, compared with 27percent of Canadians, 10 percent in the UK, 11 percent in France, 10 percent in Germany, 18 percent in Australia, and 3 percent in China.3 The relative religiosity of the United States increases the importance of considering religion. Why does this powerful yet under-researched force exert more of an influence in this country than in others? How does this influence governance, policymaking, and how Americans interact with others, both in a domestic and international sense?

While over half the country deems the subject "very important," religion is often seen as deeply personal. Most people are primarily presented with religion by their own families or from the perspective of a specific faith community, and thus the influence of organized religion is not always considered within an academic discipline. The study of religion, and of different religions, must be undertaken to understand the diversity among religions and how religion as a

force influences culture and appears within society. As an undergraduate studying international relations, I noticed a common thread between regions experiencing ongoing conflicts. More often than not, the case studies we investigated in my government courses looked at two groups from disparate religious backgrounds leading to a legacy of disagreement. Conflict arose between the different understandings, and while we considered a variety of highly rational international relations theories, I continually felt that the role of religion as a fundamental informer of cultural understanding was the missing piece in our analyses. J. Bryan Hehir, a professor at the John F. Kennedy School of Government at Harvard University, writes that, while religion has never been absent from international affairs, "the study of world politics—particularly the formal discipline of international relations-and the practice of world politics - particularly formal interstate diplomacy have both treated religion as inconsequential, a reality which could be ignored by scholars or diplomats without any diminishment of their understanding of the world."4

Religion is thought of as an isolated force, or a personal choice among individuals. Particularly in a country founded on an ideal of religious freedom, Professor Hehir writes that we have become beholden to "the correlative idea has been that a democratic polity that guarantees religious freedom for all citizens should regard religion as a private reality, not a public influence on society." By failing to acknowledge religion as an influence on a belief system, especially when conflicting belief systems intersect, scholars of policy overlook a crucial force in international relations and domestic affairs.

Domestically, religion's contemporary importance can be seen with increasing polarization along political lines. Political ideology is closely correlated

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with religious identity; people who are more liberal are less likely to be religiously affiliated, and those who are more conservative are more likely to be religious.⁶ A conservative reaction to decreasing religious observance in the 1960s prompted the growth of evangelical dominance within the Republican party, but since the 1990s, younger Americans have turned away from the interrelationship between religiosity and conservative politics and have cast aside organized religion. Robert Putnam, in his book American Grace, writes that "the result has been a growing polarization—the ranks of religious conservatives and secular liberals have swelled, leaving a dwindling group of religious moderates in between."7 The close relationship between the Republican party and faith has increased the number of "Nones," religiously unaffiliated people, with an American Journal of Political Science study finding that some Democrats are more likely to claim they are nonreligious after reading a news story about a Republican speaking in a church.8,9

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Just Because You Can't See My Disability, Doesn't Mean It Doesn't Exist

By Majd Steitieh

When I was 13, I lost my glasses and had to squint to see things. My friends helped me take notes at school that day. When I was 23, I hurt my wrist and needed to wear a wrist splint; strangers asked if I needed a hand with things. When I was 29, I had spinal surgery. No one batted an eye.

This January, I was diagnosed with Cauda Equina Syndrome, a rare condition that results in extreme pressure and swelling of the nerves at the end of the spinal cord. Given the urgency, surgical intervention was crucial to avoid paralysis, impaired bladder, difficulty walking, and other neurological and physical problems. I was fortunate to get it treated in time, and unless you knew this whole backstory, you would not be able to guess I had gone through this traumatic experience. And that is the issue.

About 10 percent of people in the US have a medical condition that could be considered a type of invisible disability, as referenced by Disabled World, an independent health and disability organization.³ These conditions are termed *invisible* because they do not present in ways that are immediately apparent to others. Common invisible disabilities include sensory disabilities, autoimmune disorders, chronic illness or pain, cognitive or learning challenges, sleep disorders, and psychological disorders.⁴

Invisble disabilities have therefore been described as both a blessing and a curse. They can be a blessing because, at first glance, you can pass as "normal." It makes things less awkward when meeting new people and is one less thing to worry about when interviewing for a job. Yet, it can be a curse, especially when you have to come up with excuses for why you cannot go out to dinner with your friends. It is draining to hide certain spasms so you can avoid getting those suspicious looks. Too often, those with invisible disabilities will

find themselves needing to downplay their pain as a one-off occurrence because "I must have slept on it funny" is a lot less time-consuming than having to explain the real reason you are in agony.

Perhaps the most hurtful experience of living with an invisible disability is the recognition that the average person simply does not understand that these conditions are real and impair the daily life functions of those who bear them. Wayne Connell, founder and head of the Invisible Disabilities Association, illustrates this point succinctly when describing his wife's experience living with multiple sclerosis: "We'd park in disabled parking and she didn't use a wheelchair or a cane, and so people would always give us dirty looks and scream at us."5 Unfortunately, society has authorized this idea that your disability is only legitimate if you are in a wheelchair, use a cane, or some other visible support mechanism. The truth is only 2 percent of people with disabilities are wheelchair users, as Inclusive City Maker highlights.⁶

When we extend this phenomenon to the work-place, more troubling realities emerge. A 2017 study by Coqual found that 62 percent of employees with disabilities reported that their disability was invisible, agreeing with the statement "Unless I tell them, people do not know that I have a disability." Since these disabilities are not readily evident, the employee is faced with a dreadful decision: should they disclose their disability status and potentially face discrimination, or should they keep it secret and face isolation, anxiety and paranoia?

As the BBC reports, even when employees are brave enough to disclose their disability, "colleagues may not believe that they genuinely need help or simply fail to spot the difficulties they are having." More often than not, their coworkers will label them

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as needy, lazy, or seeking attention. These fears are further echoed by a 2011 Canadian survey, which found that 88 percent of people with invisible disabilities had a negative view of disclosing their disability.⁹

But disclosing invisible disabilities does not have to be daunting if employers make it safe for employees to do so. One way to accomplish this is by ensuring representation at the leadership level. A 2021 *Harvard Business Review* study found that when employees with disabilities have role models at the leadership level who have disclosed their own disabilities, they are 26 percent more likely to be open about their disability than in other organizations. ¹⁰ Another approach is to offer training on inclusive practices. The same study found that employees are 35 percent more likely to disclose their disabilities in organizations that have such training than in organizations that do not. ⁹

Whether in the workplace or at the supermarket, people with invisible disabilities have to constantly decide when to let people in on their secret and when to endure the raised eyebrows. Worst of all, we are repeatedly told to be thankful that we can at least pass as "normal." That might be the hardest part, as we know we are anything but close to "normal."

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A Case for Integrated Food Governance as an Emerging Policy Area

By Yi Jian

"Before you finish eating breakfast in the morning, you've depended on more than half of the world."

Martin Luther King, Jr.
– A Christmas Sermon on Peace, 1967

Thirty years ago, for my parents as well as for many Chinese policymakers, the emerging environmental topic had often been understood as sanitation issues: do not spit, do not litter, and keep your city's environment clean. Years passed. China's environmental risks extended and deepened, and today, there is little dispute among Chinese policymakers that environmental sustainability requires a systematic approach involving all stakeholders.

Our understanding of food issues is the same today as it was for environmental issues 30 years ago, not just in China but around the globe. Too often, food systems activists find ourselves still being referred to as "the food safety folks" by policymakers with whom we just had a 30-minute conversation about healthy and sustainable diets.

Things are changing slowly. Food systems transformation has gained momentum among governments, private sectors, civil society organizations, and philanthropists thanks to the United Nations Food Systems Summit in 2021, which recognized the need for a holistic approach. Indeed, food issues are no longer a sub-topic but can instead serve as a standalone policy issue that cuts across all the critical issues of our time: climate, biodiversity, public health, and equity. It demands an integrated food governance approach across broader political, economic, societal, and ecological contexts.

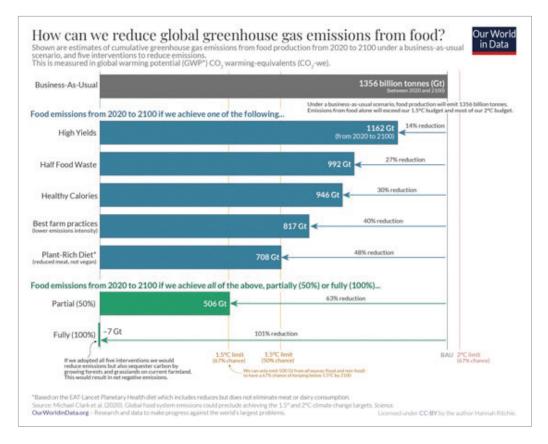
Until recently, governments have worked in silos regarding food issues. There is usually an agri-

culture department that oversees food production, a commerce department that manages business and food and beverage manufacturing, a food regulation bureau, and a public health department that has a mandate over dietary guidelines. The state environmental agency seldom investigates the multifaceted impacts of food production and consumption, and the education department offers little—if any—food literacy education.

Lack of proper food governance creates real issues for the future of our nations. Unhealthy diets pose a greater risk to morbidity and mortality than unsafe sex and alcohol, drug, and tobacco use combined. Diets have a direct effect on the current destruction of our environment. Indeed, the world's food systems are responsible for more than one-third of global anthropogenic greenhouse gas emissions. Food systems are also the primary driver of biodiversity loss across the globe. By 2050, these dietary trends, if unchecked, would be a significant contributor to an estimated 80% increase in global agricultural greenhouse gas emissions from food production and global land clearing.

None of these problems can be improved if our current food systems remain unchanged. As economic development and urbanization continue to increase, feeding a growing population with healthy food produced in sustainable food systems may be one of the biggest challenges in the next few decades. Indeed, "[f]ood is the single strongest lever to optimize human health and environmental sustainability on Earth."

And thankfully, we already have some of the solutions: a drastic shift to more plant-based diets, reducing food waste, and improving food production can help keep us within planetary boundaries by 2050.⁷



To transform food systems, we need consolidated efforts from policymaking across the board. We must build integrated food governance at the international, national, and local levels to bring about a paradigm shift towards healthier, more sustainable, equitable, and ethical food production and consumption patterns. It is a battle humanity cannot afford to lose.

Yi Jian is currently a Mid-Career MPA student, a Mason Fellow and a Gleitsman Leadership Fellow at the Harvard Kennedy School. He is a filmmaker and a food activist from China, where he founded the Good Food Fund, CBCGDF.

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