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LIMITATIONS OF THE U.S. FINANCE INDUSTRY IN AN INCREASINGLY MULTIPOLAR WORLD

FINANCE INDUSTRY STUDY AY2022-23

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Executive Summary

The United States' (U.S.) finance industry is a mosaic of highly regulated entities that generate trillions in revenue. Those revenues ripple across the U.S. and the global economies and become the foundation for capital investments into infrastructure, education, social welfare, and national defense. The United States occupies a unique position in the world order due, in large measure, to its robust financial markets and the singular attributes of the U.S. dollar. U.S. financial strength enables the pursuit of domestic and global objectives by leveraging the four primary instruments of power – diplomatic, informational, military, and economic.

After World War II, deliberative planning conducted at the Bretton Woods Conference, established an international financial relations system that evolved to include the political, legal, social, and defense structures that we currently describe as the Western rules-based order. This order has maintained relative peace for more than seventy-five years and promoted prosperity.

Initially, U.S. hegemony was a significant justification for the longevity of this world order. Over time, the nuclear arsenal of the Soviet Union, the burgeoning manufacturing in communist China, and the chorus of dissatisfaction expressed by emerging nations created ideological fault lines in the foundation of the order and exposed the limits on U.S. power.

This Industry Study (IS Finance) examines U.S. power by performing an enterprise risk management analysis of the U.S. financial industry. The holistic analysis commences by examining the foundational precepts that inspired the Bretton Woods Conference and proceeds to summarize sources of U.S. financial strength by describing effective forms of corporate governance, the overarching regulatory framework, the U.S. dollar as the reserve currency, accessible capital markets, and the role of innovation. Constraints, such as cyber threats, money laundering, sanctions abuse, de-dollarization, market permeability, and underfunding defense

technology, are explored. Some of the strengths (sanctions supported by the dollar as a reserve currency), if indiscriminately invoked in the context of financial statecraft, can have the unintended effect of engendering or exacerbating illicit finance resulting from sanctions avoidance and attendant money laundering compliance responsibilities. These are considerations for policy makers as the Unite States seeks to formulate a coherent financial statecraft response to China's Belt and Road Initiative (BRI) (aspects referenced generally throughout and in Appendix A of this paper) in Eurasia in an era of fiscal constraint and new policy priorities[1] and increasing multipolarity and complexity.

The authors contend that for the U.S. to maintain its financial primacy, a whole of government approach is required to implement the following five policy recommendations:

1. Establish a regular interagency working group to assess and address national security risks related to the financial industry.[2]
2. Establish a multiagency, joint sanctions monitoring group,[3]
3. Establish a list of corporate principles correlated to national security concerns,
4. Collaborate with financial institutions to pilot private-funded national security investments, and
5. Tailor existing federal loan programs to preserve legacy fossil fuel investments essential for national security.

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Introduction

The U.S. financial system is one of the pillars of American power and influence worldwide. No other country comes close to matching the depth of U.S. financial markets.[4] Following the collapse of the Soviet Union in 1991, the United States assumed the role of global hegemon supported by its economic and military strength.[5] The "Washington Consensus" emerged with the belief that privatization and easing state control over national economies could bring peace and posterity.[6] Globalization, the reduction of trade barriers, and then expansion into emerging and developing countries fueled the growth of the U.S. economy. Emerging and developing countries benefited from the financial system the United States built (for example, alongside the U.S.'s growth, China grew faster).[7] Yet stark inequalities emerged, fueling resentment and doubts among emerging economies (and later developed economies, as elements of their industrial base were hollowed out and sections of their middle classes lost out to "globalization") regarding the benefits of the Western-fostered system. Events such as the 2008 housing crisis reminded other nations of flaws in the West's financial system. With an increasingly large economy and confidence, China began to create alternatives to the U.S. financial system. It was encouraged by the growing attention it generated amongst emerging economies, which sought to diversify their dependencies and free themselves from unipolar influences. The dollar's weaponization further accelerated China's efforts and was a wake-up call for other countries, who realized they could be the next recipients of U.S. sanctions.[8] Today, the financial system is increasingly multipolar, with the West on one side, China and Russia on the other, and with pragmatic non-aligned countries picking and choosing from both.[9] In this context, the role of the U.S. financial system will be examined. We posit that in a multipolar

world, the U.S. financial system remains an essential component of the economic instrument of power and a significant statecraft instrument to be wielded, albeit with limitations in its reach.

This paper examines the greatest strengths and risks of the U.S. financial sector in this evolving world order. It seeks to show that the U.S. financial system can adapt to continue supporting national security needs and that U.S. corporations are taking on obligations to a broader set of stakeholders while continuing to serve their shareholders, even as the United States and the world transition to more renewable energy sources. Yet, it also acknowledges the challenges and limitations of the finance industry to respond to the complex environment of this emerging financial order from the perspective of national security. The challenges are not just nation-states; they also include climate change and individual actors seeking to take advantage of the financial system for their gains. We ultimately recommend creating an interagency working group to assess financial risks to national security using a whole-of-government approach (building upon and coordinating various agencies'[10] existing approaches and infrastructures) and enacting policies to further integrate the finance industry and private sector capital in support of national security.

The paper will proceed as follows: First, the historical background of the U.S. financial system, namely the Bretton Woods System, will be established. Second, the sources of U.S. financial strength will be identified, namely the benefits of the Bretton Woods System, the rule of law, the dollar as a dominant currency, capital markets, and the robust innovation environment. Third, corporate governance and the Environmental, Social, and Governance (ESG) movement will be examined, especially as it presents national security and financial sector paradoxes. Then the strengths of the financial system will be juxtaposed with its weaknesses as its limitations are analyzed; they include the counter sides to its strengths (i.e., dollar, capital markets, innovation,

etc.) as well as cyber, money laundering, and illicit finance. Lastly, we will provide policy recommendations, including that the United States convene a regular interagency working group to assess and respond to national security risks related to the financial industry and ways the U.S. can leverage private capital to support national security objectives.

The Foundation of the Financial System

As we analyze the U.S. financial sector to determine its limitations in a multipolar world, the analysis must begin with the foundations of the sector. Those foundations are the Bretton Woods System which established the international finance framework and enabled the dollar to take on an outsized role through its institutions and basis in transparency and the rule of law.

The Bretton Woods System and Rules-Based Order

The Bretton Woods System (BWS) is the set of financial arrangements and institutions established by the Allies to provide stability to the global economy in response to the disruptions of World War II. The system was founded on principles of "political democracy, market-based economic transactions, and transparent international rules, regulations, and laws" to facilitate economic cooperation between nations.[11] The fundamental features of the original BWS were fixed exchange rates pegged to the gold-standard U.S. dollar, the International Monetary Fund (IMF) to oversee the monetary system and provide financial assistance to member countries facing balance of payment difficulties, and the World Bank[12] to provide loans and financial assistance for post-war reconstruction and development projects in member countries.[13,14] The World Bank achieves these goals through the International Finance Corporation (IFC), which advances economic development and improves people's lives by encouraging the private sector's growth in developing countries. The IFC leverages private sector capital to create new markets, mobilize investors, and share expertise.[15] While the BWS has changed over the years, such as the

abandonment of pegged currencies and the gold standard, it has endured.[16] In the 1990s, the "Washington Consensus" emerged as a framework advocated by the United States and embraced by the BWS and its related institutions. The consensus operated under the belief that adherence to a market system of exchange and preference for deregulation over public controls, the liberalization of trade and the reduction of cross-border barriers, the preeminence of the private-sector over state enterprise, and respect for private property and legal mechanisms to ensure its protection" could advert wars and bring sustained peace.[17,18]

It is upon this foundation that the U.S. financial system was built. From BWS, many offshoots and agreements were created[19] to ensure cooperation and coordination to promote economic interests. Adherence to agreements that bind participating nations together is fundamental to the success of the financial system. Today, the BWS is threatened by emerging nations, such as China, despite the prosperity they have gained from it.[20,21]

A critical aspect of the Bretton Woods System is that it laid the groundwork for the dollar's current financial dominance. From that groundwork, the emerging phenomenon known as financialization emerged from a stream of regulatory evolutions that expanded the financial sector by removing barriers.[22] Financialization provided a huge boost to the volume of circulating capital, thus bolstering the ability of Western economies (chiefly amongst them the United States) to fund growth and investment.[23] This helped cement the dollar's status as the dominant currency. The Bretton Woods System was instrumental in establishing the dollar's crucial role in the Western-fostered financial system.

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The Role of the Dollar in the Finance Industry

The dollar is overwhelmingly dominant in the world's financial sector, as evidenced in these four ways. First, international trade is invoiced in dollars. For example, oil is bought and sold in dollars even when the U.S. is not a party to the transaction. Additionally, the dollar's strengths include, first, a share of global trade invoicing 4.7 times greater than that of U.S. imports.[24] Second, dollars are used extensively in foreign banks. Non-U.S. banks have approximately $10 trillion in dollar-denominated liabilities, comparable to U.S. bank liabilities.[25] Third, corporate borrowing, both bonds and bank loans, is predominantly accomplished in dollars, even for companies without dollar revenues. Fourth, central banks have large dollar reserve holdings. Approximately 58 percent of the global reserves are in dollars.[26] These four structural advantages reinforce each other and further increase the dollar's dominance and the U.S. economy's diversity and outreach. With this background, we will now explore the sources of U.S. financial strength.

Journalist Fareed Zakaria refers to the dollar as the U.S.'s "superpower."[27] The dollar enables the United States to shape, persuade, enable, induce, and coerce other nations (albeit at varying levels of efficacy). From economic aid packages to sanctions, the dollar is a tool of statecraft used to protect U.S. national security and further U.S. policies that affect government and industry. Additionally, the dollar lowers borrowing costs. The U.S. government can borrow money at better rates than others because the aforementioned structural reasons make currency demand high, reducing borrowing costs.[28] These rates have a trickle-down effect on industry, as the cost of borrowing is a function of the U.S. Treasury's rates. Likewise, the dollar's dominance draws capital to the U.S. financial services sector.

Sources of U.S. Financial Strength

U.S. financial preeminence rests on several pillars. These include the Western-led global financial architecture, the BWS, that underpins the stability and functioning of nearly all global finance; the regulatory institutions that help ensure the smooth functioning of U.S. markets and preserve trust in the system and its institutions; the power to transact in the world's primary reserve currency; deep, liquid capital markets; and high levels of innovation. This section will discuss these strengths (weaknesses and limitations will be addressed later.)

Western-fostered Financial System

The United States cares about the West's financial system because it is an instrument of power that has enabled its growth and prosperity (U.S. Gross Domestic Product (GDP) is expected to be $25.5 trillion in 2023),[29] global influence and leadership,[30] the elevation of the dollar as the dominant currency, and a means to help promote peace.

The financial system is a strength to the financial industry because it provides a framework for the rule of law and transparency (as previously mentioned), the industries/ operations collaborate with BWS's organizations (e.g., IMC, IFC, and other Multilateral Development Banks (MDBs)[31]), and it has enabled the dollar to become the dominant currency. Today, critically, through participation in and engagement with MDBs, the U.S. can leverage its influence to address pressing global challenges such as climate change. It can, for example, promote ending international financing of carbon-intensive fossil fuel-based energy while simultaneously advancing sustainable development and a green recovery.[32] In this regard, the latest Intergovernmental Panel on Climate Chage (IPCC) AR6 Synthesis Report[33] details the urgency of making more rapid progress toward net zero and taking steps to address the impacts of climate change. Moreover, the scale of global financing required to meet mitigation and

adaptation needs is beyond the resources of the public and private sectors individually and will require coordination and tradeoffs to incentivize private sector finance to help meet the challenge. Specifically, McKinsey estimates that the world needs approximately $9 trillion of climate investments each year through 2050, of which $6 trillion must come from repurposing finance that would otherwise go to high-carbon assets; and $3 trillion per year of new spending.[34] As discussed in more detail below, this confluence of private sector resources and government needs and concessions[35] can create the aperture for the financial industry to balance its shareholder and stakeholder demands while supporting U.S. national security.

Government policy coupled with similar private sector funding and innovation can be a force multiplier for national security and consistent with a whole of government approach to assessing and escalating risks such as climate change that can impact national security.

The financial industry cares about the BWS organizations because they are intertwined with their operations. For example, the IFC is focused on connecting private sector capital from the finance industry with infrastructure needs in developing countries. In 2021, $226.5 billion in trade-finance volume was mobilized to connect 62 million people to the internet and supply 11 million people with power.[36] Likewise, banks and bond markets depend on the IMF's operations as it helps countries navigate their temporary balance of payment problems.[37]

The financial industry cares about the elevation of the dollar as the dominant currency because it enhances its role and provides a means to make money with less friction. At the heart of the West's financial system is the rule of law.

Regulatory Framework

As noted above, the rule of law is a cornerstone of the West's financial system and strengthens the U.S. financial industry. The rule of law creates predictability and trust: "When

businesses can count on predictable laws, enforcement of contracts, and impartial resolution of their disputes, investments flow, and economies flourish."[38] As embodied in a regulatory framework, rule of law creates an enforceable system to "protect investors, facilitate capital formation, and maintain fair, orderly, and efficient markets."[39] Moreover, the World Justice Project found strong correlations between the rule of law, economic development, and other positive societal outcomes (see Figure 1).[40]

The United States imposes rule of law on its financial system through a "highly regulated and oversighted" system.[41] This regulatory system is shifting from a rules and compliance-based regime to an evolving hybrid framework of Climate and Compliance,[42] with ESG and Sustainability factoring into risk management and internal controls[43] and related trends impacting Anti-Money Laundering (AML) compliance.[44] The transformation is being driven by the increasing complexity of the finance industry due to technological changes, such as machine learning and artificial intelligence (AI), and the technological challenges presented by cybersecurity risks.[45] In this evolving environment, U.S. regulators have signed on to the Global Financial Innovation Network (GFIN) to find global solutions (in the spirit of the BWS) to monitoring financial technologies with the aim of protecting capital markets and individual investors for emergent threats.[46]

The U.S. capital market regulatory system operates in a pyramid-complementary model.[47] The Securities and Exchange Commission (SEC) is at the base of the pyramid. Above the SEC lie self-regulatory organizations such as Financial Industry Regulatory Authority (FINRA), New York Stock Exchange (NYSE), Nasdaq, and Depository Trust and Clearing Corporation (DTCC). Member firms, hedge funds, private equity, institutional investors, and finally individual investors comprise the upper layers of the pyramid. Responsibility for investor

protection flows downward, while oversight flows upwards.[48] This model allows the SEC to achieve its mandate to protect individual investors through regular disclosure of significant financial and other information so that investors have timely and accurate information to make investment decisions. This model coupled with the market discipline that investors such as activists hedge funds provide helps fill gaps in oversight such as securities fraud that regulators are not always able to discern as quickly needed. For example, Harry Markopoulos uncovered the Madoff Ponzi scheme before regulators as a result of Madoff engaging in regulatory arbitrage (conducting the fraud in his investment advisory business, which at the time by statue was not regulated by the SEC and FINRA) and Markopoulos working as a competitor to Madoff, and therefore having personal incentives to uncover the fraud.[49] Situations such as the war in Ukraine also present opportunities for hedge funds to purchase distressed assets. While appearing to be unethical, taking advantage of Russia's war-crippled economy by buying its debt securities low and selling them higher later was not prohibited by sanctions and is a way to offload risk from banks to institutions that have the acumen to understand the risk and the resources to withstand it.[50]

Capital Markets

The U.S. National Security Strategy states, "The private sector and open markets have been, and continue to be, a vital source of our national strength."[51] The U.S. capital markets are the largest in the world (as measured by market capitalization, see Figure 2). Capital markets are an essential source of national strength because they enable economic growth. Indeed, attracting capital is a primary form of international competition.[52] Markets finance economies and support growth by allocating risk and transferring capital. Markets fuel innovation to increase

productivity by recognizing and moving capital to the best ideas and enterprises, enabling job creation, economic development, and prosperity.[53]

According to Securities Industry and Financial Markets Association (SIFMA's) 2023 Capital Markets Outlook,[54] in the U.S., capital markets fund 75% of all economic activity in terms of equity and debt financing. The use of markets provides liquidity and affordable funding to grow and create jobs (see Figure 3 for an example of increased liquidity within U.S. markets). Capital markets allow for more efficient borrowing than banks through debt issuance. Moreover, companies can acquire more capital to invest in growth, fund mergers and acquisitions, and other operational requirements through initial public offerings (IPOs) and other forms of equity issuance.[55] Capital market equity and debt financing provide companies with the resources needed to grow. We will now turn to the extent U.S. capital markets continue to fund innovation.

State of Innovation

The U.S. private sector continues to support innovation as an engine of growth. In 2022, the United States spent about $680 billion on R&D, compared with China's second-largest volume of R&D spending of $551 billion (see Figure 4 for historical spending rates).[56] The vast majority of U.S. R&D spending is provided by the private sector.[57] The U.S. lead in spending is partly due to the size of the U.S. economy. As of 2019, the most recent year of data available from the National Center for Science and Engineering Statistics, U.S. R&D spending as a percentage of GDP ranked ninth at 3.13 percent, below leading countries such as Israel, South Korea, and Sweden, but above China at 2.23 percent.[58] These figures suggest that the United States remains competitive in spending on R&D spending, largely due to the private sector.

In one aspect of the innovation sphere, venture capital (VC) companies are currently focusing their investments on business services, energy, information technology, consumer

goods, consumer services, health and life sciences, and industrials. Information technology, business services, and health and life sciences are the three major industries pulling in the most VC deals and dollars invested.[59] In the third quarter of 2022, the three major industries pulled in $26.2 billion of new investments across 1,673 deals. The VC market is also experiencing a trend of defense companies establishing a venture capital arm. These defense companies realize that VC-invested commercial technologies have dual-use applications for defense.

The necessity for innovation in the national security area will also be driven by the technological competitiveness of adversaries and allies alike. In this regard, President Xi's "Fortress China" is seeking to make China a state-led, self-sufficient techno-superpower that will no longer rely as much on the West, and can run on internal energies and, if the need arises, withstand a military conflict. The strategy includes the following components: spur domestic innovation and localize strategic aspects of the supply chain; boost the deployment of renewables and reduce reliance on seaborne oil and gas; and in finance, counter the potential weaponization of the U.S. dollar. Each of the above are made more urgent since Russia's invasion of the Ukraine and the financial response by the U.S. and its allies, including the imposition of sanctions and weaponization of the dollar.[60]

Specifically, the Chinese government has designated 8,997 enterprises as "little giants," providing them with tax breaks so they can help China compete with the United States and other western powers. China has overseen the establishment of more than 1,800 government guidance funds, which have raised more than 6 trillion RMB ($900 billion) to invest largely in tech sectors that the Chinese Communist Party (CCP) deems "strategic." While we are skeptical that all these investments will come to fruition, China's vast financial resources and the somewhat coercive nature of their system can allocate (or more appropriately, over-allocate) resources towards a

party goal despite such goals being hampered by pyrrhic efficiency. If, however, successfully implemented, this transformative change would present a challenge for many western multinational companies, some of which derive the majority of their global growth from China's market, as well as raising the bar for U.S. industry to innovate in support of our national security.

With respect to U.S. allies, London and Continental Europe do not incubate high-tech companies as does the U.S. nor does it attract the same caliber of high-tech companies.[61] NATO's Defence Innovation Accelerator for the North Atlantic (DIANA) was established in 2021 to harness dual-use commercial technologies for defense and security purposes. It will focus on the nine emerging and disruptive technologies of priority to NATO: artificial intelligence, data, autonomy, quantum-enabled technologies, biotechnology, hypersonics, space, novel materials and manufacturing, and energy and propulsion. The first DIANA pilot activities are scheduled to start in the Fall of 2023. It will be complemented by NATO's Innovation Fund, the world's first multi-sovereign venture capital fund, which will invest 1 billion euros over 15 years in start-ups developing or adapting technologies to defense and security.[62] While these are positive developments, it remains to be seen whether Europe will be able to scale up this initiative in its capital markets ecosystem. For now, it seems that it will be the U.S. versus China in capital markets competition and technological innovation, with Europe playing a secondary role.

In the next section, we will discuss U.S. corporations' governance, their priorities, and management trends.

Corporate Governance and National Security

U.S. corporations are critical partners with the U.S. government in the execution of national security. They not only provide essential goods and services driving the U.S. economy,

and deliver technology, materiel, and support to national security and defense, but by operating internationally they maintain connections throughout the global economy and financial system. The evolution of corporate governance, especially for U.S. multinational corporations, matters to national security because company governance affects efficiency, productivity, innovation, and contributions to society.

Models of corporate governance

Corporations in the United States follow an Anglo-Saxon model of corporate governance, in which the corporate executives are at least technically subordinate to a board of directors and bear a fiduciary responsibility to shareholders.[63] Independent board chairs have become more common in the United States in recent years, suggesting a positive trend in management accountability.[64] External actors such as regulators and stock exchanges also exert an influence to discipline corporate behavior. The strength of the U.S. regulatory environment and the quality of U.S. corporate governance in turn give confidence to domestic and foreign investors, drawing capital to U.S. markets.

This model allows for shareholder activism due to the ability of shareholders to bring pressure to bear on management. Shareholder activism can serve to keep companies honest, promote desirable policies such as improved environmental or social practices, or influence companies to make beneficial business decisions. But shareholder pressures can also lead to "short-termism," an excessive focus on meeting quarterly profits targets at the expense of longer-term investments or to increase share prices in the short-term by buying back shares. As one possible symptom, stock buybacks have been steadily increasing since 1990 among U.S. companies.[65] Whether this has been at the expense of R&D spending in a post-industrial economy is an open question.

Another change in recent decades has been the concentration of ownership of large U.S. company shares by a relatively smaller number of institutional shareholders. These are exemplified by the "Big Three" of BlackRock, Vanguard, and State Street, companies that have capitalized on the growth in index fund investing to dominate the market for mutual and exchange-traded funds. Harvard and Boston University researchers estimated that these institutions held a median stake of about 22 percent in companies in the Standard & Poor's 500 index of large capitalization U.S. companies, representing a proportion of about 25 percent of the votes cast at these companies' annual meetings, as of the end of 2021. They also argued that the institutions' votes were significantly correlated and substantially influenced corporate decisions and that these institutions had an incentive to be excessively deferential to corporate managers.[66]

This increased institutional ownership has altered the dynamics of U.S. stock markets and the corporate sector, as the large institutions have been able to devote professional attention to influencing companies that was less prevalent when ownership was spread out among many smaller, retail investors. At the same time, this reduced the diversity of interests among owners. One possible effect of the concentration of institutional ownership is to increase management's focus on responding to the institutions' priorities, which include growth in share values as well as ESG-related initiatives, discussed further below. It is worth noting that the Big Three have Stewardship Codes that guide their proxy voting in investee companies. For example, BlackRock recently issued its: annual Chairman/CEO letter[67] to investors and investment stewardship priorities for 2023[68] and guidance on ESG topics including:

- board diversity,
- human capital management,
- climate-related risk,

- corporate political participation and
- human rights.

Climate change issues dominated shareholder resolutions proposed at U.S. companies in 2023. Advocacy groups have used shareholder resolutions to push U.S. companies to publicly disclose their greenhouse gas emissions and their plans for emissions reductions. Shareholders had filed at least 542 resolutions on ESG issues by February 17, on course to match or exceed 2022's record of 627 resolutions. Over 450 resolutions were scheduled for a vote, but that number is expected to decline as activist shareholders and companies reach agreements.[69]

Climate resolutions

Oil and gas companies and electric utilities received 59 different shareholder resolutions as of March 2023, almost all related to the environment and carbon emissions. Climate change was the topic for 33 of those resolutions, The other 80 out of a total of 113 climate-related resolutions were addressed to companies across various industries, including Lockheed Martin Corp. and Amazon.com Inc.[70]

Anti-Environmental, Social, and Governance (ESG) Resolutions

ESG, the promotion of environmental, social, and corporate governance improvements through investing strategies (discussed further in the next section), has provoked a backlash among parts of the public. The number of anti-ESG resolutions in 2023 was at 40 as of February 17, 2023, compared to 27 through the same period in 2022, with the number of anti-ESG resolutions expected to increase to 70 in 2023. In 2022, 266 ESG-related shareholder resolutions were withdrawn after negotiations, compared to 223 in 2021. A higher number of withdrawals suggests that shareholders are getting more successful at pressuring companies to accept or compromise on their proposals.[71]

Passive Ownership and Competitiveness and Implications for National Security

An additional issue to consider with respect to index ownership has been the potential negative impact of having permanent cross ownership of a company with owners that do not necessarily have a financial incentive to push for their investee companies to be competitive. There is a debate in academia as to the economic impact of common ownership, particularly with regard to its potential to motivate anti-competitive practices by companies in the same sector owned by "common" investors. To the extent common ownership is suspected to be associated with illegal or anti-competitive practices, some argue public policy responses inevitably will seek to identify ways in which to minimize or neutralize its impact. This has led to suggestions for regulatory action that would have the effect of impeding fundamental shareholder rights. Potential remedies include limiting the percentage of equity owned by an individual investor with multiple holdings in the same sector, a requirement to only hold one company in a given sector or to restrict an investor's rights to vote at Annual General Meetings or engage with companies.[72]

Some critics argue that proposals of this nature are regarded by most investors as ill-conceived, and possibly detrimental to the goals of investor stewardship. Those who oppose common ownership do so on the presupposition that investor engagement amounts to some form of behind-the-scenes conniving between investors and competing companies in a given sector, plotting to game the industry at the expense of customers and broader society.[73] This may not be the case with defense contractors subject to significant indexer cross ownership, as DOD contracting procedures provide for onsite personnel to provide another level of oversight, but it is worth noting as something to monitor in an era of potential fiscal austerity, where cost conscious competitive productivity may be needed more than ever.

Most recently, the Big Three were criticized in a Senate report for using their voting power from their investors' money to advance liberal social goals through ESG and DEI (diversity, equity, and inclusion). According to the report, these once benign-sounding concepts are political movements unmoored from financial performance and, perhaps not coincidentally, also popular with corporate C-suites where managers can claim "success" on matters irrelevant to investor returns. For instance, the report cites as an example of potential breach of fiduciary duty the Big Three leveraging their combined 21 percent stake in Exxon Mobil ("Exxon") to elect several dissident directors who had been nominated by an activist investor known for urging reductions in companies' carbon footprints. Predictably, Exxon soon reduced its oil production targets.[74] With the invasion of Ukraine and its attendant effect on oil prices in hindsight this seemed misguided, particularly since the Biden Administration has pressured the oil industry to ramp up oil production to alleviate gasoline price increases. The report is replete with other anecdotal examples and is emblematic of the ESG/Anti-ESG debate playing out in U.S. capital markets, as approximately 23 states have enacted some type of anti-ESG regulation and 19 states have promulgated pro-ESG legislation and policies. The full impact on markets, energy production and the decarbonization transition much of the world is seeking to make a reality remains to be seen.

The Rise ESG

A key trend in corporate governance is toward Corporate Social Responsibility (CSR), influenced by the rise of ESG investing. Definitions can vary, but "broadly speaking ESG investing is an approach that seeks to incorporate environmental, social, and governance factors into asset allocation and risk decisions, so as to generate sustainable, long-term financial returns."[75] This trend has led to corporations making a range of ESG-related disclosures and

adopting compliance practices to adhere to ESG principles.[76] ESG investing can be conducted in various ways but approaches typically involve either screening out certain types of activities, giving greater weight to companies that score higher on multi-factor ESG rating methodologies, or investing in companies and then taking an active approach to pressuring those companies to change.[77]

ESG promotes responsible corporate governance on issues such as board composition; executive compensation; and bribery and corruption.[78] By creating a mechanism for corporate accountability on a greater range of issues, ESG – and in turn, CSR – can increase public trust in corporations. Not only does it do so in the United States and other areas such as Europe where ESG is prominent, but it can also effect marginal changes in governance quality elsewhere, including even China, where companies have begun to adopt some ESG practices.[79]

ESG can also help the United States leverage private enterprises to achieve social and environmental goals. For example, the U.S. government has identified climate change as a national security and financial risk,[80,81] and the influence of ESG can help achieve decarbonization goals as well as increase investments toward clean energy investments.[82] Given the increasing pressure on federal government resources and the vast size of private sector resources, it may be increasingly necessary to leverage private sector capital to achieve public objectives.

The Russian invasion of Ukraine has challenged some ESG precepts, as have increasing concerns over the reliance on China for critical U.S. supply chains. The Ukraine war prompted extensive U.S. and European sanctions against Russia, including its oil and gas, on which Europe had become dependent (see sanctions threat for a more in-depth discussion).[83] This created an urgent need in Europe to make use of whatever energy sources countries could obtain, at least

temporarily sidelining environmental goals.[84] Coming as Germany was in the process of shuttering its nuclear plants, the crisis has led to a rethinking of the anti-nuclear sentiment present in some ESG approaches.[85] Overall, the crisis has underlined the need for consideration of energy security alongside the need to meet or exceed international commitments to achieve net zero emissions by 2050. While climate change is a national security risk, it is not the only one.

Similarly, the increasingly adversarial relationship with China has complicated some ESG precepts. DOD has identified weaknesses in its supply chain in certain critical areas of manufacturing and supply, such as missile systems, castings and forgings, and strategic materials, and has identified manufacturing as a critical enabler for its supply chain security.[86] This is causing the United States to place additional emphasis on increasing domestic sources of supply, as well as those in what friendlier and more reliable countries. China also currently dominates the supply chains for electric vehicle and solar battery storage, and the sourcing and refining of rare earth elements needed for both military applications and green technologies.[87] ESG can tend to increase investments in these areas, but investing in Chinese supply chains may undercut national security. Overall, the Ukraine war and the rivalry with China have shown how some ESG preferences may undercut certain national security needs. Although ESG sentiment is evolving, for example, to include nuclear energy as an acceptable energy source, this has followed events, rather than led them, somewhat undercutting the promise of private sector innovation to anticipate societal needs (this issue will be further highlighted below).[88] A similar problem could be brewing in the tendency to underinvest in fossil fuel companies, which may be well-positioned to be leaders in developing the green innovation needed to achieve net zero goals.

A related problem is the tendency of some leading ESG approaches to exclude weapons manufacturers, including makers of custom parts used in weapons systems. This is an obvious case where ESG is working at cross-purposes with national security. But beyond that, a general tendency to underweight investments in high-carbon emitting sectors like heavy industry and energy production tends to underinvest in the very areas most used by the military. DOD is a heavy user of fossil fuels, as well as nuclear energy.[89] It also relies on heavy industry to produce its weapons systems.

ESG continues to evolve, and policymakers should consider ways to help it evolve in the right direction for national security. One way may be for ESG to incorporate a broader range of risks than the ones it currently contemplates. Some of these may be in tension with each other, but that does not mean they should be ignored. For example, preserving energy security – sufficiently ample, flexible, and reliable sources of energy to withstand most circumstances – is not perfectly aligned with decarbonization, but it is critical for national security. ESG could be broadened to consider energy security, sustainable human development, and living standards, geopolitical risks, and other areas currently not considered. This would add to the complexities of corporate management but better reflect the realities of our world. While U.S. policymakers do not have complete control over such developments in corporate governance, they can influence them – just as the United Nations influenced the development of ESG in the first place with the UN-led Principles for Responsible Investment.[90] U.S. policymakers can influence the evolution of ESG by making laws, policies, and regulations, but also by advocating in domestic and international fora for a broader set of criteria to more fully reflect national and international priorities. In terms of risks, the United States should monitor how ESG evolves, how it

influences corporate behavior, and the degree to which these may adversely affect national security priorities such as military supply and energy security.

Threats and Limitations

The general narrative of how the era of U.S. primacy transitioned to one of multipolar competition holds that there are three great powers with the United States atop, China rising, and Russia declining. Furthermore, the strategic aims of China and Russia are at odds with the BWS norms championed by post-WWII America. Defense analyst Thomas Lynch stated the three nations were engaged in a great power competition (GPC) during 2014 and 2015, which was memorialized in U.S. strategic documents in late 2017 and early 2018.[91] The impetus for the GPC was economic change typified by

> More than two decades of rapid economic globalization came under increasing scrutiny for a record of fragility and unfulfilled expectations. Mainly, but not exclusively, globalization lost prestige from repetitive boom-and-bust cycles and a propensity for creating an ever smaller circle of extraordinarily rich and comfortable elites juxtaposed against a growing circle of underserved constituent groups. Today, a fourth industrial revolution [information technology] is fueling deglobalization and eroding global markets and supply chains.[92]

Lynch continued by asserting the United States, collaborating with partners and allies, is advantageously positioned to prevail in the GPC.[93] In harmony with Lynch's narrative, both the Congressional Research Service and the DOD allude to a multipolar GPC. The multipolar GPC has consistently been used to weigh fiscal resources against defense requirements.[94]

In contrast, researchers Stephen Brooks and William Wohlforth argue that decisions based on multipolar constructs are flawed because China is "unlike past rising powers" and the world into which it is rising is qualitatively different than the past.[95] Brooks and Wohlforth present cogent arguments for their position, especially regarding net assessments of U.S. and Chinese military power. However, if their arguments were concentrated through a lens of

international finance, their arguments would converge on a salient point raised by authors Jannace and Tiffany: global prosperity *is* in the U.S. national interest.[96]

Consonant with their declaration, oligarchic, crony capitalism, and plutocracy are global phenomena that inhibit global prosperity. They are inconsistent with Western-financial system sentiments because they concentrate wealth, skew the free flow of capital in financial markets, and encourage decentralized financial services that are often outside the purview of regulators and law enforcement.[97] When broad regulations intended to encourage transparency and adherence to the rule of law are compromised, the needs of corporate shareholders and stakeholders are compromised.

Several threats and limitations emerge as these complex challenges are juxtaposed with the U.S. financial system operating in a multipolar world. These include cyber threats, money laundering and illicit finance, second-order effects of sanctions, the emergence of alternatives to the West's financial system, and limits to the markets' coherence with national security.[98] These threats and limitations will now be further analyzed.

Cyber Threats to the Financial Industry

Vulnerability to cyberattacks is another consequence of the openness and interconnectedness of U.S. financial markets, which are dependent upon data and technology. Regulatory entities in the U.S. like the SEC and FINRA have been working to establish cyber norms and requirements, but work remains to be done.[99] Cyberattacks may take many forms, including direct attacks on financial institutions, infrastructure attacks, and market manipulation. These vulnerabilities must be mitigated to the maximum extent possible to ensure the stability of capital markets. Unstable markets contribute to economic decline, and economic decline undermines national security. A successful cyberattack could have serious consequences for both

the U.S. economy and national security. Risks from such attacks include compromised financial institutions, infrastructure attacks, and market manipulation.

Financial institutions are prime targets for cybercriminals seeking to steal money or sensitive information, despite being obligated by regulation to have business continuity and contingency plans (BCPs).[100] The securities industry BCP requirements afford some flexibility to firms, as they require them to provide customers with prompt access to funds and securities in the event that the firm determines that it is unable to continue its business. While the rule contemplates a firm going out of business, for competitive reasons is it unlikely (but not completely impossible) that large firms like JP Morgan and Goldman Sachs would contemplate going out of business as they stand to benefit from the other ceasing operations.[101] With respect to market centers such as the NYSE, the SEC has mandated that they operate and not cease operations under similar circumstances.[102] Firms that decide to go out of business in the event of a disruption do not necessarily cause systemic risk as such firms generally contract out their clearance and settlement functions to larger established firms, such as Goldman Sachs which has the operationally resiliency to withstand such disruptions. Together, working with regulators, the firms going out of the business and the receiving firms are able to transfer customer accounts expeditiously to avoid exposing customers to undue risk from market volatility during the pendency of the transfer (failing to do so can subject a firm to disciplinary action by a regulator). Thus, while cyber and other disruptions are potentially acute threats, the finance industry is resourced and regulated to mitigate such risk.[103,104]

In 2022, SIFMA conducted an industry-wide Business Continuity Test intended to exercise and verify the ability of various entities (including firms, markets, and utilities) to maintain continuity of operations through a crisis, and in accordance with Regulation SCI.[105] In

2022, cyberattacks on financial institutions represented 19 percent of all known attacks, second only to attacks on manufacturing companies.[106] Further, the pace of attacks on financial institutions is increasing exponentially; by some accounts the rate of attacks in 2022 was up 257 percent from 2021, with estimates for the cost of a single data breach around $6M.[107] It is important to note that this trend is exacerbated by the rise of telework during and after the COVID pandemic and is likely to continue to rise given the likelihood for enduring telework policies in the future.[108] Some companies are now requiring four days in the office so the potential risk from working from home may ebb.

Despite the high number of companies paying for insurance against cyberattacks (above 80 percent), actual payouts for attacks are very low – just over 30 percent.[109] The case of Mondelez versus Zurich-based American Insurance Company is an interesting case study; Zurich initially denied Mondelez' claim regarding the 2017 NotPetya malware attack, citing an "act of war" loophole in the original insurance contract – the case was settled out of court for a reported $100M in favor of Mondelez. State-sponsored cyberattacks are of particular concern to insurers due to the scale and sophistication of such attacks. In 2022 Lloyd's of London said it would begin to exclude coverage of these types of cyberattacks as of March 2023, and the U.S. Treasury Department is exploring whether to offer a cyberattack corollary to the exiting Terrorism Risk Insurance Program.[110] Another threat is infrastructure attacks.

Cyberattacks need not be limited to financial institutions themselves to cause damage to U.S. capital markets. Cyberattacks on critical infrastructure, such as power grids or communication networks, could easily disrupt the functioning of the U.S. financial system and cause widespread economic damage. And while these attacks may achieve measurable kinetic effects, they occupy a relatively new and untested realm of international conflict, with few

nations willing to unequivocally classify a cyber-attack as an act of war, even in cases where attribution is assigned to a state actor.[111] A recent example is the Colonial Pipeline ransomware attack, wherein malicious actors attacked the computer systems of a pipeline that provides both gasoline and jet fuel to the southeastern United States. Fuel shortages and air travel disruption contributed to skyrocketing fuel prices before President Biden declared a state of emergency to intervene directly and assuage fears across the board.[112] The ease with which a small group of bad actors – in this case, unaffiliated with a state-sponsored cyber entity – caused a tangible disruption to U.S. citizens and its economy was shocking, if not surprising. According to the Department of Homeland Security, "cybersecurity threats to critical infrastructure are one of the most significant strategic risks for the United States, threatening our national security, economic prosperity, and public health and safety."[113]

In more oblique fashion, cybercriminals could potentially disrupt U.S. capital markets through market manipulation, either by using stolen information to make trades or by disrupting trading platforms. The potential for attacks ranges from simple hacking and manipulation of data feeds to more sophisticated social engineering campaigns and spoofing trades to manipulate market prices. Unfortunately, the potential for market manipulation is bounded only by the imagination of the attacker. The most recent meme-stock scandal in January of 2021 was a novel and previously unimagined scenario; users on internet message boards encouraged investors to short certain stocks, and the trading frenzy (see Figure 5 for a visualization) that followed is still under litigation.[114] So-called meme stocks still trade openly, and pricing continues to be influenced by internet chatter rather than by legitimate economic performance or other market indicators. The regulators have issued guidance about low-priced stocks, IPOs, money laundering and related market manipulations. While no one can know for sure, during the meme

stock craze it was alleged that Russian offshore money was participating in this trading through offshore omnibus accounts.

Most recently, FINRA alerted its members to an emerging threat to customers and members, where FINRA, NASDAQ and NYSE have observed IPOs for certain small capitalization (small-cap) issuers listed on U.S. stock exchanges that may be the subject of pump-and-dump-like schemes (sometimes referred to as "ramp-and-dump" schemes in other jurisdictions). FINRA has observed significant unusual price increases on the day of or shortly after the IPOs of certain small-cap issuers, most of which involve issuers with operations in other countries. FINRA has concerns regarding potential nominee accounts that invest in small-cap IPOs and subsequently engage in apparent manipulative limit order and trading activity. Some of the investors harmed by ramp-and-dump schemes appear to be victims of social media scams. This Notice addressed concerns similar to those it previously raised in the Anti-Money Laundering sections of its 2022 and 2021 Reports on FINRA's Examination and Risk Monitoring Program.[115]

FINRA observed instances where IPOs have been affected by manipulative ramp-and-dump schemes, with the following characteristics:

Small Market Capitalization and Limited Public Float – Each IPO typically raised less than $25 million and valued each issuer at less than $100 million, with the IPO typically issuing fewer than 20 million shares.

- Foreign Issuers – Many issuers or their operating subsidiaries or affiliates maintained primary operations in China, but some issuers also based their operations in other countries.

- Foreign Broker-Dealers – Foreign broker-dealers, primarily based in Hong Kong, have allocated or been allocated significant amounts of the shares, sometimes as much as 90 percent or more of the shares. The practice of allocating a majority of the shares issued in an IPO to foreign broker-dealers may limit the supply of the public float available to the market on the day of the IPO and during the price increase phase of ramp-and-dump schemes.
- Concentrated Allocations of IPO Shares – Underwriters and selling group members (including foreign broker-dealers) may be allocating the majority of shares to a small number of investors, leading to a concentration of shares being held in very few hands.
- Nominee Accounts – Nominee accounts, primarily accounts opened for foreign nationals, have been opened at U.S. broker-dealers to invest in IPOs and later place manipulative orders and trades to inflate aftermarket prices.
- Foreign Omnibus Accounts – Omnibus accounts at U.S. broker-dealers maintained for foreign financial institutions, including foreign broker-dealers, have been observed liquidating large amounts of shares of the small-cap issuers at the peak of price spikes associated with suspected ramp-and-dump schemes. In some cases, the accounts in question did not trade the securities at all until significant price increases occurred and appeared to time their sales for when the stock price peaked.[116]

Money Laundering and Illicit Finance

Money laundering (ML) is the means by which funds from illicit activity is legitimized. According to the IMF, ML is associated with corruption, drug trafficking, market manipulation,

fraud, and tax evasion.[117] ML diverts resources from productive societal objectives and creates a "corrosive, corrupting effect on society and the economic system as a whole."[118] The nexus described by the IMF between ML and corruption validated comments raised by Transparency International (TI), which found in 2022, "a bleak picture of stalled anti-corruption efforts worldwide… [and a] …reminder that abuse of power comes in many shapes and forms."[119]

The Financial Crimes Enforcement Network (FinCEN) describes the ML process as three sometimes overlapping steps that involve placement, layering, and integration.[120] Placement is injecting illegal funds into the financial system or retail economy. Layering is the use of multiple financial transactions to obscure the source of the funds. Integration is the purchase of businesses, real estate, or commodities to legitimize the laundered funds.

To help break the ML process, FinCEN requires banks to "know your customer" (KYC). One goal of KYC is to compel banking officials to learn more about the source of their customers' money. If issues remain unanswered, Suspicious Activity Reports (SARs) are filed, alerting FinCEN to questionable transactions worthy of additional review.[121][122] In instances where bank-like firms are exempt from FinCEN regulation, or in nations where KYC is not enforced, tax havens and money laundering centers (MLC) are a natural outcome.[123]

ML weakens the global order, and by extension, U.S. national security. Furthermore, most observers understand that the United States is engaged in a strategic competition with China that includes financial stratagems, but less realize the U.S. National Defense Strategy characterizes Iran and violent extremist organizations (VEOs) as "persistent threats" to U.S. security.[124] Two quick examples drawn from a 2019 report by the Financial Accountability and Corporate Transparency Coalition are relevant.

First, operating undetected for six years, a Chinese telecommunications firm relied upon bogus financial transactions to ship more than 20 million pieces of equipment to Iran, in violation of international agreements.[125] In this instance, financial transactions were integral in monetizing illicit activity funds to the detriment of U.S. strategic aims in the Middle East. Second, Hezbollah, a U.S. designated foreign terrorist organization,[126] relied upon shell companies to access the international financial system and to divert funds to support its violent, extremist actions in Lebanon.[127] More recent examples of ML hit, both literally and figuratively, closer to home.

An investigation published in 2021 by the International Consortium of Investigative Journalists (ICIJ) disclosed a direct link between U.S. trust companies located in Sioux Falls, South Dakota with people and companies accused of money laundering, corruption, human rights abuses, and other illicit activities.[128] An equally shocking discovery was reported by the ICIJ in April of 2022, when it revealed that a single-family residence in Cheyenne, Wyoming was an unregulated tax haven for 350 companies that operated in the United States and globally. Maneuvering within the cover of obscurity, a Russian billionaire and confidant of President Vladimir Putin secretly held real estate and aircraft in a limited liability company established in Wyoming.[129] Arguably, these ICIJ examples represent talented and creative U.S. individuals leveraging domestic law to the benefit of their customers. Less generously, the examples represent a sophisticated form of corruption.

According to 2018 statistics, the global cost of corruption is at least $2.6 trillion – 5 percent of global GDP – and businesses and individuals pay more than $1 trillion in bribes every year.[130] TI's 2022 Corruption Perceptions Index tells a grim tale. The global average remains unchanged for over a decade, with 155 countries making no significant progress against

corruption or having declined since 2012.[131] The United States ranked as the 24th least corrupt nation but is by no means exempt from corruption. In June 2021, U.S. President Joe Biden announced the fight against corruption as a core U.S. national security interest for the first time.[132] Despite financial laws and regulations, the United States was designated in 2022 as the "world's largest enabler of financial secrecy," according to the Tax Justice Network in their biennial Financial Secrecy Index, surpassing infamous tax havens like Switzerland and the Cayman Islands.[133]

Corruption withers in the spotlight and the United States has numerous anti-corruption laws that seek to shine a light on corrupt activity. For example, the Currency and Financial Transactions Reporting Act of 1970 – more commonly referred to as the "Bank Secrecy Act" (BSA), the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT) Act of 2001, and the Anti-Money Laundering Act of 2020, which included the Corporate Transparency Act (CTA) and its beneficial ownership information (BOI) reporting requirements.[134] The BOI reporting was intended to extend banking transparency requirements to limited liability corporations and trust-like companies operating in the United States.[135]

The CTA, which is effective January 1, 2024, has suffered from incomplete efforts to bring the BOI database online. Even its non-public database has proven to be unwieldy for state banking and law enforcement officials, due to complex requirements for judicial review before accessing a company's BOI.[136]

Another regulatory Anti-Money Laundering (AML) tool is a Geographic Targeting Order (GTO). The orders were implemented in 2018 by FinCEN to eliminate real estate malfeasance. GTOs require certain U.S. title insurance companies to record and report information, including

BOI, about legal entities used to make non-financed purchases of high-value residential real estate in major counties within nine states.[137] GTOs have limited effect because they collect information only on select residential real estate transactions; commercial and industrial transactions are unreported.[138] Underscoring the limitations of GTOs, the ICIJ articles detailing the South Dakota and Wyoming incidents occurred after GTO implementation.

The shortcomings in the CTA and the GTO are representative of the many challenges in AML efforts. To address the challenges, there are two predominate schools of thought. The first is the traditional approach of treating the symptoms of ML by forcing compliance on regulators, financial entities, and international organizations.[139] The benefits of the compliance approach are that it is somewhat predictable in scope and reach, and it is an approach familiar to legislators, regulators, and the regulated community. The drawbacks are that AML failures routinely occur, outcomes for violators are inconsistent, and a compliance-based approach consumes vast resources and generates costs to the participants and to investors.[140]

A second approach that is gaining traction is similar to "evidence-based" interventions in public health and in other social services. With this approach, the AML initiative is based on databases, registries, and proven practices. For instance, risk areas are ranked according to business and government interactions, anti-bribery deterrence and enforcement, government and civil transparency, and capacity for civil oversight. Undergirding these risk areas are regulatory, legal, political, and financial indicators.[141] The benefit of this approach is big data and AI can be harnessed to automate the analysis of billions of transactions. The drawback is AI is still in its infancy and the dependability and validity of results are uncertain. AI's inability to discriminate among 2.8 million people in China with the name "Wang Yan" or the world-wide cohort of people named "Maria Garcia" are simple examples of the obstacles confronting AI in a routine

AML context.[142] Similarly, the unrestrained, generative power of AI caused JP Morgan, Citigroup, and Deutsche Bank to recently ban their staffs from using ChatGPT because even its creators are uncertain of the technology's potential.[143]

Explorations of AML would be incomplete without a mention of cryptocurrencies and how they have been misused by criminal actors. According to a 2021 report by the U.S. Government Accountability Office, the secret nature of cryptocurrencies facilitated sex and illegal goods trafficking and encouraged large-scale money laundering efforts.[144] Transactions were conducted outside the spotlight of domestic financial oversight entities. In the United States, banking SARs were not triggered, and the inability to track cross-border transactions made prosecutions of drug cartels and transnational criminal organizations untenable.[145] Similar effects were experienced by enforcement agencies in other countries.

Thankfully, the misuse of cryptocurrencies is in decline. Its role in ransomware, trafficking, and money laundering lessened as global law enforcement agencies successfully developed blockchain analytic tools and criminal codes were revised to punish misuse of the technology.[146] Additionally, oversight regulations designed to monitor and tax cryptocurrencies proliferated and laws to protect investors from unscrupulous promoters were enacted. Case in point, the rise of forensic technologies, evolving market structures, and monitoring by national enforcement agencies severely limited Russia's ability to rely upon cryptocurrencies to evade sanctions resulting from its invasion of Ukraine.[147] The cost to restrict the misuse of cryptocurrencies raises an important issue regarding how the financial industry will respond to other ML vehicles.

As discussed above, a traditional compliance response or an evidence-based response are viable approaches. The strengths and benefits of each approach have tangible, fiscal

consequences for the U.S. financial industry as the industry will likely be unable to fund a zero-defect AML regime. Compliance costs, dedicated compliance resources, the relative unreliability of financial AI tools, and the "rework" costs to monitor and correct AI mistakes, when summed, will be prohibitive. In other words, the monetary value added to the AML regime will not equal the economic value to be gained. Conspicuously absent from a pure monetary-economic equation is the moral value to be ascribed to efforts to reduce illicit activity such as human trafficking, and the national security implications of VEOs maintaining some nefarious level of access to global finance.

Where financial institutions eventually draw the line in expending resources to address corruption, ML, and the ills associated with illicit activity remains unknown. In 2021, financial institutions located in North America spent nearly $50 billion in compliance costs. Individually, this amount represented a 36 and 17 percent increase for U.S. and Canadian firms, respectively.[148]Newsweek Magazine proclaimed there will be an exponential roll-out of AI systems in 2023 and predicted accidents related to AI will "skyrocket" this year.[149] It is unlikely that financial institutions will be spared AI accidents. DOD may have resources on hand to assist if needed. DOD efforts, clearly, should be to strengthen its various internal AI systems and it should give priority to military specific systems. Nevertheless, where dual-use development and solutions are possible, those means should be widely shared with financial institutions. The analogue is the wide sharing of tactics, techniques, and procedures issued by the U.S. National Security Agency and the U.S. Cybersecurity and Infrastructure Security Agency to reduce exposure to, or to recover from, cyberattacks.[150]

Sanctions

As briefly noted above, in conjunction with the U.S. dollar as the global reserve currency, Western financial system-based statecraft includes a sanctions lever by which states can individually and collectively try to compel rogue nations' adherence to established norms. Sanctions can profoundly impact their targets by modifying their behavior or weakening the target.[151]

In the financial sector, a sanction broadly means the "official restrictive measures imposed by a national or international body on a specific country or countries, groups, entities or individuals with the objective of influencing their policy or conduct."[152] Primary sanctions are directed toward a specific country, while secondary sanctions "impose penalties on persons and organizations not subject to the sanctioning country's legal jurisdiction and are applied against entities engaged in the same dealings prohibited under primary sanctions."[153]

Sanctions can be unilaterally imposed by one nation or multilaterally imposed by a number of countries. Multilateral sanctions are often pursuant to a ruling by an international body such as the United Nations or the European Union (EU). Generally, financial sanctions stop the movement of assets and the transfer of ownership.[154]

Sanctions have become the coercive tool of choice for the United States. Sanctions increased from 912 in 2000 to 9,421 in 2021, according to statistics compiled by the Office of Foreign Assets Control (OFAC) as shown in Figure 6.[155] The greater than 10-fold increase in sanctions imposed by OFAC does not necessarily translate into success in altering the behavior of the target nations. In fact, there are unintended consequences in relying so heavily on sanctions to moderate behavior. Steve Mnuchin, the former U.S. Secretary of the Treasury raised a concern about the consequences to the dollar's status as the dominate reserve currency. He said, "I do seriously think we have a responsibility to use sanctions for important national security

issues. But we need to think about the long-term impact on the global currency."[156] He is not alone in expressing this concern.

The Congressional Research Service (CRS) revealed individual U.S. sanctions issued through the Society for Worldwide Interbank Financial Telecommunications (SWIFT) during the initial stages of Russia's invasion of Ukraine disrupted the Russian economy.[157] The sanctions caused Russian bank runs, spurred capital flight, and resulted in the ruble dropping by more than 60 percent in two weeks.[158] Other sanctions were levied by the United States and its allies, and also unsettled the Russian economy. The Center for a New American Security reported:

> To date, one of the most significant actions was the sanctioning of the Central Bank of Russia by the Group of Seven and other economies, which has effectively cut Russia off from accessing assets denominated in currencies that account for 95 percent of global foreign exchange reserves. In total, U.S. President Joe Biden's administration has imposed more than 1,500 discrete sanctioning actions on over 800 targets related to Russia's invasion of Ukraine. Additionally, almost 1,000 foreign companies have "self-sanctioned" by shuttering or curtailing their operations in Russia, which has contributed to Moscow's financial isolation from the global economy.[159]

On first impression, these sanctions would appear to evidence U.S. strength in compelling Russian compliance with the international order. However, sanctions programs have limitations. And as Secretary Mnuchin's warning of de-dollarization explained, over-reliance on sanctions can ultimately weaken U.S. national security.

Specific instances where sanctions against Russia may ultimately be counterproductive for U.S. national security interests can already be found. Some sanctions on Russia were multilateral, and not global. The CRS analysis of SWIFT sanctions cautioned multilateral sanctions could cause Russia to seek deeper economic ties with China and others. This has proven to be true. China did not join international sanctions against Russia, and in early 2022 the

two nations reached a 30-year oil and gas agreement.[160] Trade between the two hit record highs in 2022, as Russia spent billions on machinery, electronics, metals, foodstuffs, and other items.[161]

CRS similarly predicted countries, particularly China, Saudi Arabia, and Brazil, could seek to reduce reliance on the U.S. dollar in international transactions. De-dollarization warnings, especially between Russia and China, have proven to be prophetic.[162]

Other CRS warnings are also becoming reality. Recent SWIFT clearing documentation covering the international trade and finance market is evidence of de-dollarization. SWIFT data show the Chinese RMB "now accounts for 4.5% of the market, up from less than 2% a year ago."[163] Furthermore, Russia is bypassing SWIFT sanctions by clearing oil sales with China and Saudi Arabia in RMB. Brazil is preparing an analogous agreement for trading agricultural products.[164] Simultaneously, Russia and Iran are planning to launch a gold-backed cryptocurrency for bilateral trade.[165]

Limitations of the Western Financial System

The West is criticized for not doing enough for emerging economies. Led by China, emerging economies are challenging these institutions due to the belief that they reflect excessive U.S. influence, and that representation has not been altered to reflect the changing balances of power demonstrated by the rise of these economies.[166] In 2014, Brazil, Russia, India, China, and South Africa (sometimes referred to as BRICS) established a new multilateral development bank, the New Development Bank."[167] Also, that year, China and 20 other Asian nations created the Asian Infrastructure Investment Bank to mobilize private sector capital for infrastructure needs.[168] These new institutions are intended to better represent developing countries as they support infrastructure development.[169] In so doing, they seek to reduce U.S. and the Western financial industry's influence and increase the influence of China and its institutions.

The finance industry and the U.S. government are paying attention to the Chinese-led coalitions that are developing alternate institutions to the IMF and World Bank, because there is a risk that the emerging and developing countries will form blocs and migrate from the known rules-based system into less transparent systems. While the power and potential of the private sector and finance industry should not be underestimated, they can be further leveraged through effective public-private partnership with the U.S. government. For example, in 2018 the Better Utilization of Investment Leading to Development (BUILD Act), created the U.S. International Development Finance Corporation (DFC), a U.S. development finance institution (DFI) to help developing countries prosper while advancing U.S. foreign policy goals and enhancing U.S. national security interests. The DFC facilitates private sector investment in low and lower-middle income countries-while not being prohibited from working in upper-middle income countries, on two conditions: for national security reasons or for developmental reasons.[170]

Another threat is the prevalence of state-owned enterprises (SOE) in countries around the world (see Figure 7 for a visualization of the largest SOEs). In the case of China, the CCP exercises direct and indirect control in the development of its SOEs and controls and influences the price of land, labor, energy, and capital. As a result, these firms are able to achieve non-market results that in many cases hurt Western firms that do not benefit from government sponsorship.[171] The U.S. response under Trump and Biden has been to level the playing field by barring U.S. equity and bond market investment in U.S. Treasury's OFAC-listed Chinese companies connected to the CCP's Military-Civil Fusion efforts (of which many are SOEs).[172,173] Not every SOE has superior fiscal outcomes but those that do can distort markets at home and abroad.[174] In lieu of this limitation on the Western financial system, the IMF has recognized the

need to develop a "more coordinated international approach that could benefit from setting global principles for multi-national SOEs."[175]

Lastly, As the world moves towards a multipolar financial system, it is becoming increasingly clear that relying solely on capital markets to solve societal issues is not feasible. The Washington Consensus, which advocated for democracy and interconnected free markets as drivers of long-term peace and stability, has been challenged by reality. The invasion of Ukraine by Russia serves as a stark reminder that geopolitical conflicts can disrupt market functioning and undermine the notion that a purely market-driven approach can ensure stability.

Despite its significance as a global platform for discussing economic and social issues, the World Economic Forum's Annual Meeting in Davos, Switzerland, has limitations in addressing society's challenges (See Figure 8). The experience of geopolitical conflicts, growing awareness of inequality, and the pressing need to tackle global challenges such as climate change have led to a broader perspective that extends beyond market-driven solutions.

Alternatives to the Dollar

There is a movement to weaken global reliance on the dollar.[176,177,178,179] While using the dollar does provide benefits to other countries, it also has drawbacks. First, reliance on the dollar indirectly causes U.S. monetary policy to be imposed on other countries (see Figure 9).[180] For example, when U.S. interest rates rise, other nations are forced to raise their rates to compete for capital and pay back their foreign debt in dollars versus a depreciated local currency. Consequently, oil is increasingly being invoiced in currencies other than dollars.[181] The movement to reduce dependence and present new options is not just by the U.S.'s competitors, it is also being done by non-aligned countries, and options include other fiat currencies (e.g., RMB and euro) and cryptocurrencies. The 25 largest non-aligned economies[182] are increasingly opting

for a multipolar financial world. With 45 percent of the world's population and 18 percent of global GDP, they are approaching the world pragmatically. Protecting the liberal order is not enough, these countries are taking a transactional approach, which the U.S. competitors can exploit (see BRI Annex as one example of this transactional approach).[183]

Market Openness

U.S. dependence on foreign investment becomes problematic at sufficient volumes. In 2021, gross foreign activity in U.S. securities totaled $126.7 trillion, up 28.9 percent.[184] In 2022, the United States was the top recipient of foreign direct investment globally, at $4.97 trillion.[185] This abundance of foreign capital can create vulnerabilities from a national security perspective. The open nature of U.S. markets means that virtually any foreign actor may invest, although the Committee on Foreign Investment in the United States (CFIUS) has the ability to review and seek to block or modify certain transactions involving foreign ownership in U.S. businesses and real estate. If a foreign power were to suddenly withdraw its investment from U.S. markets, the instability this would cause could potentially have serious consequences for the U.S. economy and national security. Further, the simple existence of investment from unpredictable or unfriendly actors in certain industries or sectors may cause market instability.

The interconnected nature of U.S. capital markets creates potential vulnerabilities. Problems in one area of the market can quickly spread to other areas, and disruptions in one country's financial system can have ripple effects throughout the global economy. This in turn makes U.S. capital markets vulnerable to shocks and crises, which can have implications for economic and national security. While this vulnerability might be mitigated with greater insulation of markets, this would also negate the inherent strength of interconnectedness, which

is the seamless flow of information and capital across markets and borders. Creating artificial barriers in the name of security would stymie trade and create new vulnerabilities.
Overall, this open system has facilitated the United States becoming a crucial trading ally for China, granting access to markets for Chinese products and services while also drawing Chinese investments.[186] This economic interdependence has generated wealth and job opportunities in both nations but carries risks.

Innovation for National Security

At the same time, in some specific areas relevant to national security U.S. innovation may be lagging. China has a lead in many critical leading-edge technologies in the areas of defense, space, energy, and biotechnology. In March 2023 the Australian Strategic Policy Institute, in a study funded by the U.S. State Department, reported that China had a lead in 37 of 44 critical and emerging technologies in these areas. The same study found the United States was often ranked second in these areas.[187] China's lead in 5G telecommunications equipment, commercial drones, internet of things devices, mobile payments, solar cells, and smart cities has raised concerns given increasing tensions between China and the United States.[188]

Distinct from geopolitical pressures, the VC innovation pipeline has also slowed down because of U.S. economic conditions. In 2021, venture capital market deals and level of funding were at a record high. Since then, the number of deals, level of funding, and availability of lending have experienced the sharpest drop in two decades.[189] Venture capital investments in 2022 are down 37 percent from the previous quarter and have been continually dropping since 2021. Firms are sitting on dry powder. This is a term used in the financial world when individual companies proactively maintain their cash reserves so that they can meet their obligations in times of economic distress.[190] Fears of inflation and recession are pressuring firms to sit on dry

powder and focus on their current portfolios versus investing in new ventures. Smaller, up-and-coming companies are losing the ability to expand quickly and meet expected profit margins because of the abovementioned macroeconomic trends. Because of these trends, VC companies are sitting on their financial capital and looking for the next big trend, upside, and a bit of a market reset.

Policy Recommendations

Enterprise Risk Management (ERM) is a key tool used by public and private sector organizations to improve their awareness and responses to the range of risks faced by the organization. ERM encompasses a wide range of risks, including operational, financial, and strategic risks. The United States could better monitor and respond to risks in the financial system that affect national security through an ERM-like approach, drawing on and combining the expertise of elements of the bureaucracy that do not routinely meet and share expertise. For example, while officials from the State Department, DOD, and Treasury may routinely work together on national security-related issues, they are unlikely to confer with officials from the SEC or other financial system regulators.[191] Moreover, the range of risks we have identified in this paper should be considered holistically and in relation to one another and to other national security challenges and goals, rather than in isolation.

We recommend that the President create a regular interagency working group to support the ongoing identification, assessment, prioritization, and response to national security risks in and related to the financial system, to include the full range of agencies involved in national security, financial regulation, and international financial statecraft of the United States. The interconnected nature of both U.S. domestic and international finance requires a whole of government view of risks and responses. The risks identified in this paper—and others that may

arise—should be monitored on an ongoing basis. Some may not require immediate action, but periodic reevaluation as circumstances evolve. U.S. policies to respond to these risks should also be reevaluated on an ongoing basis. Both the U.S. and global financial systems are constantly evolving, and the effects of changes are often not obvious or immediately apparent. The United States should draw together the best of its expertise in the full range of national security and financial areas to craft the best possible policies in the complex and evolving environment of the nexus between finance and national security.

One area where this risk monitoring would add value is in the use of sanctions. As discussed in this report, while sanctions are a key tool of U.S. foreign policy, their use carries risks, including increasing pushback on the U.S.-led BWS, including the status of the dollar as reserve currency, and can push adversaries and unaligned countries to develop alternatives to these institutions. Moreover, sanctions are not always effective in achieving their aims. Regular, multi-agency joint monitoring of sanctions implementation and their effects, including second- and third-order effects, by a group involving diplomatic, military, financial, and economic professionals, among others, could help maximize the effectiveness of U.S. sanctions policy and refine such policies going forward.

Another key challenge and opportunity for the United States is how to leverage the vast resources of its private sector to address problems related to national security. The increasingly fiscally constrained environment makes this challenge all the more pressing. One way to do this may be through expanding the list of principles that corporations adhere to in making business decisions from ones related to environmental and social issues to issues of national security, such as energy security and domestic industrial development in key areas. This would create a more balanced set of criteria for corporate decision-making. The U.S. government is not in a position

to control the ESG movement or fully define the principles on which U.S. businesses make decisions, but it can influence these developments through its participation in global governance institutions such as the UN and the regulations and requirements it establishes for U.S. companies. Another, more direct, method would be to work with private organizations such as investment banks or fund companies to promote experiments in private funding for national security related investments. Such "national security" funds or bond issuances could provide investment alternatives for individuals wishing to support U.S. national security goals. It would be necessary to examine existing authorities and potentially seek congressional authorization for these efforts.

Finally, we recommend using federal policy to leverage the private sector to promote an orderly transition to a net zero economy. In October 2021, the Financial Stability Oversight Council (FSOC) identified climate change "as an emerging threat to the financial stability of the United States."[192] U.S. Treasury Secretary Janet Yellen said in March 2023 that a "delayed and disorderly transition to a net-zero economy can also lead to shocks to the financial system."[193] A disorderly transition can result from a premature dismantling of the legacy fossil fuel energy industries resulting from their loss of capital before the new clean energy industry can fully be integrated into the U.S. economy. Such a loss can directly damage national security, both the military and U.S. energy security more broadly. We, therefore, recommend adopting a policy of using federal tools, such as the guaranteed loan program of DOD's Office of Strategic Capital, to shore up legacy fossil fuel investments until such time as they are not needed to preserve a basic level of energy security required for national security.

Conclusion

As we have attempted to show, the global financial system, and the place of the U.S. financial system within it, is one of the pillars of U.S. power and influence. By enforcing rules and norms, the web of U.S. regulatory institutions generates order and predictability that draws both domestic and international capital to U.S. markets. These capital flows support the U.S. economy promote innovation, for example by private R&D spending and funding of new business endeavors. Likewise, U.S. corporations operating in this environment balance management initiatives with accountability to their boards of directors and obligations to their shareholders. Furthermore, these obligations are expanding as investors increasingly demand accountability along a range of principles, including not only sound corporate governance but social and environmental progress.

Despite the great strengths of this system, there are risks. The current global financial order was created in an era when the United States accounted for about half of the world's GDP.[194] Since then the bipolar Cold War order ended, we experienced a brief moment of unipolar glory, and are now amidst a rising multipolar order characterized by contested international norms and uncertainty. China has grown to a peer or near-peer status, both economically and militarily. Financially, the United States punches beyond its relative weight, but its status is not guaranteed. The global push for ESG may also pose risks to U.S. military preparedness and energy security. Cyberattacks can damage the U.S. financial system and its credibility. Money laundering and illicit finance both aid U.S. adversaries and potentially undermine the U.S. financial system, which itself is a major host to these activities. Sanctions – while an essential tool of U.S. foreign policy – can be ineffective, or worse, create backlash that undermines U.S.

objectives. And despite the vast resources of the U.S. private sector, there are gaps in the extent to which it has funded critical areas of support to national security.

BRI Appendix A

China's Belt and Road Initiative (BRI)

China's BRI influences regions worldwide, focusing on investment infrastructure for developing seaports, railways, airports, and telecommunication to stimulate economic growth. As of 2023, 147 countries, accounting for two-thirds of the world's population and 40 percent of global GDP, have signed on to projects or indicated an interest in doing so.[195] As part of Made in China 2025, BRI is the economic development strategy to export China's excess production capacity and increase economic prosperity for its citizens and avoid the middle-income trap. Another benefit of BRI is that it provides developing nations with critical infrastructure and economic prosperity. One example is the China-Maldives Friendship Bridge that connects the airport island to Male and has provided tangible benefits to locals, including business opportunities with reduced travel time between the islands.[196] BRI projects like this have limited impact on U.S. national security but present a complex challenge for the U.S. to provide alternatives to BRI for allies, partners, and other countries. With each success story of BRI, China increases its sphere of influence in the current multipolar world (the converse is also true when their mega-projects fail[197]).

Impacts to U.S. Allies and Partners

The impacts of BRI on U.S. allies and partners present a complex situation for the U.S. as it provides a spectrum of positives and negatives. In the short term, BRI provides foreign direct investments for infrastructure projects for allies and partners while simultaneously providing U.S. adversaries a method to bypass sanctions. Over two-thirds of European Union member countries have formally signed on to BRI with significant Chinese infrastructure investment responsible for projects such as the renovated port of Piraeus in Greece and the Budapest-

Belgrade railway in Hungary.[198] BRI could represent planting a seed for discourse which could have long-term effects for NATO-allied countries like Greece and Hungary.

In the long term, China will use BRI agreements to outcompete the U.S. to be the world's most influential economy, establish trade partnerships, and continued reliance on their foreign direct investment. "Increasing the amount of trade, investment, and connectivity between China and countries throughout Eurasia will also render these countries more dependent on the Chinese economy, increasing China's economic leverage over them."[199] BRI allows China to grow its sphere of influence, hoping to shift the strategic alignment of U.S. allies and partners. China could use BRI further to cement its political entanglement with U.S. allies and partners to pursue its interest and disrupt relations between the U.S. and its allies.

Recommendations

Though China might be overinvesting in fragile states and could be slowly attriting its capital, the U.S. must be proactive in maintaining its sphere of influence. The U.S. has promoted the Partnership for Global Infrastructure and Investment (PGII) as the alternative to BRI, and this program will focus on infrastructure financing for sustainable growth and prosperity. It will mobilize $200 billion from the U.S. and an overall investment of $600 billion over the next five years across G7 countries.[200] The U.S. cannot outspend China for foreign investment as China has already spent an estimated $1 trillion in foreign direct investments for BRI projects, with experts predicting that China's expenses over the life of BRI could reach as much as $8 trillion.[201] The symmetrical financial statecraft response of PGII to BRI will not result in positive gains for the U.S. and its allies.

The U.S. should focus on more aid money being directed through multilateral institutions, instead of foreign direct investment, like the World Bank achieve its desired effect.

The bank has a long history of championing market-driven approaches to development and supports billions of dollars of infrastructure investments in low-and middle-income countries each year. It enforces procurement rules that encourage transparency and international competition. Along with the World Bank, focusing on more aid through the International Finance Corporation will also help promote private sector investment in developing countries. Secondly, the U.S. should revitalize strategic competition on human capital by demonstrating openness through the university education system and defense exchange programs. The U.S. can expand its influence through people rather than infrastructure. Revising immigration and visa policies to make attracting and retaining the world's brightest students and future leaders easier. Third, lead the global effort to address emerging BRI-induced debt crises and promote adherence to high standards of lending practices. Also, reforming the Development Finance Corporation and the Export-Import Bank of the U.S. by providing them with greater flexibility to compete with BRI and partner with other development finance institutions worldwide.

ANNEXES

Glossary, Abbreviations, Acronyms

AI – Artificial Intelligence

AML – Anti-Money Laundering

BCP – Business Continuity Plan

BOI – Beneficial Ownership Information

BRI – Belt and Road Initiative

BSA – Bank Secrecy Act

BWS – Bretton Woods System

CRS – Congressional Research Service

CSR – Corporate Social Responsibility

DIANA – Defence Innovation Accelerator for the North Atlantic

DEI – Diversity, Equity, and Inclusion

DFI – Development Finance Institution

DOD – Department of Defense (U.S.)

DOJ – Department of Justice (U.S.)

DTCC – Depository Trust and Clearing Corporation

ERM – Enterprise Risk Management

ESG – Environmental, Social, and Governance

EU – European Union

FinCEN – Financial Crimes Enforcement Network

FINRA – Financial Industry Regulatory Authority

GDP – Gross Domestic Product

GINFIN – Global Financial Innovation Network

GPC – Great Power Competition

GTO – Geographic Targeting Order

IFC – International Finance Corporation

IPCC – Intergovernmental Panel on Climate Change

IPO – Initial Public Offering

KYC – Know Your Customer

MDB – Multilateral Development Bank

NATO – North Atlantic Treaty Organization

NASDAQ – National Association of Securities Dealers Automated Quotations

NYSE – New York Stock Exchange

OFAC – Office of Foreign Asset Control (U.S.)

PGII – Partnership for Global Infrastructure and Investment

R&D – Research and Development

SAR – Suspicious Activity Report

SEC – Securities and Exchange Commission

SIFMA – Securities Industry and Financial Markets Association

SWIFT – Society for Worldwide Interbank Financial Telecommunications

TI – Transparency International

USA PATRIOT Act – The Uniting and Strengthening America by Providing Appropriate Tools required to Intercept and Obstruct Terrorism Act 2001

VC – Venture Capital

VEO – Violent Extremist Organization

Figures

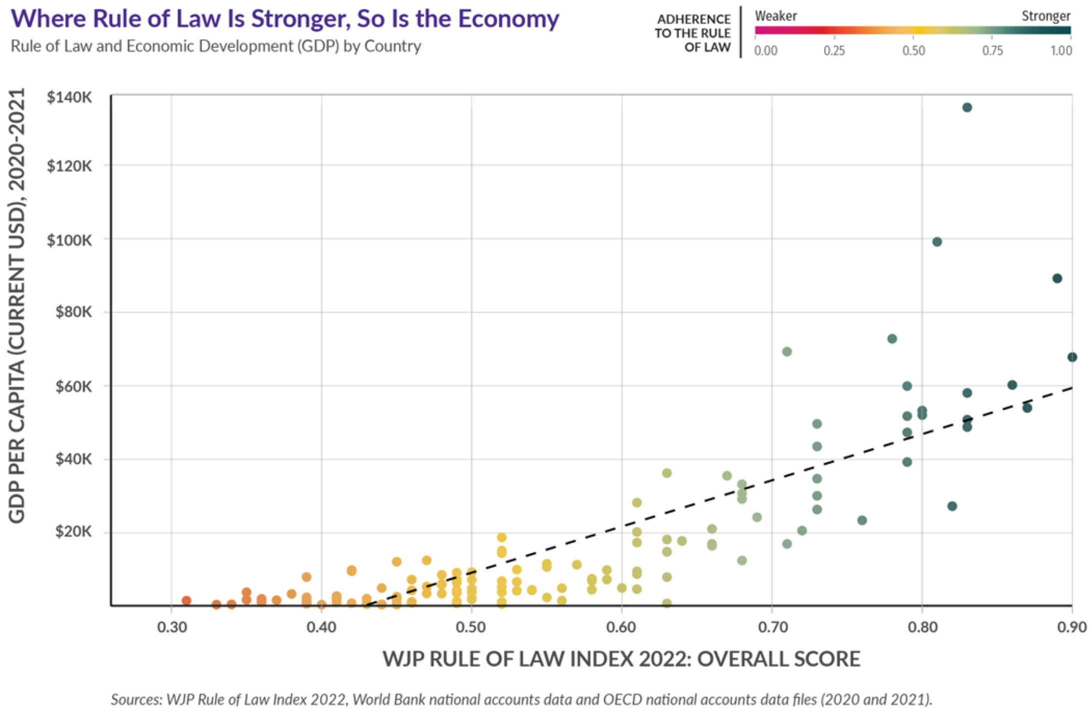
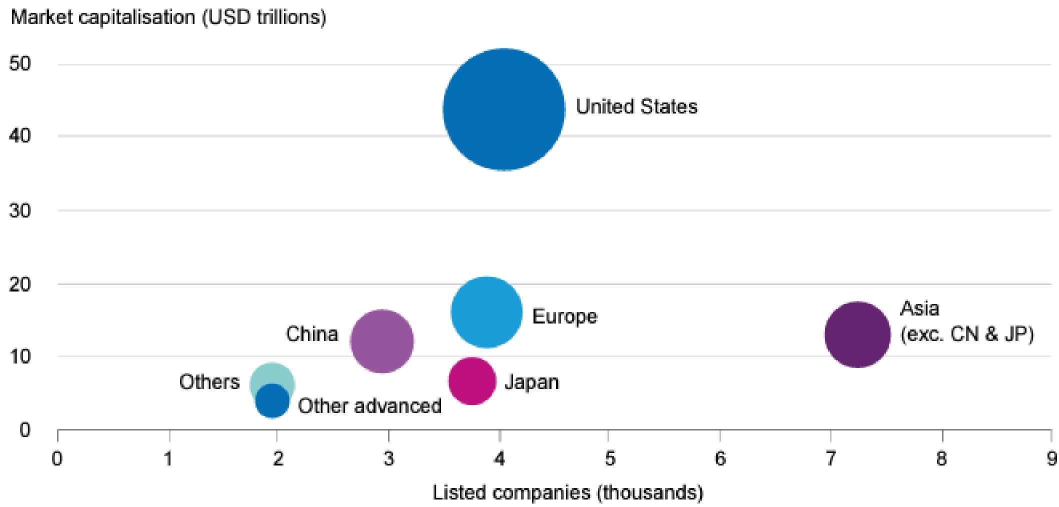


Figure 1 Relationship Between Rule of Law and the Economy



Note: The figure shows the market capitalisation and number of listed companies for 25 766 listed companies from 92 markets and the bubble size represents their share in global market capitalisation.
Source: OECD Capital Market Series dataset, see OECD (2021), "The Future of Corporate Governance in Capital Markets Following the COVID-19 Crisis" for details.

Figure 2 Universe of Listed Companies as of 2020

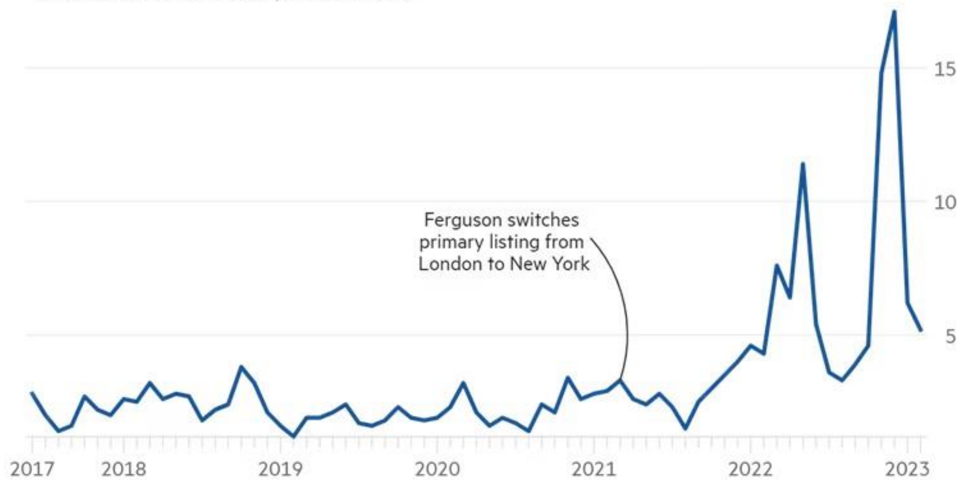
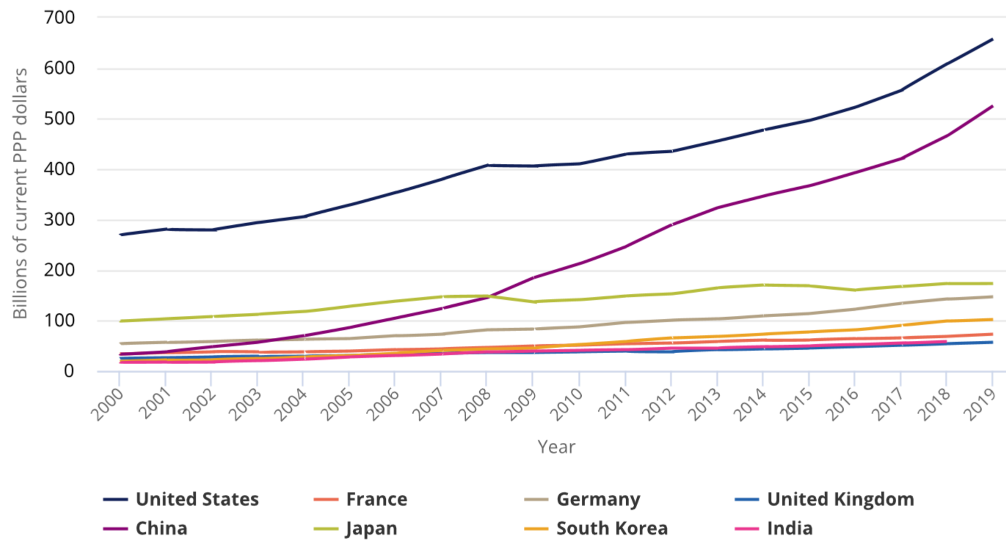


Figure 3 U.S. Stock Markets Offer Greater Liquidity

National Center for Science and Engineering Statistics | NSB-2022-1

Figure 12

Gross domestic expenditures on R&D, by selected country: 2000–19



Note(s):
PPP is purchasing power parity. Data are for the top eight R&D-performing countries. Data are not available for all countries for all years. Gross domestic expenditures on R&D were revised from those reported in previous years of *Science and Engineering Indicators*. These data revisions were mostly due to 2020 revisions of the PPP estimates. See sidebar Revisions to Global Research and Development for more details.

Source(s):
NCSES, National Patterns of R&D Resources; OECD, MSTI March 2021 release; UNESCO, UIS, R&D dataset.

Indicators 2022: R&D

Figure 4 Gross Domestic R&D Expenditures by Country

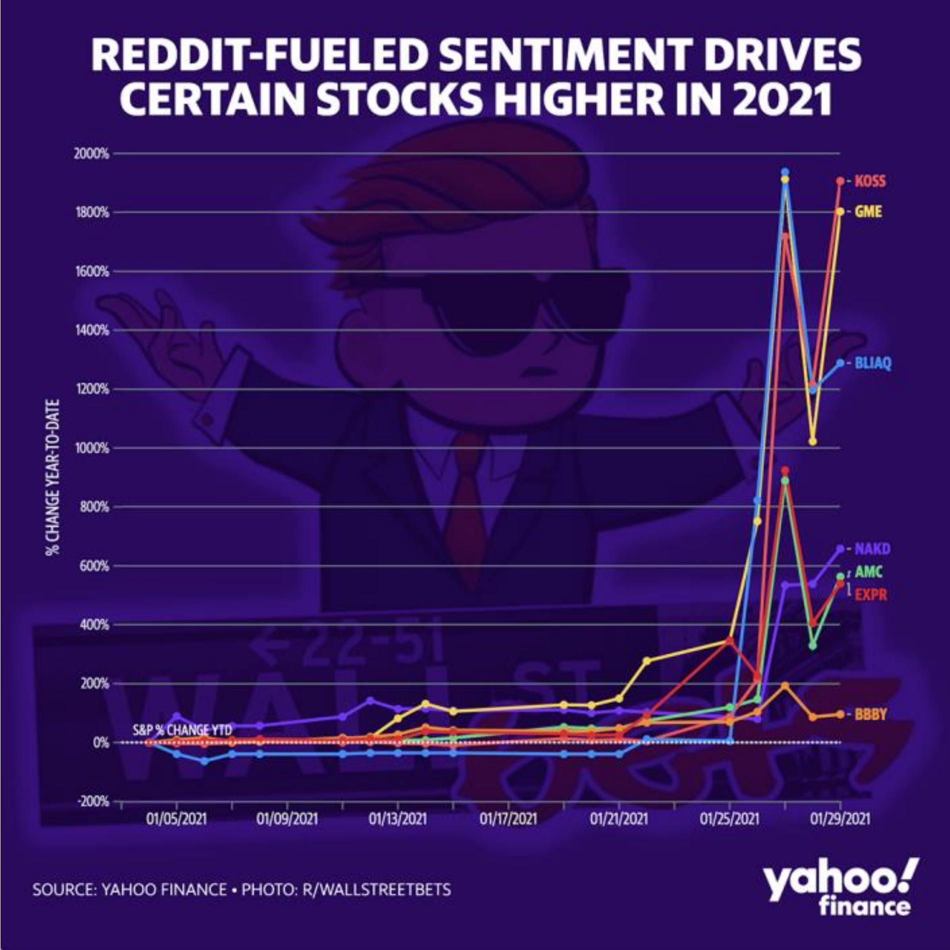


Figure 5 Impact of Reddit Sentiment on Meme Stocks

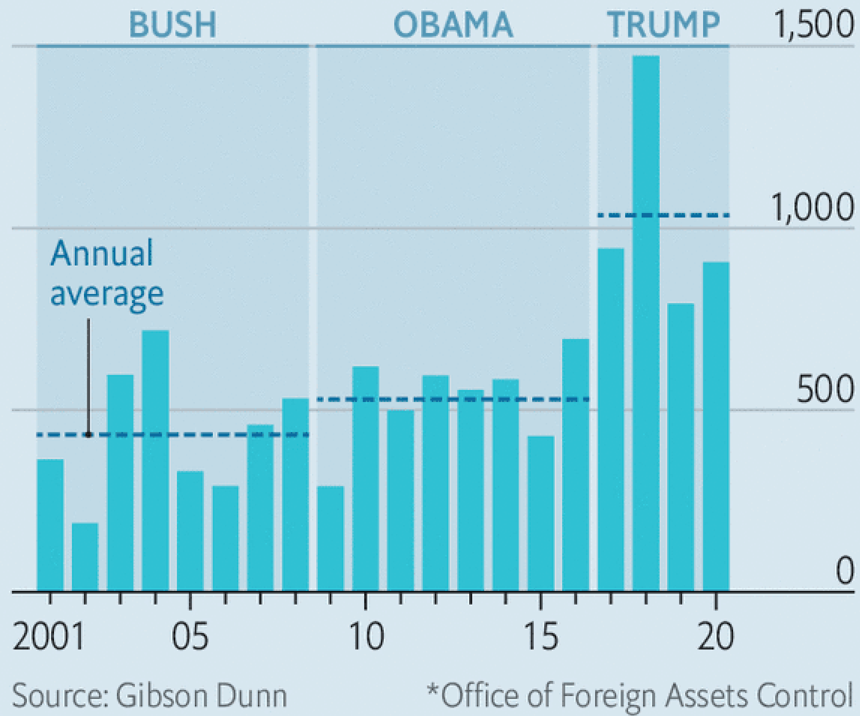
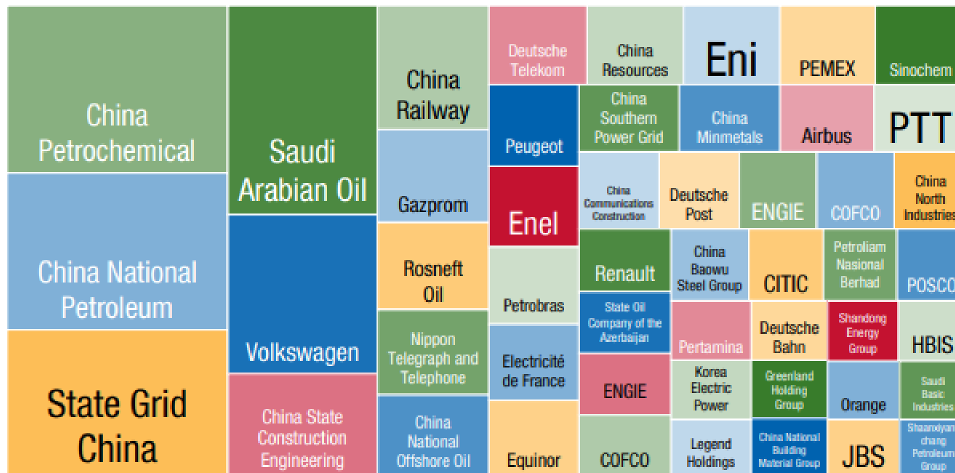


Figure 6 Additions to the OFAC Sanctions List

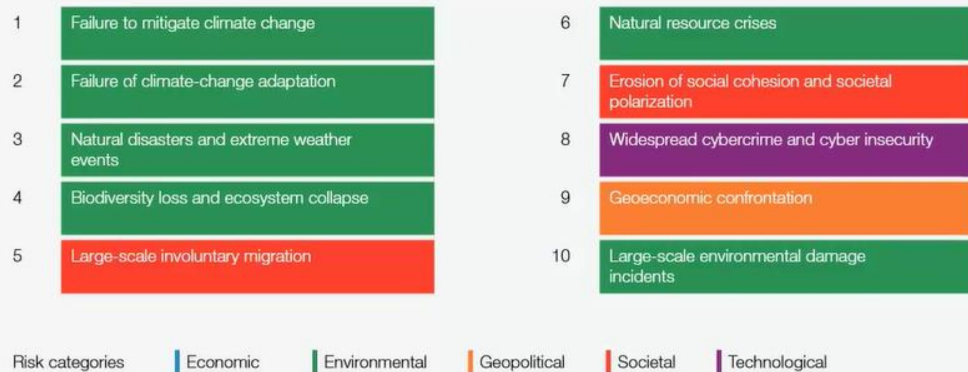
Figure 3.6. Top 50 Nonfinancial SOEs
(Percent of revenues relative to total revenues in largest 2,000 firms)



Sources: S&P Capital IQ; S&P Global UDI World Electric Power Plant database; UNCTAD; and IMF staff calculations.
Note: The largest 2,000 firms is a composite ranking of separate rankings of 2018 revenue and assets obtained from Capital IQ.

Figure 7 Top 50 Nonfinancial SOEs

FIGURE 2.1 **Global risks ranked by severity over the long term (10 years)**



Source
World Economic Forum Global Risks Perception Survey 2022-2023.

Figure 8 WEF Global Risks by Severity

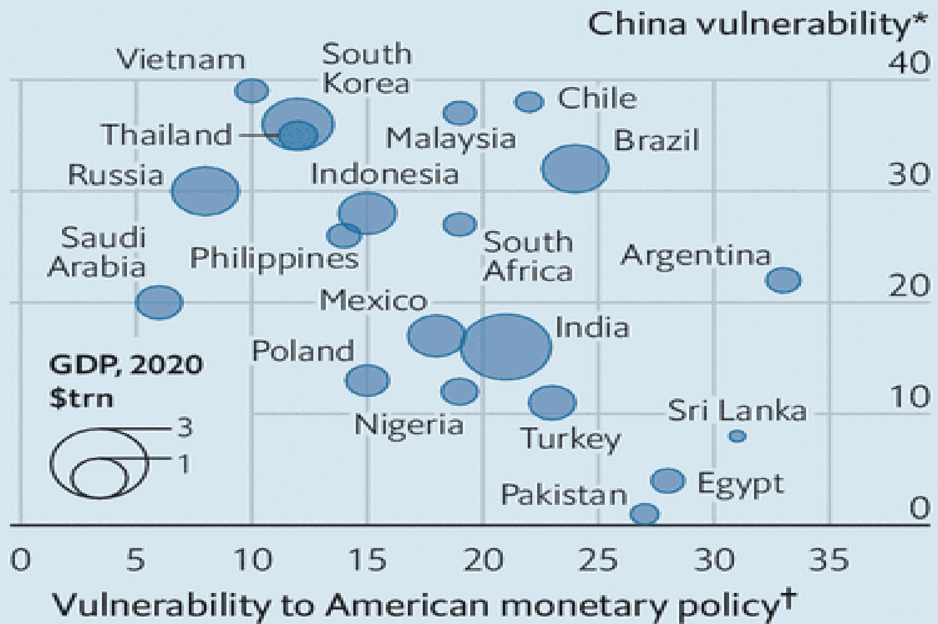


Figure 9 Vulnerability of Select Countries to American Monetary Policy

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[1] Lesly Chavkin, "The United States is leaving an economic-statecraft vacuum in the Middle East," New Atlanticist, May 2, 2023, https://www.atlanticcouncil.org/blogs/new-atlanticist/the-united-states-is-leaving-an-economic-statecraft-vacuum-in-the-middle-east/.

[2] In proposing the establishment of this interagency IS Finance recognizes that there are other joint efforts underway to address national security issues such as the Disruptive Technology Strike Force, https://www.justice.gov/opa/pr/justice-and-commerce-departments-announce-creation-disruptive-technology-strike-force, The Committee on Foreign Investment in the United States (CFIUS), https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius. However, such initiatives are either limited in scope and/or membership across the various agencies of the US government.

[3] IS Finance also recognizes the work of the Atlantic Council's GeoEconomics Center, which it notes that it is at the intersection of economics, finance, and foreign policy, and its Economic Statecraft Initiative which examines the role that economics, finance, and regulation play in national security for the US and its partners, and how governments can collaborate with the private sector. https://www.atlanticcouncil.org/programs/geoeconomics-center/economic-statecraft-initiative/

[4] As of January 2023, U.S. equity markets comprised 58.4 percent of the global total, dwarfing the next three countries, Japan at 6.4 percent, the United Kingdom (UK) at 4.1 percent, and China at 3.7 percent. The U.S. bond market comprised 39 percent of the total I 2022, compared with 16 percent for China, 8 percent for Japan, and 3 percent each for both France and the UK Statista, "Distribution of countries with largest stock markets worldwide as of January 2023, by share of total world equity market value," March 30, 2023, https://www.statista.com/statistics/710680/global-stock-markets-by-country/, accessed May 3, 2023, and Dorothy Neufeld, "Ranked: The largest bond markets in the world," *World Economic Forum*, April 17, 2023, https://www.weforum.org/agenda/2023/04/ranked-the-largest-bond-markets-in-the-world/, accessed May 3, 2023.

[5] This historical background will be justified in the first section, the Foundation of the Financial System.

[6] Douglas Irwin and Oliver Ward, "What Is the 'Washington Consensus?' PIIE," *Peterson Institute for International Economics (blog)*, September 8, 2021, https://www.piie.com/blogs/realtime-economic-issues-watch/what-washington-consensus. See also, William Jannace and Paul Tiffany, "A New World Order: The Rule of Law, or the Law of Rulers?" *Fordham International Law Journal* 42, no. 5 (2019): 1379.

[7] For a general discussion of the trends see, Jannace and Tiffany, "A New World Order." For specific data see, World Bank, "GDP (Current US$) - China, United States," World Bank Open Data, accessed May 15, 2023, https://data.worldbank.org.

[8] Michael Maharrey, "How America's Use of Economic Warfare Could Spark a Currency Crisis," *Foundation for Economic Education*, October 6, 2018, https://fee.org/articles/swift-and-the-weaponization-of-the-us-dollar/.

[9] "Can the West Win over the Rest?" *The Economist*, April 15, 2023, Gale In Context: Global Issues.

[10] In 2021 the U.S. Department of the Treasury announced a coordinated climate policy strategy that would: bring to bear the full force of the Treasury Department on domestic and international policymaking, leveraging finance and financial risk mitigation to confront the threat of climate change. The actions were intended to position the economy for strong and sustainable growth consistent with a net-zero emissions future. To implement this strategy, Treasury would focus on the broad range of its climate-related policy work connected to 1) climate transition finance, 2) climate-related economic and tax policy, and 3) climate-related financial risks. As part of this strategy, Treasury is also created Climate Hub. https://home.treasury.gov/news/press-releases/jy0134.

[11] Jannace and Tiffany, “A New World Order."

[12] The World Bank was originally called The International Bank for Reconstruction and Development (IBRD).

[13] Federal Reserve Bank of St. Louis, “Creation of the Bretton Woods System,” Federal Reserve History, November 22, 2013, https://www.federalreservehistory.org/essays/bretton-woods-created.

[14] The BWS also created the General Agreement on Trade and Tariffs, now known as the World Trade Organization (WTO) to regulate international commerce. In the same spirit to prevent future world wars, the North Atlantic Treaty Organization (NATO) was also established in 1949.

[15] “About IFC,” IFC | International Finance Corporation World Bank Group, accessed May 14, 2023, https://www.ifc.org/wps/wcm/connect/CORP_EXT_Content/IFC_External_Corporate_Site/About+IFC_New/AboutIFC.

[16] Jannace and Tiffany, “A New World Order.”

[17] Ibid, 1383.

[18] The 10 recommended policy reforms of the Washington Consensus of 1989 are as follows:

1. Reduce national budget deficits. Large budget deficits had contributed to high and variable rates of inflation in Latin America in the 1980s; policymakers prescribed fiscal discipline—by raising tax revenues or cutting domestic spending—to reduce the need for government borrowing and restore economic stability.

2. Redirect spending from politically popular areas toward neglected fields with high economic returns. Some components of public spending—subsidies to state-owned firms, or for food or fuel consumption—led to economic distortions and favored richer urban populations as opposed to the rural poor. Reducing subsidies of politically connected economic sectors can inflict costs on some but frees up spending to support basic social services, education, and infrastructure.

3. Reform the tax system. Reforms should broaden the tax base and remove exemptions that exclude some politically connected taxpayers and organizations from paying taxes. Broadening and simplifying taxes can promote efficiency, improve tax collection, and reduce tax evasion.

4. Liberalize the financial sector with the goal of market-determined interest rates. Government controls on interest rates tend to punish savers and discourage investment while stifling financial development;

rationing credit tends to breed corruption and favor political insiders. Market-determined interest rates promote savings and ensure that banks or financial markets, not government politicians, determine allocation of credit.

5. Adopt a competitive single exchange rate. Move away from overvalued exchange rates that discourage exports and lead to foreign exchange rationing; a competitive market-driven exchange rate can promote export-led economic growth and reduce balance of payments problems.

6. Reduce trade restrictions. Trade restrictions that promote special interests should be reduced in general. Tariffs are preferable to quotas and other arbitrary trade restrictions that strangle trade; gradually reduced, they allow domestic firms to adjust and, unlike quota rents for special interests, yield revenue for the government.

7. Abolish barriers to foreign direct investment. Banning or restricting inward foreign investment gives domestic firms a monopoly and reduces competition. Foreign investment allows a country to gain capital, create jobs, and build skills, while exposing domestic firms to greater competition. Domestic companies that tap foreign direct investment (FDI) can foster intellectual property innovations that contribute to development.

8. Privatize state-owned enterprises. State-owned firms are often inefficient, surviving only with the help of government subsidies that widen countries' fiscal deficits. Privatization may cause some unemployment but is more likely to raise the efficiency and profitability of businesses and increase national productivity and growth.

9. Abolish policies that restrict competition. Removing regulations and obstacles that prevent new firms from entering the marketplace can stimulate competition, efficiency, and economic growth.

10. Provide secure, affordable property rights. A legal system that grants and upholds property rights, including the rights of people working informal jobs not officially reported and holding land without official documentation, incentivizes investment and individual liberty. Private assets enable owners to access credit, expanding the economy and the government's tax base.

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