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U.S. Investment in China's Capital Markets and Military-Industrial Complex

U.S. National Security and China's Stock, Debt, and Venture Capital and Private Equity Markets

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Co-Chairs Fiedler and Borochoff, distinguished commissioners and staff of the U.S.-China Economic and Security Review Commission, and fellow panelists, it is an honor to participate in today's hearing.

I aim to emphasize two fundamental points in my remarks, and look forward to offering additional examples and details in discussion:

- First, bilateral capital flows between the United States and China today represent a novel feature, and one with novel importance, in a broader national security competition.

- Second, as in most domains of integration, the Chinese Communist Party (CCP) deliberately pursues asymmetric positioning in international capital flows.[1] Understanding that asymmetric positioning will demand detailed monitoring. Redressing it will require creativity, courage, and a willingness to trade short-term reward for long-term advantage.

Thank you for the opportunity to contribute to this important dialogue. In the following testimony, I will briefly address what I believe to be novel about the strategic context of today's U.S.-China contest, identify the ways in which U.S. investment in China's capital markets may generate national security risks, and offer a series of related policy recommendations.

To underscore the bottom-line up front: I am concerned that the national security community lacks appropriate analytical frameworks for assessing the impact of capital market integration on the U.S.-China contest. This commission and Congress have a vital role to play in collecting and sharing relevant unclassified information; promulgating new reporting and legally mandated disclosure requirements; and, perhaps most critically, informing the U.S. public about the scope of connections between U.S.-domiciled pools of capital and China's military and national security apparatus. The national security risks apparent in bilateral capital flows between the United States and China indicate that U.S.-China economic relations require a systemic recalibration as a part of a broader competitive strategy for long-term peacetime competition with the CCP.

Strategic Context

In this section I will briefly outline a strategic framework for understanding capital integration between the United States and China: how it differs from integration during the Cold War, the forms it takes, and examples of national security risks associated with U.S.-China capital integration.

[1] At the strategic level, this asymmetry is codified in the Chinese economic planning concept of "two markets, two resources." For a discussion of this concept's history, see the relevant discussion in a study completed for the U.S.-China Economic and Security Review Commission: Emily de La Bruyere and Nathan Picarsic, "Two Markets, Two Resources: Documenting China's Strategic Engagement in Africa," *Horizon Advisory*, November 2020, https://www.uscc.gov/sites/default/files/2020-11/Two_Markets_Two_Resources_Documenting_Chinas_Engagement_in_Africa.pdf.

A New-Type Great Power Contest

The U.S. national security establishment has determined that the People's Republic of China (PRC) presents a great power threat.[2] The language used to describe the China threat – including the "great power competition" label[3] – harkens back to the last long-term peacetime contest in which the United States engaged: the Cold War. At least rhetorically, that fight's legacy continues to inform U.S. strategic thought.[4] There are certainly similarities. In the Cold War, the United States also faced off against a communist regime intent on rewriting the global order.

However, today's contest is not the Cold War. Whereas the U.S. response to the Soviet Union was able to orient around "containment," today's competitive environment is one of integration and unprecedented structural interdependence. The CCP's competitive strategy hinges on weaponizing that integration and interdependence.

This is not to say that there was no economic relationship between the United States and the Soviet Union before and during the Cold War. As early as 1930, before the Second World War, the United States was the Soviet Union's largest source of imports. Some political and economic elites framed the Soviet Union as an opportunity, "the greatest undeveloped market in the world."[5] That sentiment lingered as the two powers aligned during World War II and thereafter, as they split. The sentiment continued even as the U.S. national security community recognized that the Soviet Union was a strategic adversary.[6] This economic engagement led financial actors in the United States to exhibit a parochial interest in stability and in tempering rhetoric of conflict throughout the Cold War.[7]

Today, the U.S.-China competition features similar economic interaction – and similar resultant hurdles. Except both this interaction and its challenges are magnified. China is orders of magnitude more economically integrated today than was the Soviet Union during the Cold War. The Soviet Union sought a self-sufficient national economy. This typically generated a minimal international trade volume that accounted for around 5 percent of overall economic activity. Since the early 1990s, China has held a trade-to-GDP ratio above 30 percent.[8] The implications

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[2] The 2018 National Defense Strategy declared as much by describing "inter-state competition" as the focus of U.S. national security and China as a "strategic competitor." See, for example, the summary of the 2018 National Defense Strategy, https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.

[3] On what is left to be desired about this terminology, see Zachary Cooper, "Bad Idea: 'Great Power Competition' Terminology," *CSIS Defense 360*, December 1, 2020, https://defense360.csis.org/bad-idea-great-power-competition-terminology/.

[4] Charles Edel and Hal Brands, "The Real Origins of the US-China Cold War," *Foreign Policy*, June 2, 2019, https://foreignpolicy.com/2019/06/02/the-real-origins-of-the-u-s-china-cold-war-big-think-communism/.

[5] A statement cited to Senator William Borah in John Lewis Gaddis, *Russia, The Soviet Union, and the United States*, (New York, NY: McGraw-Hill Publishing Co.) 1978, 97-104.

[6] It should be noted that awareness of the Soviet threat and its "international promotion of Communism" was codified in US government policy as early as the 1920 policy of "non-recognition" developed by Bainbridge Colby; "Bainbridge Colby: Influence on American Diplomacy," US Department of State, https://history.state.gov/departmenthistory/people/colby-bainbridge.

[7] Jonathan David Kirshner, *Appeasing Bankers: Financial Caution on the Road to War* (Princeton University Press) 2007.

[8] "Trade to GDP Ratio," World Bank, https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS.

are clear: Today, China is a larger trading partner than the United States for 128 countries, well over half the world.[9] Metrics of integration tell a similar story about China's place in the global financial sector. China accounted for 24 percent of total global volume transacted in equity capital markets in 2020.[10] The global stall caused by COVID-19 prompted capital flows to China to accelerate in 2020: The PRC overtook the United States as the top destination for foreign direct investment for the first time.[11] These are non-trivial differences with the insular Soviet economy.

China is not the Soviet Union. The CCP does not contain itself.

But that question of greater versus lesser integration is just one part of the story. The more important question – and the one that really demands new frameworks for national security analysis and action – concerns the type and mode of China's integration, as well as the Chinese government's relationship to it. Much of the exchange between the United States and the Soviet Union during the Cold War took place in well-regulated domains in which governmental restrictions could be enforced when a national security imperative was clearly and consistently invoked. The U.S. national security apparatus was able to escalate restrictions against cooperation and exchange when it deemed appropriate.[12] That may no longer be the case. The strategic environment has changed. As a result of proliferating information technology (IT) and the globalization it underwrites, integration today takes place in less transparent domains difficult for the government to monitor. Private-sector supply chains[13] and academic exchanges present tangible, timely examples.[14]

Positions in global capital markets are more consequential today than they were during the Cold War. They are also relatively less transparent.

National Security Risks of U.S. Capital Flows to China

U.S. capital integrates with the Chinese market, including aspects of the market tied to military and national security development, along several paths. U.S. financial intermediaries of all stripes invest in China's public market equities (in Hong Kong and on the mainland), public

[9] Alyssa Leng and Roland Rajah, "Two Thirds of the World Trade More Goods with China than with the US," *The Interpreter*, December 18, 2019, https://www.lowyinstitute.org/the-interpreter/chart-week-global-trade-through-us-china-lens.
[10] "China Yet to Crack Global Capital Markets," *Australian Financial Review*, January 7, 2021, https://www.afr.com/chanticleer/china-yet-to-crack-global-capital-markets-20210107-p56scq.
[11] Paul Hannon and Eun-Young Jeong, "China Overtakes U.S. as World's Leading Destination for Foreign Direct Investment," *The Wall Street Journal,* January 24, 2021, https://www.wsj.com/articles/china-overtakes-u-s-as-worlds-leading-destination-for-foreign-direct-investment-11611511200.
[12] For an input into such recognition, see the "Quest for Technological Superiority" sub-section in the annual US government assessment of Soviet power from 1981: "Soviet Military Power," http://edocs.nps.edu/2014/May/SovietMilPower1981.pdf.
[13] Keith Bradsher, "Amid Tension, China Blocks Vital Exports to Japan," *The New York Times*, September 22, 2010, https://www.nytimes.com/2010/09/23/business/global/23rare.html.
[14] John Brown, "Securing the U.S. Research Enterprise from China's Talent Recruitment Plans," Statement before the Senate Homeland Security and Governmental Affairs Committee, Permanent Subcommittee on Investigations, November 19, 2019, https://www.fbi.gov/news/testimony/securing-the-us-research-enterprise-from-chinas-talent-recruitment-plans-111919.

market debt, private market equity, and private market debt. Passive-fund managers incorporate the Chinese market as a vital component of mainstream allocation strategies.[15] So do investors who more actively manage funds and portfolios, including those in private markets: A range of prominent U.S. private equity and venture capital investors invest in and alongside actors in China with ties to Beijing's military-civil fusion (MCF) enterprise.[16] U.S. technology companies such as Amazon also actively engage in China's technology investment ecosystem, sharing resources and bestowing legitimacy that supports the maturity and efficacy of China's own investors and technology companies that raise money in private market transactions.[17] Few of these avenues of capital cooperation feature any explicit awareness of or mitigation against risks associated with China's MCF strategy.

National security risks associated with capital are not necessarily a new phenomenon. The interagency Committee on Foreign Investment in the United States (CFIUS) process has monitored foreign capital for national security risks since 1975.[18] The CFIUS process rests on, and is designed to address, potential threats posed by capital inflows to the United States – on the basis that those flow can deliver proximity to critical technology, infrastructure, and data.[19]

Similar risks hold for the capital flows on which this hearing focuses: those *from* the United States *to* China. At a first order, those capital sources risk providing funds for China's development of comprehensive national power – including its military and national security pillars. At the next order, U.S. capital flowing to China can grant Chinese entities – whether investment partners, transactional throughways and advisors, or entities targeted as investments – proximity to critical technology, infrastructure, and data.

Moreover, every level of bilateral capital flow creates vulnerability to Chinese strategic influence. For example, with critical financial nodes tied to the CCP's economic development model, China can shape U.S. and international incentives to prevent the connection between foreign capital and China's national security development from triggering logical, defensive responses. Or, putting this more broadly, U.S. pools of capital that are tied to the Chinese

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[15] Alex Rolandi, "Exchange-Traded Funds: Who Are Chinese Sanctions Hurting?," *Funds Europe ETF Report*, March 2021, https://www.funds-europe.com/etf-report-march-2021/exchange-traded-funds-who-are-chinese-sanctions-hurting.

[16] DJI, a leading unmanned aerial system company, is a useful example having raised funds from US-based or -backed investors like Accel and Sequoia, and subsequently being identified as a potential national security threat. See DJI's Crunchbase profile: https://www.crunchbase.com/organization/dji/; Jeanne Whalen and Ellen Nakashima, "U.S. bans technology exports to Chinese semiconductor and drone companies, calling them security threats," *The Washington Post*, December 18, 2020, https://www.washingtonpost.com/technology/2020/12/18/china-smic-entity-list-ban/.

[17] See, for example, "Amazon and Chengdu Hi-tech Zone, Build Cloud Computing Industry Joint Innovation Center," July 12, 2019, https://www.prnewswire.com/news-releases/amazon-and-chengdu-hi-tech-zone-build-cloud-computing-industry-joint-innovation-center-300883961.html.

[18] Danny Chrichton, "WTF is CFIUS?," *TechCrunch*, March 4, 2018, https://techcrunch.com/2018/03/04/wtf-is-cfius/.

[19] Heather Somerville, "China Investors Keep Making Deals in Silicon Valley Amid Washington Pushback," *The Wall Street Journal*, October 28, 2019, https://www.wsj.com/articles/chinese-investors-u-s-tech-entrepreneurs-continue-to-make-deals-11572275105; Nevena Simidjiyska
"New Foreign Investment Restrictions in Tech, Infrastructure and Data," Fox Rothschild, January 30, 2020, https://www.foxrothschild.com/publications/new-foreign-investment-restrictions-in-tech-infrastructure-and-data/.

domestic market may find themselves operating according to incentive structures that could be more likely to contradict U.S. interests, policy, and regulatory requirements.

And at the most strategic level, China's integration with global capital markets also impacts its cost of empire, a potentially critical factor in today's great power competition: The Soviet Union's closed system created sunk costs and economic burdens that ultimately weighed on the ruling regime's efficacy and survival. By contrast, capital integration – and the broader "State-led, Enterprise-driven" economic model refined by the CCP – may allow Beijing to enjoy modes of imperial expansion and tactical control over populations with a cost profile drastically different from other historical examples. For example, the CCP's control over China's population – through means including, but not limited to, reproductive policy, patriotic education, propaganda, forced labor, and high-tech-enabled monitoring and policing – stands to benefit from technological advances. If China can use cutting-edge technology to perfect and automate elements of its surveillance state, Beijing's overall cost structure will benefit from an economy of scale. If China can obtain such cutting-edge technology at least in part through integration into global private and public capital markets, it could, in fact, turn a profit in the process.

National Security Risks Associated with China's Industrial Policy

In this section, I will address elements of China's domestic industrial and security apparatus that provide examples of the risks that U.S. capital flows to China can pose; namely, those associated with the MCF system, government guidance funds, and other features of the State-led, Enterprise-driven industrial policy system in China. I raise these examples because they suggest areas in which U.S. capital flows to China present particular risks, in that their investment targets support China's industrial policy priorities and national security objectives.

These examples are intended as the beginning of a prioritization framework to identify areas of greatest risk from U.S. capital flows to China. Such a framework would have to account for, first, the nature of the investment target, according to a series of definitional dimensions:

- connections to China's MCF program, government-led industrial policy, and/or human rights abuses;
- the purpose that the investment target serves within those areas (for example, does it act as an institutional coordinator, or does it collect or fuse and apply military-relevant technology?); and
- the proximity of the investment target to Chinese government entities (that is, is the target state-backed or state-owned?)

Second, the influence of actors involved on either side: For example, how much capital do they hold? Whose capital?

Third, the capital intensity of the investment – accounting for the significance of a given U.S. investment to its target and the target's potential value as an MCF contributor.

Military-Civil Fusion and Industrial Layout

MCF offers a useful framing for understanding the national security risks attendant with U.S. capital investment in Chinese markets. MCF is a Chinese strategy and corresponding institutional apparatus that fuses military and civilian actors, resources, and positioning for the sake of overarching national power.[20] Chinese leader Hu Jintao introduced the concept of MCF in the 1990s, drawing on the longstanding CCP concept of "military-civilian combination."[21] At the end of 2007, the 17th Chinese People's Congress formally called for the development of a strategy of "military-civil fusion with Chinese characteristics" in order to "adapt to the technological revolution and military change with Chinese characteristics."[22] In 2015, Chinese President Xi Jinping elevated MCF to national strategy. MCF is not simply a theory: Its conceptual evolution has taken place alongside the development of practical processes, resource allocations, and outcomes.

Right now, U.S. capital, wittingly or not, contributes to China's MCF program. Passively managed index funds in which U.S. persons and institutions commonly invest reportedly hold billions of dollars' worth of equity in companies designated by the Department of Defense (DoD) as Communist Chinese military companies and targeted in a 2020 executive order meant to deter U.S. investment in such companies.[23] These index funds draw capital from a range of U.S. sources, likely including the retirement savings of many individuals here today. This means, first, that a U.S. index fund – and, by extension, its investors – provide capital to China's MCF program. Second, the interests of that fund and its investors become tied to those of China's MCF apparatus: The return on investment of retirement savings might hinge, to some degree, on the growth of a Chinese military company.

Vanguard's Emerging Markets Stock Index fund offers an instructive example, and one that is common across other, similar investment vehicles that incorporate international equities within the framework of technology, growth, emerging market, and China-centric funds. There is a good chance your 401K or IRA is invested in this Vanguard index fund or one just like it. The fund has featured stakes in several companies designated by DoD as tied to the Chinese military, including the surveillance firm Hikvision.[24] The fund also invests in strategic and military-relevant companies such as those that provide Beijing a stranglehold over rare earth element (REE) extraction and processing globally. Vanguard's Emerging Markets Stock Index features Class A shares of one such player, China Northern Rare Earth Group High-Tech Co. Ltd. DoD

[20] Emily de La Bruyere and Nathan Picarsic, "Military-Civil Fusion: China's Approach to R&D, Implications for Peacetime Competition, and Crafting a US Strategy," 2019 Naval Postgraduate School Acquisition Research Symposium, May 2019.
[21] Zhu Heping [朱和平]. "National Security and National Defense Economic Development" [国家安全与国防经济发展], Huazhong Normal University, 2005.
[22] National People's Congress Finance and Economics Committee, 军民融合发展战略研究 [*Military-Civil Fusion Development Strategy Research*]. Beijing: China Financial and Economic Publishing House, 2010.
[23] Alexandra Alper and Ross Kerber, "Limited impact seen from Trump investment ban on military-linked Chinese firms," *Reuters*, November 17, 2020, https://www.reuters.com/article/us-usa-china-securities/limited-impact-seen-from-trump-investment-ban-on-military-linked-chinese-firms-idUSKBN27X2BI?edition-redirect=in.
[24] "Semiannual Report: Vanguard Emerging Markets Stock Index," April 2020, https://advisors.vanguard.com/funds/reports/q5332.pdf.

has not designated any of China's REE players as Communist Chinese military companies. But it is clear that these actors support Chinese industrial policy and the MCF program.[25]

The Vanguard fund also invests in less obvious MCF players. Take Lier Chemical, a global chemical company based in China that primarily develops and distributes pesticides and pharmaceutical and agricultural chemical intermediates. Lier's controlling shareholder is Sichuan Jiuyuan Investment Holding Group Co., Ltd. itself owned by the Chinese Academy of Engineering Physics (CAEP).[26] CAEP, subordinate to the Ministry of Industry and Information Technology, is a key research force behind China's nuclear weapons program. CAEP also undertakes research on directed energy weapons.[27] This is no secret: CAEP is on the U.S. Entity List.[28] Lier describes itself as a "military-to-civilian company" and receives subsidies for participation in national MCF projects. The company's website boasts of partnerships with Dow Chemical and sales into the U.S. market.[29]

U.S. capital investment in actors such as Hikvision, China Northern Rare Earth, and Lier is counterproductive on any and every metric of importance in the context of long-term competition with China.

The U.S. government has begun to take actions to redress this entanglement. Language in the fiscal year (FY) 2021 National Defense Authorization Act (NDAA) offered the beginnings of a framework for monitoring China's MCF contributors alongside efforts to document traditional military companies as mandated by the FY1999 NDAA. Section 1260H of the FY2021 NDAA calls for "[p]ublic reporting of Chinese military companies operating in the United States" and lays out an annual reporting process to be led by the secretary of defense. This section of the FY2021 NDAA defines military companies within the Chinese system as those owned by the "People's Liberation Army or any other organization subordinate to the Central Military Commission of the Chinese Communist Party," as well as those serving as "military-civil fusion contributor[s]." This mandate captures those companies already designated as Communist

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[25] Timothy Puko, "U.S. Is Vulnerable to China's Dominance in Rare Earths, Report Finds," *The Wall Street Journal*, June 29, 2020, https://www.wsj.com/articles/u-s-is-vulnerable-to-chinas-dominance-in-rare-earths-report-finds-11593423003; for an additional dissection of the industrial policy system and firm-level decision making in rare earths, see Mary Hui, "A Chinese rare earths giant is building international alliances worldwide," *Quartz*, February 19, 2021, https://qz.com/1971108/chinese-rare-earths-giant-shenghe-is-building-global-alliances/.

[26] The company's website is caep-forever.com.cn

[27] "Chinese Academy of Engineering Physics," China Defence Universities Tracker, Australian Strategic Policy Institute. https://unitracker.aspi.org.au/universities/chinese-academy-of-engineering-physics

[28] "Addition of Certain Persons to the Entity List; Removal of Person From the Entity List Based on Removal Request; and Implementation of Entity List Annual Review Changes," Federal Register, September 19, 2012. https://www.federalregister.gov/documents/2012/09/19/2012-22952/addition-of-certain-persons-to-the-entity-list-removal-of-person-from-the-entity-list-based-on The DoD list even includes Panda Electronics Group, a State-owned electronics group that, as the Australian Strategic Policy Institute has documented, reports an address in the CAEP's Institute of Applied Physics and Computational Mathematics, indicating a possible link. "Chinese Academy of Engineering Physics," China Defence Universities Tracker, Australian Strategic Policy Institute. https://unitracker.aspi.org.au/universities/chinese-academy-of-engineering-physics

[29] 利尔化学 [Lier Chemical], http://www.lierchem.com/index.php?module=content&controll=index&action=lists&catid=1.

Chinese military companies.[30] It also paves the way for DoD to continue its documentation and public listing process. And a November 2020 executive order, E.O. 13959, demonstrated a way in which to act upon this process to address national security risks of capital: The order restricts the ability of U.S. persons, both institutional and retail investors, from trading in equities of companies designated in the DoD process and establishes timelines on which U.S. investors must divest of holdings in designated companies.

However, this NDAA tasking and framing are insufficient. First of all, the documentation effort does not resolve the capital entanglement between the United States and China's MCF program. It does little good to document the ties of Hikvision and its parent, China Electronics Technology Group Corporation (CETC), to the People's Liberation Army (PLA) and China's MCF program if Goldman Sachs can continue to invest in their public equities.[31] The U.S. national security apparatus has a critical role to play in terms of providing information to other regulatory agencies and the private sector. But incentive structures and oversight processes must be built on top of this DoD documentation effort to impact capital flows. E.O. 13959 provides initial steps in that direction but will require clear and consistent implementation to deliver on its potential impact.

Second, the documentation effort led by DoD and supported by the interagency – including the Treasury Department, which has a critical implementation role in E.O. 13959 – captures only the tip of the MCF iceberg. China's MCF apparatus is diverse and global. It is also not entirely transparent. Webs of linked entities often obscure ownership and connections to China's military industrial complex and complicate the traditional U.S. approach of entity-based investment and trade restrictions. The case of Vanguard, Lier, and CAEP bears this out. DoD's Communist Chinese military company list does not include CAEP or actors like it that play critical roles as research institutes fusing civilian insight for military applications. Nor does the list include offshoots and investments, such as Lier. These actors can engage globally, gathering capital to support their operations as well as legitimacy from global partnerships. Actors investing or working alongside them are not legally mandated to provide disclosures or implement due diligence measures that identify and mitigate against resources being directed toward military-relevant efforts. As a result, passively managed index funds freely incorporate elements of China's MCF program into their offerings, expanding the companies' access to capital and, in turn, linking incentives between everyday Americans and the MCF enterprise overseen by the CCP.

Fuel for the Fire: Government Guidance Funds and National Security Risks of Private Market Capital Flows

The MCF program offers a concrete example of the relationship between China's industrial policy and China's military and national security development. The program operates in parallel

[30] This tasking originated in the 1999 NDAA; see: Larry Wortzel, "The Administration Must Name Chinese Defense Companies in the United States," Heritage, October 10, 2000, https://www.heritage.org/asia/report/the-administration-must-name-chinese-defense-companies-the-united-states.

[31] Goldman Sachs became the tenth-largest shareholder in HikVision in the second quarter of 2020: Hikvision 2020 Half Year Report, https://www.hikvision.com/content/dam/hikvision/en/brochures/hikvision-financial-report/Hikvision-2020-Half-Year-Report.pdf; Goldman Sachs reportedly subsequently and they do not appear on the top ten shareholders in Hikvision's 3rd quarter report from 2020.

to China's larger, diversified State-led, Enterprise-driven economic development program, which prioritizes science and technology domains with high degrees of dual-use, military relevance.

Government guidance funds offer a prime example of this larger program and the role of capital within it. Government guidance funds are meant to operationalize Chinese industrial policy, particularly policies that focused on fields prioritized as strategic emerging industries.[32] As pools of central, provincial, and municipal government resources, these funds do not necessarily benefit directly from U.S. capital entering China. U.S. index funds do not invest in government guidance funds. But Chinese government guidance funds do benefit from co-investment alongside, and – in select cases – active management from, U.S. financial intermediaries.

In 2009, SVB Capital, the private equity arm of Silicon Valley Bank, launched a fund-of-funds and venture capital fund in China in partnership with Shanghai's Yangpu district government. Reporting at the time suggested that "people with knowledge of the deal between SVB Capital, a division of Santa Clara, Calif.-based SVB Financial, and Yangpu said that the agreement gives the firm access to one of China's guidance funds."[33] SVB Capital, of course, serves as a critical node within the U.S. investment ecosystem: The firm's website touts having investment connections to over 300 "unicorns" across fund strategies and "relationships with [approximately] more than 50% of all venture backed companies in the US."[34]

Over the past 10 years, individual funds, capital under management, and investments placed by government guidance funds have grown steadily. The overlap between these Chinese government investment vehicles and U.S. capital has grown as well. Prominent venture capital firms that raise funds from U.S. limited partners, for example, frequently invest alongside Chinese guidance funds and policy funds – or alongside and in military and MCF contributors in China.

IDG Capital is an instructive example. IDG's limited partners include a vast set of traditional U.S. limited partners, ranging from the Robert Wood Johnson Foundation to Texas public employee pension funds to the Children's Hospital of Philadelphia Master Trust.[35] IDG's investment vehicles vary in their operating domicile, with several legally registered in the Cayman Islands but noting related persons in Hong Kong and U.S.-based addresses for general partners attached to specific securities offerings.[36] IDG's investment track record in China is legendary: The firm's backing of Baidu and Tencent have likely generated fund- and career-making returns for IDG's limited partners. IDG's China track record has also brought exposure

[32] Tianlei Huang, "Government-Guided Funds in China: Financing Vehicles for State Industrial Policy," Peterson Institute for International Economics, June 17, 2019, https://www.piie.com/blogs/china-economic-watch/government-guided-funds-china-financing-vehicles-state-industrial-policy.
[33] Jonathan Shieber, "SVB Capital Makes Deal in China for New Fund of Funds," *The Private Equity Analyst*, September 2009.
[34] "SVB Capital by the Numbers," https://www.svb.com/svb-capital.
[35] Hannah Reale, "The Big Picture: Who is IDG?," *WireChina* (citing PitchBook data), March 7, 2021, https://www.thewirechina.com/2021/03/07/who-is-idg-capital/.
[36] For a recent example, see SEC filings associated with IDG Breyer Capital Fund L.P.: https://sec.report/Document/0001780594-20-000001/; For discussion of an earlier fund, see Rolfe Winkler, "Jim Breye and IDG Raise $1B China Fund," *The Wall Street Journal*, July 12, 2016, https://www.wsj.com/articles/jim-breyer-and-idg-raise-1-billion-china-fund-1468324804.

to actors such as Qihoo 360, which the U.S. Department of Commerce designated for "activities contrary to the national security or foreign policy interests of the United States,"[37] and to others that contribute to MCF programs in China.[38] ASR Microelectronics, for example, counts Shanghai Pudong Science and Technology Investment Co., Ltd as another investor;[39] Shanghai Pudong S&T operates a government guidance fund.[40] This example is one of dozens of prominent U.S.-based venture capital asset allocators that invest U.S.-domiciled capital in and alongside the Chinese MCF ecosystem. The tally – and the volume of capital under management – is higher when considering actors applying other private market investment strategies, such as private equity, that fit a similar profile of being based in the United States, managing assets raised from U.S. sources, and having returns tethered to the success of the Chinese MCF ecosystem.

In a great power peacetime competition, connections between U.S. private market investment vehicles and China's government guidance funds could bolster Beijing's hand at the expense of that of the United States – and at the expense of a U.S. response. China's government guidance funds are designed to push capital toward Chinese government priorities, including both the military industry and science and technology development efforts. By co-investing with these funds, therefore, U.S. entities are deploying their capital in accordance with the ambitions of CCP industrial policy. These U.S. entities are also linking their interests to the success of China's industrial policy – including its military and national security objectives.

At present, no legal mandate exists to compel U.S. limited partners or U.S.-domiciled general partners investing in private markets in China to provide transparency into transactions that may provide capital either to Chinese investors investing according to a state mandate or to Chinese operating companies that support the PLA or MCF system.

Recommendations

U.S. systems for monitoring and taking defensive action are built on assumptions about the normative value of cooperative exchange, whether in finance or academic research. The competitively oriented CCP distorts these assumptions, including through weaponization of capital flows both into and out of China. The U.S. government therefore faces a difficult task in addressing the scope and direction of national security risks related to these capital flows.[41] And

[37] "Commerce Department to Add Two Dozen Chinese Companies with Ties to WMD and Military Activities to the Entity List," US Department of Commerce, May 22, 2020, https://www.commerce.gov/news/press-releases/2020/05/commerce-department-add-two-dozen-chinese-companies-ties-wmd-and.

[38] For discussion of one relevant example effort pursued in partnership with State-owned China Aerospace Science & Industry Corporation, see: "ASR 与航天科工通信技术研究院等达成合作意向，共同研发安全终端" 半导体投资联盟, February 2, 2019.

[39] See the Crunchbase profile of ASR Microelectronics: https://www.crunchbase.com/organization/asr-microelectronics/.

[40] From public records, it is not readily discernible whether this particular investment was made by the Shanghai Pudong S&T's government guidance fund or from a separate investment vehicle managed by Shanghai Pudong S&T.

[41] This assessment of the difficult task at hand holds even in terms of monitoring inbound foreign investment into the United States despite a longer track record and bureaucratic recognition of this threat vector. For a reference point on the need to update for the ability of inbound capital evading existing oversight mechanisms, see Heather Somerville, Government 'SWAT Team' Is Reviewing Past Startup Deals Tied to Chinese Investors," *The Wall*

avenues for capital integration have expanded to realms with less transparency and regulation than was the case the last time the United States faced a long-term peacetime competition with another great power. As capital flows become increasingly integral in the robust, but fraught, trade and investment relationship between the United States and China, security frameworks must be updated.

The robust U.S.-China economic relationship was facilitated partly by U.S. policy. Congress debated and approved permanent normal trade relations (PNTR) for China in the run-up to Beijing's accession to the World Trade Organization. The assumptions that supported U.S. policy toward China then have proven faulty time and again. Challenges pertaining to market access, forced technology transfer, and financial information persist due to the CCP's consistent pursuit of asymmetric advantages. At the same time, China's human rights track record reflects a number of violations of the Jackson-Vanik amendment to the Trade Act of 1974. Meanwhile, the MCF apparatus developed by the CCP delivers capital and technology to an increasingly assertive PLA that threatens U.S. security and the interests of U.S. allies and partners globally.

The U.S.-China relationship has reached a point that requires strategic recalibration. Incremental measures and tactical responses will not redress the asymmetric global positioning that Beijing has accrued over the past 20 years, including in capital flows.

The U.S. Congress should be encouraged to openly debate China's PNTR status in light of these realities.

In addition to actively debating fundamental assumptions about the U.S.-China economic relationship, such as PNTR, Congress would be well-advised to mandate and resource reporting requirements geared toward documenting MCF contributors in China and the scope of the U.S. capital supporting them. These efforts can take the shape of tasking to U.S. executive agencies, such as the FY2021 NDAA Section 1260H guidance, as well as legally mandated disclosure requirements promulgated by regulators such as the Securities and Exchange Commission.

These actions should be coordinated with technology-focused measures, such as export controls, and with inbound investment screening, such as that conducted through the CFIUS process. Outbound capital flows should be evaluated for national security restrictions where capital directly supports military or MCF outcomes in China.[42] Congress should be encouraged to consider whether novel legal and bureaucratic approaches are needed to coordinate monitoring of bilateral capital flows and related technology-transfer risks.

And these approaches should be pursued in a multilateral fashion. The Coordinating Committee for Multilateral Export Controls (COCOM) was established in the wake of World War II to restrict technology flows to potential strategic competitors. Today we find ourselves at a new inflection point – and facing a new strategic competitor armed with new tools. We need a multilateral regime for sharing information about, and imposing restrictions against, capital and

Street Journal, January 13, 2021, https://www.wsj.com/articles/government-swat-team-is-reviewing-past-startup-deals-tied-to-chinese-investors-11612094401.

[42] A relevant framework for doing so has previously been advanced by Senator Robert Casey in the "National Critical Capabilities Defense Act of 2020" introduced in the Senate as S.5049 during the 116th Congress.

technology integration that carries national security risks, just as COCOM was necessary in the early stages of the Cold War. Such a regime could be codified through regional and bilateral trade agreements and enforced or supported by multilateral security bodies, such as NATO.

It should be noted that different types of Chinese firms and actors pose different threats. And the application of any new or revised defensive measures should be carefully constructed to remain consistent with free market ideals and U.S. norms and values. For these reasons and because of the reality of resource constraints, the U.S. government's approach to monitoring the national security impact of capital flows should follow a transparent prioritization logic that assesses the importance of types of capital and technology as well as the risk profiles of particular types of Chinese actors. At present, there is an argument to be made that U.S. government monitoring and action should focus on actors that play a pivotal role in the *fusion* phases of MCF in China: the applied research organizations and systems integrators of the Chinese military industrial complex. Defusing MCF will improve the efficiency of subsequent efforts to cut off the information collectors that feed into the MCF apparatus on the ground in China. Prohibiting U.S. capital flows to these fusing actors in China would be a logical first step.

But it would be just that, a first step. A coordinated U.S. policy ecosystem that works effectively through multilateral channels would be better positioned to more reliably address second-order targets than we are today. Those second-order targets would include actors that more squarely contribute to the CCP's MCF strategy as information collectors. Among the collection-focused enterprises, CAEP's investment arm and actors tied to government guidance funds stand out as examples of critical nodes that could be prioritized for enhanced scrutiny of their military ties.

Defining and measuring the scope of integration in capital flows is itself a monumental analytic task. That this task is presently not an explicit and public priority of a U.S. national security or regulatory agency indicates the difficulty that the U.S. government and public face in assessing and responding to national security risks that have emerged, and will continue to emerge, from capital integration. The U.S. government should work to encourage necessary information collection and sharing on these risks. That information sharing can propel more strategic defensive actions placing restrictions on integration with particular Chinese actors through particular capital channels. At the same time, relevant U.S. government authorities should define a new vision for public-private cooperation that can fill gaps that will be created by defensive, restrictive actions. Such a vision should shape investments and funding mechanisms overseen by a diverse set of relevant actors ranging from the Defense Advanced Research Projects Agency to the Appalachian Regional Commission, for an era likely to be defined by long-term peacetime competition with China.

And government action – as an information collector and distributor and as an investor and resource allocator – should be conceived of and messaged as a necessary precursor for igniting the asymmetric advantage at America's disposal vis-à-vis the PRC: The U.S. private sector. Markets and firm-level decision makers should begin to internalize and act on the costs associated with doing business with the Chinese military system. They should be instructed to develop internal due diligence mechanisms that meet or exceed reporting requirements related to overseas investments, joint ventures, co-production, and research and development and talent cooperation. And they should be incentivized with both carrots and sticks to contribute to the

development of trusted ecosystems of exchange that protect against supporting the enemy's military modernization.